



City of Springfield

Agenda

City Council

Ken McClure, Mayor

Zone Councilmembers

Monica Horton, Zone 1
Abe McGull, Zone 2
Brandon Jenson, Zone 3
Matthew Simpson, Zone 4

General Councilmembers

Heather Hardinger, General A
Craig Hosmer, General B
Callie Carroll, General C
Derek Lee, General D

April 8, 2024

6:30 PM

Regional Police-Fire Training Center
2620 West Battlefield Road
Room 101, 102, and 103

[Rules and procedures.](#)

1. ROLL CALL.

2. APPROVAL OF MINUTES.

- 2.1. Approval of Minutes. March 25, 2024, City Council Meeting and March 26, 2024, Special City Council Meeting.

3. FINALIZATION AND APPROVAL OF CONSENT AGENDAS.

CITIZENS WISHING TO SPEAK TO OR REMOVE ITEMS FROM THE CONSENT AGENDAS MUST DO SO AT THIS TIME.

4. CEREMONIAL MATTERS.

5. CITY MANAGER REPORT, NUISANCE PROPERTY REPORT, AND RESPONSES TO QUESTIONS RAISED AT THE PREVIOUS CITY COUNCIL MEETING.

6. SECOND READING AND FINAL PASSAGE.

Citizens Have Spoken. May Be Voted On.

6.1. Council Bill 2024-052 (Horton, Jenson)

A special ordinance approving the Commercial-Pacific Street Redevelopment Plan submitted by the Commercial-Pacific Street Redevelopment Corporation for the redevelopment of an area generally located along the south side of the 400-500 blocks of East Commercial Street, the east side of the 1600-1700 blocks of North Jefferson Avenue, and the west side of the 1600-1700 blocks of North Benton Avenue; declaring the area in the Commercial-Pacific Street Redevelopment Plan to be a blighted area and its redevelopment necessary for the preservation of public peace, prosperity, health, safety, morals, and welfare; authorizing certain tax abatement within the area of the Commercial-Pacific Street Redevelopment Plan; and authorizing the City Manager

to execute an agreement with the Commercial-Pacific Street Redevelopment Corporation relating to the implementation of the Commercial-Pacific Street Redevelopment Plan.

6.2. Council Bill 2024-053 (Jenson)

A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 3.3 acres of property generally located at 1330 South Kansas Avenue and a portion of 1518, 1512, and 1506 West Meadowmere Street from R-SF, Residential Single-Family District to R-LD, Low-Density Multifamily Residential District with Conditional Overlay District No. 246; and adopting an updated Official Zoning Map. (By: Eoff Land Trust; 1330 South Kansas Avenue; Z-1-2024 with Conditional Overlay District No. 246)

7. RESOLUTIONS.

Citizens May Speak. May Be Voted On.

7.1. Council Bill 2024-055 (Lee)

A resolution accepting the receipt of the Lake Springfield Plan.

7.2. Council Bill 2024-056 (McClure)

A resolution establishing the Citizens' Commission on Community Investment (CCCI).

8. EMERGENCY BILLS.

9. PUBLIC IMPROVEMENTS.

10. GRANTS. Citizens May Speak. May Be Voted On.

10.1. Council Bill 2024-057 (Horton)

A special ordinance authorizing the City Manager, or designee, to enter into a Surface Transportation Block Grant Program Agreement with the Missouri Highways and Transportation Commission for the purpose of funding construction of a larger, replacement bridge on Main Avenue over Jordan Creek; amending the Fiscal Year 2023-2024 budget of the Department of Public Works in the amount of \$6,000,000 to appropriate federal Surface Transportation Block Grant Program funds; and declaring that this Ordinance qualifies for approval in one reading pursuant to City Charter Section 2.16(25).

10.2. Council Bill 2024-058 (McGull)

A special ordinance authorizing the City Manager, or designee, to enter into a Transportation Enhancements Funds Program Agreement with the Missouri Highways and Transportation Commission for the purpose of constructing a 10' trail along LeCompte Road from Eastgate Avenue and Division Street north to the BNSF Railroad; amending the Fiscal Year 2023-2024 budget in the amount of \$400,000 to appropriate the Transportation Enhancement Program funds; and declaring that this Ordinance qualifies for approval in one reading pursuant to City Charter Section 2.16(25).

11. AMENDED BILLS.

12. COUNCIL BILLS FOR PUBLIC HEARING.

Citizens May Speak. Not Anticipated To Be Voted On.

12.1. Council Bill 2024-059 (Horton)

A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 0.09 acres of property generally located at 2646 West Walnut Street from R-SF, Single-Family Residential District to HC, Highway Commercial District with Conditional Overlay District No. 251; and adopting an updated Official Zoning Map. (By: Seth Holdings, LLC; 2646 W. Walnut Street; Z-9-2024 with Conditional Overlay District No. 251.)

12.2. Council Bill 2024-060 (McGull)

A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 9.45 acres of property generally located at the 2200 block of North Belcrest Avenue from HC, Highway Commercial District with Conditional Overlay District No. 226 to HM, Heavy Manufacturing District with Conditional Overlay District No. 250; and adopting an updated Official Zoning Map. (By: 3G Investment Group, LLC; 2200 blk N. Belcrest Avenue; Z-6-2024 with Conditional Overlay District No. 250.)

12.3. Council Bill 2024-061 (Horton)

A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 0.42 acres of property generally located at 1501 and 1505 West College Street and 201 North Nettleton Avenue from HC, Highway Commercial District to IC, Industrial Commercial District; and adopting an updated Official Zoning Map. (By: Lorisa Kirkpatrick LLC; 1501 and 1505 West College Street and 201 North Nettleton Avenue; Z-8-2024.)

12.4. Council Bill 2024-062 (Horton)

A general ordinance amending Chapter 36 of the Springfield City Code, known as the 'Land Development Code,' Article III, 'Zoning Regulations,' Division 5, 'Supplemental District Regulations,' Section 36-459, 'Special regulations for retail liquor sales,' for the purpose of requiring additional notices and protest eligibility.

12.5. Council Bill 2024-063 (McGull)

A special ordinance approving the Final Development Plan of Planned Development District No. 303, generally located at 1735 East Valley Water Mill Road. (By: Triple S Properties Inc.; 1735 E Valley Water Mill Road; Final Development Plan – Planned Development 303.)

13. FIRST READING BILLS.

Citizens May Speak. Not Anticipated To Be Voted On.

13.1. Council Bill 2024-064 (Hardinger)

A special ordinance authorizing the payment of a one-time, \$2,000 retention incentive payment for eligible employees in the positions of 911 Telecommunicator, 911 Telecommunicator Lead, and 911 Shift Supervisor.

13.2. Council Bill 2024-065 (Lee)

A special ordinance authorizing the City of Springfield, Missouri, to enter into a Funding, Licensing, and Services Agreement with Ozark Greenways, Inc., a Missouri Nonprofit Corporation, for the purpose of funding the Multi-Trail Gap Planning and Design Project for the not to exceed price of One Hundred Eighty Two Thousand and 00/100 Dollars (\$182,000.00); authorizing the City Manager or designee to execute the same by and on behalf of the City of Springfield; and amending the FY2023-2024 Adopted Budget by appropriating carryover funds from the FY2022-2023 Adopted Budget and increasing expenses in the amount of One Hundred Eighty Two Thousand and 00/100 Dollars (\$182,000.00).

14. PETITIONS, REMONSTRANCES AND COMMUNICATIONS.

14.1. Tim Trafford wishes to address City Council.

15. NEW BUSINESS.

15.1. As per RSMo. 109.230 (4), City records that are on file in the City Clerk's office and have met the retention schedule will be destroyed in compliance with the guidelines established by the Secretary of State's office.

15.2. The City Manager recommends the following appointment to the Board of Adjustment: Natalee Stinson with term to expire January 1, 2029.

16. UNFINISHED BUSINESS.

17. MISCELLANEOUS.

18. CONSENT AGENDA – FIRST READING BILLS. See Item #3.

18.1. Council Bill 2024-066 (Hardinger)

A special ordinance authorizing the City Manager, or designer, to enter into a Cooperative Agreement with the Board of Governors of Missouri State University for the purpose of curating any artifacts or records generated by the archaeological investigation conducted in support of the Renew Jordan Creek project.

19. CONSENT AGENDA – ONE READING BILLS. See Item #3.

19.1. Council Bill 2024-067 (Hardinger)

A resolution confirming the appointment of David Lewis and Misty Ware and the reappointment of Brad Fisher and Joe Reynolds to the Southern Hills Community Improvement District Board of Directors.

19.2. Council Bill 2024-068 (Hosmer)

A resolution confirming the appointment of David Holtmann and the reappointment of Martin Gugel and Rob Haik to the SGF Sports Community Improvement District Board of Directors.

20. CONSENT AGENDA – SECOND READING BILLS.

21. END OF CONSENT AGENDA.

22. ADJOURN.



City of Springfield

Minutes

City Council

Ken McClure, Mayor

Zone Councilmembers

Monica Horton, Zone 1
Abe McGull, Zone 2
Brandon Jenson, Zone 3
Matthew Simpson, Zone 4

General Councilmembers

Heather Hardinger, General A
Craig Hosmer, General B
Callie Carroll, General C
Derek Lee, General D

March 25, 2024

6:30 PM

Regional Police-Fire
Training Center
2620 West Battlefield Road
Room 101, 102, and 103

1. ROLL CALL.

Mayor McClure offered condolences to the family of Riley Strain, a University of Missouri student, who had recently passed and to other families that had experienced loss.

Present: Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, Councilmember Jenson, Councilmember Horton, and Mayor McClure. Absent: Councilmember Hardinger.

2. APPROVAL OF MINUTES.

2.1. Approval of Minutes. March 11, 2024, City Council Meeting and March 19, 2024, Special City Council Meeting.

Approval of Minutes. Mayor Pro Tem Simpson moved to approve the minutes of the March 11, 2024, City Council Meeting and the March 19, 2024, Special City Council Meeting as presented. The motion was seconded by Councilmember Hosmer and the minutes were approved by the following vote: Ayes: Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, Councilmember Jenson, Councilmember Horton, Councilmember McGull, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: None.

3. FINALIZATION AND APPROVAL OF CONSENT AGENDAS.

CITIZENS WISHING TO SPEAK TO OR REMOVE ITEMS FROM THE CONSENT AGENDAS MUST DO SO AT THIS TIME.

The Consent Agenda was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: None.

4. CEREMONIAL MATTERS.

5. CITY MANAGER REPORT AND RESPONSES TO QUESTIONS RAISED AT THE PREVIOUS CITY COUNCIL MEETING.

Mr. Gage noted the previous week the City became aware of vandalism on public property by a white nationalist hate group. The City is taking steps to remove these disturbing messages from public property around Springfield. He added placement of such messaging on public property is illegal. Mr. Gage noted hate would not be tolerated as the City believes in the respect, value, and dignity of all Springfieldians.

Mr. Gage noted last week organizers of the Birthplace of Route 66 Festival announced the 2024 lineup. He added the festival would take place from August 8 through August 10 this year, and everyone was encouraged to attend. This festival truly has something for everyone. He added registration was open for the classic car show and parade. The Emerald City Band for the Thursday night concert, as well as the Great Route 66 Talent Search, would return. Visit Route66FestivalSGF.com for all the details and the schedule.

Mr. Gage noted the Clean Green Springfield community cleanup initiative would kick off a week from today with city-wide cleanup and disposal activities for April and May. Individuals, families, businesses, neighborhoods, and service organizations were invited to roll up their sleeves and participate in opportunities including roadside trash pickups, stream cleanups, neighborhood cleanups, and more. He added special disposal opportunities would be offered for items that are difficult for residents to dispose of, including mattresses, tires, and bulky items. Mr. Gage noted registration would be open at cleangreensgf.com on Monday, April 1st. Mr. Gage further noted a new component of Clean Green Springfield, the Neat Neighborhoods competition, would launch this spring and was patterned after the Tidy Towns tradition rooted in Ireland since 1958, thanks to the Hatch Foundation. Registered neighborhoods within each City Council Zone would compete against one another to tidy up their neighborhoods.

He added the competition would award one neighborhood in each zone as a winner, with a total of four winning neighborhoods each year. The Hatch Foundation will be donating \$10,000 to each of the four winning neighborhoods. First-place winning neighborhoods in each zone would win \$6,000, with second place winning \$3,000, and third place winning \$1,000.

Mr. Gage noted the City would host a public open house and environmental information meeting for the Renew Jordan Creek Project from 4:30 to 6:30 p.m. on Thursday, April 11, at Missouri State University Brick City Gallery (215 West Mill Street). He added attendees would have the opportunity to learn about the upcoming project and estimated timeline for construction. An informational staff presentation on the environmental impacts of the project would be provided at 5:30 p.m.

Mayor Pro Tem Simpson noted the Police and Fire Departments held their Charity Hockey Game the past weekend. He congratulated the Police Department on their victory.

Councilmember Jenson congratulated staff on their ability to issue land disturbance permits in a more efficient manner.

6. SECOND READING AND FINAL PASSAGE.

Citizens Have Spoken. May Be Voted On.

6.1. Council Bill 2024-043 (Jenson)

A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 4.3 acres of property generally located at 3333 West Battlefield Road from R-SF, Residential Single-Family to GR, General Retail with Conditional Overlay District No. 249; and adopting an updated Official Zoning Map. (By: South Creek Development Corporation; 3333 West Battlefield Road; Z-7-24 with Conditional Overlay District No. 249).

Councilmember Lee disclosed having previously done work for the applicant.

Ordinance 6842. Council Bill 2024-043 (Jenson) was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: None.

6.2. Council Bill 2024-044 (Horton)

A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 4.2 acres of property generally located at 1115, 1117, and 1125 East Pythian Street; 1118, 1140, and 1146 East Scott Street; 1004, 1020, and 1032 North Hampton Avenue; and 1001, 1013, 1017, and 1033 North National Avenue from R-TH, Residential Townhouse District to GI, Government and Institutional Use District with Conditional Overlay District No. 235; and adopting an updated Official Zoning Map. (By: Ozarks Technical Community College (OTC); 1115, 1117, & 1125 East Pythian Street and 1118, 1140, & 1146 East Scott Street and 1004, 1020, & 1032 North Hampton Avenue and 1001, 1013, 1017, & 1033 North National Avenue; Z-25-2023 with Conditional Overlay District No. 235).

Mayor Pro Tem Simpson recused himself from Council Bill 2024-044 and left the dais.

Ordinance 6843. Council Bill 2024-044 (Horton) was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger and Mayor Pro Tem Simpson. Abstain: None.

Mayor Pro Tem Simpson returned to the dais.

6.3. Council Bill 2024-045 (Carroll)

A special ordinance authorizing the City Manager, or designee, on behalf of the City of Springfield, to enter into an agreement with U.S. Bank N.A. for banking services, including depository services, merchant card services, safekeeping services, and the City's purchasing card program.

Councilmember Hosmer asked about the process for selection of banking services. Jody Vernon, Assistant Director of Finance and Comptroller, responded the City of Springfield was required to bid banking services every five years. She noted four banks responded to the City's most recent Request for Proposal. Ms. Vernon added a committee of three Finance staff members evaluated the proposals based on the bank's similar experience. Ms. Vernon noted the City was currently with Central Bank of the Ozarks for main depository services and U.S. Bank for the purchasing card program.

Ordinance 27970. Council Bill 2024-045 (Carroll) was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: None.

6.4. Council Bill 2024-046 (Carroll)

A special ordinance authorizing the City Manager, or designee, to enter into Addendum #1 to the annual agreement with the Springfield Convention & Visitors Bureau, Inc., executed on July 11, 2023; and amending the City's budget for Fiscal Year 2023-2024 in the amount of \$159,810, for the purpose of reflecting current and projected operational changes of the Springfield Convention and Visitors Bureau.

Ordinance 27971. Council Bill 2024-046 (Carroll) was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: None.

6.5. Council Bill 2024-047 (Lee)

A general ordinance amending the Springfield City Code, Section 2-92, known as the "Salary Ordinance," relating to various job titles within the City service as contained in the Classifications of the Professional, Administrative and Technical Non-Union Schedule by amending said schedule to add two new job titles and delete one job title; and the Crafts, Trades and Labor Union Schedule by amending said schedule to add one new job title.

Ordinance 6844. Council Bill 2024-047 (Lee) was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: None.

6.6. Council Bill 2024-048 (Simpson, Carroll, McGull, Hardinger)

A general ordinance amending Special Ordinance 27964 to revise funding appropriated for continuing COVID-19 services; amending the budget for Fiscal Year 2023-2024 to appropriate funds from the City's Coronavirus State and Local Fiscal Recovery Funds, established by the American Rescue Plan Act of 2021, for certain projects in the amount of \$1,439,692, as recommended by the City Council ARPA Review Committee.

Councilmember Jenson thanked staff and the American Rescue Plan Act (ARPA) Committee for their work. He asked if the items funded for Cooper/Killian would be essential to the operation. Collin Quigley, Deputy City Manager, responded the current phase at Cooper/Killian was for soccer fields. Phase 2 addresses the baseball/softball fields, and the additional funds would fulfill the mission for the project including lighting, new press box area, enhanced ticket/entry area, repaved parking lot areas, field fencing, and scoreboard upgrade in the areas. Mr. Quigley added the exact amounts would not be known until all bids were received. Mr. Quigley noted the intention was to finish the project. Councilmember Jenson asked if there would be sufficient time to reallocate the funds if the entire amount was not needed. Mr. Quigley responded the ARPA funding timeline was short, and funds would need to be appropriated this calendar year.

Councilmember Horton expressed her belief it was beneficial to complete projects. Ms. Horton noted quality and affordable housing was a priority for her. She acknowledged the \$9.4 million ARPA allocation already given to housing. Ms. Horton expressed her support for continuing efforts toward the housing issue.

Ordinance 6845. Council Bill 2024-048 (Simpson, Carroll, McGull, Hardinger) was approved by the following vote: Ayes: Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: Councilmember Jenson.

7. RESOLUTIONS.

8. EMERGENCY BILLS.

9. PUBLIC IMPROVEMENTS.

10. GRANTS. Citizens May Speak. May Be Voted On.

10.1. Council Bill 2024-051 (McGull)

A special ordinance authorizing the City Manager, or designee, to enter into Amendment No. 1 to House Bill 7 Funding Agreement 2024 with the State of Missouri Department of Economic Development for the purpose of accepting \$120,000 appropriated by the Missouri General Assembly to support maintenance and improvements to Hammons Field.

David Holtmann, Director of Finance, provided a brief overview of the proposed. Mr. Holtmann noted the agreement with the Department of Economic Development was approved, adding \$3.8 million of the \$4 million in funding had been received. Mr. Holtmann added the Governor's reserve for the agreement was \$120,000. He noted the proposed would amend the existing agreement and allow for the release of the \$120,000 reserve to receive the funds.

Mayor Pro Tem Simpson expressed his support for the proposed and expressed his belief it would help enhance sports tourism. Mayor Pro Tem Simpson thanked the local delegation, especially Senator Hough, for their work.

Ordinance 27972. Council Bill 2024-051 (McGull) was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: None.

11. AMENDED BILLS.

12. COUNCIL BILLS FOR PUBLIC HEARING.

Citizens May Speak. Not Anticipated To Be Voted On.

12.1. Council Bill 2024-052 (Horton, Jenson)

A special ordinance approving the Commercial-Pacific Street Redevelopment Plan submitted by the Commercial-Pacific Street Redevelopment Corporation for the redevelopment of an area generally located along the south side of the 400-500 blocks of East Commercial Street, the east side of the 1600-1700 blocks of North Jefferson Avenue, and the west side of the 1600-1700 blocks of North Benton Avenue; declaring the area in the Commercial-Pacific Street Redevelopment Plan to be a blighted area and its redevelopment necessary for the preservation of public peace, prosperity, health, safety, morals, and welfare; authorizing certain tax abatement within the area of the Commercial-Pacific Street Redevelopment Plan; and authorizing the City Manager to execute an agreement with the Commercial-Pacific Street Redevelopment Corporation relating to the implementation of the Commercial-Pacific Street Redevelopment Plan.

Amanda Ohlensehlen, Director of Economic Vitality, provided a brief overview of the proposed. Ms. Ohlensehlen noted the proposed would allow acceptance of a redevelopment plan submitted by the Commercial-Pacific Street Redevelopment Corporation for the redevelopment of an area generally located along the south side of the 400 to 500 blocks of East Commercial Street, the east side of the 1600 to 1700 blocks of North Jefferson Avenue, and the west side of the 1600 to 1700 blocks of North Benton Avenue. She added the parcel was approximately 7.5 acres. Ms. Ohlensehlen noted the area would be developed in phases. The applicant was requesting 25 years of partial property tax abatement. Ms. Ohlensehlen noted the plan would currently only offer abatement for the Pacific South development area. She further noted, for approval, the redevelopment area must be declared blighted, the plan must conform with ForwardSGF, and there must be a but-for analysis. Ms. Ohlensehlen added the redevelopment plan included four blight reports with common observations including debris, water infiltration and mold, lead-based materials, and other items that were not up to code. The plan proposed the area be redeveloped in phases for mixed-use and residential family use. She noted the Pacific South development included 72 townhouse dwelling units with on-and-off-street parking and would be set to begin after approval.

The Missouri Hotel project would include rehabilitation of the hotel. She added the Pacific North area would be new construction with mixed-use development including over 200 multi-family residential dwelling units, office, and retail space. Ms. Ohlensehlen noted property tax abatement would be approved only for the Pacific South development, with property tax abatement for other developments being subject to future amendments to the development plan, or new development plans. She added the redevelopment area for the Pacific South project was currently located within the Commercial Street Tax-Increment Finance District (TIF). She added the TIF area terminates in 2031. Ms. Ohlensehlen noted the Pacific South project was located within the Center City placetype. She added the other areas are located within the mixed-use placetype. Ms. Ohlensehlen reiterated the current request from the applicant was to provide blight determination, approve the redevelopment plan, authorize partial property tax abatement for the Pacific South development, and approve the redevelopment agreement for the phase 1 project. Any future phases would require an amendment to the Commercial Street TIF and the redevelopment plan.

Councilwoman Horton how a blight designation would impact the status of the Historic District and the ability to obtain Historic Tax Credits. Ms. Ohlensehlen responded the TIF district did require a blight determination when formed. Ms. Ohlensehlen noted they would research the issue. Councilmember Horton expressed her belief separating the redevelopment plans would be preferred. She asked what would trigger separate redevelopment plans. Ms. Ohlensehlen responded the entire redevelopment would require amendments for each phase of the plan.

Councilmember Lee disclosed one of the project owners was a previous client of his company.

Councilmember Jenson clarified the proposed would approve a blight designation for the entire project area but only approve the redevelopment plan for the Pacific South project. Ms. Ohlensehlen responded the proposed would approve a blight designation for the area and the redevelopment plan for the entire area, which only authorized partial property tax abatement and redevelopment agreement for the Pacific South project. Councilmember Jenson asked if there was anything in the redevelopment plan that compelled the preservation of the existing buildings. Ms. Ohlensehlen responded there were no specifics for the future plans.

Mayor Pro Tem Simpson asked for clarification regarding tax collection if properties were removed from the TIF. Ms. Ohlensehlen noted both property and sales taxes would be affected for applicable properties.

Councilmember Hosmer asked if the TIF requirement was a function of State law or City. Ms. Ohlensehlen responded the requirement was State law and tax abatement could not be authorized within an existing TIF district.

Councilmember McGull asked what the total investment would be in the area for the development. Ms. Ohlensehlen responded the minimum investment for the Pacific South project would be \$15 million.

An opportunity was given for citizens to express their views.

Shelby Wood, a representative for the developer, addressed City Council. Mr. Wood noted the developer proposed the plan to provide economy of scale, in anticipation of future phases regarding buyout of the TIF plan, and that a blight determination and but-for analysis was required. He added it is beneficial to have a blight determination prior to any cleanup work.

Councilmember Hosmer asked the reason for obtaining a blight determination prior to the TIF buyout. Mr. Wood responded Pacific South was the first phase as it was outside the TIF and the TIF buyout would occur in a lump sum. He added the final number for the buyout would be negotiated.

Councilmember Jenson asked for clarification on preservation of buildings in future phases of the project. Mr. Wood responded the proposed would allow a blight designation for the area and each phase would be subject to City approval. He added the plans were still being finalized, with the exception of one property which was set for demolition upon approval of the proposed.

Councilmember Horton expressed her belief there was potential in the proposed. She asked if the three projects that have not yet been cleared would be separate redevelopment plans. Mr. Wood responded the future phases were not finalized and the reason for separate plans was to provide flexibility to bring them forward as a separate plan or amendments. Councilmember Horton asked for clarification regarding mixed income housing and below market rental rates. Mr. Wood responded Pacific North options could be open to discussion regarding rental rates. Councilmember Horton asked if there would be future meeting with stakeholders for future phases. Mr. Wood responded he anticipated there would be community touchpoints along the way.

Councilmember Hosmer asked when the Missouri Hotel project would begin. Mr. Wood responded it was hopeful the project would begin as soon as possible. He added the building was awarded an allocation of Historic Tax Credits, and he believed these tax credits would only be used for this project. Councilmember Hosmer asked if the other buildings would be saved. Mr. Wood responded the goal was to make a best effort to restore buildings.

Christine Schilling addressed City Council. Ms. Schilling expressed her support for the Pacific South project. She expressed her concern with the overall development, staff's recommendation to approve the entire project, and ensuring rehabilitation of existing buildings.

Ran Cummings, President of the Midtown Association, addressed City Council. Mr. Cummings expressed their support for the Pacific South development. He added they would prefer the dialogue continue with the developer regarding future phases. He expressed their concerns with overall approval of the entire plan.

Councilmember Horton asked for clarification regarding opposition to approval of the overall plan. Mr. Cummings responded it was preferred that the projects would be separated before moving forward.

Mary Collette addressed City Council. Ms. Collette expressed support for thoughtful development. She noted City Council had an opportunity to consider people-centric approaches to development. Ms. Collette proposed the following questions regarding the proposed: Was there a redevelopment agreement executed with the City prior to the February 6, 2024, LCRA meeting; was there a City Council public hearing on March 11, 2024; was notice given to each entity with a property interest on record within 500 feet of the proposed; and was approval requested for the entire Commercial-Pacific Street Development area. Ms. Collette expressed her support for separate redevelopment plans.

Danny Crisp, a property owner on Commercial Street, addressed City Council. Mr. Crisp expressed his support for the Pacific South project. He expressed preference that other phases of the project be evaluated more closely and would like the phases to be presented separately. Mr. Crisp expressed his belief requirements should be placed on the developer regarding completion of the projects.

Councilmember Jenson asked if there was an opportunity to address concerns in the redevelopment agreement. Ms. Ohlensehlen responded there was a requirement the project be complete by 2025 to realize tax abatement. She noted other concerns could be reviewed.

Mayor Pro Tem Simpson asked for clarification on the proposed. He asked if the proposed approved the Pacific South project and gave a blight designation to the entire area but did not approve the other redevelopment plans. Ms. Ohlensehlen responded the proposed would approve the entire redevelopment plan and blight designation for the entire area. She added it did not approve tax abatement for the entire plan, but only for the Pacific South project. It would require amendments for future phases.

Councilmember Hosmer asked what would come back to City Council in the future. Ms. Ohlensehlen responded tax abatement for the future three phases would have to pass through City Council in the future. Councilmember Hosmer asked if the Council Bill could be divided to accept the phases separately. Ms. Ohlensehlen responded they would have to work with the Law Department to determine this. Jordan Paul, City Attorney, responded they would review.

Irene Schaefer addressed City Council. Ms. Schaefer expressed her support for development on Commercial Street. She expressed her support for the Pacific South phase. She added support for dividing the phases for separate approval.

Todd Thomas addressed City Council. Mr. Thomas expressed his support for the Pacific Street project. He expressed his belief City Council should not approve a blight designation for the entire area at this time. He expressed his support for approving each phase individually and for imposing a timeframe for completion.

Justin Bieler addressed City Council. Mr. Bieler expressed his support for the project. He expressed his concerns with the rehabilitation of projects being completed.

With no further appearances, the public hearing was declared closed.

12.2. Council Bill 2024-053 (Jenson)

A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 3.3 acres of property generally located at 1330 South Kansas Avenue and a portion of 1518, 1512, and 1506 West Meadowmere Street from R-SF, Residential Single-Family District to R-LD, Low-Density Multifamily Residential District with Conditional Overlay District No. 246; and adopting an updated Official Zoning Map. (By: Eoff Land Trust; 1330 South Kansas Avenue; Z-1-2024 with Conditional Overlay District No. 246)

Councilmember Lee recused himself and left the dais.

Michael Sparlin, Senior City Planner, provided a brief overview of the proposed. Mr. Sparlin noted the proposed would allow for rezoning of approximately 3.3 acres located at 1330 South Kansas to Low-Density Multifamily Residential District with Conditional Overlay District No.

246. Mr. Sparlin added the intent of the proposed would be to use a step-down approach, with higher density near roads to provide missing-middle housing for the community. Mr. Sparlin further noted the proposed would provide 11 dwelling units per acre. The building height was restricted to 30 feet; the architectural style addressed roof orientation and compatibility with existing homes in the area. The front yard set back shall be 15 feet from Kansas Avenue, with garages set back at least 20 feet.

Mayor McClure called for a recess at 8:32 p.m.

Mayor McClure reconvened the meeting at 8:42 p.m. An

opportunity was given for citizens to express their views.

Daniel Richards, a representative of the owner, spoke in support of the proposed. Mr. Richards highlighted the developer met with the City two times during the process, and all City staff recommendations were accepted with small variations. He added the owner introduced the projects to neighbors, and concerns were addressed. Mr. Richards noted seventeen conditions were added to the project. He added the additional traffic was anticipated to be small.

Councilmember Horton asked for a summary of the universal design features. Mr. Richards responded the universal design features were limited density, limited building heights, fencing on east property line, the addition of porches, and the preservation of healthy trees.

Cameron Eoff, the owner, spoke in support of the proposed. Mr. Eoff expressed his belief the proposed would provide needed housing in the community. He added, if approved, the project would provide attractive housing in the area.

Councilmember Jenson asked if the project was intended to be owner or renter occupied. Mr. Eoff responded the proposed would be a rental development.

David Cook spoke in opposition to the proposed. Mr. Cook noted the street was narrow and the area was currently single family homes. He expressed his concern there would be increased traffic and little parking. He noted his preference for single-family homes in the area.

Richard Yaktine, a resident in the area, spoke in opposition to the proposed. Mr. Yaktine noted the neighborhood had virtually no sidewalks and has had little improvement for 50 years. He added there were no crosswalks or pedestrian safety features in the area. Mr. Yaktine expressed his belief stormwater runoff could be an issue in the future.

Dan Bigbee spoke in support of the proposed. He noted there was a need for quality affordable housing in the area.

Lynna Alumbaugh spoke in opposition to the proposed. Ms. Alumbaugh expressed her concern the proposed would cause increased traffic in the area. She expressed her belief the proposed did not fit in the area. Ms. Alumbaugh noted there was a protest petition submitted for the proposed.

Emily Logan spoke in opposition to the proposed. Ms. Logan noted she had previously expressed her concerns. She expressed her belief the drainage, property taxes, and traffic would be an issue.

Gary Alexander spoke in support of the proposed. Mr. Alexander expressed his belief the proposed would provide needed affordable housing that would fit with the area.

Keir Cook spoke in opposition to the proposed. Mr. Cook noted the area was currently peaceful. He expressed his belief the proposed would not fit the character of the neighborhood and could bring unwanted issues to the neighborhood.

Kim Eoff, the property owner, spoke in support of the proposed. Ms. Eoff noted her family has lived in the area for years and expressed her belief it was not economically feasible or safe to keep the land vacant. She added the proposed was intended to be a family friendly neighborhood.

With no further appearances, the public hearing was declared closed.

Councilmember Lee returned to the dais.

13. FIRST READING BILLS.

14. PETITIONS, REMONSTRANCES AND COMMUNICATIONS.

14.1. Alice Barber wishes to address City Council.

Alice Barber addressed City Council. Ms. Barber expressed her belief the City patterns in response to housing and homelessness have not been enough, and added proposals and recommendations have not seen action. Ms. Barber asked City Council to look to previous studies and recommendations and make housing an official City Council Priority. Ms. Barber asked City Council to proactively interact with citizens.

14.2. Andrea Palamar wishes to address City Council.

Andrea Palamar did not appear to address City Council.

14.3. Jordan Hensley wishes to address City Council.

Jordan Hensley withdrew.

14.4. Isabelle Jimenez Walker wishes to address City Council.

Isabelle Jimenez Walker addressed City Council. Ms. Walker, a representative of the Community Partnership of the Ozarks Blighted Workgroup, provided an update. She noted the mission of the group was to protect the quality of life and neighborhoods through collaboration.

She noted the purpose was to improve the overall quality of safety and health issues in neighborhoods and to provide solutions. Ms. Walker noted they would like to see changes for the good through collaboration.

14.5. Brendan Griesemer wishes to address City Council.

Brendan Griesemer, Executive Director of RestoreSGF, addressed City Council. Mr. Griesemer noted the two main goals were to increase homeownership in historic neighborhoods and to improve quality and livability of housing in those neighborhoods. He

added housing was a top issue. Mr. Griesemer noted a Housing Trust Fund, which had been used by cities across the country, could be applicable in Springfield. He further noted these funds could be used to support a wide variety of housing activity such as repairs, rent and mortgage assistance, land stabilization, revolving loan funds, modifications, and elimination of home hazards. Mr. Griesemer noted a Housing Trust Fund could be a mechanism for addressing housing recommendations and concerns.

Councilmember Horton thanked Mr. Griesemer for presenting the information.

Councilmember Lee asked Mr. Griesemer if more detailed information could be provided to City Council regarding the fund and advice on how to increase homeownership. Mr. Griesemer responded he would be glad to provide the information.

15. NEW BUSINESS.

15.1. As per RSMo. 109.230 (4), City records that are on file in the City Clerk's office and have met the retention schedule will be destroyed in compliance with the guidelines established by the Secretary of State's office.

15.2. Refer consideration of new housing priority to the Community Involvement Committee.

Councilmember Jenson offered objection to the referral of the new housing priority to the Community Involvement Committee. He expressed his belief City Council bringing their unique viewpoints and skills regarding the issue was beneficial. He noted he looked forward to working on the issue with each Councilmember.

Mayor Pro Tem Simpson moved to refer the new housing priority to the Community Involvement Committee. Councilmember McGull seconded the motion.

Councilmember Hosmer expressed his belief it could be beneficial for the issue to be reviewed by City Council. He added housing was one of the biggest issues in the City, and he would support the issue being reviewed by City Council.

Councilmember Horton expressed her belief the issue going to committee could provide an opportunity for it to be heard in a timely manner and receive further study. She expressed her support for Councilmember Hardinger as the Committee Chair.

Mayor Pro Tem Simpson expressed his agreement with Councilmember Horton regarding the committee providing timely attention to the issue.

Councilmember McGull expressed his support for the issue being referred to committee. He added the committee would be an efficient way to review the issue in a timely manner.

After discussing the matter, it was approved by the following vote: Ayes: Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: Councilmember Jenson and Councilmember Hosmer. Absent: Councilmember Hardinger.

Abstain: None.

16. UNFINISHED BUSINESS.

17. MISCELLANEOUS.

18. CONSENT AGENDA – FIRST READING BILLS.

19. CONSENT AGENDA – ONE READING BILLS. See Item #3.

19.1. Council Bill 2024-054 (Lee)

A resolution confirming the appointment of Wade Guffey and the reappointment of Bryan Pendleton and Brett Roubal to the Glenstone and Kearney Community Improvement District Board of Directors

Resolution 10750. Council Bill 2024-054 (Lee) was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: None.

20. CONSENT AGENDA – SECOND READING BILLS. See Item #3.

20.1. Council Bill 2024-049 (McGull)

A special ordinance authorizing the Director of Planning and Development to accept the dedication of public streets and easements to the City of Springfield, as shown on the Preliminary Plat of Valley Water Mill Estates, generally located at 1735 East Valley Water Mill Road, upon the applicant filing and recording a final plat that substantially conforms to the preliminary plat; and authorizing the City Clerk to sign the final plat upon compliance with all the terms of this Ordinance. (By: Triple S Properties, Inc.; 1735 East Valley Water Mill Road; Preliminary Plat of Valley Water Mill Estates).

Ordinance 27973. Council Bill 2024-049 (McGull) was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: None.

20.2. Council Bill 2024-050 (McGull)

A special ordinance authorizing the Director of Planning and Development to accept the dedication of public streets and easements to the City of Springfield, as shown on the Preliminary Plat of MHC Kenworth Addition, generally located at 5500 East Farm Road 104, upon the applicant filing and recording a final plat that substantially conforms to the preliminary plat; and authorizing the City Clerk to sign the final plat upon compliance with all the terms of this Ordinance. (By: M-H Property Enterprises, LLC; 5500 East Farm Road 104; Preliminary Plat of MHC Kenworth Addition).

Ordinance 27974. Council Bill 2024-050 (McGull) was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Hosmer, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: None. Absent: Councilmember Hardinger. Abstain: None.

20.3. Confirm the following appointment to the Board of Adjustment: Billy Kimmons with term to expire January 1, 2027. Confirmed.

20.4. Confirm the following appointment to the Board of Adjustment: Anthony Brown with term to expire January 1, 2029. Confirmed.

- 20.5. Confirm the following appointment to the Board of Adjustment: Adam Holmes with term to expire January 1, 2027. Confirmed.
- 20.6. Confirm the following appointment to the Board of Adjustment: Marian Dee Ogilvy with term to expire January 1, 2028. Confirmed.
- 20.7. Confirm the following removal from the Board of Adjustment: Jin Chang based on failure to take the oath of office. Confirmed.

21. END OF CONSENT AGENDA.

22. ADJOURN.

Mayor Pro Tem Simpson moved to adjourn. Councilmember Carroll seconded the motion, and it was approved by the following vote: Ayes: Councilmember Jenson, Councilmember Horton, Councilmember McGull, Mayor Pro Tem Simpson, Councilmember Carroll, Councilmember Lee, and Mayor McClure. Nays: Councilmember Hosmer. Absent: Councilmember Hardinger. Abstain: None.

March 26, 2024
Springfield, Missouri

The City Council met in special session on March 26, 2024, in the Councilman Denny Wayne Conference Room on the 4th Floor of the Busch Municipal Building. The meeting was called to order by Mayor Ken McClure.

Roll Call

Present: Matthew Simpson, Craig Hosmer, Callie Carroll, Derek Lee, Brandon Jenson, Monica Horton, Abe McGull, and Ken McClure. Absent: Heather Hardinger.

Closed Session

Councilmember Hosmer moved City Council hold a closed meeting to discuss legal actions, causes of action or litigation involving a public governmental body and any confidential or privileged communications between a public governmental body or its representatives and its attorneys pursuant to Section 610.021(1), RSMo.; and this meeting, record, and vote shall be closed and the City Council shall stand adjourned at the end of the closed session.

Mayor Pro Tem Simpson seconded the motion, and it was approved by the following vote: Ayes: Hosmer, Carroll, Lee, Jenson, Horton, McGull, Simpson, and McClure. Nays: None. Abstain: None. Absent: Hardinger.

Prepared by
Michelle Brown

Anita J. Cotter, CMC/MRCC
City Clerk



EXPLANATION TO COUNCIL BILL 2024-052 (HORTON, JENSON)

FILED: 04/01/2024

ORIGINATING DEPARTMENT: Economic Vitality

TITLE: A special ordinance approving the Commercial-Pacific Street Redevelopment Plan submitted by the Commercial-Pacific Street Redevelopment Corporation for the redevelopment of an area generally located along the south side of the 400-500 blocks of East Commercial Street, the east side of the 1600-1700 blocks of North Jefferson Avenue, and the west side of the 1600-1700 blocks of North Benton Avenue; declaring the area in the Commercial-Pacific Street Redevelopment Plan to be a blighted area and its redevelopment necessary for the preservation of public peace, prosperity, health, safety, morals, and welfare; authorizing certain tax abatement within the area of the Commercial-Pacific Street Redevelopment Plan; and authorizing the City Manager to execute an agreement with the Commercial-Pacific Street Redevelopment Corporation relating to the implementation of the Commercial-Pacific Street Redevelopment Plan.

PURPOSE: To approve a Redevelopment Plan submitted by the Commercial-Pacific Street Redevelopment Corporation for the redevelopment of an area generally located along the south side of the 400-500 blocks of East Commercial Street, the east side of the 1600-1700 blocks of North Jefferson Avenue, and the west side of the 1600-1700 blocks of North Benton Avenue; declare the area in such plan to be a blighted area and its redevelopment necessary for the preservation of the public peace, prosperity, health, safety, morals, and welfare; authorize certain tax abatement within the plan area; and authorize the City Manager to execute an agreement with the Redevelopment Corporation relating to the implementation of the Redevelopment Plan. (Staff, Land Clearance for Redevelopment Authority, and Planning and Zoning Commission recommend approval.)

BACKGROUND INFORMATION: Chapter 353, Missouri Revised Statutes ("RSMo") and Chapter 40, Article III of the Springfield City Code authorize the establishment and use of Urban Redevelopment Corporations to redevelop blighted areas. According to the Statute, the City of Springfield may authorize up to 25 years of partial real property tax abatement for blighted properties located within designated redevelopment areas that are acquired by urban redevelopment corporations and redeveloped in accordance with approved redevelopment plans.

The Commercial-Pacific Street Redevelopment Corporation ("Developer") has filed a redevelopment plan pursuant to Chapter 353, RSMo for the Commercial-Pacific Street Redevelopment Area ("Exhibit 1"). The area is comprised of 17 parcels encompassing approximately 7.46 acres generally located along the south side of the 400-500 blocks of East Commercial Street, the east side of the 1600-1700 blocks of North Jefferson

Avenue, and the west side of the 1600-1700 blocks of North Benton Avenue. The Area is currently zoned COM-1, Commercial Street District; CC, Center City District; and Planned Development District No. 386. The north side of the Redevelopment Area located adjacent to East Commercial Street is located inside the Commercial Street Historic District (national and local), and the remainder of the Area to the south is located inside the Mid-Town Urban Conservation District. The Redevelopment Area contains several commercial and residential buildings that are predominantly vacant and in various stages of decline.

Sections 353.020(2) and 99.805(1), RSMo. Define a “blighted area” as,

An area which, by reason of the predominance of insanitary or unsafe conditions, deterioration of site improvements, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, retards the provision of housing accommodations or constitutes an economic or social liability or a menace to the public health, safety, or welfare in its present condition and use.

The Developer has included a blight report with the Redevelopment Plan providing evidence to support a declaration of blight. The Land Clearance for Redevelopment Authority reviewed the blight report on February 6, 2023, and recommended the Area be declared a blighted area by a vote of 3 to 0.

The Redevelopment Plan proposes to redevelop the Area in phases for mixed-use and multi-family residential use. More specifically, it divides the Area into the following individual Redevelopment Project Areas that are planned to be activated over the next 18 months, beginning immediately with the Pacific South Project Area.

Pacific South Project Area

- o Type: New construction
- o Description: 72 townhouse dwelling units with on- and off-street parking in accordance with Planned Development District No. 386 (approved by City Council on July 24, 2023, via General Ordinance 6800).
- o Timeline: Begins immediately upon approval of this Redevelopment Plan.

540 E Commercial Project Area

- o Type: New construction
- o Description: Mixed-use building with ground-floor retail, restaurant, and office, and ADA accessible multi-family residential dwelling units; multi-family residential dwelling units on the upper floors; and limited off-street parking
- o Timeline: Begins Summer 2024

Missouri Hotel Project Area

- o Type: Rehabilitation
- o Description: Rehabilitate the historic Missouri Hotel as a boutique hotel with a restaurant, bar, spa, and other amenities; and rehabilitate the adjacent buildings along East Commercial Street for restaurant, retail, office, and hotel accessory uses.
- o Timeline: Begins Fall 2024

Pacific North Project Area

- o Type: New construction
- o Description: Mixed use development with over 200 multi-family residential dwelling units, ground-floor office/retail space, and off-street parking.
- o Timeline: Begins Summer 2025

The Redevelopment Plan provides a framework for individual projects within the Redevelopment Area to receive up to 25 years of partial real property tax abatement under Chapter 353, RSMo. Currently, the Plan only requests such abatement for the Pacific South Project Area, the redevelopment which will begin immediately upon approval. Property tax abatement for the remaining project areas will be subject to future amendments to this Plan or separate redevelopment plans, which shall be approved by the City Council before redevelopment activities commence.

The Planning and Zoning Commission reviewed the Redevelopment Plan on February 15, 2023 (link to Staff Report). The Commission found the Plan to be in conformance with Forward SGF Comprehensive Plan and recommended that it be approved by a vote of 7 to 0.

The Developer requests real property taxes for the Pacific South Project be partially abated for a 25-year period pursuant to Chapter 353, RSMo. During the first ten years, real property taxes will be fully abated on the assessed valuation of the improvements as well as on the increased assessed valuation of the land. The Developer will continue to pay taxes based on the land's assessed valuation from the year prior to the Redevelopment Corporation acquiring the redevelopment project. Additionally, pursuant to the Redevelopment Agreement (Exhibit II), the Developer will make annual payments in lieu of taxes ("PILOTs") equal to the property taxes due on the improvements from the year prior to the Redevelopment Corporation acquiring the project. This ensures no decrease in revenue for the affected taxing districts. During the remaining 15 years, real property taxes will be abated by 50% of the assessed value of the land and improvements.

According to the tax impact analysis, if the Pacific South redevelopment project is completed and tax abatement is authorized, the affected taxing jurisdictions could collect an additional \$1,218,466 in property tax revenue over the next 25 years, compared to if the project does not occur.

The City of Springfield's Economic Development Incentives Policy Manual requires that requests for discretionary incentives, like Chapter 353, RSMo tax abatement, pass the "but for" test. This means the applicant must demonstrate that without the incentive, the project would not happen, would be significantly smaller, would lack financial stability, or would not deliver the intended public benefit. The Policy Manual also allows such incentives if the City Council determines there's an overriding public benefit or a reduction in costs the City would otherwise bear. The Developer has provided two 25-year project pro forma financial statements (one with tax abatement, one without), each

providing yearly cash flows and cash-on-cash return analyses. The cash-on-cash return is a measure of the annual rate of return made on the Developer's equity or cash invested the project and is a key metric for determining if a project can attract the necessary capital. The projections provided within these statements indicate that partial real property tax abatement is necessary for the project to proceed.

The Policy Manual also discourages Chapter 353 partial real property tax abatement within approved tax increment financing districts ("TIFs"). This is because it conflicts with the intent of the TIF statute to capture the incremental increase of taxes to fund TIF improvements. Apart from the Pacific South Project Area, the Redevelopment Area is located within the Commercial Street TIF.

Established in 2008, the Commercial Street TIF captures 100% of new real property taxes (payments in lieu of taxes, or "PILOTs") and 50% of new local sales taxes (economic activity taxes, or "EATs") generated within its boundaries. These funds go towards certain projects outlined in the TIF redevelopment plan. The TIF has a 23-year lifespan, ending in 2031.

The Redevelopment Plan explicitly states that no properties located inside the TIF shall be authorized to receive real property tax abatement pursuant to Chapter 353, RSMo, this Redevelopment Plan, or any subsequent amendments thereto or related redevelopment plans unless the Commercial Street TIF has been duly amended to exclude such properties located therein. Staff is currently working with the Applicant to prepare such an amendment, which requires approval from the Tax Increment Financing Commission and City Council before any future phases can receive abatement. To offset lost TIF revenue from this amendment, the Developer has agreed to a "buy-out" of remaining PILOTs that would have gone to the TIF. This payment shall be made to the City before the amendment is approved.

REMARKS: The Land Clearance for Redevelopment Authority, Planning and Zoning Commission, and Staff recommend approval.

Submitted By: Matthew Schaefer, Senior City Planner

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Attachments:

1. Commercial-Pacific Street Redevelopment Plan_ord
2. Commercial-Pacific Street Redevelopment Plan_exh1
3. Commercial-Pacific Street Redevelopment Plan_exh2

One-rdg. _____
P. Hrngs. X
Pgs. 183
Filed: 03-05-24

Sponsored by: Horton, Jenson

First Reading: _____

Second Reading: _____

COUNCIL BILL 2024-052

SPECIAL ORDINANCE _____

AN ORDINANCE

1 APPROVING the Commercial-Pacific Street Redevelopment Plan submitted by the
2 Commercial-Pacific Street Redevelopment Corporation for the
3 redevelopment of an area generally located along the south side of
4 the 400-500 blocks of East Commercial Street, the east side of the
5 1600-1700 blocks of North Jefferson Avenue, and the west side of the
6 1600-1700 blocks of North Benton Avenue; declaring the area in the
7 Commercial-Pacific Street Redevelopment Plan to be a blighted area
8 and its redevelopment necessary for the preservation of public peace,
9 prosperity, health, safety, morals, and welfare; authorizing certain tax
10 abatement within the area of the Commercial-Pacific Street
11 Redevelopment Plan; and authorizing the City Manager to execute an
12 agreement with the Commercial-Pacific Street Redevelopment
13 Corporation relating to the implementation of the Commercial-Pacific
14 Street Redevelopment Plan.
15 _____
16

17 WHEREAS, The Urban Redevelopment Corporations Law, Chapter 353, RSMo.,
18 authorizes tax abatement for projects located in areas that have conditions of blight,
19 when a proper redevelopment plan is developed and carried out for such projects; and
20

21 WHEREAS, pursuant to The Urban Redevelopment Corporations Law, the
22 Commercial-Pacific Street Redevelopment Corporation has submitted an application for
23 tax abatement for a project known as the Commercial-Pacific Street Redevelopment
24 Area (hereafter "Redevelopment Area"), together with the Commercial-Pacific Street
25 Redevelopment Plan, a blight report, and tax impact analysis for the Commercial-Pacific
26 Street Redevelopment Area, a proposed redevelopment project consisting of seventeen
27 (17) parcels totaling approximately 7.46 acres generally located along the south side of
28 the 400-500 blocks of East Commercial Street, the east side of the 1600-1700 blocks of
29 North Jefferson Avenue, and the west side of the 1600-1700 blocks of North Benton
30 Avenue; and
31

32 WHEREAS, the Redevelopment Area is currently zoned COM-1, Commercial
33 Street District; CC, Center City District; and Planned Development District No. 386, with

the north side of the Redevelopment Area located adjacent to East Commercial Street located inside the Commercial Street Historic District (both national and local) and the remainder of the Redevelopment Area to the south located inside the Mid-Town Urban Conservation District; and

WHEREAS, all of the Redevelopment Area except for the “Pacific South Project Area” as shown in “Exhibit A of Exhibit 1” is located within the Commercial Street Tax Increment Financing (“TIF”) District as approved by Special Ordinance 25373 on April 7, 2008, and thus, pursuant to the City of Springfield’s Economic Development Incentives Policy Manual, cannot receive tax abatement under Chapter 353 unless removed from the TIF District; and

WHEREAS, the Redevelopment Area contains several commercial and residential buildings that are predominantly vacant and in various stages of decline; and

WHEREAS, the Land Clearance for Redevelopment Authority reviewed the blight report at a public meeting on February 6, 2024, and recommended declaring the Commercial-Pacific Street Redevelopment Area a blighted area; and

WHEREAS, the Planning and Zoning Commission reviewed the Commercial-Pacific Street Redevelopment Plan at a public meeting on February 15, 2024, and recommended approval of the Commercial-Pacific Street Redevelopment Plan; and

WHEREAS, proper notice has been provided, as required by applicable law, to the public, all affected taxing jurisdictions, and all property owners within the Commercial-Pacific Street Redevelopment Area of the public hearing on the request for tax abatement; and

WHEREAS, City Council held a public hearing on March 11, 2024, and all interested parties, including affected political subdivisions, were given the opportunity to be heard on such request.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF SPRINGFIELD, MISSOURI, as follows, that:

Section 1 – The Commercial-Pacific Street Redevelopment Plan for the redevelopment project consisting of seventeen (17) parcels totaling approximately 7.46 acres generally located along the south side of the 400-500 blocks of East Commercial Street, the east side of the 1600-1700 blocks of North Jefferson Avenue, and the west side of the 1600-1700 blocks of North Benton Avenue in Springfield, Missouri, attached hereto and incorporated herein by this reference as “Exhibit 1,” is hereby approved.

Section 2 – City Council finds and declares that the area described in the Commercial-Pacific Street Redevelopment Plan, which is more particularly described in “Exhibits A and C of Exhibit 1,” is a blighted area as defined by Section 353.020(2) and 99.805(1), RSMo., and the redevelopment thereof is necessary for public convenience

80 and necessity; and that approval of the Redevelopment Plan and construction of the
81 redevelopment project described therein are necessary for the preservation of the public
82 peace, prosperity, health, safety, morals, and welfare.
83

84 Section 3 – After review of the Tax Impact Analysis, which is attached hereto and
85 incorporated herein by this reference as “Exhibit F of Exhibit 1,” copies of which were
86 provided to the affected taxing jurisdictions, the Corporation, upon executing a
87 Redevelopment Agreement with the City, to be in substantially the same form as the
88 document attached hereto and incorporated herein by this reference as “Exhibit 2,”
89 partial real property tax abatement, and payment in lieu of taxes (“PILOTs”), is hereby
90 granted as follows: real property acquired by the Commercial-Pacific Street
91 Redevelopment Corporation (“Corporation”) and not within the Commercial Street TIF
92 District shall not be subject to assessment or payment of general ad valorem taxes for a
93 period of ten (10) years after the date upon which the Corporation becomes the owner
94 of the property, except to the extent and in such amount as may be imposed upon such
95 real property during such period measured solely by the amount of the assessed
96 valuation of the land, exclusive of improvements, as was determined by the assessor of
97 Greene County, in which such property is located, for taxes due and payable thereon
98 during the calendar year preceding the calendar year during which the Corporation
99 acquired title thereto; and after the expiration of ten (10) years, such real property,
100 including improvements, shall be exempt for an additional fifteen (15) years to the
101 extent of ad valorem taxes on such property measured by the assessed valuation
102 thereof at the rate of fifty percent (50%) of the true value of such property including
103 improvements, provided that such abatement shall continue only so long as the property
104 is used in accordance with the Redevelopment Plan and Redevelopment Agreement
105 approved herein.
106

107 Section 4 – The Corporation shall make annual payments in lieu of taxes
108 (“PILOTs”) as set out in the Redevelopment Agreement, which is attached hereto and
109 incorporated herein as “Exhibit F.”
110

111 Section 5 – The City Manager, or designee, shall take all steps necessary to
112 inform the Greene County Assessor of the granting of such and the passage of this
113 Ordinance.
114

115 Section 6 – The City Manager, or designee, is further authorized to enter into an
116 agreement with the Corporation which is in substantially the same form and content of
117 “Exhibit 2.” In the event of any conflicts or differences between the provisions of the
118 Redevelopment Plan and the Redevelopment Agreement, the Redevelopment
119 Agreement shall govern, and the Redevelopment Plan shall be deemed to be amended
120 accordingly.
121

122 Section 7 – Approval of the Redevelopment Plan and the Redevelopment
123 Agreement is made only for the purpose of the provisions of the Urban Redevelopment

Corporations Law and does not constitute approval of development under the Land Development Code as set forth in Chapter 36 of the Code of Ordinances for the City.

Section 8 – The sections of this Ordinance shall be severable. In the event any section of this Ordinance is found by a court of competent jurisdiction to be invalid, the remaining sections of this Ordinance shall be deemed to be valid, unless the court finds the valid sections of this Ordinance are so essentially and inseparably connected with, and so dependent upon the void sections, that it cannot be presumed that City Council would have enacted the valid sections without those deemed invalid; or unless the court finds that the valid sections, standing alone, are incomplete and are incapable of being executed in accordance with the legislative intent.

Section 9 – This Ordinance shall be in full force and effect from and after passage.

Passed at meeting: _____

Mayor

Attest: _____, City Clerk

Filed as Ordinance: _____

Approved as to form: Laura Vales, Assistant City Attorney

Approved for Council action: Jason C. Hays, City Manager

**BLIGHT REPORT
&
REDEVELOPMENT PLAN
FOR THE
COMMERCIAL-PACIFIC STEET
REDEVELOPMENT AREA
SPRINGFIELD, MISSOURI**

January 26, 2024

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Blight Report

I. General:

First enacted in 1943, Chapter 353 of the Missouri Revised Statutes is designated as “The Urban Redevelopment Corporations Law” (“**Chapter 353**”). The purpose of Chapter 353 is to involve private enterprises in the task of eliminating “blighted areas.” Under Chapter 353, municipalities are authorized to provide twenty-five year tax abatements in exchange for the redevelopment of “blighted areas” under approved plans. Redevelopment under Chapter 353 may include reconstruction or rehabilitation of blighted areas for industrial, commercial, residential or public structure use.

Tax abatement is only available to for-profit Urban Redevelopment Corporations organized pursuant to Chapter 353 and can only be extended to real property that has been found to be a “blighted area” by the municipality.

Once a municipality approves tax abatement under Chapter 353, the abatement is available for a period of twenty-five years provided blight is remediated and the redevelopment area is redeveloped in accordance with a redevelopment plan approved by the municipality. During the first ten years, the property is not subject to real property taxes except in the amount of real property taxes assessed on the land, exclusive of improvements, during the calendar year preceding the calendar year during which the Urban Redevelopment Corporation acquired the property. During the next fifteen years, the real property may be assessed at up to fifty percent of its true value. “True value” is defined as the assessor’s assessed valuation of the property, based upon its fair market value at the time. After this twenty-five year period, the real property will be subject to assessment and payment of all ad valorem taxes based on the true value of the property.

II. Introduction:

This Blight Report for the Commercial-Pacific Street Redevelopment Area (this “**Blight Report**”) is made for the purpose of documenting the blighted conditions affecting the proposed Redevelopment Area (as hereinafter defined). This Blight Report demonstrates (i) that the Redevelopment Area is a “blighted area” under Chapter 353¹ due to its insanitary or unsafe conditions, deterioration of site improvements, or the existence of conditions which endanger life or property by fire and other causes, and (ii) because of the aforementioned conditions, the Redevelopment Area has become an economic and social liability, as well as a menace to the public health, safety, or welfare in its present condition. These conditions make the Redevelopment Area conducive to crime and creates an inability to generate reasonable taxes. Professionally prepared Chapter 353 Qualification Studies from PGAV Planners for the parcels contained in the Redevelopment Area are attached hereto as Exhibit E (the “**Blight Reports**”). This Blight Report summarizes certain high level conclusions of the

¹ Per RSMo §353.020(2), “Blighted area”, an area which, by reason of the predominance of insanitary or unsafe conditions, deterioration of site improvements, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, retards the provision of housing accommodations or constitutes an economic or social liability or a menace to the public health, safety, or welfare in its present condition and use.

Blight Reports while offering the Blight Reports themselves as direct support for the determination that the Redevelopment Area meets the statutory definition of being a “blighted area.”

III. Redevelopment Area Description:

The Redevelopment Area consists of seventeen individual parcels of land, including the entire block located at the southeast intersection of E. Commercial St. and Jefferson Avenue, bounded on the north by E. Commercial St., to the west by Jefferson Ave., to the south by Pacific St. and to the east by N. Benton Ave., as well as adjacent properties to this described block located south of Pacific St. and also certain parcels located near the southwest corner of E. Commercial and N. Benton Ave. The parcels are commonly known as 438, 434, 424-432, 412-420, 410, 500, 540, 530, and 536 E. Commercial Street, as well as 1727 N. Washington Street, 1635 N. Benton Ave., 1630 N. Jefferson Ave., 1717 N. Benton Ave., 1703 N. Benton Ave., 1706 N. Jefferson Ave., 420 E. Blaine St., and 421 E. Pacific, all in Springfield, Missouri (the “**Redevelopment Area**”). There are currently multiple vacant buildings in the Redevelopment Area, with only the buildings at 420 E. Blaine, 1717 N. Benton, and a portion of 424-432 E. Commercial Street being used in a limited capacity for storage. The remainder of the Redevelopment Area consists of vacant buildings and unimproved land.

The Redevelopment Area is depicted in the maps attached hereto and incorporated herein as Exhibit A, and is legally described on Exhibit B attached hereto and incorporated herein.

IV. Blight Defined:

Chapter 353 defines “blighted area” as “an area which, by reason of the predominance of insanitary or unsafe conditions, deterioration of site improvements, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, retards the provision of housing accommodations or constitutes an economic or social liability or a menace to the public health, safety, or welfare in its present condition and use.”²

V. Evidence In Support of Blight:

See the Blight Reports contained in Exhibit E attached hereto for the parcels contained in the Redevelopment Area. These reports and descriptions clearly indicate the Redevelopment Area suffers from a predominance of blight.

Additionally, it is necessary to consider **Economic Underutilization**. In *Tierney v. Planned Industrial Expansion Authority of Kansas City*, 742 S.W.2d 146, 151 (Mo. 1987), the Supreme Court of Missouri stated that “the concept of urban redevelopment has gone far beyond ‘slum clearance,’ and the concept of economic underutilization is a valid one.” Accordingly, it is proper for a city to base its determination of blight on property being economically underutilized and otherwise not adding to a city’s vibrancy. The Redevelopment Area consists of aging buildings in seriously poor condition and in need of extensive replacements and repair. Per the Blight Reports provided, the predominant majority of the properties located in the Redevelopment Area are insanitary, unsafe, and deteriorated to the point that they are menace to public health, safety, and

²Mo. Rev. Stat. § 353.020(2) (2021).

welfare.³ Additionally, the Redevelopment Area is an economic liability where the City is foregoing maximizing potential tax revenue that could be generated from the redevelopment of the properties if the blight is eliminated and a redevelopment project supported. The prosecution of this Redevelopment Plan will allow the entire Redevelopment Area to be used for its highest and best use, including a mix of commercial projects and residential housing facilities and as a result eliminate insanitary and unsafe conditions that predominantly exist throughout the Redevelopment Area that currently present a menace to public health and safety.

VI. Impact of the Redevelopment Area's Blighted Conditions

See also the Blight Reports attached.

Due to the predominance of blighting factors the Redevelopment Area constitutes a significant social and economic liability. These include insanitary and unsafe conditions⁴, economic underutilization, and a significantly degraded appearance that discourages new investment and development in the Redevelopment Area. This results in social and economic liability not just for the Redevelopment Area but for the perception of the City as well. Furthermore, in its current condition, the Redevelopment Area is incapable of supporting its highest and best use and the cost of blight remediation and redevelopment is prohibitive towards supporting redevelopment. To overcome the economic and social liability created by the Redevelopment Area and enable the Redevelopment Area to fully contribute to the community, the blight must be remediated and the Redevelopment Area rehabilitated.

The current condition of the Redevelopment Area also impedes the economic vitality and independence of the City by failing to generate sufficient tax revenue and discouraging reinvestment in, or maintenance of, the Redevelopment Area and the areas that surround it. In its current condition, the entire Redevelopment Area is comprised of seventeen independent parcels currently assessed at \$914,130.⁵ However, after rehabilitation, the Redevelopment Area will generate significant increases in assessed values resulting in the receipt of increased property taxes in the long-term in addition to an increase in activity that will generate additional sales tax revenue and redevelopment within and near the Redevelopment Area. For example Pacific South Project Area (the first phase of development planned for the Redevelopment Area) is alone estimated to have an assessed value of \$2,983,950 when complete.⁶ The increase in assessed valuation for the Pacific South Project Area alone is estimated to generate an estimated \$1,218,457⁷ in additional property tax revenue to the taxing jurisdictions over the course of the full 25-year Redevelopment Plan period. Thus, the Redevelopment Area's present physical condition and underutilization preventing the development of the Redevelopment Area diminishes its potential to generate property tax revenues for the City up to its full potential. Without the comprehensive redevelopment of the Redevelopment Area, its physical condition will continue to deteriorate and its economic efficiency will suffer. Further, due to the current state of the Redevelopment Area, substantial capital investment will be required to remove the blight and

³ See Blight Reports referenced in Exhibit G. In addition to the Blight Reports, the City's Building Services Department has had multiple communications with representatives of the Developer in regards to scheduling existing buildings in the Redevelopment Area for demolition.

⁴ The City's building services department has sought to schedule demolition of existing structures within the Redevelopment Area.

⁵ See Greene County Assessor's Office Information parcel information.

⁶ See Greene County Assessor parcel information and Tax Impact Analysis contained in Exhibit F of the Redevelopment Plan.

⁷ *Id.*

redevelop the area so it can be utilized for its highest and best uses, serving as a mixture of residential and commercial development. Without approval by the City of an economic development incentive program, it is unlikely that a developer will invest in the Redevelopment Area due to the prohibitive costs associated with the redevelopment.

VII. Conclusion

As discussed in this Report and demonstrated in the attached Blight Reports, the Redevelopment Area, by reason of its insanitary or unsafe conditions, deterioration of site improvements, or the existence of conditions which endanger life or property by fire and other causes, and because of the aforementioned conditions, the Redevelopment Area has become an economic and social liability, which is a menace to the public health, safety, or welfare in its present condition. The Redevelopment Area qualifies as a “blighted area” as defined in section 353.020(2) of the Missouri Revised Statutes. Accordingly, the City of Springfield should determine that Redevelopment Area is blighted.

Redevelopment Plan

I. Introduction

Commercial-Pacific Street Redevelopment Corporation (the “**Developer**”) has prepared the following plan (the “**Redevelopment Plan**”) for redevelopment projects within the Redevelopment Area (as hereafter defined). These redevelopment projects will be developed in multiple phases, the first of which, the Pacific South Project, is described in detail within this Redevelopment Plan. Subsequent phases will be activated through future amendments to this Redevelopment Plan or separate redevelopment plans, both of which shall be accompanied by redevelopment agreements and be subject to City Council approval.

The current project is the redevelopment of 1630 N. Jefferson Avenue and 1635 N. Benton Avenue, adjacent parcels, both located in Springfield, Missouri, into a seventy-two (72) unit residential housing development (the “**Pacific South Project**”). This project is described in further detail throughout this Redevelopment Plan

Other projects that will be developed in the future and after the Pacific South Project has begun (the “**Future Phases**”) are generally described as follows:

- **540 E. Commercial** – This phase will involve construction of a new mixed-use building featuring retail/restaurant/office space and ADA-compliant residential apartment units on the 1st floor and residential apartment units on the upper floors. The apartment units will be market rate, and consist of a mixture of 1- and 2 bedroom units. Limited on-site secure parking will be provided in the area immediately south of the building. This phase is estimated to begin in Summer 2024.
- **Missouri Hotel (and adjacent Commercial Street buildings)** – This phase will involve renovation and rehabilitation of the historic Missouri Hotel building into a boutique hotel including guest rooms, restaurant and bar, spa, and other common amenities. Adjacent buildings along Commercial Street will feature restaurant/retail/office spaces and various hotel accessory uses. It must be noted that because the Missouri Hotel will likely involve Historic Tax Credits and historic renovation requirements, the Missouri Hotel project and adjacent buildings may be separated into their own distinct phases. This phase is estimated to begin in Fall 2024, but could be impacted by the timing of historic tax credit approval and requirements that are related.
- **Pacific North** – This phase will be new construction and consist of 200+ residential apartments, some ground-floor office/retail space, and various uses ancillary to the Missouri Hotel and Pacific North properties (see Figure A-2 for reference to locations), including on-site secure parking (surface or garage) and common area amenities such as pool, fitness facilities, etc. This phase is estimated to begin in Summer 2025.

This Redevelopment Plan calls for a 25-year abatement period, the first ten (10) years providing 100% real property tax abatement, subject to applicable PILOTS being assessed, and the remaining fifteen (15) years providing 50% real property tax abatement for the Pacific South Project. All Future Phases within the Redevelopment Area will be subject to satisfying the “but

for” analysis required under Chapter 353. The Pacific South Project satisfies the “but for” analysis and requests the full real property tax abatement.

II. Description of the Project

A. Boundaries of the Redevelopment Area

The Commercial Pacific Street Redevelopment Area (“**Redevelopment Area**”) consists of approximately 6.4 acres of land. A map identifying the Redevelopment Area is attached hereto as Exhibit A (see Figures A1-A3) and the Redevelopment Area is legally described on Exhibit C attached hereto.

B. Reserved

C. Boundaries of the Pacific South Project Area

The Pacific South Project Area contains two (2) parcels of land, which will be replatted into one parcel, but are commonly described as 1630 N. Jefferson Avenue and 1635 N. Benton Avenue both in Springfield, Missouri. The Pacific South Project Area consists of approximately 2.3162 acres of land. A map identifying the Pacific South Project Area is attached hereto as Exhibit A and is legally described on Exhibit B attached hereto.

D. Need for Redevelopment

The Developer is currently seeking a blight designation for the Redevelopment Area concurrently with the submission of this Redevelopment Plan. The prosecution of this Redevelopment Plan will eliminate the blighted conditions described in the Blight Reports and briefly discussed here. The Redevelopment Plan will permit projects like the Pacific South Project to develop the necessary utility infrastructure currently lacking to support significant redevelopment. It will also permit the removal of vacant, deteriorated, and dangerous buildings while simultaneously cleaning the Redevelopment Area more generally of broken concrete, glass, overgrowth, trash, etc. The economic and social liability of the Redevelopment Area caused by the significant deterioration of physical conditions, lack of development, and reduced commercial and residential traffic will be replaced with high quality and attractive mixed-use projects. The Redevelopment Area is a prime opportunity to create a desirable living environment for residents and promoting increased traffic and economic opportunities within the iconic Commercial Street Corridor while increasing the taxable revenues to the City of Springfield

E. Redevelopment Plan Objectives and Strategies

1. Goals of the Springfield – Forward SGF Comprehensive Plan.

The Redevelopment Area is located within the Commercial Street corridor planning area (as defined by the City of Springfield’s Commercial Street Plan (the “**CSP**”), which is a component of the Forward SGF Comprehensive Plan (the “**Comprehensive Plan**”). The CSP is a long-term guide for the continued revitalization of one of Springfield’s most iconic historic districts (“**Commercial Street Corridor**”).⁸ One of the goals of the CSP is “to guide the growth of, and

⁸ See Forward SGF Comprehensive Plan, Commercial Street, pg. 232.

investment into, a thriving mixed-use district.”⁹ Commercial Street includes some of the oldest parts of the Springfield community and, as demonstrated by the current condition of the Redevelopment Area, it suffers from problems commonly resulting from physical deterioration and economic obsolescence.¹⁰

The Comprehensive Plan was adopted in 2022 by the City and establishes future “placetypes” to guide the recommended development of specific areas throughout the City. The Comprehensive Plan indicates that the Redevelopment Area and surrounding property is an appropriate area for mixed use design which includes higher density housing and commercial development.¹¹ The Comprehensive Plan also identifies the Commercial Street corridor as an Activity Center.¹² Activity Centers are “a dense area with significant pedestrian and vehicle traffic area that serves as an anchor, attracting people for shopping, employment, school, recreation, and socialization.”¹³ The Comprehensive Plan states that areas within the Mixed Use placetype “function as activity centers that provide a mix of residential, shopping, services, office, entertainment, and dining options. These centers can also host small to moderate sized manufacturing, maker spaces, artisan shops, galleries, and music venues that contribute to innovation or themed entertainment districts.”¹⁴

Within the City’s planning process, feedback from the community was very important. Specifically in the CSP, the community expressed as its primary desire to “redevelop and repurpose vacant lots and buildings.”¹⁵ Additionally, the community expressed a desire to add commercial opportunities and improve the conditions of the local neighborhoods. This Redevelopment Plan directly supports the desires of the local community in addition to conforming to the CSP. The CSP identifies specific priorities and goals and priorities this Redevelopment Plan supports, including but not limited to:

- Bring more residents to the Street and its surroundings;
 - **Reactivate the Missouri Hotel and the surrounding block of properties.**
 - Convert underutilized buildings in the district to residences, where appropriate, maintaining core retail/commercial uses on ground floors of the Commercial Street Historic District;
 - Develop new housing on vacant lots in and surrounding the district, where appropriate, maintaining core retail/commercial uses on ground floors of the Commercial Street Historic District;
- Bring additional workers to the Street and its surroundings;
 - Utilize ground floors, where appropriate, for office use;
- Maintain inventory of all vacant buildings and lots within the district;
- Identify new ways to encourage redevelopment of vacant parcels;
- Complete streetscape enhancements throughout the district, including extensions to the east and west, and along north-south corridors connecting to Commercial Street;

⁹ See Forward SGF Comprehensive Plan, Commercial Street, pg. 239.

¹⁰ See Forward SGF Comprehensive Plan, Commercial Street, pg. 238.

¹¹ See Forward SGF Comprehensive Plan, pgs. 35, 44-45, 68, and 69.

¹² See Forward SGF Comprehensive Plan,, pgs. 44. 69, and 95. See also, Commercial Street, Chapter 14, pg. 242.

¹³ See Forward SGF Comprehensive Plan, pg. 260.

¹⁴ See Forward SGF Comprehensive Plan, pg. 44

¹⁵ See Forward SGF Comprehensive Plan, Commercial Street, pg. 237.

- Identify underutilized sites appropriate or temporary tactical activations to enliven the space; and
- Improve physical connectivity and access to and from Commercial Street district.

The importance of the Commercial Street Corridor as emphasized by the goals above is to provide additional residential traffic that will benefit the Commercial Street Corridor and create a likelihood that such increased traffic will in turn mutually benefit nearby areas like the Boonville Avenue Corridor and the Greater Downtown District.

2. Redevelopment Plan Objectives and Conformance with the Goals of the Springfield - Greene County Comprehensive Plan.

The implementation of this Redevelopment Plan will transform the Redevelopment Area into an attractive location for tenants to reside. This will also help to create additional interest and activity in the Commercial Street corridor and more specifically serve as a high quality project that brings economic vitality and visual charm to the area along the frontage of E. Commercial Street between N. Benton Avenue and N. Washington Avenue. The CSP identifies “creating more residents,” harnessing the “power of the in-place workforce as a market for Commercial Street businesses and events,” and providing an “opportunity to serve residents within the in-place markets” as primary conclusions of the CSP. The Project conforms to and promotes the ideals of the CSP by providing “more residents directly along the corridor [that] will further activate the district” and bring “spending power to support businesses and services.”¹⁶

Moreover, the Redevelopment Plan will allow for additional commercial development and housing within the Commercial Street Activity Center and will provide for medium to higher density housing as called for by the Comprehensive Plan. Additionally, the rehabilitation of the Redevelopment Area will increase the taxable revenues to the City, while placing a greater portion of Commercial Street in congruence with the visions of the Comprehensive Plan and CSP discussed above.

III. Redevelopment Plan Requirements

A. Overview

The Redevelopment Plan provides for a residential use with additional commercial space. The projects contemplated within this plan are being designed to be complimentary to the style and aesthetic of the Commercial Street corridor. It is expected that the Redevelopment Plan will in-turn encourage and foster private investment in the surrounding areas. In addition, the safety of the Redevelopment Area (both real and perceived) will improve due to the increase in activity and investment.

The intent of this Redevelopment Plan is to encourage needed and desired residential and commercial redevelopment through partial real property tax abatement. The existing zoning classifications for the Redevelopment Area are a mix of COM-1, Commercial Street District; CC, Center City District; and Planned Development District No. 386. There are two (2) parcels in the Pacific South Project Area that will be consolidated into one site parcel for development.

¹⁶ See Forward SGF Comprehensive Plan, Commercial Street, Chapter 14 of pg. 236.

B. *General Maintenance Guidelines*

All structures, equipment, paved areas, and landscaped areas shall be maintained in a good and safe condition both inside and outside, structurally and otherwise in accordance with all applicable codes and ordinances.

C. *Design Guidelines*

All projects subject to this Redevelopment Plan should utilize good quality materials and be designed to complement existing development adjacent to the Pacific-Commercial street area, encourage pedestrian activity, and contribute to a harmonious streetscape. All sides of buildings visible to the public, whether viewed from a nearby property or a roadway, shall display a similar level of quality and architectural finish.

To the extent that any project is located within the Commercial Street Local Historic District those projects will be required to comply with all such existing legal requirements of the Historic District.

D. *Land Use Plan*

1. *Former and Existing Land Use*

There are multiple structures in the Redevelopment Area. These structures are currently vacant (except for minimal storage use), but were previously utilized for various commercial and residential purposes. The remainder of the Redevelopment Area is vacant and unimproved.

2. *Proposed Land Use*

Pacific South Project

The Pacific South Project involves the development of seventy-two (72) townhome style apartment units across six (6) buildings. Thirty (30) 1-bedroom/1-bath units; Thirty (30) 2-bedroom/2-bath units; Six (6) Studio units; and Six (6) 3-bedroom/2-bath units, all with garages. The units will accommodate approximately 114 residents. All but two (2) units will have an associated garage space with an additional twenty (20) parking spaces on the street. The structures currently located at 1630 N. Jefferson Avenue and 1635 N. Benton Avenue will be demolished.

The Pacific South Project intends to incorporate laundry into the units and provide a recreation room for tenants. Storage units will be an additional amenity for tenants residing in units with garage parking. A dog park/picnic area will also be incorporated.

The Pacific South Project intends to incorporate parking on-site as part of the Project design and provide approximately 70 garage and 20 on-street parking spaces. Plans and specifications of the Pacific South Project are provided for further reference in Exhibit G attached hereto. The Pacific South Project will be developed in accordance with PD 386 and such language is attached as Exhibit I and incorporated herein.

Remainder of Redevelopment Area.

It is anticipated that multiple additional projects (referred to herein as Future Phases) will be presented and phased in at a future date for other locations within the Redevelopment Area. These Future Phases will be designed and required to conform with the requirements of the Redevelopment Plan and satisfy the highest/best use for the area of a mix of residential and commercial uses. Future Phases proposed shall satisfy all zoning, design, and parking ordinances and regulations required by the City, as well as conform with the City's Comprehensive Plan and Economic Development incentives policies and the legal requirements of the Commercial Street Historic District (as applicable).

While the Developer can provide general descriptions of the Future Phases intended for development (see above) and the estimated timelines for these phases, the development of the remainder of the Redevelopment Area necessarily remains conceptual in nature. The development of the Future Phases will mutually support and benefit the entire Redevelopment Area and the iconic Commercial Street Corridor. The Developer and the City have the same mutual interest in ensuring the entire Redevelopment Area is redeveloped over a reasonable period of time and is transformed into a thriving mix of residential and commercial uses in accordance with the City's goals and economic initiatives.

Note: Activation of Future Phases shall be subject to future amendments to this Redevelopment Plan or separate redevelopment plans. Once approved, real property tax abatement will be triggered upon acquisition by the Redevelopment Corporation pursuant to a redevelopment agreement between the Redevelopment Corporation and the City.

E. Existing and Proposed Zoning

The Redevelopment Area is zoned a mix of COM-1, Commercial Street District; CC, Center City District; and Planned Development District No. 386. No rezoning is anticipated to be required, however all projects shall be required to meet applicable zoning ordinances.

The parcels forming the Pacific South Project Area are currently zoned Planned Development District No. 386. No rezoning will be required for the Pacific South Project Area.

F. Regulations and Controls

Redevelopment of the Redevelopment Area shall be subject to all applicable Springfield, Missouri Codes and Ordinances.

IV. Execution of the Project

A. Execution

The Developer or its successors in interest will be responsible for executing the redevelopment of the Redevelopment Area in accordance with the Redevelopment Plan.

B. *Land Acquisition*

Related party entities currently own and control all the parcels included in the Redevelopment Area. The Developer will take title to the land and improvements in the Redevelopment Area all in accordance with land ownership and transfer requirements of Chapter 353. The Developer does not plan to acquire any additional land for the completion of Projects in the Redevelopment Area. Eminent domain will not be utilized in the execution of this Redevelopment Plan.

C. *Financing*

Please refer to *Source and Use of Funds* as contained in Exhibit F of the Redevelopment Plan.

D. *Disposition of Property*

No property is proposed to be disposed of within the Redevelopment Area.

E. *Plan for Relocation Assistance*

The existing buildings are currently vacant and as such, there is no need for relocation assistance.

F. *Redevelopment Schedule and Estimated Dates of Completion Redevelopment*

The Developer estimates that the Project will be completed in accordance with the following schedule:

- Project Schedule

Pacific South Project

- ☐ Pre-Construction (Inspections/Permits): Spring 2024
- ☐ Site Work (Demolition): Spring 2024
- ☐ Construction of Building: Completed by Fall 2025

V. Other Provisions

A. *Compliance with State and Local Law*

All redevelopment activities shall comply with the Springfield Zoning Ordinance and all other applicable state and local laws.

B. *Population Density*

The Pacific South Project will consist of seventy-two (72) units on a 2.3162 acre site. Population densities, land coverage, and building intensities within the Redevelopment Area are projected to increase after redevelopment and will be regulated according to the City's Zoning Ordinance.

C. *Public Facilities*

The Redevelopment Plan is not anticipated to require any additional schools, parks, recreational and community facilities, or other public facilities. Additional water, sewerage, other public utilities, or sidewalks upgrades and/or relocations will be necessary. The cost of such improvements will be borne by the Property Owner who is implementing the development, but may also be offset by any approved incentives or taxing districts. Projects that require the installation of new utility lines such lines should be located underground. Projects developed will have access to private off-street parking as well as public on-street and off-street parking and will meet the statutory parking requirements per City ordinances and approved design standards.

D. *TIF*

As of the date of this Redevelopment Plan, certain properties inside the Redevelopment Area are also located inside the Commercial Street Tax Increment Financing Redevelopment Area (the “**Commercial Street TIF**”). Such properties shall not be authorized to receive real property tax abatement pursuant to Chapter 353, RSMo, this Redevelopment Plan, or any subsequent amendments thereto or related redevelopment plans unless the Commercial Street TIF has been duly amended to exclude such properties located therein. Under no circumstances may property located inside the Redevelopment Area be authorized to receive real property tax abatement so long as it is located inside the Commercial Street TIF.

E. *Additional Incentives/Taxing Districts*

Projects under this Redevelopment Plan may utilize additional incentives or taxing districts established and/or approved, including but not limited to CIDs, TDDs, and/or Chapter 100, to support the development of the projects so long as additional incentives and/or taxing districts satisfy all statutory requirements and do not interfere with the satisfactory administration of the tax abatement provided under Chapter 353 and approved under this Redevelopment Plan, or the administration of the Commercial Street TIF unless the TIF has been amended accordingly. This paragraph is not intended to provide a guarantee of approval for any such utilization but is meant to allow for the possibility of additional incentive utilization if the Developer chooses to apply for such programs.

EXHIBIT A

[MAP OF REDEVELOPMENT AREA ATTACHED]

- | | |
|--------------------------------------|-----------------------|
| 1. Redevelopment Area (Parcel Map) | Figures A-1 |
| 2. Redevelopment Area (Google Earth) | Figure A-2 |
| 3. Pacific South Project Area Figure | Figure A-3 through A5 |

Figure A-1: Map of Commercial-Pacific Redevelopment Area (Greene County Assessor Parcel Map)



Figure A-2: Map of Commercial-Pacific Redevelopment Area (Google Earth – individual project sites identified)

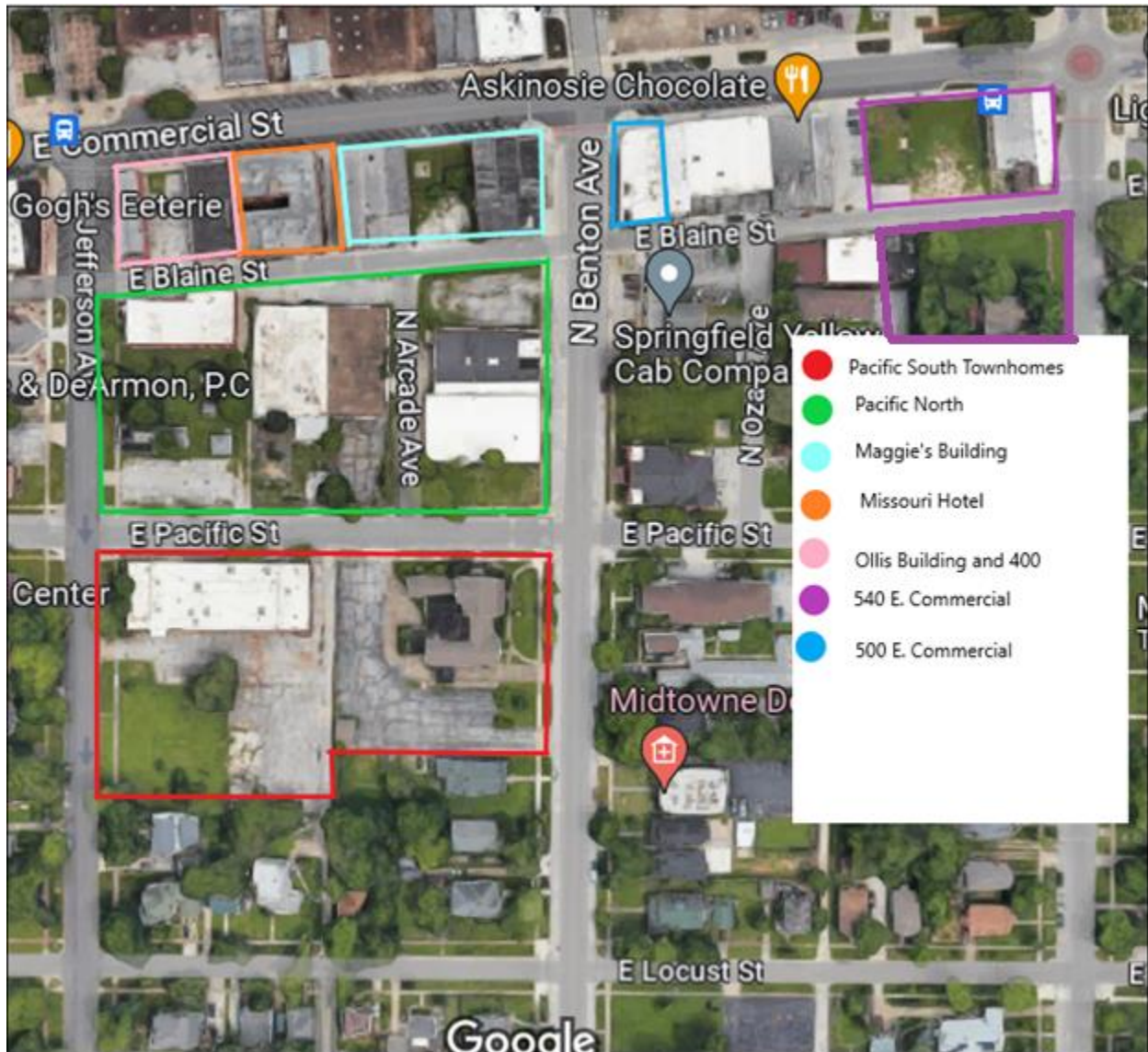


Figure A-3: 1630 N. Jefferson Ave.

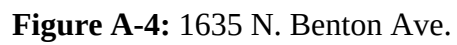


Figure A-5: Consolidated Property View (Both parcels – see black outlined area. View from South.)

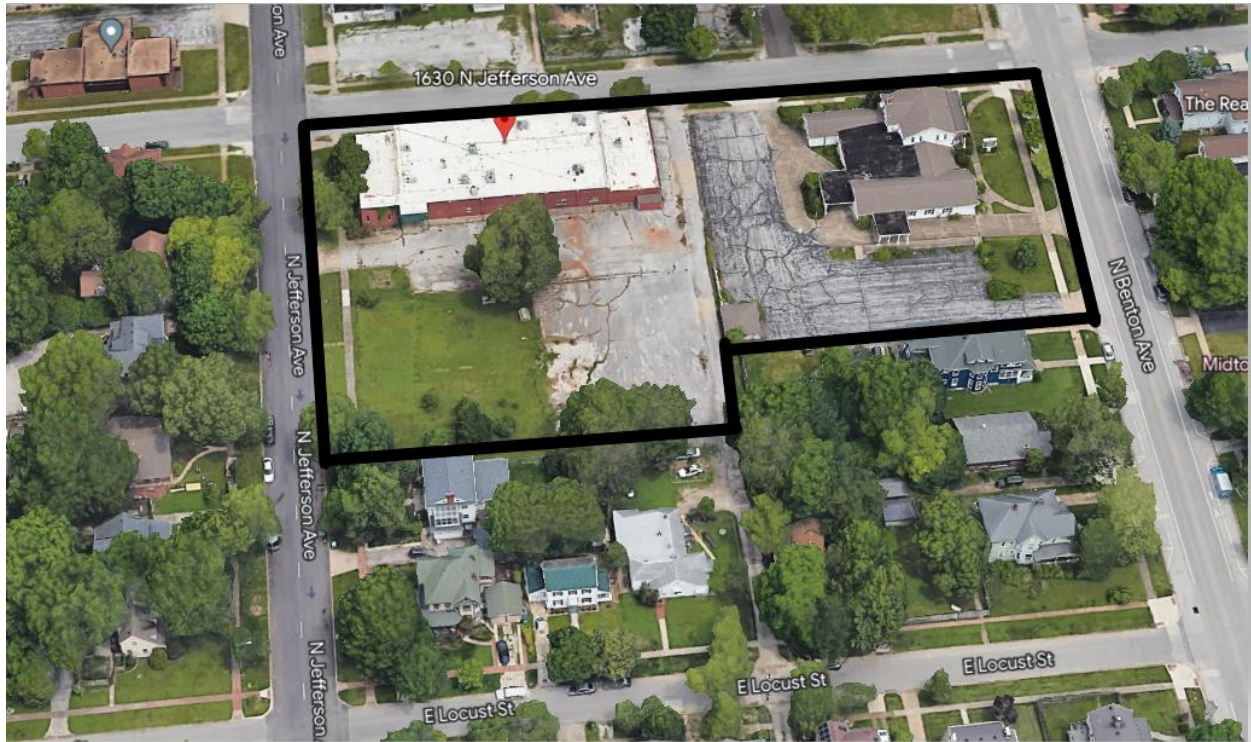


EXHIBIT B

LEGAL DESCRIPTION COMMERCIAL-PACIFIC STREET REDEVELOPMENT AREA

REDEVELOPMENT AREA BOUNDARY DESCRIPTION MISSOURI HOTEL, PACIFIC NORTH AND SOUTH - Tract 1

A TRACT OF LAND LYING IN THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 29 NORTH, RANGE 22 WEST IN THE CITY OF SPRINGFIELD, GREENE COUNTY, MISSOURI AND SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 11, BLOCK 28 OF THE PLAT OF NORTH SPRINGFIELD, SAID POINT LYING ON THE SOUTH RIGHT-OF-WAY OF COMMERCIAL STREET, THENCE ALONG SAID RIGHT-OF-WAY NORTH 85°21'04" EAST, 549.17 FEET TO THE NORTHEAST CORNER OF LOT 13, BLOCK 27 OF THE PLAT OF NORTH SPRINGFIELD; THENCE LEAVING SAID RIGHT-OF-WAY SOUTH 02°37'12" EAST, 100.20 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY OF BLAINE STREET; THENCE ALONG SAID RIGHT-OF-WAY EXTENDED SOUTH 85°15'44" WEST, 128.44 FEET TO THE SOUTHEAST CORNER OF LOT 27, BLOCK 28 OF THE PLAT OF NORTH SPRINGFIELD, SAID POINT BEING AT THE NORTHWEST CORNER OF BLAINE STREET AND BENTON AVENUE; THENCE LEAVING THE NORTH RIGHT-OF-WAY OF BLAINE STREET AND ALONG THE WEST RIGHT-OF-WAY OF BENTON AVENUE SOUTH 01°50'51" WEST, 344.74 FEET TO THE NORTHEAST CORNER OF LOT 1, BLOCK 18 OF THE PLAT OF NORTH SPRINGFIELD, SAID POINT BEING THE SOUTHWEST CORNER OF BENTON AVENUE AND PACIFIC STREET; THENCE CONTINUING ALONG THE WEST RIGHT-OF-WAY OF BENTON AVENUE SOUTH 01°06'58" WEST, 198.73 FEET TO THE SOUTHEAST CORNER OF LOT 3, BLOCK 18 OF THE PLAT OF NORTH SPRINGFIELD; THENCE LEAVING SAID RIGHT-OF-WAY AND ALONG THE SOUTH LINE OF SAID LOT 3 NORTH 89°18'51" WEST, 227.64 FEET TO THE NORTHEAST CORNER OF LOT 9 OF BLOCK 18 OF THE PLAT OF NORTH SPRINGFIELD; THENCE ALONG THE EAST LINE OF SAID LOT 9 SOUTH 01°09'18" WEST, 66.00 FEET TO THE SOUTHEAST CORNER OF SAID LOT 9; THENCE ALONG THE SOUTH LINE OF SAID LOT 9 NORTH 89°18'51" WEST, 211.17 FEET TO THE SOUTHWEST CORNER OF SAID LOT 9, SAID POINT LYING ON THE EAST RIGHT-OF-WAY OF JEFFERSON AVENUE; THENCE ALONG SAID RIGHT-OF-WAY NORTH 01°11'35" EAST, 264.95 FEET TO THE NORTHWEST CORNER OF LOT 12, BLOCK 18 OF THE PLAT OF NORTH SPRINGFIELD, SAID POINT BEING ON THE SOUTHEAST CORNER OF JEFFERSON AVENUE AND PACIFIC STREET; THENCE CONTINUING ALONG THE EAST RIGHT-OF-WAY OF JEFFERSON AVENUE NORTH 02°05'05" EAST, 60.02 FEET TO THE SOUTHWEST CORNER OF LOT 1, BLOCK 28 OF THE PLAT OF NORTH SPRINGFIELD, SAID POINT BEING AT THE NORTHEAST CORNER OF JEFFERSON AVENUE AND PACIFIC STREET; THENCE CONTINUING ALONG THE EAST RIGHT-OF-WAY OF JEFFERSON AVENUE NORTH 00°24'26" EAST, 211.17

FEET; THENCE LEAVING SAID RIGHT-OF-WAY NORTH 85°59'44" EAST, 32.89 FEET; THENCE NORTH 04°42'21" WEST, 132.30 FEET TO THE POINT OF BEGINNING. ALL LYING IN THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 29 NORTH, RANGE 22 WEST IN THE CITY OF SPRINGFIELD, GREENE COUNTY, MISSOURI. CONTAINING 297,834 SQUARE FEET OR 6.84 ACRES, MORE OR LESS. BEARINGS BASED ON GRID NORTH OF THE MISSOURI COORDINATE SYSTEM OF 1983, CENTRAL ZONE.

REDEVELOPMENT AREA BOUNDARY DESCRIPTION 540 EAST COMMERCIAL – Tract 2

A TRACT OF LAND LYING IN THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 29 NORTH, RANGE 22 WEST IN THE CITY OF SPRINGFIELD, GREENE COUNTY, MISSOURI AND SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF LOT 31, BLOCK 27 OF THE PLAT OF NORTH SPRINGFIELD, SAID POINT BEING ON THE SOUTHWEST CORNER OF COMMERCIAL STREET AND WASHINGTON AVENUE, THENCE ALONG THE WEST RIGHT-OF-WAY OF WASHINGTON AVENUE SOUTH 01°38'34" WEST, 206.51 FEET TO THE SOUTHEAST CORNER OF LOT 34, BLOCK 27 OF THE PLAT OF NORTH SPRINGFIELD; THENCE LEAVING SAID RIGHT-OF-WAY AND ALONG THE SOUTH LINE OF SAID LOT 34 NORTH 89°09'20" WEST, 122.51 FEET TO THE SOUTHWEST CORNER OF SAID LOT 34, SAID POINT BEING ON THE EAST RIGHT-OF-WAY OF A PLATTED ALLEY; THENCE ALONG SAID RIGHT-OF-WAY EXTENDED NORTH 01°38'34" EAST, 94.40 FEET TO A POINT ON THE SOUTH LINE LOT 25, BLOCK 27 OF THE PLAT OF NORTH SPRINGFIELD, SAID POINT BEING ON THE NORTH RIGHT-OF-WAY OF BLAINE STREET; THENCE ALONG SAID RIGHT-OF-WAY SOUTH 85°15'44" WEST, 21.66 FEET TO THE SOUTHWEST CORNER OF SAID LOT 25; THENCE LEAVING SAID RIGHT-OF-WAY AND ALONG THE WEST LINE OF SAID LOT 25 NORTH 03°28'48" WEST, 99.76 FEET TO THE NORTHWEST CORNER OF SAID LOT 25, SAID POINT BEING ON THE SOUTH RIGHT-OF-WAY OF COMMERCIAL STREET; THENCE LEAVING SAID WEST LINE AND ALONG SAID RIGHT-OF-WAY NORTH 85°21'04" EAST, 153.86 FEET TO THE POINT OF BEGINNING. ALL LYING IN THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 29 NORTH, RANGE 22 WEST IN THE CITY OF SPRINGFIELD, GREENE COUNTY, MISSOURI. CONTAINING 27,182 SQUARE FEET OR 0.624 ACRES, MORE OR LESS. BEARINGS BASED ON GRID NORTH OF THE MISSOURI COORDINATE SYSTEM OF 1983, CENTRAL ZONE.

EXHIBIT C

Pacific South Project Area is legally described as follows:

PART OF BLOCK 18 IN THE ORIGINAL TOWN OF NORTH SPRINGFIELD, NOW IN THE CITY OF SPRINGFIELD, GREENE COUNTY, MISSOURI, BEING ALL OF LOTS 1, 2, 3, 10, 11, AND 12 INCLUDING THE VACATED ALLEY BETWEEN SAID LOTS, ALSO ALL OF LOT 9, ALL BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID BLOCK 18 BEING THE NORTHWEST CORNER OF SAID LOT 12; THENCE SOUTH 89°17'12" EAST ALONG THE NORTH LINE OF SAID BLOCK 18, 438.50 FEET TO THE NORTHEAST CORNER OF SAID BLOCK 18 AND THE NORTHEAST CORNER OF SAID LOT 1; THENCE SOUTH 01°06'58" WEST ALONG THE EAST LINE OF SAID BLOCK 18, 198.73 FEET TO THE SOUTHEAST CORNER OF SAID LOT 3; THENCE NORTH 89°18'51" WEST ALONG THE SOUTH LINE OF SAID LOT 3 AND ITS EXTENSION, 227.64 FEET TO THE NORTHEAST CORNER OF SAID LOT 9; THENCE SOUTH 01°09'18" WEST, 66.00 FEET TO THE SOUTHEAST CORNER OF SAID LOT 9; THENCE NORTH 89°18'51" WEST, 211.17 FEET TO THE SOUTHWEST CORNER OF SAID LOT 9; THENCE NORTH 01°11'35" EAST ALONG THE WEST LINE OF SAID BLOCK 18, 264.95 FEET TO THE POINT OF BEGINNING.

EXHIBIT D

APPRAISAL

[PROVIDED UNDER SEPARATE COVER]

1. Appraisal Report of Pacific South, Project No. 23-049, prepared by Advisor Appraisal Service, LLC and dated April 4, 2023

EXHIBIT E

CHAPTER 353 QUALIFICATION STUDIES (BLIGHT REPORTS)

[PROVIDED UNDER SEPARATE COVER]

1. Pacific South Redevelopment Area Chapter 353 Qualifications Study, dated June 14, 2023 and prepared by PGAV Planners, LLC
2. 540 E. Commercial Redevelopment Area Chapter 353 Qualifications Study, dated June 14, 2023 and prepared by PGAV Planners, LLC
3. Pacific North Redevelopment Area Chapter 353 Qualifications Study, dated June 14, 2023 and prepared by PGAV Planners, LLC
4. Missouri Hotel Redevelopment Area Chapter 353 Qualifications Study, dated June 14, 2023 and prepared by PGAV Planners, LLC

EXHIBIT F
PACIFIC SOUTH TAX IMPACT ANALYSIS

[please see attached]

Pacific South Project

Tax Impact Analysis

City of Springfield, Missouri
January 19, 2024

Spencer Fane LLP
2144 E. Republic Road, Suite B300
Springfield, MO 65804

Exhibit F-2

SPR 18148992.13

Pacific South Project

2023 Real Estate Assessment & Taxes

(Preliminary Amounts determined per covnersation with Greene County Assessor office)

Current Assessment Ratio			19%
	Appraised*	Assessed	
Land	\$ 529,000	\$ 100,510	
<u>Improvements</u>	15,176,000	\$ 2,883,440	
Total	\$ 15,705,000	\$ 2,983,950	

Jurisdiction	Tax	Levy per \$100
City of Springfield	18,175.24	0.6091
Springfield -- Greene County Library	6,946.64	0.2328
Ozarks Technical College	5,582.97	0.1871
Greene County	3,055.56	0.1024
Road & Bridge	3,058.55	0.1025
State of Missouri	895.19	0.0300
County Developmental Disability	1,336.81	0.0448
Springfield R-12	118,722.42	3.9787
County Seniors' Services	1,408.42	0.0472
Commercial SurTax	-	
	\$ 159,181.80	5.3346

*Per Greene County Assessor's Office

Pacific South Project
Tax Impact Analysis – Assessment Assumptions

Property	2022						Redeveloped E stimate					
	Appraised*			Assessed			Appraised			Assessed		
	Land	Improvements	Total	Land	Improvements	Total	Land	Improvements	Total	Land	Improvements	Total
1630 N. Jefferson Ave.							\$ 529,000	\$ 15,176,000	\$ 15,705,000	\$ 100,510	\$ 2,883,440	\$ 2,983,950
88-13-12-323-014	79,200	265,200	344,400	25,344	84,864	\$ 110,208						
1312323001	93,100	243,500	336,600	29,792	77,920	\$ 107,712	-	-	-	-	-	-
							-	-	-	-	-	-
Totals	\$ 172,300	508,700	681,000	\$ 55,136	162,784	217,920	\$ 529,000	\$ 15,176,000	\$ 15,705,000	\$ 100,510	\$ 2,883,440	\$ 2,983,950
Portion of total value that is land				100%			Redeveloped Value estimates based on appraisal.					
Assessment ratio (commercial)				32%								
Assessment ratio (residential)				19%								

Exhibit F-4

Pacific South Project
Tax Impact Analysis
Projected Tax Revenue without Redevelopment

Biennial Growth Rate Assumption - Real Estate Taxes

-1.00%

Year		Assessed Value (\$)		Real Estate Taxes Paid										
Plan	Calendar	Total Land	Total Imp.	0.6091	0.2328	0.1871	0.1024	0.1025	0.0300	0.0448	3.9787	0.0472	1.0400	6.3746
				City of Springfield	Greene County Library	Ozarks Tech. College	Greene County	Road & Bridge	State of Missouri	Sheltered Workshop	Springfield R-12	County Seniors' Services	Commercial SurTax	Tax Paid
1.0	2025	55,136	162,784	\$ 1,327	\$ 507	\$ 408	\$ 223	\$ 223	\$ 65	\$ 98	\$ 8,670	\$ 103	\$ 2,266	\$ 13,892
2.0	2026	55,136	162,784	1,327	507	408	223	223	65	98	8,670	103	2,266	13,892
3.0	2027	54,585	161,156	1,314	502	404	221	221	65	97	8,584	102	2,244	13,753
4.0	2028	54,585	161,156	1,314	502	404	221	221	65	97	8,584	102	2,244	13,753
5.0	2029	54,039	159,545	1,301	497	400	219	219	64	96	8,498	101	2,221	13,615
6.0	2030	54,039	159,545	1,301	497	400	219	219	64	96	8,498	101	2,221	13,615
7.0	2031	53,498	157,949	1,288	492	396	217	217	63	95	8,413	100	2,199	13,479
8.0	2032	53,498	157,949	1,288	492	396	217	217	63	95	8,413	100	2,199	13,479
9.0	2033	52,963	156,370	1,275	487	392	214	215	63	94	8,329	99	2,177	13,344
10.0	2034	52,963	156,370	1,275	487	392	214	215	63	94	8,329	99	2,177	13,344
11.0	2035	52,434	154,806	1,262	482	388	212	212	62	93	8,245	98	2,155	13,211
12.0	2036	52,434	154,806	1,262	482	388	212	212	62	93	8,245	98	2,155	13,211
13.0	2037	51,909	153,258	1,250	478	384	210	210	62	92	8,163	97	2,134	13,079
14.0	2038	51,909	153,258	1,250	478	384	210	210	62	92	8,163	97	2,134	13,079
15.0	2039	51,390	151,725	1,237	473	380	208	208	61	91	8,081	96	2,112	12,948
16.0	2040	51,390	151,725	1,237	473	380	208	208	61	91	8,081	96	2,112	12,948
17.0	2041	50,876	150,208	1,225	468	376	206	206	60	90	8,001	95	2,091	12,818
18.0	2042	50,876	150,208	1,225	468	376	206	206	60	90	8,001	95	2,091	12,818
19.0	2043	50,368	148,706	1,213	463	372	204	204	60	89	7,921	94	2,070	12,690
20.0	2044	50,368	148,706	1,213	463	372	204	204	60	89	7,921	94	2,070	12,690
21.0	2045	49,864	147,219	1,200	459	369	202	202	59	88	7,841	93	2,050	12,563
22.0	2046	49,864	147,219	1,200	459	369	202	202	59	88	7,841	93	2,050	12,563
23.0	2047	49,365	145,747	1,188	454	365	200	200	59	87	7,763	92	2,029	12,438
24.0	2048	49,365	145,747	1,188	454	365	200	200	59	87	7,763	92	2,029	12,438
25.0	2049	48,872	144,289	1,177	450	361	198	198	58	87	7,685	91	2,009	12,313
TOTAL				\$ 31,338	\$ 11,977	\$ 9,626	\$ 5,268	\$ 5,274	\$ 1,543	\$ 2,305	\$ 204,703	\$ 2,428	\$ 53,508	\$ 327,971

Pacific South Project
Tax Impact Analysis
Projected Taxes with Renovation but without Abatement

Biennial Growth Rate Assumption - Real Estate Taxes 2.00%

				Real Estate Taxes Paid											
Year		Assessed Value (\$)		0.6091	0.2328	0.1871	0.1024	0.1025	0.0300	0.0448	3.9787	0.0472	-	5.3346	
Plan	Calendar	Total Land	Total Imp.	City of Springfield	Greene County Library	Ozarks Tech. College	Greene County	Road & Bridge	State of Missouri	Sheltered Workshop	Springfield R-12	County Seniors' Services	Commercial SurTax	Tax Paid	
1.0	2025	100,510	2,883,440	\$ 18,175	\$ 6,947	\$ 5,583	\$ 3,056	\$ 3,059	\$ 895	\$ 1,337	\$ 118,722	\$ 1,408	\$ -	\$ 159,182	
2.0	2026	100,510	2,883,440	18,175	6,947	5,583	3,056	3,059	895	1,337	118,722	1,408	-	159,182	
3.0	2027	102,520	2,941,109	18,539	7,086	5,695	3,117	3,120	913	1,364	121,097	1,437	-	162,365	
4.0	2028	102,520	2,941,109	18,539	7,086	5,695	3,117	3,120	913	1,364	121,097	1,437	-	162,365	
5.0	2029	104,571	2,999,931	18,910	7,227	5,809	3,179	3,182	931	1,391	123,519	1,465	-	165,613	
6.0	2030	104,571	2,999,931	18,910	7,227	5,809	3,179	3,182	931	1,391	123,519	1,465	-	165,613	
7.0	2031	106,662	3,059,930	19,288	7,372	5,925	3,243	3,246	950	1,419	125,989	1,495	-	168,925	
8.0	2032	106,662	3,059,930	19,288	7,372	5,925	3,243	3,246	950	1,419	125,989	1,495	-	168,925	
9.0	2033	108,795	3,121,128	19,673	7,519	6,043	3,307	3,311	969	1,447	128,509	1,525	-	172,303	
10.0	2034	108,795	3,121,128	19,673	7,519	6,043	3,307	3,311	969	1,447	128,509	1,525	-	172,303	
11.0	2035	110,971	3,183,551	20,067	7,670	6,164	3,374	3,377	988	1,476	131,079	1,555	-	175,750	
12.0	2036	110,971	3,183,551	20,067	7,670	6,164	3,374	3,377	988	1,476	131,079	1,555	-	175,750	
13.0	2037	113,191	3,247,222	20,468	7,823	6,287	3,441	3,444	1,008	1,505	133,701	1,586	-	179,265	
14.0	2038	113,191	3,247,222	20,468	7,823	6,287	3,441	3,444	1,008	1,505	133,701	1,586	-	179,265	
15.0	2039	115,454	3,312,166	20,878	7,980	6,413	3,510	3,513	1,028	1,536	136,375	1,618	-	182,850	
16.0	2040	115,454	3,312,166	20,878	7,980	6,413	3,510	3,513	1,028	1,536	136,375	1,618	-	182,850	
17.0	2041	117,763	3,378,410	21,295	8,139	6,541	3,580	3,584	1,049	1,566	139,102	1,650	-	186,507	
18.0	2042	117,763	3,378,410	21,295	8,139	6,541	3,580	3,584	1,049	1,566	139,102	1,650	-	186,507	
19.0	2043	120,119	3,445,978	21,721	8,302	6,672	3,652	3,655	1,070	1,598	141,884	1,683	-	190,237	
20.0	2044	120,119	3,445,978	21,721	8,302	6,672	3,652	3,655	1,070	1,598	141,884	1,683	-	190,237	
21.0	2045	122,521	3,514,897	22,156	8,468	6,806	3,725	3,728	1,091	1,630	144,722	1,717	-	194,042	
22.0	2046	122,521	3,514,897	22,156	8,468	6,806	3,725	3,728	1,091	1,630	144,722	1,717	-	194,042	
23.0	2047	124,972	3,585,195	22,599	8,637	6,942	3,799	3,803	1,113	1,662	147,616	1,751	-	197,923	
24.0	2048	124,972	3,585,195	22,599	8,637	6,942	3,799	3,803	1,113	1,662	147,616	1,751	-	197,923	
25.0	2049	127,471	3,656,899	23,051	8,810	7,081	3,875	3,879	1,135	1,695	150,569	1,786	-	201,881	
TOTAL				\$ 510,586	\$ 195,148	\$ 156,839	\$ 85,838	\$ 85,922	\$ 25,148	\$ 37,554	\$ 3,335,200	\$ 39,566	\$ -	\$ 4,471,802	

Pacific South Project

Tax Impact Analysis

Projected Tax Impact following proposed Renovation and Abatement

Biennial Growth Rate Assumption - Real Estate Taxes

2.00%

Year		Assessed Value (\$)		Real Estate Taxes Paid										
Plan	Calendar	Total Land	Total Imp.	0.6091	0.2328	0.18/1	0.1024	0.1025	0.0300	0.0448	3.9/8/	0.04/2	1.0400	6.3/46
				City of Springfield	Greene County Library	Ozarks Tech. College	Greene County	Road & Bridge	State of Missouri	County Developmental Disability	Springfield R-12	County Seniors' Services	Commercial SurTax	Tax Paid
1.0	2025	55,136	162,784	\$ 1,327	\$ 507	\$ 408	\$ 223	\$ 223	\$ 66	\$ 98	\$ 8,670	\$ 103	\$ 2,266	\$ 13,892
2.0	2026	55,136	162,784	1,327	507	408	223	223	66	98	8,670	103	2,266	13,892
3.0	2027	55,136	162,784	1,327	507	408	223	223	66	98	8,670	103	2,266	13,892
4.0	2028	55,136	162,784	1,327	507	408	223	223	66	98	8,670	103	2,266	13,892
5.0	2029	55,136	162,784	1,327	507	408	223	223	66	98	8,670	103	2,266	13,892
6.0	2030	55,136	162,784	1,327	507	408	223	223	66	98	8,670	103	2,266	13,892
7.0	2031	55,136	162,784	1,327	507	408	223	223	66	98	8,670	103	2,266	13,892
8.0	2032	55,136	162,784	1,327	507	408	223	223	66	98	8,670	103	2,266	13,892
9.0	2033	55,136	162,784	1,327	507	408	223	223	66	98	8,670	103	2,266	13,892
10.0	2034	55,136	162,784	1,327	507	408	223	223	66	98	8,670	103	2,266	13,892
11.0	2035	110,971	3,183,551	10,033	3,835	3,082	1,687	1,688	494	738	65,540	778	\$ -	87,875
12.0	2036	110,971	3,183,551	10,033	3,835	3,082	1,687	1,688	494	738	65,540	778	\$ -	87,875
13.0	2037	113,190	3,247,222	10,234	3,912	3,144	1,721	1,722	504	753	66,850	793	\$ -	89,632
14.0	2038	113,190	3,247,222	10,234	3,912	3,144	1,721	1,722	504	753	66,850	793	\$ -	89,632
15.0	2039	115,454	3,312,166	10,439	3,990	3,207	1,755	1,757	514	768	68,187	809	\$ -	91,425
16.0	2040	115,454	3,312,166	10,439	3,990	3,207	1,755	1,757	514	768	68,187	809	\$ -	91,425
17.0	2041	117,763	3,378,410	10,648	4,070	3,271	1,790	1,792	524	783	69,551	825	\$ -	93,253
18.0	2042	117,763	3,378,410	10,648	4,070	3,271	1,790	1,792	524	783	69,551	825	\$ -	93,253
19.0	2043	120,119	3,445,978	10,861	4,151	3,336	1,826	1,828	535	799	70,942	842	\$ -	95,118
20.0	2044	120,119	3,445,978	10,861	4,151	3,336	1,826	1,828	535	799	70,942	842	\$ -	95,118
21.0	2045	122,521	3,514,898	11,078	4,234	3,403	1,862	1,864	546	815	72,361	858	\$ -	97,021
22.0	2046	122,521	3,514,898	11,078	4,234	3,403	1,862	1,864	546	815	72,361	858	\$ -	97,021
23.0	2047	124,971	3,585,195	11,299	4,319	3,471	1,900	1,901	557	831	73,808	876	\$ -	98,961
24.0	2048	124,971	3,585,195	11,299	4,319	3,471	1,900	1,901	557	831	73,808	876	\$ -	98,961
25.0	2049	127,471	3,656,899	11,525	4,405	3,540	1,938	1,939	568	848	75,284	893	\$ -	100,941
TOTAL				\$ 173,982	\$ 66,497	\$ 53,443	\$ 29,249	\$ 29,278	\$ 8,569	\$ 12,797	\$ 1,136,468	\$ 13,482	\$ 22,664	\$ 1,546,428
10 Yr. PILOT				\$ 13,274	\$ 5,073	\$ 4,077	\$ 2,232	\$ 2,234	\$ 654	\$ 976	\$ 86,704	\$ 1,029	\$ 22,664	\$ 138,915

Years 1-10 are the PILOT years.

Pacific South Project Redevelopment Area Tax Impact Analysis

Jurisdiction	Tax Revenue			
	Without Redevelopment or Abatement	***With Redevelopment and Abatement	10 Yr. PILOT	Total Impact on Juris.
City of Springfield	\$ 31,338	\$ 173,982	\$ 13,274	\$ 142,644
Greene County Library	11,977	66,497	\$ 5,073	54,519
Ozarks Technical College	9,626	53,443	\$ 4,077	43,817
Greene County	5,268	29,249	\$ 2,232	23,981
Road & Bridge	5,274	29,278	\$ 2,234	24,004
State of Missouri	1,543	8,569	\$ 654	7,026
County Developmental Disability	2,305	12,797	\$ 976	10,492
Springfield R-12	204,703	1,136,468	\$ 86,704	931,765
County Seniors' Services	2,428	13,482	\$ 1,029	11,054
Commercial SurTax	53,508	22,664	22,664	(30,844)
Total	\$ 327,971	\$ 1,546,428	\$ 138,916	\$ 1,218,457

***Includes Taxes and PILOTS

	2025 Projections	2025 w/Abatement	2026 Projections	2026 w/Abatement	2027 Projections	2027 w/Abatement	2028 Projections	2028 w/Abatement
INCOME:								
1 BR/1 BA w/Garage	\$ 504,600.00	\$ 504,600.00	\$ 514,692.00	\$ 514,692.00	\$ 524,985.84	\$ 524,985.84	\$ 535,485.56	\$ 535,485.56
1 BR/1 BA	\$ 15,000.00	\$ 15,000.00	\$ 15,300.00	\$ 15,300.00	\$ 15,606.00	\$ 15,606.00	\$ 15,918.12	\$ 15,918.12
2 BR/2 BA w/Garage	\$ 678,600.00	\$ 678,600.00	\$ 692,172.00	\$ 692,172.00	\$ 706,015.44	\$ 706,015.44	\$ 720,135.75	\$ 720,135.75
2BR/2BA	\$ 19,200.00	\$ 19,200.00	\$ 19,584.00	\$ 19,584.00	\$ 19,975.68	\$ 19,975.68	\$ 20,375.19	\$ 20,375.19
3 BR/2 BA w?Garage	\$ 165,600.00	\$ 165,600.00	\$ 168,912.00	\$ 168,912.00	\$ 172,290.24	\$ 172,290.24	\$ 175,736.04	\$ 175,736.04
Studio-Garage	\$ 82,800.00	\$ 82,800.00	\$ 84,456.00	\$ 84,456.00	\$ 86,145.12	\$ 86,145.12	\$ 87,868.02	\$ 87,868.02
RUBS	\$ 66,528.00	\$ 66,528.00	\$ 67,858.56	\$ 67,858.56	\$ 69,215.73	\$ 69,215.73	\$ 70,600.05	\$ 70,600.05
Fees	\$ 145,530.00	\$ 145,530.00	\$ 148,440.60	\$ 148,440.60	\$ 151,409.41	\$ 151,409.41	\$ 154,437.60	\$ 154,437.60
Gross Income	\$ 1,677,858.00	\$ 1,677,858.00	\$ 1,711,415.16	\$ 1,711,415.16	\$ 1,745,643.46	\$ 1,745,643.46	\$ 1,780,556.33	\$ 1,780,556.33
Bad Rents/Vacancy (5%)	\$ (419,464.50)	\$ (419,464.50)	\$ (171,141.52)	\$ (171,141.52)	\$ (87,282.17)	\$ (87,282.17)	\$ (89,027.82)	\$ (89,027.82)
Adjusted Gross Income	\$ 1,258,393.50	\$ 1,258,393.50	\$ 1,540,273.64	\$ 1,540,273.64	\$ 1,658,361.29	\$ 1,658,361.29	\$ 1,691,528.52	\$ 1,691,528.52
EXPENSES:								
Real Estate Taxes (including PILOTs)	\$ (159,182)	\$ (13,892)	\$ (159,182)	\$ (13,892)	\$ (162,365)	\$ (13,892)	\$ (162,365)	\$ (13,892)
Insurance	(36,000)	(36,000)	(37,080)	(37,080)	(38,192)	(38,192)	(39,338)	(39,338)
Reserves	(36,000)	(36,000)	(37,080)	(37,080)	(38,192)	(38,192)	(39,338)	(39,338)
Utilities	(46,800)	(46,800)	(48,204)	(48,204)	(49,650)	(49,650)	(51,140)	(51,140)
Advertising	(18,000)	(18,000)	(18,540)	(18,540)	(19,096)	(19,096)	(19,669)	(19,669)
Maintenance/Landscape/Trash/Cleaning	(36,000)	(36,000)	(37,080)	(37,080)	(38,192)	(38,192)	(39,338)	(39,338)
Contracted Services	(21,600)	(21,600)	(22,248)	(22,248)	(22,915)	(22,915)	(23,603)	(23,603)
Administrative/General (Admin/Mgmt/Apt Prep&Turnover, etc.)	(102,600)	(102,600)	(105,678)	(105,678)	(108,848)	(108,848)	(112,114)	(112,114)
Payroll	(54,000)	(54,000)	(55,620)	(55,620)	(57,289)	(54,000)	(59,007)	(54,000)
Total Expenses	\$ (510,181.80)	\$ (364,891.53)	\$ (520,711.80)	\$ (373,801.53)	\$ (534,741.33)	\$ (382,978.83)	\$ (545,912.61)	\$ (392,431.45)
Net Operating Income	\$ 748,211.70	\$ 893,501.97	\$ 1,019,561.85	\$ 1,166,472.12	\$ 1,123,619.96	\$ 1,275,382.46	\$ 1,145,615.91	\$ 1,299,097.07
Less Debt Service (Bank)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)
Cash Flow	\$ (321,180.30)	\$ (175,890.03)	\$ (49,830.15)	\$ 97,080.12	\$ 54,227.96	\$ 205,990.46	\$ 76,223.91	\$ 229,705.07
Cash on Cash Return	-8%	-4%	-1%	2%	1%	5%	2%	6%

		Rate	Amort.	Monthly Pmt.	Annual Pmt.	Term
Bank Loan Amount (Term Sheet)	\$14,863,851.00	6.00%	30 years	\$89,116.00	\$1,069,852.00	3 years
Return Analysis follows this Pro Forma	Annual Expense Increase	3.00%				Borrower Equity
	Annual Rent Increase	2.00%				\$4,064,529.00
<u>Absorption Period</u>	Apartment Vacancy Loss	5.00%				
(Year 1) 2025 assumes 75% lease-up reflected in higher vacancy rate	Insurance	5.76%				
(Year 2) 2026 assumes 90% lease-up reflected in higher vacancy rate	Reserves	5.76%				
	Utilities	7.48%				
	Advertising	2.88%				
	Maintenance	5.76%				
	Contracted Services	3.45%				
	Payroll	8.63%				
	Taxes	43.88%				
	Administrative and General	16.40%				
				Expenses as percentage of total expenses w/o abatement		

Expenses as
percentage of
total expenses
w/o abatement

2029 Projections	2029 w/Abatement	2030 Projections	2030 w/Abatement	2031 Projections	2031 w/Abatement	2032 Projections	2032 w/Abatement	2033 Projections	2033 w/Abatement	2034 Projections	2034 w/Abatement
\$ 546,195.27	\$ 546,195.27	\$ 557,119.17	\$ 557,119.17	\$ 568,261.56	\$ 568,261.56	\$ 579,626.79	\$ 579,626.79	\$ 591,219.32	\$ 591,219.32	\$ 603,043.71	\$ 603,043.71
\$ 16,236.48	\$ 16,236.48	\$ 16,561.21	\$ 16,561.21	\$ 16,892.44	\$ 16,892.44	\$ 17,230.29	\$ 17,230.29	\$ 17,574.89	\$ 17,574.89	\$ 17,926.39	\$ 17,926.39
\$ 734,538.46	\$ 734,538.46	\$ 749,229.23	\$ 749,229.23	\$ 764,213.82	\$ 764,213.82	\$ 779,498.09	\$ 779,498.09	\$ 795,088.06	\$ 795,088.06	\$ 810,989.82	\$ 810,989.82
\$ 20,782.70	\$ 20,782.70	\$ 21,198.35	\$ 21,198.35	\$ 21,622.32	\$ 21,622.32	\$ 22,054.76	\$ 22,054.76	\$ 22,495.86	\$ 22,495.86	\$ 22,945.78	\$ 22,945.78
\$ 179,250.77	\$ 179,250.77	\$ 182,835.78	\$ 182,835.78	\$ 186,492.50	\$ 186,492.50	\$ 190,222.35	\$ 190,222.35	\$ 194,026.79	\$ 194,026.79	\$ 197,907.33	\$ 197,907.33
\$ 89,625.38	\$ 89,625.38	\$ 91,417.89	\$ 91,417.89	\$ 93,246.25	\$ 93,246.25	\$ 95,111.17	\$ 95,111.17	\$ 97,013.40	\$ 97,013.40	\$ 98,953.66	\$ 98,953.66
\$ 72,012.05	\$ 72,012.05	\$ 73,452.29	\$ 73,452.29	\$ 74,921.33	\$ 74,921.33	\$ 76,419.76	\$ 76,419.76	\$ 77,948.16	\$ 77,948.16	\$ 79,507.12	\$ 79,507.12
\$ 157,526.35	\$ 157,526.35	\$ 160,676.88	\$ 160,676.88	\$ 163,890.42	\$ 163,890.42	\$ 167,168.23	\$ 167,168.23	\$ 170,511.59	\$ 170,511.59	\$ 173,921.82	\$ 173,921.82
\$ 1,816,167.46	\$ 1,816,167.46	\$ 1,852,490.81	\$ 1,852,490.81	\$ 1,889,540.62	\$ 1,889,540.62	\$ 1,927,331.44	\$ 1,927,331.44	\$ 1,965,878.07	\$ 1,965,878.07	\$ 2,005,195.63	\$ 2,005,195.63
\$ (90,808.37)	\$ (90,808.37)	\$ (92,624.54)	\$ (92,624.54)	\$ (94,477.03)	\$ (94,477.03)	\$ (96,366.57)	\$ (96,366.57)	\$ (98,293.90)	\$ (98,293.90)	\$ (100,259.78)	\$ (100,259.78)
\$ 1,725,359.09	\$ 1,725,359.09	\$ 1,759,866.27	\$ 1,759,866.27	\$ 1,795,063.59	\$ 1,795,063.59	\$ 1,830,964.87	\$ 1,830,964.87	\$ 1,867,584.16	\$ 1,867,584.16	\$ 1,904,935.85	\$ 1,904,935.85
\$ (165,613)	\$ (13,892)	\$ (165,613)	\$ (13,892)	\$ (168,925)	\$ (13,892)	\$ (168,925)	\$ (13,892)	\$ (172,303)	\$ (13,892)	\$ (172,303)	\$ (13,892)
(40,518)	(40,518)	(41,734)	(41,734)	(42,986)	(42,986)	(44,275)	(44,275)	(45,604)	(45,604)	(46,972)	(46,972)
(40,518)	(40,518)	(41,734)	(41,734)	(42,986)	(42,986)	(44,275)	(44,275)	(45,604)	(45,604)	(46,972)	(46,972)
(52,674)	(52,674)	(54,254)	(54,254)	(55,882)	(55,882)	(57,558)	(57,558)	(59,285)	(59,285)	(61,063)	(61,063)
(20,259)	(20,259)	(20,867)	(20,867)	(21,493)	(21,493)	(22,138)	(22,138)	(22,802)	(22,802)	(23,486)	(23,486)
(40,518)	(40,518)	(41,734)	(41,734)	(42,986)	(42,986)	(44,275)	(44,275)	(45,604)	(45,604)	(46,972)	(46,972)
(24,311)	(24,311)	(25,040)	(25,040)	(25,792)	(25,792)	(26,565)	(26,565)	(27,362)	(27,362)	(28,183)	(28,183)
(115,477)	(115,477)	(118,942)	(118,942)	(122,510)	(122,510)	(126,185)	(126,185)	(129,971)	(129,971)	(133,870)	(133,870)
(60,777)	(54,000)	(62,601)	(54,000)	(64,479)	(54,000)	(66,413)	(54,000)	(68,406)	(54,000)	(70,458)	(54,000)
\$ (560,666.33)	\$ (402,167.64)	\$ (572,517.94)	\$ (412,195.93)	\$ (588,037.35)	\$ (422,525.06)	\$ (600,610.72)	\$ (433,164.07)	\$ (616,939.79)	\$ (444,122.24)	\$ (630,278.88)	\$ (455,409.16)
\$ 1,164,692.75	\$ 1,323,191.44	\$ 1,187,348.33	\$ 1,347,670.34	\$ 1,207,026.24	\$ 1,372,538.53	\$ 1,230,354.14	\$ 1,397,800.80	\$ 1,250,644.37	\$ 1,423,461.92	\$ 1,274,656.96	\$ 1,449,526.68
(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)
\$ 95,300.75	\$ 253,799.44	\$ 117,956.33	\$ 278,278.34	\$ 137,634.24	\$ 303,146.53	\$ 160,962.14	\$ 328,408.80	\$ 181,252.37	\$ 354,069.92	\$ 205,264.96	\$ 380,134.68
2%	6%	3%	7%	3%	7%	4%	8%	4%	9%	5%	9%

2035 Projections	2035 w/Abatement	2036 Projections	2036 w/Abatement	2037 Projections	2037 w/Abatement	2038 Projections	2038 w/Abatement	2039 Projections	2039 w/Abatement	2040 Projections	2040 w/Abatement
\$ 615,104.58	\$ 615,104.58	\$ 627,406.68	\$ 627,406.68	\$ 639,954.81	\$ 639,954.81	\$ 652,753.91	\$ 652,753.91	\$ 665,808.98	\$ 665,808.98	\$ 679,125.16	\$ 679,125.16
\$ 18,284.92	\$ 18,284.92	\$ 18,650.61	\$ 18,650.61	\$ 19,023.63	\$ 19,023.63	\$ 19,404.10	\$ 19,404.10	\$ 19,792.18	\$ 19,792.18	\$ 20,188.03	\$ 20,188.03
\$ 827,209.61	\$ 827,209.61	\$ 843,753.81	\$ 843,753.81	\$ 860,628.88	\$ 860,628.88	\$ 877,841.46	\$ 877,841.46	\$ 895,398.29	\$ 895,398.29	\$ 913,306.25	\$ 913,306.25
\$ 23,404.69	\$ 23,404.69	\$ 23,872.79	\$ 23,872.79	\$ 24,350.24	\$ 24,350.24	\$ 24,837.25	\$ 24,837.25	\$ 25,333.99	\$ 25,333.99	\$ 25,840.67	\$ 25,840.67
\$ 201,865.48	\$ 201,865.48	\$ 205,902.79	\$ 205,902.79	\$ 210,020.84	\$ 210,020.84	\$ 214,221.26	\$ 214,221.26	\$ 218,505.68	\$ 218,505.68	\$ 222,875.80	\$ 222,875.80
\$ 100,932.74	\$ 100,932.74	\$ 102,951.39	\$ 102,951.39	\$ 105,010.42	\$ 105,010.42	\$ 107,110.63	\$ 107,110.63	\$ 109,252.84	\$ 109,252.84	\$ 111,437.90	\$ 111,437.90
\$ 81,097.26	\$ 81,097.26	\$ 82,719.21	\$ 82,719.21	\$ 84,373.59	\$ 84,373.59	\$ 86,061.06	\$ 86,061.06	\$ 87,782.28	\$ 87,782.28	\$ 89,537.93	\$ 89,537.93
\$ 177,400.26	\$ 177,400.26	\$ 180,948.26	\$ 180,948.26	\$ 184,567.23	\$ 184,567.23	\$ 188,258.57	\$ 188,258.57	\$ 192,023.74	\$ 192,023.74	\$ 195,864.22	\$ 195,864.22
\$ 2,045,299.54	\$ 2,045,299.54	\$ 2,086,205.53	\$ 2,086,205.53	\$ 2,127,929.64	\$ 2,127,929.64	\$ 2,170,488.23	\$ 2,170,488.23	\$ 2,213,898.00	\$ 2,213,898.00	\$ 2,258,175.96	\$ 2,258,175.96
\$ (102,264.98)	\$ (102,264.98)	\$ (104,310.28)	\$ (104,310.28)	\$ (106,396.48)	\$ (106,396.48)	\$ (108,524.41)	\$ (108,524.41)	\$ (110,694.90)	\$ (110,694.90)	\$ (112,908.80)	\$ (112,908.80)
\$ 1,943,034.56	\$ 1,943,034.56	\$ 1,981,895.25	\$ 1,981,895.25	\$ 2,021,533.16	\$ 2,021,533.16	\$ 2,061,963.82	\$ 2,061,963.82	\$ 2,103,203.10	\$ 2,103,203.10	\$ 2,145,267.16	\$ 2,145,267.16
\$ (172,303)	\$ (87,875)	\$ (172,303)	\$ (87,875)	\$ (172,303)	\$ (89,632)	\$ (172,303)	\$ (89,632)	\$ (172,303)	\$ (91,425)	\$ (172,303)	\$ (91,425)
(48,381)	(48,381)	(49,832)	(49,832)	(51,327)	(51,327)	(52,867)	(52,867)	(54,453)	(54,453)	(56,087)	(56,087)
(48,381)	(48,381)	(49,832)	(49,832)	(51,327)	(51,327)	(52,867)	(52,867)	(54,453)	(54,453)	(56,087)	(56,087)
(62,895)	(62,895)	(64,782)	(64,782)	(66,726)	(66,726)	(68,727)	(68,727)	(70,789)	(70,789)	(72,913)	(72,913)
(24,190)	(24,190)	(24,916)	(24,916)	(25,664)	(25,664)	(26,434)	(26,434)	(27,227)	(27,227)	(28,043)	(28,043)
(48,381)	(48,381)	(49,832)	(49,832)	(51,327)	(51,327)	(52,867)	(52,867)	(54,453)	(54,453)	(56,087)	(56,087)
(29,029)	(29,029)	(29,899)	(29,899)	(30,796)	(30,796)	(31,720)	(31,720)	(32,672)	(32,672)	(33,652)	(33,652)
(137,886)	(137,886)	(142,022)	(142,022)	(146,283)	(146,283)	(150,672)	(150,672)	(155,192)	(155,192)	(159,847)	(159,847)
(72,571)	(54,000)	(74,749)	(54,000)	(76,991)	(54,000)	(79,301)	(54,000)	(81,680)	(54,000)	(84,130)	(54,000)
\$ (644,018.15)	\$ (541,017.95)	\$ (658,169.58)	\$ (552,992.24)	\$ (672,745.57)	\$ (567,083.26)	\$ (687,758.83)	\$ (579,786.79)	\$ (703,222.49)	\$ (594,664.07)	\$ (719,150.06)	\$ (608,141.25)
\$ 1,299,016.42	\$ 1,402,016.61	\$ 1,323,725.67	\$ 1,428,903.01	\$ 1,348,787.59	\$ 1,454,449.89	\$ 1,374,204.99	\$ 1,482,177.03	\$ 1,399,980.61	\$ 1,508,539.02	\$ 1,426,117.10	\$ 1,537,125.91
(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)
\$ 229,624.42	\$ 332,624.61	\$ 254,333.67	\$ 359,511.01	\$ 279,395.59	\$ 385,057.89	\$ 304,812.99	\$ 412,785.03	\$ 330,588.61	\$ 439,147.02	\$ 356,725.10	\$ 467,733.91
6%	8%	6%	9%	7%	9%	7%	10%	8%	11%	9%	12%

2041 Projections	2041 w/Abatement	2042 Projections	2042 w/Abatement	2043 Projections	2043 w/Abatement	2044 Projections	2044 w/Abatement	2045 Projections	2045 w/Abatement	2046 Projections	2046 w/Abatement
\$ 692,707.67	\$ 692,707.67	\$ 706,561.82	\$ 706,561.82	\$ 720,693.06	\$ 720,693.06	\$ 735,106.92	\$ 735,106.92	\$ 749,809.06	\$ 749,809.06	\$ 764,805.24	\$ 764,805.24
\$ 20,591.79	\$ 20,591.79	\$ 21,003.62	\$ 21,003.62	\$ 21,423.69	\$ 21,423.69	\$ 21,852.17	\$ 21,852.17	\$ 22,289.21	\$ 22,289.21	\$ 22,735.00	\$ 22,735.00
\$ 931,572.38	\$ 931,572.38	\$ 950,203.83	\$ 950,203.83	\$ 969,207.90	\$ 969,207.90	\$ 988,592.06	\$ 988,592.06	\$ 1,008,363.90	\$ 1,008,363.90	\$ 1,028,531.18	\$ 1,028,531.18
\$ 26,357.49	\$ 26,357.49	\$ 26,884.64	\$ 26,884.64	\$ 27,422.33	\$ 27,422.33	\$ 27,970.77	\$ 27,970.77	\$ 28,530.19	\$ 28,530.19	\$ 29,100.79	\$ 29,100.79
\$ 227,333.31	\$ 227,333.31	\$ 231,879.98	\$ 231,879.98	\$ 236,517.58	\$ 236,517.58	\$ 241,247.93	\$ 241,247.93	\$ 246,072.89	\$ 246,072.89	\$ 250,994.35	\$ 250,994.35
\$ 113,666.66	\$ 113,666.66	\$ 115,939.99	\$ 115,939.99	\$ 118,258.79	\$ 118,258.79	\$ 120,623.97	\$ 120,623.97	\$ 123,036.44	\$ 123,036.44	\$ 125,497.17	\$ 125,497.17
\$ 91,328.69	\$ 91,328.69	\$ 93,155.26	\$ 93,155.26	\$ 95,018.37	\$ 95,018.37	\$ 96,918.73	\$ 96,918.73	\$ 98,857.11	\$ 98,857.11	\$ 100,834.25	\$ 100,834.25
\$ 199,781.50	\$ 199,781.50	\$ 203,777.13	\$ 203,777.13	\$ 207,852.68	\$ 207,852.68	\$ 212,009.73	\$ 212,009.73	\$ 216,249.92	\$ 216,249.92	\$ 220,574.92	\$ 220,574.92
\$ 2,303,339.48	\$ 2,303,339.48	\$ 2,349,406.27	\$ 2,349,406.27	\$ 2,396,394.39	\$ 2,396,394.39	\$ 2,444,322.28	\$ 2,444,322.28	\$ 2,493,208.73	\$ 2,493,208.73	\$ 2,543,072.90	\$ 2,543,072.90
\$ (115,166.97)	\$ (115,166.97)	\$ (117,470.31)	\$ (117,470.31)	\$ (119,819.72)	\$ (119,819.72)	\$ (122,216.11)	\$ (122,216.11)	\$ (124,660.44)	\$ (124,660.44)	\$ (127,153.65)	\$ (127,153.65)
\$ 2,188,172.50	\$ 2,188,172.50	\$ 2,231,935.95	\$ 2,231,935.95	\$ 2,276,574.67	\$ 2,276,574.67	\$ 2,322,106.17	\$ 2,322,106.17	\$ 2,368,548.29	\$ 2,368,548.29	\$ 2,415,919.26	\$ 2,415,919.26
\$ (172,303)	\$ (93,253)	\$ (172,303)	\$ (93,253)	\$ (172,303)	\$ (95,118)	\$ (172,303)	\$ (95,118)	\$ (172,303)	\$ (97,021)	\$ (172,303)	\$ (97,021)
(57,769)	(57,769)	(59,503)	(59,503)	(61,288)	(61,288)	(63,126)	(63,126)	(65,020)	(65,020)	(66,971)	(66,971)
(57,769)	(57,769)	(59,503)	(59,503)	(61,288)	(61,288)	(63,126)	(63,126)	(65,020)	(65,020)	(66,971)	(66,971)
(75,100)	(75,100)	(77,353)	(77,353)	(79,674)	(79,674)	(82,064)	(82,064)	(84,526)	(84,526)	(87,062)	(87,062)
(28,885)	(28,885)	(29,751)	(29,751)	(30,644)	(30,644)	(31,563)	(31,563)	(32,510)	(32,510)	(33,485)	(33,485)
(57,769)	(57,769)	(59,503)	(59,503)	(61,288)	(61,288)	(63,126)	(63,126)	(65,020)	(65,020)	(66,971)	(66,971)
(34,662)	(34,662)	(35,702)	(35,702)	(36,773)	(36,773)	(37,876)	(37,876)	(39,012)	(39,012)	(40,182)	(40,182)
(164,643)	(164,643)	(169,582)	(169,582)	(174,670)	(174,670)	(179,910)	(179,910)	(185,307)	(185,307)	(190,866)	(190,866)
(86,654)	(54,000)	(89,254)	(54,000)	(91,931)	(54,000)	(94,689)	(54,000)	(97,530)	(54,000)	(100,456)	(54,000)
\$ (735,555.46)	\$ (623,851.24)	\$ (752,453.01)	\$ (638,149.17)	\$ (769,857.50)	\$ (654,741.11)	\$ (787,784.12)	\$ (669,909.79)	\$ (806,248.54)	\$ (687,435.90)	\$ (825,266.89)	\$ (703,528.35)
\$ 1,452,617.05	\$ 1,564,321.27	\$ 1,479,482.94	\$ 1,593,786.78	\$ 1,506,717.17	\$ 1,621,833.56	\$ 1,534,322.05	\$ 1,652,196.37	\$ 1,562,299.75	\$ 1,681,112.39	\$ 1,590,652.36	\$ 1,712,390.90
(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)	(\$1,069,392.00)
\$ 383,225.05	\$ 494,929.27	\$ 410,090.94	\$ 524,394.78	\$ 437,325.17	\$ 552,441.56	\$ 464,930.05	\$ 582,804.37	\$ 492,907.75	\$ 611,720.39	\$ 521,260.36	\$ 642,998.90
9%	12%	10%	13%	11%	14%	11%	14%	12%	15%	13%	16%

2047 Projections	2047 w/Abatement	2048 Projections	2048 w/Abatement	2049 Projections	2049 w/Abatement
\$ 780,101.34	\$ 780,101.34	\$ 795,703.37	\$ 795,703.37	\$ 811,617.44	\$ 811,617.44
\$ 23,189.70	\$ 23,189.70	\$ 23,653.49	\$ 23,653.49	\$ 24,126.56	\$ 24,126.56
\$ 1,049,101.80	\$ 1,049,101.80	\$ 1,070,083.84	\$ 1,070,083.84	\$ 1,091,485.52	\$ 1,091,485.52
\$ 29,682.81	\$ 29,682.81	\$ 30,276.47	\$ 30,276.47	\$ 30,882.00	\$ 30,882.00
\$ 256,014.23	\$ 256,014.23	\$ 261,134.52	\$ 261,134.52	\$ 266,357.21	\$ 266,357.21
\$ 128,007.12	\$ 128,007.12	\$ 130,567.26	\$ 130,567.26	\$ 133,178.60	\$ 133,178.60
\$ 102,850.94	\$ 102,850.94	\$ 104,907.95	\$ 104,907.95	\$ 107,006.11	\$ 107,006.11
\$ 224,986.42	\$ 224,986.42	\$ 229,486.15	\$ 229,486.15	\$ 234,075.87	\$ 234,075.87
\$ 2,593,934.36	\$ 2,593,934.36	\$ 2,645,813.05	\$ 2,645,813.05	\$ 2,698,729.31	\$ 2,698,729.31
\$ (129,696.72)	\$ (129,696.72)	\$ (132,290.65)	\$ (132,290.65)	\$ (134,936.47)	\$ (134,936.47)
\$ 2,464,237.64	\$ 2,464,237.64	\$ 2,513,522.39	\$ 2,513,522.39	\$ 2,563,792.84	\$ 2,563,792.84
\$ (172,303)	\$ (98,961)	\$ (172,303)	\$ (98,961)	\$ (172,303)	\$ (100,941)
(68,980)	(68,980)	(71,049)	(71,049)	(73,181)	(73,181)
(68,980)	(68,980)	(71,049)	(71,049)	(73,181)	(73,181)
(89,674)	(89,674)	(92,364)	(92,364)	(95,135)	(95,135)
(34,490)	(34,490)	(35,525)	(35,525)	(36,590)	(36,590)
(68,980)	(68,980)	(71,049)	(71,049)	(73,181)	(73,181)
(41,388)	(41,388)	(42,629)	(42,629)	(43,908)	(43,908)
(196,592)	(196,592)	(202,490)	(202,490)	(208,565)	(208,565)
(103,470)	(54,000)	(106,574)	(54,000)	(109,771)	(54,000)
\$ (844,855.79)	\$ (722,043.99)	\$ (865,032.36)	\$ (739,116.47)	\$ (885,814.23)	\$ (758,680.36)
\$ 1,619,381.85	\$ 1,742,193.65	\$ 1,648,490.03	\$ 1,774,405.92	\$ 1,677,978.61	\$ 1,805,112.49
(\$1,069,392.00)	\$ (1,069,392.00)	(\$1,069,392.00)	\$ (1,069,392.00)	(\$1,069,392.00)	\$ (1,069,392.00)
\$ 549,989.85	\$ 672,801.65	\$ 579,098.03	\$ 705,013.92	\$ 608,586.61	\$ 735,720.49
14%	17%	14%	17%	15%	18%

Exhibit F-13

SOURCES & USES OF FUNDS	
USE OF FUNDS (Based on Development Budget)	
Acquisition Cost	\$ 1,511,640.00
Reserves/Fees/Contingency	\$ 2,787,082.00
Soft Cost - Renovation	\$ 962,858.00
Hard Cost - Renovation	\$ 13,666,800.00
Cobined Total Cost	\$ 18,928,380.00
SOURCES OF FUNDS	
Borrower Equity	\$ 4,064,529.00
Construction Loan -	\$ 14,863,851.00
Total Loans + Equity	\$ 18,928,380.00

Return Analysis

Cash-on-Cash Return (with Abatement)

	<u>Construction</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Initial Equity/Residual Value	(4,064,529)			
Cash Flow		(175,890)	97,080	205,990
Total Cash Flow	(4,064,529)	(175,890)	97,080	205,990
Cumulative Cash Flow	(4,064,529)	(4,240,419)	(4,143,339)	(3,937,348)
Cumulative Cash on Cash Return at Stabilization				-101.94%
Year 3 Cash on Cash Return				5.00%

Cash-on-Cash Return (without Abatement)

	<u>Construction</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Initial Equity	(4,064,529)			
Cash Flow		(321,180)	(49,830)	54,228
Total Cash Flow	(4,064,529)	(321,180)	(49,830)	54,228
Cumulative Cash Flow	(4,064,529)	(4,385,709)	(4,435,539)	(4,381,311)
Cumulative Cash on Cash Return at Stabilization				-109.13%
Year 3 Cash on Cash Return				1.00%

Pacific South Project Redevelopment Area - A mortization (Bank)	
Loan Amount	\$14,883,851.00
Term in Months	360
Interest Rate	6.000%
Monthly Payment	(\$89,116.30)
Annual Payment	(\$1,069,395.60)

Month	TotalPmt.	Int. Rate	Int. Pmt.	Prin. Pmt.	Principal Balance
1	\$89,116.30	6.00%	\$74,319.26	\$14,797.05	\$14,883,851.00
2	\$89,116.30	6.00%	\$74,245.27	\$14,871.03	\$14,849,053.98
3	\$89,116.30	6.00%	\$74,170.91	\$14,945.39	\$14,834,182.92
4	\$89,116.30	6.00%	\$74,096.19	\$15,020.11	\$14,819,237.54
5	\$89,116.30	6.00%	\$74,021.09	\$15,095.21	\$14,804,217.43
6	\$89,116.30	6.00%	\$73,945.61	\$15,170.69	\$14,789,122.21
7	\$89,116.30	6.00%	\$73,869.76	\$15,246.54	\$14,773,951.53
8	\$89,116.30	6.00%	\$73,793.52	\$15,322.78	\$14,758,704.98
9	\$89,116.30	6.00%	\$73,716.91	\$15,399.39	\$14,743,382.21
10	\$89,116.30	6.00%	\$73,639.91	\$15,476.39	\$14,727,982.82
11	\$89,116.30	6.00%	\$73,562.53	\$15,553.77	\$14,712,506.43
12	\$89,116.30	6.00%	\$73,484.76	\$15,631.54	\$14,696,952.67
13	\$89,116.30	6.00%	\$73,406.61	\$15,709.69	\$14,681,321.13
14	\$89,116.30	6.00%	\$73,328.06	\$15,788.24	\$14,665,611.43
15	\$89,116.30	6.00%	\$73,249.12	\$15,867.18	\$14,649,823.19
16	\$89,116.30	6.00%	\$73,169.78	\$15,946.52	\$14,633,956.01
17	\$89,116.30	6.00%	\$73,090.05	\$16,026.25	\$14,618,009.49
18	\$89,116.30	6.00%	\$73,009.92	\$16,106.38	\$14,601,983.23
19	\$89,116.30	6.00%	\$72,929.38	\$16,186.92	\$14,585,876.85
20	\$89,116.30	6.00%	\$72,848.45	\$16,267.85	\$14,569,689.94
21	\$89,116.30	6.00%	\$72,767.11	\$16,349.19	\$14,553,422.08
22	\$89,116.30	6.00%	\$72,685.36	\$16,430.94	\$14,537,072.90
23	\$89,116.30	6.00%	\$72,603.21	\$16,513.09	\$14,520,641.98
24	\$89,116.30	6.00%	\$72,520.64	\$16,595.66	\$14,504,128.87
25	\$89,116.30	6.00%	\$72,437.67	\$16,678.63	\$14,487,533.21
26	\$89,116.30	6.00%	\$72,354.27	\$16,762.03	\$14,470,854.58
27	\$89,116.30	6.00%	\$72,270.46	\$16,845.84	\$14,454,092.55
28	\$89,116.30	6.00%	\$72,186.23	\$16,930.07	\$14,437,246.72
29	\$89,116.30	6.00%	\$72,101.58	\$17,014.72	\$14,420,316.66
30	\$89,116.30	6.00%	\$72,016.51	\$17,099.79	\$14,403,301.93
31	\$89,116.30	6.00%	\$71,931.01	\$17,185.29	\$14,386,202.14
32	\$89,116.30	6.00%	\$71,845.08	\$17,271.22	\$14,369,016.85
33	\$89,116.30	6.00%	\$71,758.73	\$17,357.57	\$14,351,745.64
34	\$89,116.30	6.00%	\$71,671.94	\$17,444.36	\$14,334,388.07
35	\$89,116.30	6.00%	\$71,584.72	\$17,531.58	\$14,316,943.71
36	\$89,116.30	6.00%	\$71,497.06	\$17,619.24	\$14,299,412.12
37	\$89,116.30	6.00%	\$71,408.96	\$17,707.34	\$14,281,792.88
38	\$89,116.30	6.00%	\$71,320.43	\$17,795.87	\$14,264,085.55
39	\$89,116.30	6.00%	\$71,231.45	\$17,884.85	\$14,246,289.68
40	\$89,116.30	6.00%	\$71,142.02	\$17,974.28	\$14,228,404.83
41	\$89,116.30	6.00%	\$71,052.15	\$18,064.15	\$14,210,430.55
42	\$89,116.30	6.00%	\$70,961.83	\$18,154.47	\$14,192,366.40
43	\$89,116.30	6.00%	\$70,871.06	\$18,245.24	\$14,174,211.93
44	\$89,116.30	6.00%	\$70,779.83	\$18,336.47	\$14,155,966.69
45	\$89,116.30	6.00%	\$70,688.15	\$18,428.15	\$14,137,630.23
46	\$89,116.30	6.00%	\$70,596.01	\$18,520.29	\$14,119,202.08
47	\$89,116.30	6.00%	\$70,503.41	\$18,612.89	\$14,100,681.79
48	\$89,116.30	6.00%	\$70,410.34	\$18,705.96	\$14,082,068.90
49	\$89,116.30	6.00%	\$70,316.81	\$18,799.49	\$14,063,362.94
50	\$89,116.30	6.00%	\$70,222.82	\$18,893.48	\$14,044,563.46
51	\$89,116.30	6.00%	\$70,128.35	\$18,987.95	\$14,025,669.97
52	\$89,116.30	6.00%	\$70,033.41	\$19,082.89	\$14,006,682.02
53	\$89,116.30	6.00%	\$69,938.00	\$19,178.30	\$13,987,599.13

54	\$89,116.30	6.00%	\$89,842.10	\$19,274.20	\$13,949,146.63
55	\$89,116.30	6.00%	\$89,745.73	\$19,370.57	\$13,929,776.07
56	\$89,116.30	6.00%	\$89,648.88	\$19,467.42	\$13,910,308.66
57	\$89,116.30	6.00%	\$89,551.54	\$19,564.76	\$13,890,743.89
58	\$89,116.30	6.00%	\$89,453.72	\$19,662.58	\$13,871,081.31
59	\$89,116.30	6.00%	\$89,355.41	\$19,760.89	\$13,851,320.42
60	\$89,116.30	6.00%	\$89,256.60	\$19,859.70	\$13,831,460.72
61	\$89,116.30	6.00%	\$89,157.30	\$19,959.00	\$13,811,501.72
62	\$89,116.30	6.00%	\$89,057.51	\$20,058.79	\$13,791,442.93
63	\$89,116.30	6.00%	\$88,957.21	\$20,159.09	\$13,771,283.85
64	\$89,116.30	6.00%	\$88,856.42	\$20,259.88	\$13,751,023.96
65	\$89,116.30	6.00%	\$88,755.12	\$20,361.18	\$13,730,662.78
66	\$89,116.30	6.00%	\$88,653.31	\$20,462.99	\$13,710,199.80
67	\$89,116.30	6.00%	\$88,551.00	\$20,565.30	\$13,689,634.50
68	\$89,116.30	6.00%	\$88,448.17	\$20,668.13	\$13,668,966.37
69	\$89,116.30	6.00%	\$88,344.83	\$20,771.47	\$13,648,194.90
70	\$89,116.30	6.00%	\$88,240.97	\$20,875.33	\$13,627,319.58
71	\$89,116.30	6.00%	\$88,136.60	\$20,979.70	\$13,606,339.87
72	\$89,116.30	6.00%	\$88,031.70	\$21,084.60	\$13,585,255.27
73	\$89,116.30	6.00%	\$87,926.28	\$21,190.02	\$13,564,065.25
74	\$89,116.30	6.00%	\$87,820.33	\$21,295.97	\$13,542,769.28
75	\$89,116.30	6.00%	\$87,713.85	\$21,402.45	\$13,521,366.82
76	\$89,116.30	6.00%	\$87,606.83	\$21,509.47	\$13,499,857.36
77	\$89,116.30	6.00%	\$87,499.29	\$21,617.01	\$13,478,240.34
78	\$89,116.30	6.00%	\$87,391.20	\$21,725.10	\$13,456,515.25
79	\$89,116.30	6.00%	\$87,282.58	\$21,833.72	\$13,434,681.52
80	\$89,116.30	6.00%	\$87,173.41	\$21,942.89	\$13,412,738.63
81	\$89,116.30	6.00%	\$87,063.69	\$22,052.61	\$13,390,686.02
82	\$89,116.30	6.00%	\$86,953.43	\$22,162.87	\$13,368,523.15
83	\$89,116.30	6.00%	\$86,842.62	\$22,273.68	\$13,346,249.47
84	\$89,116.30	6.00%	\$86,731.25	\$22,385.05	\$13,323,864.42
85	\$89,116.30	6.00%	\$86,619.32	\$22,496.98	\$13,301,367.44
86	\$89,116.30	6.00%	\$86,506.84	\$22,609.46	\$13,278,757.97
87	\$89,116.30	6.00%	\$86,393.79	\$22,722.51	\$13,256,035.46
88	\$89,116.30	6.00%	\$86,280.18	\$22,836.12	\$13,233,199.34
89	\$89,116.30	6.00%	\$86,166.00	\$22,950.30	\$13,210,249.04
90	\$89,116.30	6.00%	\$86,051.25	\$23,065.05	\$13,187,183.98
91	\$89,116.30	6.00%	\$85,935.92	\$23,180.38	\$13,164,003.60
92	\$89,116.30	6.00%	\$85,820.02	\$23,296.28	\$13,140,707.32
93	\$89,116.30	6.00%	\$85,703.54	\$23,412.76	\$13,117,294.56
94	\$89,116.30	6.00%	\$85,586.47	\$23,529.83	\$13,093,764.73
95	\$89,116.30	6.00%	\$85,468.82	\$23,647.48	\$13,070,117.26
96	\$89,116.30	6.00%	\$85,350.59	\$23,765.71	\$13,046,351.54
97	\$89,116.30	6.00%	\$85,231.76	\$23,884.54	\$13,022,467.00
98	\$89,116.30	6.00%	\$85,112.33	\$24,003.97	\$12,998,463.03
99	\$89,116.30	6.00%	\$84,992.32	\$24,123.98	\$12,974,339.05
100	\$89,116.30	6.00%	\$84,871.70	\$24,244.60	\$12,950,094.44
101	\$89,116.30	6.00%	\$84,750.47	\$24,365.83	\$12,925,728.62
102	\$89,116.30	6.00%	\$84,628.64	\$24,487.66	\$12,901,240.96
103	\$89,116.30	6.00%	\$84,506.20	\$24,610.10	\$12,876,630.86
104	\$89,116.30	6.00%	\$84,383.15	\$24,733.15	\$12,851,897.72
105	\$89,116.30	6.00%	\$84,259.49	\$24,856.81	\$12,827,040.91
106	\$89,116.30	6.00%	\$84,135.20	\$24,981.10	\$12,802,059.81
107	\$89,116.30	6.00%	\$84,010.30	\$25,106.00	\$12,776,953.81
108	\$89,116.30	6.00%	\$83,884.77	\$25,231.53	\$12,751,722.28
109	\$89,116.30	6.00%	\$83,758.61	\$25,357.69	\$12,726,364.59
110	\$89,116.30	6.00%	\$83,631.82	\$25,484.48	\$12,700,880.11
111	\$89,116.30	6.00%	\$83,504.40	\$25,611.90	\$12,675,268.22
112	\$89,116.30	6.00%	\$83,376.34	\$25,739.96	\$12,649,528.26
113	\$89,116.30	6.00%	\$83,247.64	\$25,868.66	\$12,623,659.60
114	\$89,116.30	6.00%	\$83,118.30	\$25,998.00	\$12,597,661.60
115	\$89,116.30	6.00%	\$82,988.31	\$26,127.99	\$12,571,533.60
116	\$89,116.30	6.00%	\$82,857.67	\$26,258.63	\$12,545,274.97
117	\$89,116.30	6.00%	\$82,726.37	\$26,389.93	\$12,518,885.05
118	\$89,116.30	6.00%	\$82,594.43	\$26,521.87	\$12,492,363.17

119	\$89,116.30	6.00%	\$62,461.82	\$26,654.48	\$12,465,708.69
120	\$89,116.30	6.00%	\$62,328.54	\$26,787.76	\$12,438,920.93
121	\$89,116.30	6.00%	\$62,194.80	\$26,921.70	\$12,411,999.24
122	\$89,116.30	6.00%	\$62,060.00	\$27,056.30	\$12,384,942.93
123	\$89,116.30	6.00%	\$61,924.71	\$27,191.59	\$12,357,751.35
124	\$89,116.30	6.00%	\$61,788.76	\$27,327.54	\$12,330,423.80
125	\$89,116.30	6.00%	\$61,652.12	\$27,464.18	\$12,302,959.62
126	\$89,116.30	6.00%	\$61,514.80	\$27,601.50	\$12,275,358.12
127	\$89,116.30	6.00%	\$61,376.79	\$27,739.51	\$12,247,618.61
128	\$89,116.30	6.00%	\$61,238.09	\$27,878.21	\$12,219,740.40
129	\$89,116.30	6.00%	\$61,098.70	\$28,017.60	\$12,191,722.81
130	\$89,116.30	6.00%	\$60,958.61	\$28,157.69	\$12,163,565.12
131	\$89,116.30	6.00%	\$60,817.83	\$28,298.47	\$12,135,268.65
132	\$89,116.30	6.00%	\$60,676.33	\$28,439.97	\$12,106,826.68
133	\$89,116.30	6.00%	\$60,534.13	\$28,582.17	\$12,078,244.51
134	\$89,116.30	6.00%	\$60,391.22	\$28,725.08	\$12,049,519.43
135	\$89,116.30	6.00%	\$60,247.60	\$28,868.70	\$12,020,650.73
136	\$89,116.30	6.00%	\$60,103.25	\$29,013.05	\$11,991,637.69
137	\$89,116.30	6.00%	\$59,958.19	\$29,158.11	\$11,962,479.57
138	\$89,116.30	6.00%	\$59,812.40	\$29,303.90	\$11,933,175.67
139	\$89,116.30	6.00%	\$59,665.88	\$29,450.42	\$11,903,725.25
140	\$89,116.30	6.00%	\$59,518.63	\$29,597.67	\$11,874,127.58
141	\$89,116.30	6.00%	\$59,370.64	\$29,745.66	\$11,844,381.91
142	\$89,116.30	6.00%	\$59,221.91	\$29,894.39	\$11,814,487.52
143	\$89,116.30	6.00%	\$59,072.44	\$30,043.88	\$11,784,443.66
144	\$89,116.30	6.00%	\$58,922.22	\$30,194.08	\$11,754,249.58
145	\$89,116.30	6.00%	\$58,771.25	\$30,345.05	\$11,723,904.53
146	\$89,116.30	6.00%	\$58,619.52	\$30,496.78	\$11,693,407.75
147	\$89,116.30	6.00%	\$58,467.04	\$30,649.26	\$11,662,758.49
148	\$89,116.30	6.00%	\$58,313.79	\$30,802.51	\$11,631,955.98
149	\$89,116.30	6.00%	\$58,159.78	\$30,956.52	\$11,600,999.46
150	\$89,116.30	6.00%	\$58,005.00	\$31,111.30	\$11,569,888.16
151	\$89,116.30	6.00%	\$57,849.44	\$31,266.86	\$11,538,621.30
152	\$89,116.30	6.00%	\$57,693.11	\$31,423.19	\$11,507,198.11
153	\$89,116.30	6.00%	\$57,535.99	\$31,580.31	\$11,475,617.80
154	\$89,116.30	6.00%	\$57,378.09	\$31,738.21	\$11,443,879.59
155	\$89,116.30	6.00%	\$57,219.40	\$31,896.90	\$11,411,982.68
156	\$89,116.30	6.00%	\$57,059.91	\$32,056.39	\$11,379,928.30
157	\$89,116.30	6.00%	\$56,899.63	\$32,216.67	\$11,347,709.63
158	\$89,116.30	6.00%	\$56,738.55	\$32,377.75	\$11,315,331.88
159	\$89,116.30	6.00%	\$56,576.66	\$32,539.64	\$11,282,792.24
160	\$89,116.30	6.00%	\$56,413.96	\$32,702.34	\$11,250,089.90
161	\$89,116.30	6.00%	\$56,250.45	\$32,865.85	\$11,217,224.05
162	\$89,116.30	6.00%	\$56,086.12	\$33,030.18	\$11,184,193.87
163	\$89,116.30	6.00%	\$55,920.97	\$33,195.33	\$11,150,998.54
164	\$89,116.30	6.00%	\$55,754.99	\$33,361.31	\$11,117,637.23
165	\$89,116.30	6.00%	\$55,588.19	\$33,528.11	\$11,084,109.11
166	\$89,116.30	6.00%	\$55,420.55	\$33,695.75	\$11,050,413.36
167	\$89,116.30	6.00%	\$55,252.07	\$33,864.23	\$11,016,549.13
168	\$89,116.30	6.00%	\$55,082.75	\$34,033.55	\$10,982,515.57
169	\$89,116.30	6.00%	\$54,912.58	\$34,203.72	\$10,948,311.85
170	\$89,116.30	6.00%	\$54,741.56	\$34,374.74	\$10,913,937.11
171	\$89,116.30	6.00%	\$54,569.69	\$34,546.61	\$10,879,390.50
172	\$89,116.30	6.00%	\$54,396.95	\$34,719.35	\$10,844,671.15
173	\$89,116.30	6.00%	\$54,223.36	\$34,892.94	\$10,809,778.20
174	\$89,116.30	6.00%	\$54,048.89	\$35,067.41	\$10,774,710.79
175	\$89,116.30	6.00%	\$53,873.55	\$35,242.75	\$10,739,468.06
176	\$89,116.30	6.00%	\$53,697.34	\$35,418.96	\$10,704,049.09
177	\$89,116.30	6.00%	\$53,520.25	\$35,596.05	\$10,668,453.03
178	\$89,116.30	6.00%	\$53,342.27	\$35,774.03	\$10,632,679.00
179	\$89,116.30	6.00%	\$53,163.39	\$35,952.91	\$10,596,726.09
180	\$89,116.30	6.00%	\$52,983.63	\$36,132.67	\$10,560,593.43
181	\$89,116.30	6.00%	\$52,802.97	\$36,313.33	\$10,524,280.09
182	\$89,116.30	6.00%	\$52,621.40	\$36,494.90	\$10,487,785.19
183	\$89,116.30	6.00%	\$52,438.93	\$36,677.37	\$10,451,107.82

184	\$89,116.30	6.00%	\$52,255.54	\$36,860.76	\$10,414,247.06
185	\$89,116.30	6.00%	\$52,071.24	\$37,045.06	\$10,377,201.99
186	\$89,116.30	6.00%	\$51,886.01	\$37,230.29	\$10,339,971.70
187	\$89,116.30	6.00%	\$51,699.86	\$37,416.44	\$10,302,555.26
188	\$89,116.30	6.00%	\$51,512.78	\$37,603.52	\$10,264,951.74
189	\$89,116.30	6.00%	\$51,324.76	\$37,791.54	\$10,227,180.20
190	\$89,116.30	6.00%	\$51,135.80	\$37,980.50	\$10,189,179.70
191	\$89,116.30	6.00%	\$50,945.90	\$38,170.40	\$10,151,009.30
192	\$89,116.30	6.00%	\$50,755.05	\$38,361.25	\$10,112,648.04
193	\$89,116.30	6.00%	\$50,563.24	\$38,553.06	\$10,074,094.98
194	\$89,116.30	6.00%	\$50,370.47	\$38,745.83	\$10,035,349.16
195	\$89,116.30	6.00%	\$50,176.75	\$38,939.55	\$9,996,409.60
196	\$89,116.30	6.00%	\$49,982.05	\$39,134.25	\$9,957,275.35
197	\$89,116.30	6.00%	\$49,786.38	\$39,329.92	\$9,917,945.43
198	\$89,116.30	6.00%	\$49,589.73	\$39,526.57	\$9,878,418.86
199	\$89,116.30	6.00%	\$49,392.09	\$39,724.21	\$9,838,894.65
200	\$89,116.30	6.00%	\$49,193.47	\$39,922.83	\$9,798,771.82
201	\$89,116.30	6.00%	\$48,993.86	\$40,122.44	\$9,758,849.38
202	\$89,116.30	6.00%	\$48,793.25	\$40,323.05	\$9,718,326.33
203	\$89,116.30	6.00%	\$48,591.63	\$40,524.67	\$9,677,801.66
204	\$89,116.30	6.00%	\$48,389.01	\$40,727.29	\$9,637,074.37
205	\$89,116.30	6.00%	\$48,185.37	\$40,930.93	\$9,596,143.44
206	\$89,116.30	6.00%	\$47,980.72	\$41,135.58	\$9,555,007.86
207	\$89,116.30	6.00%	\$47,775.04	\$41,341.26	\$9,513,866.60
208	\$89,116.30	6.00%	\$47,568.33	\$41,547.97	\$9,472,118.63
209	\$89,116.30	6.00%	\$47,360.59	\$41,755.71	\$9,430,362.92
210	\$89,116.30	6.00%	\$47,151.81	\$41,964.49	\$9,388,398.44
211	\$89,116.30	6.00%	\$46,941.99	\$42,174.31	\$9,346,224.13
212	\$89,116.30	6.00%	\$46,731.12	\$42,385.18	\$9,303,838.95
213	\$89,116.30	6.00%	\$46,519.19	\$42,597.11	\$9,261,241.85
214	\$89,116.30	6.00%	\$46,306.21	\$42,810.09	\$9,218,431.75
215	\$89,116.30	6.00%	\$46,092.16	\$43,024.14	\$9,175,407.61
216	\$89,116.30	6.00%	\$45,877.04	\$43,239.26	\$9,132,168.35
217	\$89,116.30	6.00%	\$45,660.84	\$43,455.46	\$9,088,712.89
218	\$89,116.30	6.00%	\$45,443.56	\$43,672.74	\$9,045,040.16
219	\$89,116.30	6.00%	\$45,225.20	\$43,891.10	\$9,001,149.06
220	\$89,116.30	6.00%	\$45,005.75	\$44,110.55	\$8,957,038.50
221	\$89,116.30	6.00%	\$44,785.19	\$44,331.11	\$8,912,707.40
222	\$89,116.30	6.00%	\$44,563.54	\$44,552.76	\$8,868,154.63
223	\$89,116.30	6.00%	\$44,340.77	\$44,775.53	\$8,823,379.11
224	\$89,116.30	6.00%	\$44,116.90	\$44,999.40	\$8,778,379.70
225	\$89,116.30	6.00%	\$43,891.90	\$45,224.40	\$8,733,155.30
226	\$89,116.30	6.00%	\$43,665.78	\$45,450.52	\$8,687,704.78
227	\$89,116.30	6.00%	\$43,438.52	\$45,677.78	\$8,642,027.00
228	\$89,116.30	6.00%	\$43,210.14	\$45,906.16	\$8,596,120.84
229	\$89,116.30	6.00%	\$42,980.60	\$46,135.70	\$8,549,985.14
230	\$89,116.30	6.00%	\$42,749.93	\$46,366.37	\$8,503,618.77
231	\$89,116.30	6.00%	\$42,518.09	\$46,598.21	\$8,457,020.66
232	\$89,116.30	6.00%	\$42,285.10	\$46,831.20	\$8,410,189.36
233	\$89,116.30	6.00%	\$42,050.95	\$47,065.35	\$8,363,124.01
234	\$89,116.30	6.00%	\$41,815.62	\$47,300.68	\$8,315,823.33
235	\$89,116.30	6.00%	\$41,579.12	\$47,537.18	\$8,268,286.15
236	\$89,116.30	6.00%	\$41,341.43	\$47,774.87	\$8,220,511.28
237	\$89,116.30	6.00%	\$41,102.56	\$48,013.74	\$8,172,497.53
238	\$89,116.30	6.00%	\$40,862.49	\$48,253.81	\$8,124,243.72
239	\$89,116.30	6.00%	\$40,621.22	\$48,495.08	\$8,075,748.64
240	\$89,116.30	6.00%	\$40,378.74	\$48,737.56	\$8,027,011.08
241	\$89,116.30	6.00%	\$40,135.06	\$48,981.24	\$7,978,029.84
242	\$89,116.30	6.00%	\$39,890.15	\$49,226.15	\$7,928,803.69
243	\$89,116.30	6.00%	\$39,644.02	\$49,472.28	\$7,879,331.41
244	\$89,116.30	6.00%	\$39,396.66	\$49,719.64	\$7,829,611.76
245	\$89,116.30	6.00%	\$39,148.06	\$49,968.24	\$7,779,643.52
246	\$89,116.30	6.00%	\$38,898.22	\$50,218.08	\$7,729,425.44
247	\$89,116.30	6.00%	\$38,647.13	\$50,469.17	\$7,678,956.27
248	\$89,116.30	6.00%	\$38,394.78	\$50,721.52	\$7,628,234.75

249	\$89,116.30	6.00%	\$38,141.17	\$50,975.13	\$7,577,259.62
250	\$89,116.30	6.00%	\$37,886.30	\$51,230.00	\$7,528,029.62
251	\$89,116.30	6.00%	\$37,630.15	\$51,486.15	\$7,474,543.47
252	\$89,116.30	6.00%	\$37,372.72	\$51,743.58	\$7,422,799.88
253	\$89,116.30	6.00%	\$37,114.00	\$52,002.30	\$7,370,797.58
254	\$89,116.30	6.00%	\$36,853.99	\$52,262.31	\$7,318,535.27
255	\$89,116.30	6.00%	\$36,592.68	\$52,523.62	\$7,266,011.66
256	\$89,116.30	6.00%	\$36,330.06	\$52,786.24	\$7,213,225.41
257	\$89,116.30	6.00%	\$36,066.13	\$53,050.17	\$7,160,175.23
258	\$89,116.30	6.00%	\$35,800.88	\$53,315.42	\$7,106,859.81
259	\$89,116.30	6.00%	\$35,534.30	\$53,582.00	\$7,053,277.81
260	\$89,116.30	6.00%	\$35,266.39	\$53,849.91	\$6,999,427.90
261	\$89,116.30	6.00%	\$34,997.14	\$54,119.16	\$6,945,308.74
262	\$89,116.30	6.00%	\$34,726.54	\$54,389.76	\$6,890,918.96
263	\$89,116.30	6.00%	\$34,454.59	\$54,661.71	\$6,836,257.28
264	\$89,116.30	6.00%	\$34,181.29	\$54,935.01	\$6,781,322.26
265	\$89,116.30	6.00%	\$33,906.81	\$55,209.89	\$6,726,112.57
266	\$89,116.30	6.00%	\$33,630.56	\$55,485.74	\$6,670,626.84
267	\$89,116.30	6.00%	\$33,353.13	\$55,763.17	\$6,614,863.67
268	\$89,116.30	6.00%	\$33,074.32	\$56,041.98	\$6,558,821.69
269	\$89,116.30	6.00%	\$32,794.11	\$56,322.19	\$6,502,499.50
270	\$89,116.30	6.00%	\$32,512.50	\$56,603.80	\$6,445,895.70
271	\$89,116.30	6.00%	\$32,229.48	\$56,886.82	\$6,389,008.87
272	\$89,116.30	6.00%	\$31,945.04	\$57,171.26	\$6,331,837.62
273	\$89,116.30	6.00%	\$31,659.19	\$57,457.11	\$6,274,380.51
274	\$89,116.30	6.00%	\$31,371.90	\$57,744.40	\$6,216,636.11
275	\$89,116.30	6.00%	\$31,083.18	\$58,033.12	\$6,158,602.99
276	\$89,116.30	6.00%	\$30,793.01	\$58,323.29	\$6,100,279.70
277	\$89,116.30	6.00%	\$30,501.40	\$58,614.90	\$6,041,664.80
278	\$89,116.30	6.00%	\$30,208.32	\$58,907.98	\$5,982,756.83
279	\$89,116.30	6.00%	\$29,913.78	\$59,202.52	\$5,923,554.31
280	\$89,116.30	6.00%	\$29,617.77	\$59,498.53	\$5,864,055.78
281	\$89,116.30	6.00%	\$29,320.28	\$59,796.02	\$5,804,259.76
282	\$89,116.30	6.00%	\$29,021.30	\$60,095.00	\$5,744,164.76
283	\$89,116.30	6.00%	\$28,720.82	\$60,395.48	\$5,683,769.28
284	\$89,116.30	6.00%	\$28,418.85	\$60,697.45	\$5,623,071.83
285	\$89,116.30	6.00%	\$28,115.36	\$61,000.94	\$5,562,070.89
286	\$89,116.30	6.00%	\$27,810.35	\$61,305.95	\$5,500,764.94
287	\$89,116.30	6.00%	\$27,503.82	\$61,612.48	\$5,439,152.47
288	\$89,116.30	6.00%	\$27,195.76	\$61,920.54	\$5,377,231.93
289	\$89,116.30	6.00%	\$26,886.16	\$62,230.14	\$5,315,001.79
290	\$89,116.30	6.00%	\$26,575.01	\$62,541.29	\$5,252,460.50
291	\$89,116.30	6.00%	\$26,262.30	\$62,854.00	\$5,189,606.50
292	\$89,116.30	6.00%	\$25,948.03	\$63,168.27	\$5,126,438.23
293	\$89,116.30	6.00%	\$25,632.19	\$63,484.11	\$5,062,954.13
294	\$89,116.30	6.00%	\$25,314.77	\$63,801.53	\$4,999,152.60
295	\$89,116.30	6.00%	\$24,995.76	\$64,120.54	\$4,935,032.06
296	\$89,116.30	6.00%	\$24,675.16	\$64,441.14	\$4,870,590.92
297	\$89,116.30	6.00%	\$24,352.95	\$64,763.35	\$4,805,827.57
298	\$89,116.30	6.00%	\$24,029.14	\$65,087.16	\$4,740,740.41
299	\$89,116.30	6.00%	\$23,703.70	\$65,412.60	\$4,675,327.81
300	\$89,116.30	6.00%	\$23,376.64	\$65,739.66	\$4,609,588.15

EXHIBIT G
REDEVELOPMENT PLANS AND SPECS

[please see attached, all designs subject to architectural updates]

PACIFIC SOUTH PROJECT

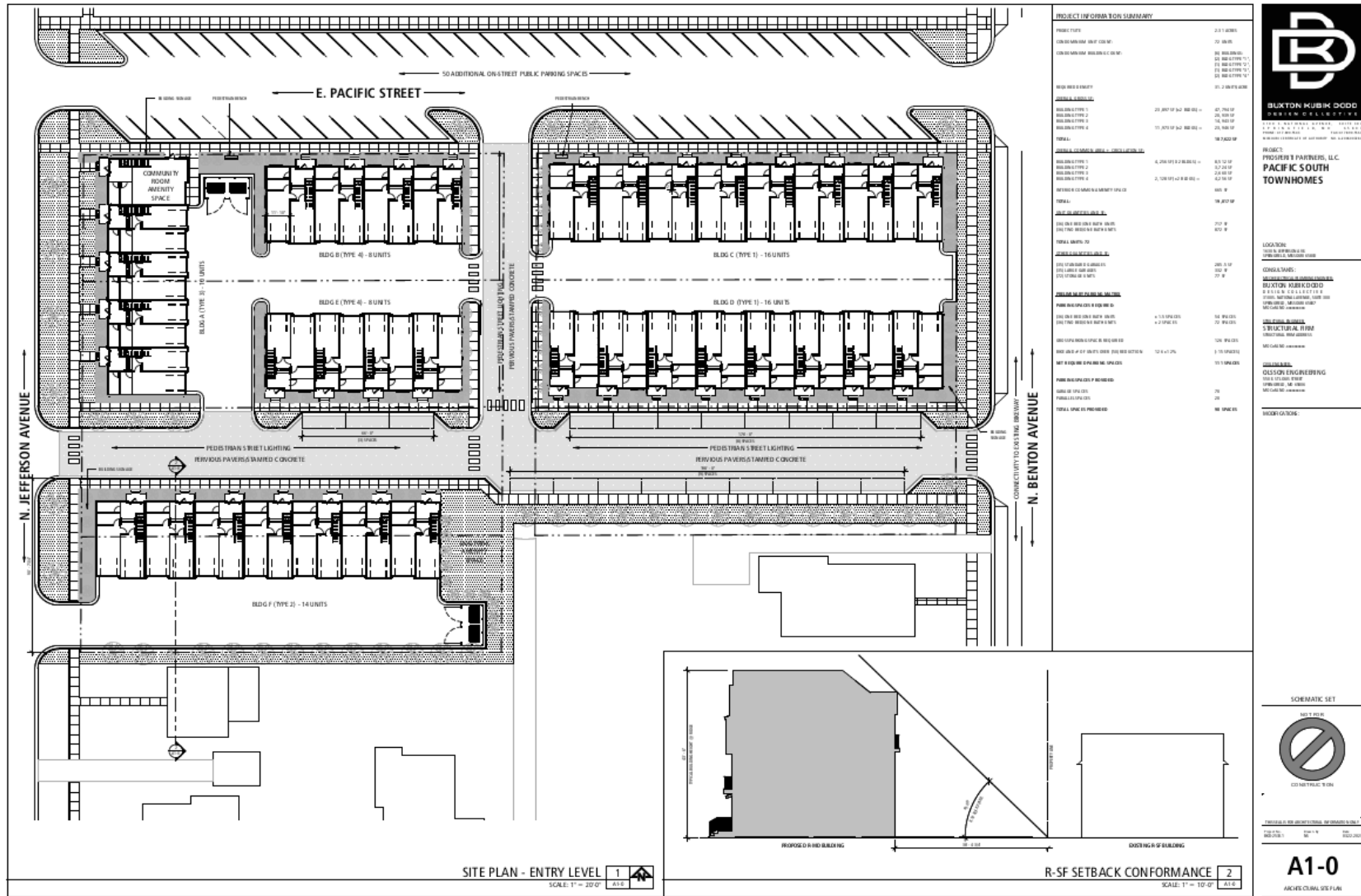


Exhibit G-2



Exhibit G-3



Exhibit G-4



Exhibit G-5



Exhibit G-6

EXHIBIT H
ESTIMATED CONSTRUCTION COSTS /PROJECT BUDGET

[please see attached]

PACIFIC SOUTH PROJECT

Uses		
Land		\$ 1,511,640
Total Site Acquisition		\$ 1,511,640
Appraisal		\$ 3,500
Architect	6.00%	\$ 820,008
Builders Risk Insurance		\$ 25,000
Building Permits		\$ 15,000
Civil Engineer		\$ -
Entitlement Fees		\$ -
Environmental		\$ -
Geo Tech		\$ -
General Liability Insurance		\$ 8,000
Impact Fees		\$ -
Borrower Legal--Closing		\$ -
Borrower Legal--Pre-closing		\$ -
Lender Inspections (Post Closing)		\$ -
Lender Legal and Other Closing		\$ 500
Other Professional		\$ -
Other (G&A)		\$ -
Other (Loan Cost)		\$ -
Other (Advertising)		\$ 5,000
Real Estate Taxes		\$ 25,000
Survey		\$ 15,000
Title-Doucment Stamps		\$ -
Soft Costs (subtotal)		\$ 917,008
Soft Cost Contingency @	5.00%	\$ 45,850
Total Soft Costs		\$ 962,858
Construction Cost (Core & She	\$111.56	\$ 12,134,679
Construction Contingency @	3.00%	\$ 364,040
Demolition		\$ 100,000
Environmental Remediation		\$ -
FF&E		\$ 50,000
GC Fee	3.00%	\$ 364,040
General Conditions	3.00%	\$ 364,040
Project Management	0.00%	\$ -
Security		\$ 15,000
Signage		\$ 25,000
Sitework		\$ 250,000
Total Hard Costs		\$ 13,666,800
Total Site, Hard and Soft Costs		\$ 16,141,299
Interest Reserves		\$ 892,000
Operating Reserves		\$ 100,000
Origination Fee @	0.50%	\$ 74,319
Development Fee @	10.00%	\$ 1,720,762
Total Uses		\$ 18,928,380

EXHIBIT I

PD 386

EXHIBIT 1
Requirements and Standards Applicable
To Planned Development District No. 386

A. APPLICATION

Building or other permits may not be issued for development permitted by this Planned Development nor can any changes be made to this property until the Final Development Plan has been approved in the manner described at the end of this exhibit.

All requirements of the *Springfield Zoning Ordinance* shall apply unless modified by the requirements and standards that follow.

B. INTENT

The intent of this Planned Development is to permit the construction of multifamily dwellings in a row house style on a single lot, utilizing architectural features and exterior materials which emulate and enhance the historic nature of the Mid-Town neighborhood. The total development includes six row house-style structures (labeled Buildings A through F, Exhibit 2, Site Plan) containing 72 multifamily dwelling units.

C. DEFINITIONS

The definitions contained in the *Zoning Ordinance* shall apply to this ordinance.

D. USES PERMITTED

The following uses are permitted:

1. Accessory uses, as permitted by Section 36-450, Accessory structures and uses, of the *Zoning Ordinance*.
2. Multifamily dwellings.
3. Residential condominiums.
4. Short-term rentals, as permitted by Section 36-473, Short-term rentals, of the *Zoning Ordinance*.
5. Temporary uses, as permitted by Section 36-452, Temporary uses, of the *Zoning Ordinance*.
6. Home occupations, as permitted by Section 36-451, Home occupations, of the *Zoning Ordinance*.

E. USE LIMITATIONS

1. All uses shall operate in accordance with the noise standards contained in Section 36-485 of the *Springfield Zoning Ordinance*.
2. No use shall emit an odor that creates a nuisance as determined by the *Springfield City Code*.

F. INTENSITY OF DEVELOPMENT

Development within this district shall adhere to the following standards:

1. The maximum residential density shall not exceed 32 dwelling units per acre.

G. BULK, AREA, AND HEIGHT REQUIREMENTS

Development within this district shall adhere to following bulk, area, and height requirements:

1. *Maximum structure height:* 42 feet above finished grade; however, in no event shall any structure exceed a 45-degree bulk plane as measured from the district boundary of any property zoned R-SF, Single-family residential district or R-TH, Residential townhouse district.
2. *Minimum yard requirements:* None, except for the bufferyard requirement along the south property line where adjacent to property zoned R-SF as described in I. **OPEN SPACE, LANDSCAPING, AND SCREENING** below.

H. DESIGN REQUIREMENTS

Development within this district shall adhere to the following design requirements:

1. *Exterior building materials:* All construction must utilize a combination of brick cladding veneer and Hardie Board siding (or similar cement fiber siding). Hardie Board siding (or such similar material) shall be oriented horizontally and provided in solid colors with a traditional wood appearance (see Exhibit 2, renderings provided by Buxton Kubik Dodd Design Collective).
2. *Architectural articulations:* All front façades shall incorporate architectural articulations which result in a difference in the vertical plane of such wall of at least 18 inches; in addition, all front façades shall be further enhanced through the incorporation of stoops, awnings, windows, bay window projections, and balconies (see Exhibit 2, renderings provided by Buxton Kubik Dodd Design Collective).
3. *Pedestrian circulation:* In general alignment with Exhibit 2, Site Plan, four-foot-wide pedestrian walkways shall be provided throughout the entirety of the development, connecting to one another and public sidewalks located in adjacent

public right-of-way. The front entry of all dwellings shall be connected to the pedestrian circulation system or public sidewalks, as applicable.

4. *Development amenities:*
 - a. *Pedestrian benches.* Per Exhibit 2, Landscape Plan, a minimum of six (6) pedestrian benches shall be installed throughout the total development area.
 - b. *Community room.* Per Exhibit 2, Site Plan, Building A – located at the northwest corner of the development area – shall provide a shared community room on its first floor for shared use by the development's residents.
 - c. *Tot lot.* Per Exhibit 2, Site Plan, a fenced tot lot shall be provided internal to the development for use by the development's residents. The tot lot must be a minimum of 900 square feet in area and must contain at least one picnic table and one communal barbeque grill/pit.
5. *Security fencing, gating.* To be provided per Exhibit 2, Site Plan. All fencing and gates shall be of an aluminum material. All fencing and gates shall be limited to a maximum height of seven (7) feet above finished grade.

I. OPEN SPACE, LANDSCAPING AND SCREENING

The landscaping and screening provisions are intended to improve the physical appearance of the district; to improve the environmental performance by contributing to the abatement of heat, glare, and noise, and by promoting natural percolation of stormwater and improvement of air quality; to buffer potentially incompatible land uses from one another; and to conserve the value of adjoining property and neighborhoods.

1. *Open space requirements:*
 - a. *Minimum open space.* Not less than 15 percent of the total lot area shall be devoted to open space, including the required bufferyard. Open space shall not include areas covered by buildings, structures, parking, loading and other paved areas and internal streets. Open space shall contain living ground cover and other landscaping materials.
 - b. *Maximum impervious surface.* The combined area occupied by all main and accessory buildings or structures, parking, loading and other paved areas and any other surfaces which reduce and prevent absorption of stormwater shall not exceed 85 percent of the total lot area.
2. *Bufferyards:* A bufferyard D, as described in Section 36-482 of the *Springfield Zoning Ordinance*, must be installed along the south property line where adjacent to property zoned R-SF and the existing alley.
 - a. *Minimum width.* The bufferyard D shall have a minimum width of ten feet, as identified in Exhibit 2, Landscape Plan.
 - b. *Minimum plantings.* The minimum plantings within the bufferyard D shall include 12 canopy trees, 12 understory trees, 12 evergreen trees, and 84

shrubs to be evenly distributed throughout the entirety of the bufferyard area as depicted in Exhibit 2, Landscape Plan.

- c. *Screening.* The bufferyard D shall include a six-foot wood privacy fence, or other form of accepted screening as described in Section 36-480 of the *Springfield Zoning Ordinance*, throughout the entirety of the bufferyard's area.
3. *Interior landscaping:*
 - a. *Minimum area.* A minimum of 1,870 square feet of open space shall be provided interior to the development's vehicular use areas and pedestrian circulation system.
 - b. *Minimum plantings.* The minimum plantings within the interior landscape area shall include eight (8) understory trees and two (2) canopy trees, as depicted in Exhibit 2.
4. *Foundation landscaping:* To further soften the architectural impact of the development on adjacent public right-of-way and to improve the streetscape, the following plantings shall be provided at least 18 inches from the foundation of those buildings whose front entries address public right-of-way.
 - a. *Minimum plantings.* Each foundation landscape area, located at the front entry of each townhouse, shall contain at least one (1) evergreen shrub, two (2) deciduous shrubs, and four (4) perennial flowers.
5. *Tree replacement.* The following additional plantings shall be required to offset the removal of certain existing trees interior to the site and within adjacent public right-of-way.
 - a. *Interior replacement trees.* Per Exhibit 2, Landscape Plan, three (3) trees shall be planted interior to the development to replace those trees anticipated to be removed as part of this project's construction; these replacement trees shall be canopy trees of a minimum caliper width of one and one-half (1.5) inches at the time of planting.
 - b. *Public right-of-way replacement trees.* Per Exhibit 2, Landscape Plan, four (4) trees shall be planted within the adjacent public right-of-way to replace those trees anticipated to be removed as part of this project's construction; these replacements shall be canopy trees of a minimum caliper width of one and one-half (1.5) inches at the time of planting.
6. No perimeter landscaping, as defined in Section 36-482 of the *Springfield Zoning Ordinance*, shall be required as part of this development.

J. EXTERIOR LIGHTING

The requirements and standards of Section 36-484 of the *Springfield Zoning Ordinance*, in effect at the time of development, shall apply but for the following:

1. *Light sources or luminaries with cutoffs.* Light sources or luminaries which have a cutoff shall not exceed a maximum height of 30 feet.

K. ACCESS TO PUBLIC THOROUGHFARES

Access to the public street system shown in Exhibit 2 shall be governed by the existing standards of the City of Springfield for the applicable street classification.

L. OFF-STREET PARKING

Vehicular and bicycle off-street parking facilities shall be provided in conformance with Exhibit 2, Site Plan and Site Calculations.

1. *Enclosed parking.* A minimum of 70 vehicular parking spaces shall be provided via the first-floor garage space associated with each dwelling unit.
2. *Outdoor parking.* A minimum of 15 vehicular parking spaces shall be provided as parallel parking along the east-west internal drive.
3. *Bicycle parking.* A minimum of 12 bicycle racks, meeting the design standards of Section 36-483 of the *Springfield Zoning Ordinance*, shall be distributed throughout the development as depicted in Exhibit 2, Site Plan.

M. SIGNS

The requirements and standards of Section 36-454 of the *Springfield Zoning Ordinance*, in effect at the time of development, shall apply.

N. REQUIRED IMPROVEMENTS

A traffic study was submitted to and accepted by the City of Springfield prior to the review of the proposed Planned Development concluding that no public improvements shall be required as part of this development.

O. MAINTENANCE OF COMMON AREAS AND FACILITIES

The maintenance of common areas and facilities within the District shall remain the responsibility of the developer(s) or shall be assumed by duly constituted property owners association meeting all legal requirements prescribed by the City Attorney.

P. PHASING

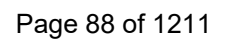
Development within this District will not be phased.

Q. FINAL DEVELOPMENT PLAN

A Final Development Plan, showing conformance with the requirements of this Exhibit, shall be submitted to the Planning and Development Department and approved in the manner described below prior to the issuance of any building permits or prior to the commencement of any of the permitted uses or improvements permitted or required by this exhibit. Development in this district shall be in accordance with the approved Final Development Plan.

1. A Final Development Plan shall only be approved if it is in substantial conformance with Exhibits 1 and 2 as defined by subsection 36-405 (9) (c) of the *Zoning Ordinance*.
2. The Final Development Plan shall be submitted to the Administrative Review Committee for review and approval, either as a whole or in phases. The Administrative Review Committee is hereby authorized, at its discretion, to approve minor adjustments and modifications to the site plan. Such authority shall not, however, be construed to permit:
 - a. Any uses within the district other than those specifically prescribed by the ordinance.
 - b. Any increase in the intensity of use permitted within the district.

1



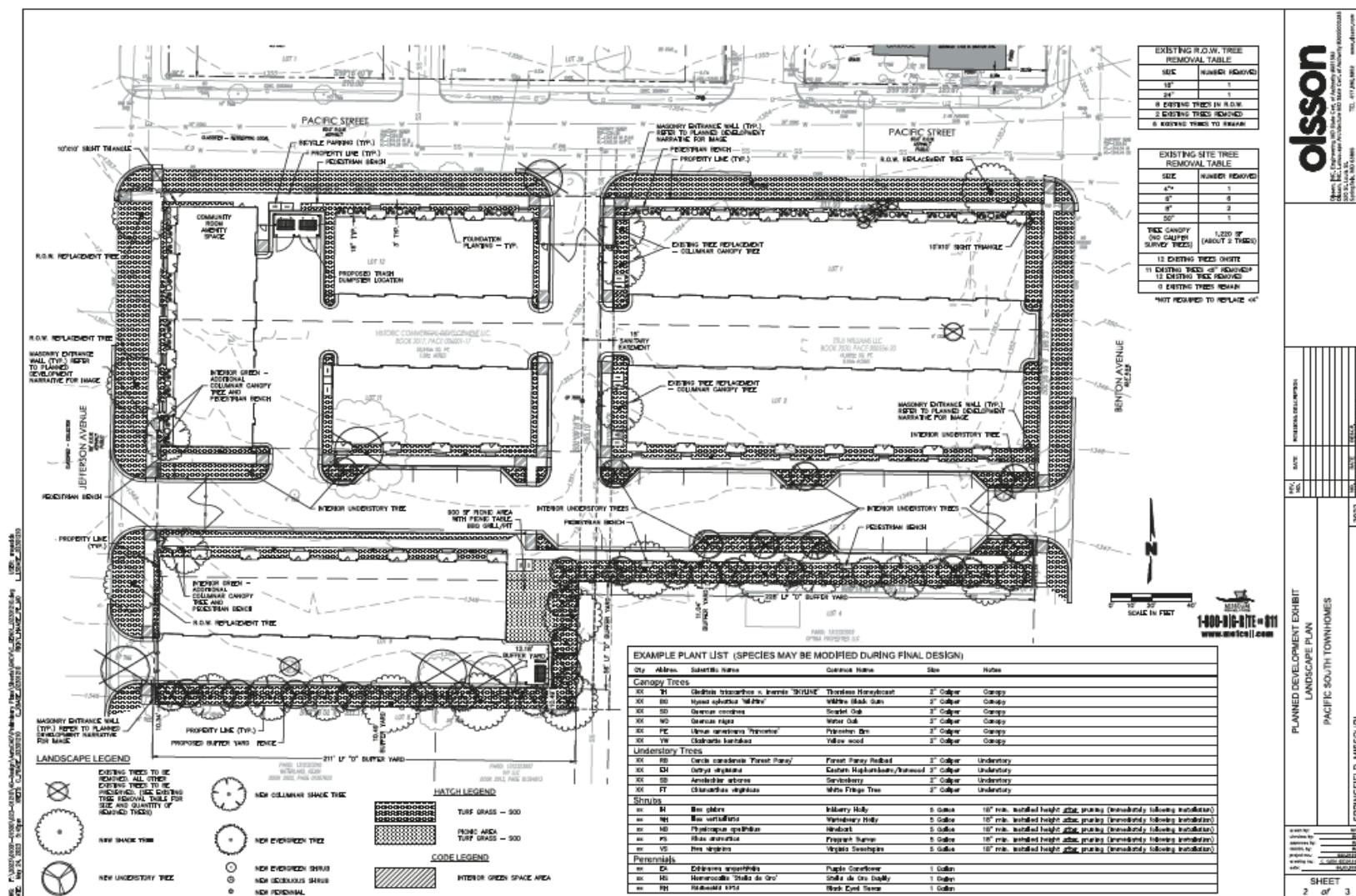








EXHIBIT J

[URBAN REDEVELOPMENT CORPORATION/DEVELOPER]

[please see attached]

STATE OF MISSOURI



John R. Ashcroft
Secretary of State

CERTIFICATE OF AGREEMENT OR ASSOCIATION

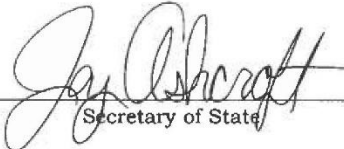
WHEREAS, Articles of Agreement or Association of

COMMERCIAL-PACIFIC STREET REDEVELOPMENT CORPORATION
RD001394006

have been received and filed in the Office of the Secretary of State, which Articles, in all respects, comply with the requirements of Urban Redevelopment Corporations Law.

NOW, THEREFORE, I, JOHN R. ASHCROFT, Secretary of State of the State of Missouri, do by virtue of the authority vested in me by law, do hereby certify and declare this entity a body corporate, duly organized this date and that it is entitled to all rights and privileges granted corporations organized under the Urban Redevelopment Corporations Law.

IN TESTIMONY WHEREOF, I hereunto set my hand and cause to be affixed the GREAT SEAL of the State of Missouri. Done at the City of Jefferson, this 22nd day of August, 2023.


Secretary of State



RD001394006
Date Filed: 8/22/2023

John R. Ashcroft
Missouri Secretary of State

**ARTICLES OF AGREEMENT
OF
COMMERCIAL-PACIFIC STREET REDEVELOPMENT CORPORATION**

The undersigned, being a natural person of the age of eighteen (18) years or more, and acting as incorporator of a corporation to be organized pursuant to the provisions of the "Urban Redevelopment Corporations Law" of Missouri, Chapter 353, RSMo., does hereby adopt the following Articles of Agreement.

ARTICLE I

The name of the corporation is Commercial-Pacific Street Redevelopment Corporation (the "*Corporation*").

ARTICLE II

The principal business office shall be located at 1660 N. Campbell Ave, Springfield, MO 65803 with a mailing address of 1660 N. Campbell Ave, Springfield, MO 65803.

ARTICLE III

The address of the initial registered office and registered agent of the Corporation in the State of Missouri is 2144 E. Republic Road, Suite B300, Springfield, Missouri 65804, with a mailing address of 2144 E. Republic Road, Suite B300, Springfield, Missouri 65804. The initial registered agent of the Corporation at such address is Spenserv-Springfield, Inc.

ARTICLE IV

The aggregate number of shares which the Corporation shall have the authority to issue is 30,000, all having a par value of \$0.01 each, and all of which are of one class and are designated as Common Stock. All shares shall have equal rights and powers and there are no pre-emptive rights of shareholders with respect to any shares issued or to be issued by the Corporation.

ARTICLE V

The Corporation is formed for the following purposes:

5.1 To acquire, construct, maintain and operate a redevelopment project or redevelopment projects in accordance with the provisions of Chapter 353, RSMo.

5.2 To purchase, receive or otherwise acquire, own, hold, vote, use, employ, sell, mortgage, lease, pledge or otherwise dispose of, and otherwise use and deal in and with, shares or other interests in, or obligations of other domestic or foreign corporations, associates, partnerships or individuals, insurance or annuities in any form, or direct or indirect obligations of the United States or of any other government, state, territory, governmental district or municipality or of any instrumentality thereof.

5.3 To purchase, receive, lease or otherwise acquire, own, hold, improve, use, sell and otherwise deal in and with real or personal property, or any interests therein, wherever situated.

5.4 To engage in any lawful act or activity for which corporations may be organized under the Urban Redevelopment Corporations Law of Missouri.

ORI-08222023-2213 State of Missouri

No of Pages 5 Pages



Created: 8/22/2023

5.5 To serve a public purpose and all real estate acquired by it and all structures erected by it are to be acquired for the purpose of promoting the public health, safety and welfare, in that the stockholders of the Corporation shall when they subscribe to and receive the stock hereof, agree that the net earnings of the Corporation shall be limited to an amount not to exceed eight percent (8%) per annum of the cost to such Corporation of the redevelopment project, including the cost of the land or the balances of such cost as reduced by amortization payments, provided that the net earnings derived from any redevelopment project shall in no event exceed a sum equal to eight percent (8%) per annum upon the entire cost thereof. Such net earnings shall be computed after deducting from gross earnings the following:

- (a) All costs and expenses of maintenance and operation;
- (b) Amounts paid for taxes, assessments, insurance premiums and other similar charges;
- (c) An annual amount sufficient to amortize the cost of the entire project at the end of the period, which shall not be more than sixty (60) years from the date of completion of the project. The development plan may contain provisions satisfactory to the legislative authority authorizing such plan that any surplus earnings in excess of the rate of net earnings provided in this chapter may be held by the Corporation as a reserve for maintenance at such rate of return in the future and may be used by the Corporation to offset any deficiency and such rate of return which may have occurred in prior years; or may be used to accelerate the amortization payment; or for the enlargement of the project; or for reduction in the rentals therein; provided, that any excess of such surplus earnings remaining at the termination of a tax relief granted pursuant to Section 353.110 shall be turned over by the Corporation to the city.

5.6 To clear, re-plan, reconstruct or rehabilitate blighted areas, and the construction of such industrial, commercial, residential or public structures as may be appropriate, including provisions for recreational and other facilities incidental or appointments thereto.

5.7 It is the intention of each of the purposes specified hereinabove shall be liberally construed as powers and in no way limited or restricted by reference to or inference from the terms contained therein or any other paragraph. The enumeration of specific purposes shall not be construed to restrict in any manner the general objects and purposes of this Corporation, nor shall the expression of one thing be deemed to exclude another.

ARTICLE VI

The name and mailing address of the subscriber is:

Shelby D. Wood
2144 East Republic Road, Suite B300
Springfield, Missouri 65804

ARTICLE VII

The number of directors to constitute the Board of Directors of the Corporation is three (3). The name and mailing address of each person who is to serve as a director for the first year or until a successor is elected is as follows:

SPR 18284720.1

Titus Williams
1660 N Campbell Ave.
Springfield, MO 65803

Viviana Writer
1660 N Campbell Ave.
Springfield, MO 65803

Timothy O'Reilly
4045 E. Sunshine Street, Suite 200
Springfield, MO 65809

The number of Directors to constitute subsequent Boards of Directors shall be fixed by, or in the manner provided in, the By-laws of the Corporation, but shall be no less than three (3) or more than four (4).

ARTICLE VIII

The duration of the Corporation shall be ninety-nine years.

ARTICLE IX

No contract or other transaction between this Corporation and any other firm or Corporation shall be affected or invalidated by reason of the fact that any of the directors or officers of this Corporation are interested in or are members, shareholders, directors or officers of such other firm or Corporation. Any director or officer of this Corporation may be a party to or may be interested in any contract or transaction of this Corporation or in which this Corporation is interested and no such contract shall be affected or invalidated thereby. Each and every person who may become a director or officer of this Corporation is hereby relieved of any liability that might otherwise exist from his contracting with this Corporation for the benefit of himself or any firm, person, association or Corporation which he may be in any way interested in each case as long as the contract or transaction is fair to the company or is otherwise authorized by Missouri law.

ARTICLE X

10.1 *Indemnification.* Each person who was or is made a party, or is threatened to be made a party to, or is involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "*proceeding*"), by reason of the fact that he or she, or a person of whom he or she is the legal representative, is or was a director or officer of the Corporation, or is or was serving at the request for the Corporation as a director, officer, employee or agent of any other corporation, partnership, joint venture, trust or other enterprise, whether the basis of such proceeding is an alleged act, failure to act, or omission in an official capacity as a director or officer, or in any other capacity while serving as a director or officer, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the General and Business Corporation Law of Missouri and the General Not for Profit Corporation Law of Missouri, as both now exist or may hereafter be amended, (but, in the case of any amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification than said Law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorney's fees, judgments, fines, and amounts paid or to be paid in settlement) reasonably incurred or suffered by such person in connection therewith; provided, however, that the Corporation shall indemnify any such person seeking indemnity in connection with a proceeding initiated by such person only if such proceeding was authorized or later ratified by the Board of Directors of the Corporation or is authorized by this Article. Such indemnification shall include the right to be paid by the Corporation for all expenses incurred in defending any such proceeding in advance of its final disposition; provided, however, that the payment of such expenses shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such director or officer, to repay all amounts so

SPR 18284720.1

advanced if it should be determined ultimately that such director or officer is not entitled to be indemnified under this Article or otherwise.

10.2 *Right of Claimant to Bring Suit.* If any amount claimed due under Section 10.1, above, is not paid in full by the Corporation within ninety (90) days after a written claim has been received by the Corporation, the claimant may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and, if successful in whole or in part, the claimant shall be entitled to be paid also the expense of prosecuting such claim.

10.3 *Limitation of Indemnification.* No indemnity pursuant to this Article shall be paid by the Corporation on account of any director's or officer's conduct which is finally adjudged to have been knowingly fraudulent, deliberately dishonest or willful misconduct by a court having jurisdiction in the matter.

10.4 *Non-exclusivity.* The indemnification and rights conferred on any person by this Article shall not be exclusive of any other indemnification or right which such person may have or hereafter acquire under any statute or rule of law, or under any provision of the Articles of Incorporation or By-Laws of this Corporation, or under or by reason of agreement, vote of stockholders or disinterested directors or otherwise.

10.5 *Insurance.* The Corporation may maintain insurance, at its expense, to protect itself and any such director or officer against any expense, liability or loss, whether or not the Corporation has the power to indemnify such person against such expense, liability or loss under the General and Business Corporation Law of Missouri or the General Not for Profit Corporation Law of Missouri.

10.6 *Survival.* Each person who was or is a director or officer of the Corporation and the heirs, executors, administrators and estate of such person, are third party beneficiaries of this Article and shall be entitled to enforce against the Corporation all indemnification and other rights granted to such person by applicable law and as otherwise provided in this Article.

10.7 *Amendment or Repeal.* This Article may be hereafter amended or repealed; provided, however, that no amendment or repeal or adoption of a provision inconsistent with the provisions of this Article shall reduce, terminate or otherwise adversely affect the right of a person who was or is a director or officer to obtain indemnification or an advance of expenses with respect to a proceeding that pertains to or arises out of any act, failure to act or omission that occurred prior to the effective date of the amendment, repeal or adoption of such inconsistent provision.

ARTICLE XI

In the event that income debenture certificates are issued by the Corporation, the owners thereof shall have the same right to vote as they would have if possessed of certificates of stock of the amount and par value of the income debenture certificates held by them. The income debenture certificates or preferred stock of the Corporation may be retired as and when there shall be funds available in the treasury of the Corporation from the receipt of the amortization or sinking fund in installments for the purpose. Interest shall not be paid by the Corporation upon such income debenture certificates in excess of nine percent (9%) per annum. This limitation shall not apply to other debt of the Corporation.

ARTICLE XII

The Board of Directors may make, alter, and repeal the By-Laws of the Corporation.

SPR 18284720.1

IN TESTIMONY WHEREOF, I have subscribed my name this 8th day of August, 2023.


Shelby D. Wood, Subscriber/Incorporator

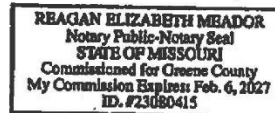
STATE OF MISSOURI)
)
COUNTY OF GREENE) ss.

I, Reagan Meador, a Notary Public in and for said County and State, do hereby certify that on this 23rd day of August, 2023, personally appeared Shelby D. Wood, who being by me first duly sworn, declared that he is the person who signed the foregoing document as Subscriber/Incorporator, and that the statements contained therein are true.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal the day and year last above written.


Name: Reagan Elizabeth Meador
Title: Notary Public

My Commission Expires: Feb 6, 2027
County of Commission: Greene



SPR 18284720.1

STATE OF MISSOURI



John R. Ashcroft
Secretary of State

CERTIFICATE OF AGREEMENT OR ASSOCIATION

WHEREAS, Articles of Agreement or Association of

COMMERCIAL-PACIFIC STREET REDEVELOPMENT CORPORATION
RD001394006

have been received and filed in the Office of the Secretary of State, which Articles, in all respects, comply with the requirements of Urban Redevelopment Corporations Law.

NOW, THEREFORE, I, JOHN R. ASHCROFT, Secretary of State of the State of Missouri, do by virtue of the authority vested in me by law, do hereby certify and declare this entity a body corporate, duly organized this date and that it is entitled to all rights and privileges granted corporations organized under the Urban Redevelopment Corporations Law.

IN TESTIMONY WHEREOF, I hereunto set my hand and cause to be affixed the GREAT SEAL of the State of Missouri. Done at the City of Jefferson, this 22nd day of August, 2023.


Secretary of State



Pacific South Redevelopment Area Chapter 353 Qualifications Study



CITY OF SPRINGFIELD, MISSOURI

June 14, 2023

PGAV PLANNERS

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SECTION 1 – INTRODUCTION

PURPOSE OF THIS REPORT

The City of Springfield, Missouri (the “City”) is seeking to encourage the physical and economic revitalization of a property in the corporate limits of the City generally located just outside of the Commercial Street Historic District hereinafter referred to as the “Area”. The Area is depicted and described in **Appendix A – Redevelopment Area Boundary Map and Parcel List** on the next page and consists of two parcels. The parcel locations and the associated parcel identification number from the Green County Assessor records are as follows:

- 1630 N. Jefferson Avenue identified by parcel identification number 881312323014.
- 1635 N. Benton Avenue identified by parcel identification number 881312323001.

This report reflects current conditions based on data acquisition and field investigations in April 2023 and documents the conditions that were found to be present in the Area. Additionally, the analysis reflects the current definition of “blighted area” in The Urban Redevelopment Corporations Law, Chapter 353, RSMo. (hereinafter referred to as “Chapter 353”). In 2021, the definition of “blighted area” in Section 353.020(2) of Chapter 353 was amended to cross-reference the definition of “blighted area” in Section 99.805(1), RSMo., which provides:

***"Blighted area"**, an area which, by reason of the predominance of insanitary or unsafe conditions, deterioration of site improvements, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, retards the provision of housing accommodations or constitutes an economic or social liability or a menace to the public health, safety, or welfare in its present condition and use.*

A finding that an area is a “blighted area” as defined by Chapter 353 is required for the establishment of an “area” pursuant to Chapter 353. However, Chapter 353 also defines “Area” in a larger context. This recognizes that a Chapter 353 Area may include properties that are not blighted but are required to implement the overall redevelopment plan.

Chapter 353 defines “area” as follows:

***“Area”**, that portion of the city which the legislative authority of such city has found or shall find to be blighted so that the clearance, replanning, rehabilitation, or reconstruction thereof is necessary to effectuate the purposes of this law. Any such area may include buildings or improvements not in themselves blighted, and any real property, whether improved or unimproved, the inclusion of which is deemed necessary for the effective clearance, replanning, reconstruction, or rehabilitation of the area of which such buildings, improvements or real property form a part. (Section 353.020(1) of Chapter 353).*

Among other things, Chapter 353 allows cities to:

- Identify and designate areas for redevelopment that qualify as “blighted areas”.
- Adopt a development plan that designates an area in need of redevelopment and states the objectives to be attained and the redevelopment project to be undertaken.
- Approve a redevelopment project for implementation of such development plan.
- Utilize the tools set forth in Chapter 353 to assist in reducing or eliminating those factors and conditions that cause the area to qualify as a “blighted area” through the completion of a redevelopment project.

As set forth in Chapter 353, certain of the above-listed actions may be delegated by the City to an “urban redevelopment corporation”, as defined in Chapter 353.

AREA DESCRIPTION AND BACKGROUND

Based on our review of City documents, the two buildings within the Area which are the subject of this report do not appear to be historically designated or within the City’s adjacent Commercial Street Historic District. However, these structures are in need of significant repair and rehabilitation and their adjacency to a historic district makes their rehabilitation more important. In addition, ongoing uses of such structures often need adaptive reuse because they are no longer useful or suitable for their original intended purposes. Redeveloping historic or architecturally significant buildings is far more costly and usually more so if they are to be put to another use. Often the cost of revitalization of such structures exceeds the value of land and buildings in their present condition even if the building(s) is sound overall. The Area does not benefit from a location within a Tax Increment Financing (TIF) district or Community Improvement District (CID) and the associated financial incentive assistance vehicles that have been put in place. Chapter 353 can provide up to 25 years of real estate tax abatement to assist projects that now need financial assistance in order to cover extraordinary costs associated with revitalization and redevelopment.

SECTION 2 – BASIS FOR DESIGNATION AS A BLIGHTED AREA

This report is based upon on-site investigation of the Area conducted by PGAV Planners, LLC (“PGAV”) in April 2023. City staff also provided information used in this analysis along with information from the property owners. PGAV relied upon its experience, knowledge of the Springfield real estate market, and professional expertise in the preparation of the analysis. Photographs illustrating representative blighting conditions taken during the site visit are displayed in **Appendix B**. Characteristics of the blighting conditions are discussed in this section of the report. However, this report will not reflect changes in conditions or events that have occurred after the most recent field investigation of the Area or publication of this report.

PHYSICAL DETERIORATION

In general, deterioration refers to the physical and economic deterioration of the improvements of the Area both in terms of buildings and other above-ground structures, below-grade supporting structures such as water, sewer, and electric utilities, and surface site improvements such as parking areas, access and circulation roadways and drives, and lighting fixtures, signage, etc.

Deterioration may be evident in otherwise sound buildings containing minor defects, such as a lack of painting, loose, missing, or deteriorating roofing materials, deteriorating floor or ceiling plates or holes and cracks over limited areas. Deterioration that is not easily curable during normal maintenance includes defects in the primary and secondary building components. Primary building components include the foundation, exterior walls, floors, roofs, wiring, plumbing, etc. Secondary building components include the doors, windows, frames, fire escapes, gutters, downspouts, siding, and fascia materials, driveways, parking areas, garages, etc.

Deterioration of site improvements is a function of many factors that are typically the result of deferred maintenance that occurs over time. If ongoing maintenance is not carried out, the conditions become much more extensive and expensive to fix. Physical deterioration is accelerated over time by other contributing factors all of which are present within the Area. The building located at 1635 N. Benton Avenue was built in 1925, with at least one addition occurring in the 1960s to add a chapel to the south end of the building. This building operated as a funeral home until its closure in 2016.

Based on field reconnaissance, the parcels comprising the Area have buildings and site improvements or both that exhibit signs of physical deterioration. These range in severity but include interior water damage, exposed wiring, damaged fascia and soffits, peeling paint, broken or damaged windows and doors, and cracking and/or pot-holed parking lots.

As detailed in the photographs in **Appendix B**, during field investigations, PGAV observed instances of physical deterioration of site improvements such as buildings, accessory structures, lighting, infrastructure, and paved surfaces (e.g., roadways and parking areas) in the Area:

- The age of the structures virtually assures the presence of lead-based paint. Depending on interior improvements that have been made over the years, asbestos may be present in some of the building materials.
- Changes to electrical, plumbing, heating and air conditioning likely occurred over time and most likely do not meet current building code standards and modern equipment needs. Additionally, during the site visit exposed wiring was identified in multiple places.
- The former use of the building at 1635 N. Benton Avenue as a funeral home presents concerns regarding possible building or site contamination from chemicals used for embalming and disinfecting.
- Interior ceilings and walls show evidence of water damage and other deterioration.
- Building exteriors showed signs of deterioration, including cracks along brick exterior walls, peeling paint, and missing siding. Fascia, soffits, gutters, and downspouts were missing or damaged in several places. In some instances, exterior improvements such as stairs, railings, fascia and soffits are deteriorated and require repair or replacement.
- Several windows and doors were broken or deteriorated. These are prime entry points for vermin, as well as access points for individuals trespassing.
- Overgrown vegetation is present on and around the buildings.
- Accessory structures (both attached and detached) include a garage, shed, portico, and port cochere. These structures show signs of deterioration, including rotting wood, peeling paint, and distorted structural components, indicating structural instability.
- Nearly all paved surfaces on private property (either parking areas or sidewalks) exhibit evidence of widespread cracking or potholes that need resealing, repair, or replacement.

In general, the age and condition of the buildings in the Area impedes its redevelopment and advances physical deterioration, particularly when the structures have little attractiveness for uses other than their current ones. Building codes and safety and environmental regulations have also significantly changed over the past decades, which could mean aspects of these buildings are nonconforming to the City's current building codes. Other factors such as energy efficiency (older lighting systems, heating, and cooling units, and building insulation) resulting from their age contribute to their declining usability and increases redevelopment costs.

INSANITARY OR UNSAFE CONDITIONS

During field investigations, there were no observations of vermin or their activity, but review of the property indicated that their presence is likely. Openings in various deteriorating building materials on each of the principal buildings and related outbuilding structures provide ideal access locations for birds, squirrels, mice, rats, and bats. Various types of debris, discarded materials, and overgrowth are scattered around the site. These factors represent unsanitary and unsafe conditions.

CONDITIONS ENDANGERING LIFE OR PROPERTY

Both buildings within the Area appear to be vacant and unsecured. During the site visit, buildings had damage to windows and doors, and food was found left out, signs of possible trespassing and illegal entry to these properties. The abandoned nature of these buildings is also conducive to crime and a fire hazard.

ECONOMIC LIABILITY

The Area, by reason of physical deterioration has become an economic liability. PGAV conducted an analysis of the equalized assessed valuation (EAV) of all the parcels in the Area between 2013 and 2022. Since 2023 equalization has not yet occurred and property tax rates have not been set, 2023 EAV was not used.

Table 1 – EAV History, below, shows that between 2018 and 2023, the combined EAV for the area grew by 7.2%. EAV history from 2013 to 2018 shows similar trends for the parcel located at 1635 N Benton Avenue. However, the parcel at 1630 N Jefferson Avenue was sold in February of 2017 by Kitchen, Inc., a nonprofit, converting the property from tax-exempt to taxable. As a result, EAV data prior to 2018 is \$0 for this property.

Table 1- EAV History
Pacific South Redevelopment Area

Tax Year	Assessed Value	Annual % Change
2018	\$191,620	
2019	\$203,070	6%
2020	\$203,070	0%
2021	\$205,470	1%
2022	\$205,470	0%
% Change 2018-2022		7.2%

Since there have been no visible improvements or significant City-issued building permits for these properties and given the property conditions shown in the photos in **Appendix B**, this

change in value of 7.2% since 2018 is largely an inflationary adjustment. This also may be the result of an increase in value of the land and not the improvements. Therefore, it is clear that all the assessed value changes are the result of Assessor valuation models and not real investment. It should be noted that according to Assessor data, 2023 preliminary assessed value for the Area increases by 3.8% from 2022 values. It is not known what this increase is based on, but given that the condition of the properties would not seem to warrant any increase over 2022 values, it is likely also related to the reasons stated above.

In order to more accurately determine whether land and improvements are becoming an economic liability for the City and the taxing districts is to compare the rate of increase of EAV with inflation using the Consumer Price Index (CPI) and to compare the Area to the changes in EAV for the City over the same period.

Table 2 – CPI for All Urban Consumers (CPI-U) below shows the CPI trends from 2018-2022. By comparison to the CPI, the assessed valuation of the Area increased by 7.2% while the CPI went up by 15.7%. Therefore, the Area's growth is slower than inflation, indicating overall economic decline. **Table 3 – City of Springfield, Real Property Tax Assessed Value History** below shows that over the 2018-2022 period the City's assessed value increased by 12.8 %. This is an additional indicator that property values in the Area represent property that is a declining asset.

Table 2

**Consumer Price Index
All Urban Consumers
(CPI-U)***

Year	CPI	Annual % Change
2018	251.107	
2019	255.657	1.8%
2020	258.811	1.2%
2021	270.970	4.7%
2022	292.655	8.0%
% Change 2018-2022		15.7%

* Not Seasonally Adjusted

Table 3

**City of Springfield
Real Property Tax
Assessed Value History**

Year	Assessed Value	Annual % Change
2018	\$2,437,156,000	
2019	\$2,454,547,000	0.7%
2020	\$2,600,436,000	5.9%
2021	\$2,635,436,000	1.3%
2022	\$2,749,976,000	4.3%
% Change 2018-2022		12.8%

The Area presents an economic liability due to the inability for property values to keep pace with inflation or the property value growth of the City.

SECTION 3 – SUMMARY

The discussion of the preceding sections of this report and the photographic evidence presented in **Appendix B** provides evidence that the Area meets the “blighted area” requirements for designation as a Chapter 353 Area by indicating the existence of blighting factors within the Area.

Both parcels in the Area show varying levels of deterioration of site improvements, including:

- Deterioration of building exteriors (walls, siding, fascia, soffits, windows, doors, gutters, downspouts, painted surfaces, etc.).
- Deterioration of building interiors (walls, ceilings, wiring, etc.).
- Deterioration and/or dilapidation of accessory structures (garage, shed, portico, port cochere, etc.).
- Deterioration of site improvements such as driveways and parking areas.

Additionally, the Area has unsafe and insanitary conditions, as well as conditions endangering life and property, as a result of building vacancy, evidence of trespassing and breaking and entering, and conditions attractive to vermin.

The Area’s physical deterioration coupled with age and outmoded design for modern uses have hampered the Area’s economic value and performance as a generator of tax revenue for affected taxing districts. The lack of significant new development has impacted the Area’s ability to generate reasonable tax revenues for the taxing jurisdictions that rely on the Area for revenues to fund public services (e.g., fire, police, sanitary, sewer, education, etc.) for area residents. Also, the vacancies and unsafe conditions in the Area may result in an additional burden and/or cost to public services. Ultimately, the area presents an economic liability due to the inability of property values to keep pace with inflation or the property value growth of the City.

This report clearly demonstrates that the Area meets the Chapter 353 criteria for qualifying as a blighted area. However, as noted in the “Introduction” section of this report, Section 353.020, (1) of Chapter 353 does not require all buildings and improvements to be blighted if their inclusion in an area is required for effective clearance, replanning, reconstruction, or rehabilitation of the area.

Therefore, this report supports the finding that the Area, on the whole, meets the requirements of a “blighted area,” as is defined in Chapter 353 because of:

- Aging buildings and site improvements displaying physical deterioration,
- Unsafe and insanitary conditions and conditions endangering life and property,
- Lack of existing buildings with desirability for new uses, and
- Stagnating property values not keeping pace with other commercial areas of the City or the rate of inflation.

APPENDIX A

REDEVELOPMENT AREA BOUNDARY MAP AND PARCEL LIST

EXHIBIT 1 - REDEVELOPMENT PROJECT AREA MAP



Pacific South Redevelopment Area
Springfield, MO



EXHIBIT 2 - PARCEL LIST AND CURRENT EAV

Parcel ID	Parcel Address	Owner	2022 EAV
881312323014	1630 N Jefferson Ave, Springfield, MO	Historic Commercial Development LLC	\$97,760
881312323001	1635 N Benton Ave, Springfield, MO	Titus Williams LLC	\$107,710

APPENDIX B

PHOTO APPENDIX









may
540 E. Commercial Redevelopment Area
Chapter 353 Qualifications Study



CITY OF SPRINGFIELD, MISSOURI

June 14, 2023

PGAV **PLANNERS**

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SECTION 1 – INTRODUCTION

PURPOSE OF THIS REPORT

The City of Springfield, Missouri (the “City”) is seeking to encourage the physical and economic revitalization of a property in the corporate limits of the City generally located within the Commercial Street Historic District hereinafter referred to as the “Area”. The Area is depicted and described in **Appendix A – Redevelopment Area Boundary Map and Parcel List** on the next page and consists of four parcels and a single building. The parcel locations and the associated parcel identification number from the Green County Assessor records are as follows:

- 1727 N. Washington Avenue identified by parcel identification number 881312327018.
- 530 E. Commercial Street identified by parcel identification number 881312327029.
- 536 E. Commercial Street identified by parcel identification number 881312327027.
- 540 E. Commercial Street identified by parcel identification number 881312327001.

This report reflects current conditions based on data acquisition and field investigations in April 2023, and documents the conditions that were found to be present in the Area. Additionally, the analysis reflects the current definition of “blighted area” in The Urban Redevelopment Corporations Law, Chapter 353, RSMo. (hereinafter referred to as “Chapter 353”). In 2021, the definition of “blighted area” in Section 353.020(2) of Chapter 353 was amended to cross-reference the definition of “blighted area” in Section 99.805(1), RSMo., which provides:

***“Blighted area”**, an area which, by reason of the predominance of insanitary or unsafe conditions, deterioration of site improvements, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, retards the provision of housing accommodations or constitutes an economic or social liability or a menace to the public health, safety, or welfare in its present condition and use.*

A finding that an area is a “blighted area” as defined by Chapter 353 is required for the establishment of an “area” pursuant to Chapter 353. However, Chapter 353 also defines “Area” in a larger context. This recognizes that a Chapter 353 Area may include properties that are not blighted but are required to implement the overall redevelopment plan. Chapter 353 defines “area” as follows:

***“Area”**, that portion of the city which the legislative authority of such city has found or shall find to be blighted so that the clearance, replanning, rehabilitation, or reconstruction thereof is necessary to effectuate the purposes of this law. Any such area may include buildings or improvements not in themselves blighted, and any real property, whether improved or unimproved, the inclusion of which is deemed necessary for the effective clearance, replanning,*

reconstruction, or rehabilitation of the area of which such buildings, improvements or real property form a part. (Section 353.020(1) of Chapter 353).

Among other things, Chapter 353 allows cities to:

- Identify and designate areas for redevelopment that qualify as “blighted areas”.
- Adopt a development plan that designates an area in need of redevelopment and states the objectives to be attained and the redevelopment project to be undertaken.
- Approve a redevelopment project for implementation of such development plan.
- Utilize the tools set forth in Chapter 353 to assist in reducing or eliminating those factors and conditions that cause the area to qualify as a “blighted area” through the completion of a redevelopment project.

As set forth in Chapter 353, certain of the above-listed actions may be delegated by the City to an “urban redevelopment corporation”, as defined in Chapter 353.

AREA DESCRIPTION AND BACKGROUND

Based on our review of City documents, the building within the Area which is the subject of this report does not appear to be historically designated but is located within the Commercial Street Historic District. This is a historically significant structure that is in need of significant repair and rehabilitation. In addition, ongoing uses of such structures often need adaptive reuse because they are no longer useful or suitable for their original intended purposes. Redeveloping historic or architecturally significant buildings is far more costly and usually more so if they are to be put to another use. Often the cost of revitalization of such structures exceeds the value of land and buildings in their present condition even if the building(s) is sound overall.

The Area benefits from a location within a Tax Increment Financing (TIF) district and Community Improvement District (CID) and the associated financial incentive assistance vehicles that have been put in place. Chapter 353 designation can provide an additional financial resource, providing up to 25 years of real estate tax abatement to assist projects that now need financial assistance in order to cover extraordinary costs associated with revitalization and redevelopment.

SECTION 2 – BASIS FOR DESIGNATION AS A BLIGHTED AREA

This report is based upon on-site investigation of the Area conducted by PGAV Planners, LLC (“PGAV”) in April, 2023. City staff also provided information used in this analysis along with information from the property owners. PGAV relied upon its experience, knowledge of the Springfield real estate market, and professional expertise in the preparation of the analysis. Photographs illustrating representative blighting conditions taken during the site visit are displayed in **Appendix B**. Characteristics of the blighting conditions are discussed in this section of the report. However, this report will not reflect changes in conditions or events that have occurred after the most recent field investigation of the Area or publication of this report.

PHYSICAL DETERIORATION

In general, deterioration refers to the physical and economic deterioration of the improvements of the Area both in terms of buildings and other above-ground structures, below-grade supporting structures such as water, sewer, and electric utilities, and surface site improvements such as parking areas, access and circulation roadways and drives, and lighting fixtures, signage, etc.

Deterioration may be evident in otherwise sound buildings containing minor defects, such as a lack of painting, loose, missing, or deteriorating roofing materials, deteriorating floor or ceiling plates or holes and cracks over limited areas. Deterioration that is not easily curable during normal maintenance includes defects in the primary and secondary building components. Primary building components include the foundation, exterior walls, floors, roofs, wiring, plumbing, etc. Secondary building components include the doors, windows, frames, fire escapes, gutters, downspouts, siding, and fascia materials, driveways, parking areas, garages, etc.

Deterioration of site improvements is a function of many factors that are typically the result of deferred maintenance that occurs over time. If ongoing maintenance is not carried out, the conditions become much more extensive and expensive to fix. Physical deterioration is accelerated over time by other contributing factors all of which are present within the Area.

Based on field review, the parcels comprising the Area have buildings and site improvements or both that exhibit signs of physical deterioration. These range in severity but include interior water damage, cracked exterior walls, peeling paint, broken or damaged windows and doors, and overgrown vegetation.

As detailed in the photographs in **Appendix B**, during field investigations, PGAV observed instances of physical deterioration of site improvements such as buildings, accessory structures, lighting, infrastructure, and paved surfaces (e.g., roadways and parking areas) in the Area:

- The age of the structures virtually assures the presence of lead-based paint. Depending on interior improvements that have been made over the years, asbestos may be present in some of the building materials.
- Changes to electrical, plumbing, heating and air conditioning likely occurred over time and most likely do not meet current building code standards and modern equipment needs. Additionally, during the site visit exposed and damaged wiring and electrical boxes were identified.
- Interior ceilings and walls show evidence of water damage, exposed and rotting wood, peeling paint, and other deterioration. Interior flooring showed deterioration from water damage and broken or missing flooring materials. The stairwell into the basement was significantly damaged and unsafe.
- Building exteriors showed signs of significant deterioration, including severely cracked and crumbling exterior walls, peeling paint, and rotting or damaged wood. In some instances, exterior improvements such as stairs, railings, eaves, and awnings are deteriorated and require repair or replacement.
- Several windows and doors were broken, unsealed, or otherwise deteriorated. Numerous gaps between window frames and window openings were also visible. These are prime entry points for vermin, as well as access points for individuals trespassing.
- Overgrown vegetation is present on and around the building. Stormwater management appears to be a concern with damaged or improperly designed downspouts seen pouring water along the edge of the building.
- Sidewalks along the building exhibit evidence of widespread cracking and vegetative overgrowth.

In general, the age and condition of the building in the Area impedes its redevelopment and advances physical deterioration, particularly when the structures have little attractiveness for uses other than their current ones. Building codes and safety and environmental regulations have also significantly changed over the past decades, which could mean aspects of the building are nonconforming to the City's current building codes. Other factors such as energy efficiency (older lighting systems, heating, and cooling units, and building insulation) resulting from their age contribute to their declining usability and increases redevelopment costs.

INSANITARY OR UNSAFE CONDITIONS

During field investigations, there were no observations of vermin or their activity, but review of the property indicated that their presence is likely. Openings in various deteriorating building materials on the building provide ideal access locations for birds, squirrels, mice, rats, and bats. Various types of debris, discarded materials, and overgrowth are scattered around the site. These factors represent unsanitary and unsafe conditions.

CONDITIONS ENDANGERING LIFE OR PROPERTY

The building within the Area appears to be vacant and insufficiently secured. During the site visit, the building had damage to windows and doors, and evidence of graffiti on some exterior walls. The electrical boxes on the building's exterior appear to have been tampered with. The abandoned nature of this building is also conducive to crime and a fire hazard.

ECONOMIC LIABILITY

The Area, by reason of physical deterioration, has become an economic liability. PGAV conducted an analysis of the equalized assessed valuation (EAV) of all the parcels in the Area between 2013 and 2022. Since 2023 equalization has not yet occurred and property tax rates have not been set, 2023 EAV was not used.

Table 1 – EAV History, below, shows that between 2018 and 2023, the combined EAV for the area declined by 13.4%. EAV history since 2013 shows no change in EAV for three of the parcels, but the parcel located at 540 E. Commercial Street saw a 2% drop in EAV from 2016 to 2017, and a 15% decline from 2018 to 2019. The cause of this drop in EAV is unknown.

Table 1- EAV History

540 E. Commercial
Redevelopment Area

Tax Year	Assessed Value	Annual % Change
2018	\$79,570	
2019	\$69,140	-13%
2020	\$69,140	0%
2021	\$68,880	0%
2022	\$68,880	0%
% Change 2018-2022		-13.4%

Since there have been no visible improvements or significant City-issued building permits for these properties and given the property conditions shown in the photos in **Appendix B**, this drop in value of 13.4% since 2018 is largely the result of property condition decline. This also may be the result of an increase in the value of the land and not the improvements. Therefore, it is clear that all the assessed value changes are the result of Assessor valuation models and not real investment. It should be noted that according to Assessor data, 2023 preliminary assessed value for the Area increases by 25.7% from 2022 values, attributed to a change in value at 540 E. Commercial but none of the other parcels in the Area. It is not known what this increase is based on, but given that the condition of the properties would not seem to warrant any increase over 2022 values, it is likely also related to the reasons stated above.

Commented [SD1]: Do we know what could have caused this?

Commented [SD2]: What is going on with this parcel?

In order to more accurately determine whether land and improvements are becoming an economic liability for the City and the taxing districts is to compare the rate of increase of EAV with inflation using the Consumer Price Index (CPI) and to compare the Area to the changes in EAV for the City over the same period.

Table 2 – CPI for All Urban Consumers (CPI-U) below shows the CPI trends from 2018-2022. By comparison to the CPI, the assessed valuation of the Area decreased by 13.4% while the CPI went up by 15.7%. Therefore, the Area's growth is significantly slower than inflation, indicating overall economic decline. **Table 3 – City of Springfield, Real Property Tax Assessed Value History** below shows that over the 2018-2022 period the City's assessed value increased by 12.8%. This is an additional indicator that property values in the Area represent property that is a declining asset.

Table 2

Consumer Price Index
All Urban Consumers
(CPI-U)*

Year	CPI	Annual % Change
2018	251.107	
2019	255.657	1.8%
2020	258.811	1.2%
2021	270.970	4.7%
2022	292.655	8.0%
% Change 2018-2022		15.7%

* Not Seasonally Adjusted

Table 3

City of Springfield
Real Property Tax
Assessed Value History

Year	Assessed Value	Annual % Change
2018	\$2,437,156,000	
2019	\$2,454,547,000	0.7%
2020	\$2,600,436,000	5.9%
2021	\$2,635,436,000	1.3%
2022	\$2,749,976,000	4.3%
% Change 2018-2022		12.8%

The Area presents an economic liability due to the inability for property values to keep pace with inflation or the property value growth of the City.

SECTION 3 – SUMMARY

The discussion of the preceding sections of this report and the photographic evidence presented in **Appendix B** provides evidence that the Area meets the “blighted area” requirements for designation as a Chapter 353 Area by indicating the existence of blighting factors within the Area.

Parcels in the Area show varying levels of deterioration of site improvements, including:

- Deterioration of building exteriors (walls, siding, windows, doors, painted surfaces, etc.).
- Deterioration of building interiors (walls, ceilings, flooring, wiring, plumbing, etc.).
- Deterioration of site improvements such as driveways and parking areas.

Additionally, the Area has unsafe and insanitary conditions, as well as conditions endangering life and property, as a result of building vacancy, evidence of trespassing and breaking and entering, and conditions attractive to vermin.

The Area’s physical deterioration coupled with age and outmoded design for modern uses have hampered the Area’s economic value and performance as a generator of tax revenue for affected taxing districts. The lack of significant new development has impacted the Area’s ability to generate reasonable tax revenues for the taxing jurisdictions that rely on the Area for revenues to fund public services (e.g., fire, police, sanitary, sewer, education, etc.) for area residents. Also, the vacancies and unsafe conditions in the Area may result in additional burden and/or cost to public services. Ultimately, the area presents an economic liability due to the inability of property values to keep pace with inflation or the property value growth of the City.

This report clearly demonstrates that the Area meets the Chapter 353 criteria for qualifying as a blighted area. However, as noted in the “Introduction” section of this report, Section 353.020, (1) of Chapter 353 does not require all buildings and improvements to be blighted if their inclusion in an area is required for effective clearance, replanning, reconstruction, or rehabilitation of the area. Therefore, this report supports the finding that the Area, on the whole, meets the requirements of a “blighted area,” as is defined in Chapter 353 because of:

- Aging buildings and site improvements displaying physical deterioration,
- Unsafe and insanitary conditions and conditions endangering life and property,
- Lack of existing buildings with desirability for new uses, and
- Stagnating property values not keeping pace with other commercial areas of the City or the rate of inflation.

APPENDIX A

REDEVELOPMENT AREA BOUNDARY MAP AND PARCEL LIST

EXHIBIT 1 - REDEVELOPMENT PROJECT AREA MAP



540 E. Commercial Redevelopment Area
Springfield, MO



EXHIBIT 2 - PARCEL LIST AND CURRENT EAV

Parcel ID	Parcel Address	Owner	2022 EAV
881312327018	1727 N Washington Ave., Springfield MO	540 Commercial Partners LLC	\$3,100
881312327029	530 E Commercial St., Springfield, MO	540 Commercial Partners LLC	\$4,220
881312327027	536 E Commercial St., Springfield, MO	540 Commercial Partners LLC	\$3,520
881312327001	540 E Commercial St., Springfield, MO	540 Commercial Partners LLC	\$58,040

APPENDIX B

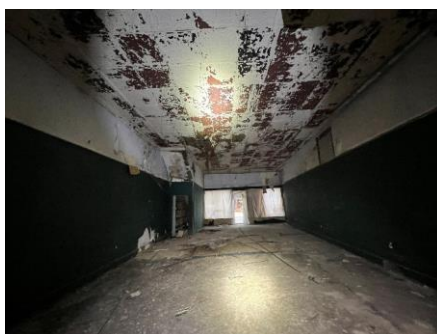
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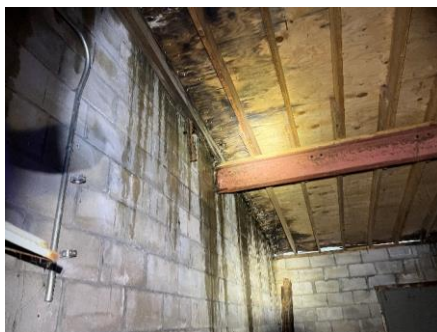
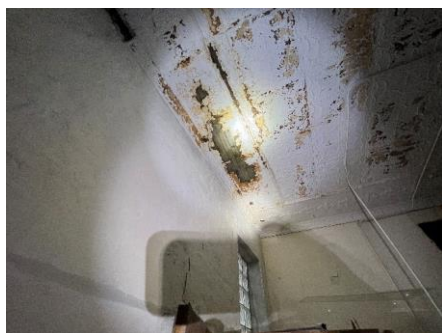
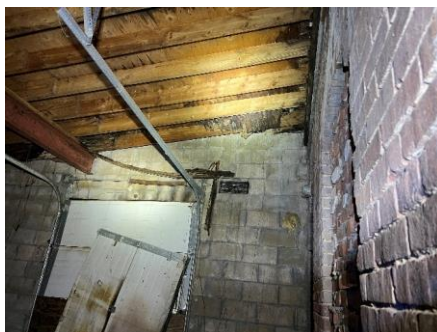
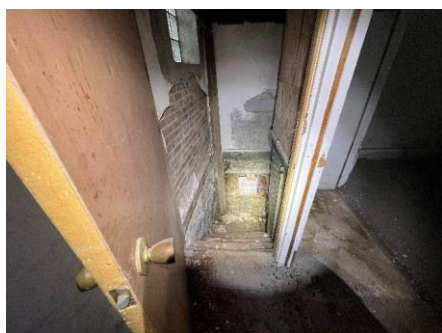
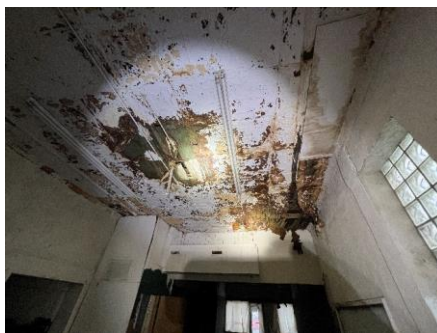
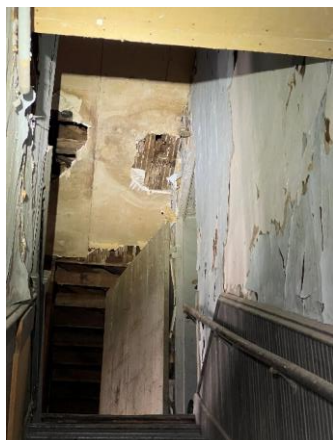












Pacific North Redevelopment Area Chapter 353 Qualifications Study



CITY OF SPRINGFIELD, MISSOURI

June 14, 2023

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SECTION 1 – INTRODUCTION

PURPOSE OF THIS REPORT

The City of Springfield, Missouri (the “City”) seeks to encourage the physical and economic revitalization of a property in the corporate limits of the City generally located within the Commercial Street Historic District hereinafter referred to as the “Area”. The Area is depicted and described in **Appendix A – Redevelopment Area Boundary Map and Parcel List** on the next page and consists of five parcels. The parcel locations and the associated parcel identification number from the Green County Assessor records are as follows:

- 1703 N. Benton Avenue identified by parcel identification number 881312324017.
- 1706 N. Jefferson Avenue identified by parcel identification number 881312324022.
- 1717 N. Benton Avenue identified by parcel identification number 881312324018.
- 1720 N. Jefferson Avenue identified by parcel identification number 881312324026.
- 410 E. Blaine Street identified by parcel identification number 881312324019.

This report reflects current conditions based on data acquisition and field investigations in April 2023, and documents the conditions that were found to be present in the Area. Additionally, the analysis reflects the current definition of “blighted area” in The Urban Redevelopment Corporations Law, Chapter 353, RSMo. (hereinafter referred to as “Chapter 353”). In 2021, the definition of “blighted area” in Section 353.020(2) of Chapter 353 was amended to cross-reference the definition of “blighted area” in Section 99.805(1), RSMo., which provides:

***"Blighted area"**, an area which, by reason of the predominance of insanitary or unsafe conditions, deterioration of site improvements, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, retards the provision of housing accommodations or constitutes an economic or social liability or a menace to the public health, safety, or welfare in its present condition and use.*

A finding that an area is a “blighted area” as defined by Chapter 353 is required for the establishment of an “area” pursuant to Chapter 353. However, Chapter 353 also defines “Area” in a larger context. This recognizes that a Chapter 353 Area may include properties that are not blighted but are required to implement the overall redevelopment plan.

Chapter 353 defines “area” as follows:

***“Area”**, that portion of the city which the legislative authority of such city has found or shall find to be blighted so that the clearance, replanning, rehabilitation, or reconstruction thereof is necessary to effectuate the purposes of this law. Any such area may include buildings or improvements not in themselves blighted, and any real property, whether improved or*

unimproved, the inclusion of which is deemed necessary for the effective clearance, replanning, reconstruction, or rehabilitation of the area of which such buildings, improvements or real property form a part. (Section 353.020(1) of Chapter 353).

Among other things, Chapter 353 allows cities to:

- Identify and designate areas for redevelopment that qualify as “blighted areas”.
- Adopt a development plan that designates an area in need of redevelopment and states the objectives to be attained and the redevelopment project to be undertaken.
- Approve a redevelopment project for implementation of such development plan.
- Utilize the tools set forth in Chapter 353 to assist in reducing or eliminating those factors and conditions that cause the area to qualify as a “blighted area” through the completion of a redevelopment project.

As set forth in Chapter 353, certain of the above-listed actions may be delegated by the City to an “urban redevelopment corporation”, as defined in Chapter 353.

AREA DESCRIPTION AND BACKGROUND

Based on our review of City documents, the buildings within the Area which are the subject of this report do not appear to be historically designated but are located within the Commercial Street Historic District. These are historically significant structures that are in need of significant repair and rehabilitation. In addition, ongoing uses of such structures often need adaptive reuse because they are no longer useful or suitable for their original intended purposes. Redeveloping historic or architecturally significant buildings is far more costly and usually more so if they are to be put to another use. Often the cost of revitalization of such structures exceeds the value of land and buildings in their present condition even if the building(s) is sound overall.

The Area benefits from a location within a Tax Increment Financing (TIF) district and Community Improvement District (CID) and the associated financial incentive assistance vehicles that have been put in place. Chapter 353 designation can provide an additional financial resource, providing up to 25 years of real estate tax abatement to assist projects that now need financial assistance in order to cover extraordinary costs associated with revitalization and redevelopment.

SECTION 2 – BASIS FOR DESIGNATION AS A BLIGHTED AREA

This report is based upon on-site investigation of the Area conducted by PGAV Planners, LLC (“PGAV”) in April 2023. PGAV relied upon its experience, knowledge of the Springfield real estate market, and professional expertise in the preparation of the analysis. Photographs illustrating representative blighting conditions taken during the site visit are displayed in **Appendix B**. Characteristics of the blighting conditions are discussed in this section of the report. However, this report will not reflect changes in conditions or events that have occurred after the most recent field investigation of the Area or publication of this report.

PHYSICAL DETERIORATION

In general, deterioration refers to the physical and economic deterioration of the improvements of the Area both in terms of buildings and other above-ground structures, below-grade supporting structures such as water, sewer, and electric utilities, and surface site improvements such as parking areas, access and circulation roadways and drives, and lighting fixtures, signage, etc.

Deterioration may be evident in otherwise sound buildings containing minor defects, such as a lack of painting, loose, missing, or deteriorating roofing materials, deteriorating floor or ceiling plates or holes and cracks over limited areas. Deterioration that is not easily curable during normal maintenance includes defects in the primary and secondary building components. Primary building components include the foundation, exterior walls, floors, roofs, wiring, plumbing, etc. Secondary building components include the doors, windows, frames, fire escapes, gutters, downspouts, siding, and fascia materials, driveways, parking areas, garages, etc.

Deterioration of site improvements is a function of many factors that are typically the result of deferred maintenance that occurs over time. If ongoing maintenance is not carried out, the conditions become much more extensive and expensive to fix. Physical deterioration is accelerated over time by other contributing factors all of which are present within the Area.

Based on PGAV’s field reconnaissance, the parcels comprising the Area have buildings and site improvements or both that exhibit signs of physical deterioration. These range in severity but include interior water damage, exposed wiring, damaged fascia and soffits, peeling paint, broken or damaged windows and doors, and cracking and/or pot-holed parking lots.

As detailed in the photographs in **Appendix B**, during field investigations, PGAV observed instances of physical deterioration of site improvements such as buildings, accessory structures, lighting, infrastructure, and paved surfaces (e.g., roadways and parking areas) in the Area:

- The age of the structures virtually assures the presence of lead-based paint. Depending on interior improvements that have been made over the years, asbestos may be present in some of the building materials.

- Changes to electrical, plumbing, heating and air conditioning likely occurred over time and most likely do not meet current building code standards and modern equipment needs. Additionally, during the site visit exposed wiring was identified in multiple places. Exposed piping in ceilings and walls showed signs of damage or missing pipes.
- Interior ceilings and walls show evidence of water damage, missing ceiling tiles, peeling paint, and other deterioration. In some instances, entire portions of walls were stripped down to the beams, with insulation and other wall components strewn throughout the room. Interior flooring showed deterioration including from water damage and broken or missing flooring materials.
- Building exteriors showed signs of deterioration, including cracked and crumbling exterior walls, peeling paint, and missing siding. In some instances, exterior improvements such as stairs, railings, eaves, and awnings are deteriorated and require repair or replacement.
- Several windows and doors were broken, unsealed, or otherwise deteriorated. These are prime entry points for vermin, as well as access points for individuals trespassing.
- Overgrown vegetation is present on and around the buildings. Stormwater management and flooding appears to be a concern with large pools of water found on both paved and grass-covered surfaces. A pipe was found pouring water onto the sidewalk and yard off of the building located at 421 E. Pacific Avenue.
- Paved surfaces on private property exhibit evidence of widespread cracking or potholes that need resealing, repair, or replacement.

In general, the age and condition of the buildings in the Area impedes its redevelopment and advances physical deterioration, particularly when the structures have little attractiveness for uses other than their current ones. Building codes and safety and environmental regulations have also significantly changed over the past decades, which could mean aspects of these buildings are nonconforming to the City's current building codes. Other factors such as energy efficiency (older lighting systems, heating, and cooling units, and building insulation) resulting from their age contribute to their declining usability and increases redevelopment costs.

INSANITARY OR UNSAFE CONDITIONS

During field investigations, there were no observations of vermin or their activity, but review of the property indicated that their presence is likely. Openings in various deteriorating building materials on buildings provide ideal access locations for birds, squirrels, mice, rats, and bats. Various types of debris, discarded materials, and overgrowth are scattered around the site. These factors represent unsanitary and unsafe conditions.

CONDITIONS ENDANGERING LIFE OR PROPERTY

Buildings within the Area appear to be vacant and insufficiently secured. During the site visit, buildings had damage to windows and doors, and there were signs of possible trespassing and illegal entry to these properties. A tent was seen outside of the building at 1708 N. Jefferson Avenue and clothes and other personal effects were seen inside the building, indicating the likely presence of squatters or homeless individuals. A number of the buildings, but in particular the building at 1720 N. Jefferson Avenue, had significant damage to walls and ceilings exposing missing electrical and plumbing pieces, likely the result of theft. Additionally, graffiti on some interior walls. The abandoned nature of these buildings is also conducive to crime and a fire hazard.

ECONOMIC LIABILITY

The Area, by reason of physical deterioration has become an economic liability. PGAV conducted an analysis of the equalized assessed valuation (EAV) of all the parcels in the Area between 2013 and 2022. Since 2023 equalization has not yet occurred and property tax rates have not been set, 2023 EAV was not used.

Table 1 – EAV History, below, shows that between 2018 and 2023, the combined EAV for the area grew by 4.5%. EAV history from 2013 to 2018 shows similar trends for the parcel at 1717 N. Benton Avenue. In contrast the parcel at 1703 N. Benton Avenue declined in value by 84% since 2013, and the parcel at 420 E. Blaine Street grew in value by about 25%. However, the remaining two parcels at 1706 N. Jefferson Avenue and 1720 N. Jefferson were purchased in February of 2017 from Kitchen, Inc., a nonprofit, converting the properties from tax-exempt to taxable. As a result, EAV data prior to 2018 is \$0 for these properties. As a result, this analysis focuses on changes in EAV for the area since 2018.

Table 1- EAV History
Pacific North Redevelopment

Tax Year	Assessed Value	Annual % Change
2018	\$245,570	
2019	\$272,110	11%
2020	\$272,110	0%
2021	\$256,730	-6%
2022	\$256,730	0%
% Change 2018-2022		4.5%

Since there have been no visible improvements or significant City-issued building permits for these properties and given the property conditions shown in the photos in **Appendix B**, this change in value of 4.5% since 2018 is largely an inflationary adjustment. This also may be the result of an increase in the value of the land and not the improvements. Therefore, it is clear

that all the assessed value changes are the result of Assessor valuation models and not real investment. It should be noted that according to Assessor data, 2023 preliminary assessed value for the Area increases by 7.3% from 2022 values. It is not known what this increase is based on, but given that the condition of the properties would not seem to warrant any increase over 2022 values, it is likely also related to the reasons stated above.

In order to more accurately determine whether land and improvements are becoming an economic liability for the City and the taxing districts is to compare the rate of increase of EAV with inflation using the Consumer Price Index (CPI) and to compare the Area to the changes in EAV for the City over the same period.

Table 2 – CPI for All Urban Consumers (CPI-U) below shows the CPI trends from 2018-2022. By comparison to the CPI, the assessed valuation of the Area increased by 4.5% while the CPI went up by 15.7%. Therefore, the Area's growth is slower than inflation, indicating overall economic decline. **Table 3 – City of Springfield, Real Property Tax Assessed Value History** below shows that over the 2018-2022 period the City's assessed value increased by 12.8 %. This is an additional indicator that property values in the Area represent property that is a declining asset.

Table 2

**Consumer Price Index
All Urban Consumers
(CPI-U)***

Year	CPI	Annual % Change
2018	251.107	
2019	255.657	1.8%
2020	258.811	1.2%
2021	270.970	4.7%
2022	292.655	8.0%
% Change 2018-2022		15.7%

* Not Seasonally Adjusted

Table 3

**City of Springfield
Real Property Tax
Assessed Value History**

Year	Assessed Value	Annual % Change
2018	\$2,437,156,000	
2019	\$2,454,547,000	0.7%
2020	\$2,600,436,000	5.9%
2021	\$2,635,436,000	1.3%
2022	\$2,749,976,000	4.3%
% Change 2018-2022		12.8%

The Area presents an economic liability due to the inability for property values to keep pace with inflation or the property value growth of the City.

SECTION 3 – SUMMARY

The discussion of the preceding sections of this report and the photographic evidence presented in **Appendix B** provides evidence that the Area meets the “blighted area” requirements for designation as a Chapter 353 Area by indicating the existence of blighting factors within the Area.

Parcels in the Area show varying levels of deterioration of site improvements, including:

- Deterioration of building exteriors (walls, siding, windows, doors, painted surfaces, etc.).
- Deterioration of building interiors (walls, ceilings, flooring, wiring, plumbing, etc.).
- Deterioration of site improvements such as driveways and parking areas.

Additionally, the Area has unsafe and insanitary conditions, as well as conditions endangering life and property, as a result of building vacancy, evidence of trespassing and breaking and entering, and conditions attractive to vermin.

The Area’s physical deterioration coupled with age and outmoded design for modern uses have hampered the Area’s economic value and performance as a generator of tax revenue for affected taxing districts. The lack of significant new development has impacted the Area’s ability to generate reasonable tax revenues for the taxing jurisdictions that rely on the Area for revenues to fund public services (e.g., fire, police, sanitary, sewer, education, etc.) for area residents. Also, the vacancies and unsafe conditions in the Area may result in additional burden and/or cost to public services. Ultimately, the area presents an economic liability due to the inability of property values to keep pace with inflation or the property value growth of the City.

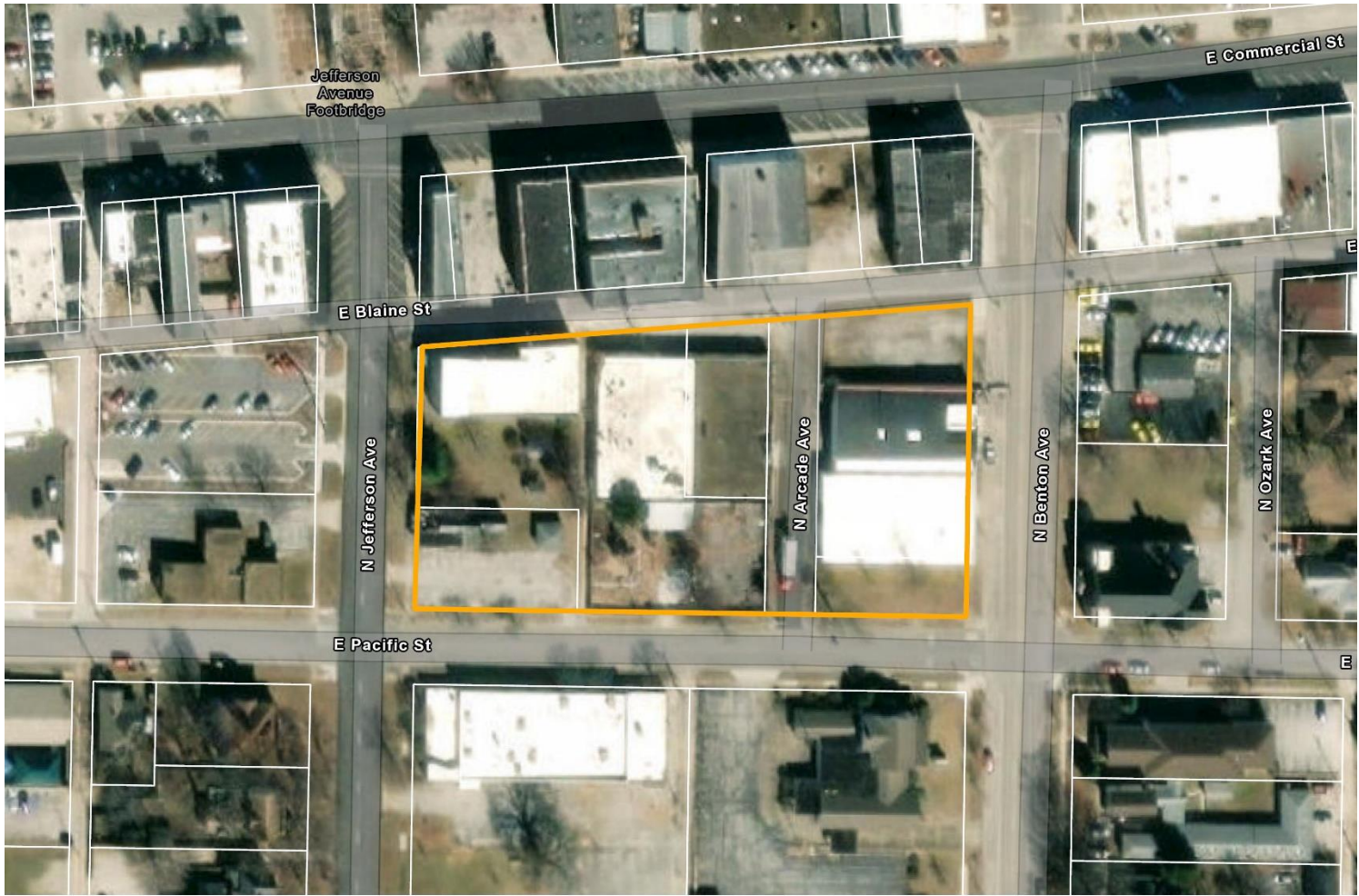
This report clearly demonstrates that the Area meets the Chapter 353 criteria for qualifying as a blighted area. However, as noted in the “Introduction” section of this report, Section 353.020, (1) of Chapter 353 does not require all buildings and improvements to be blighted if their inclusion in an area is required for effective clearance, replanning, reconstruction, or rehabilitation of the area. Therefore, this report supports the finding that the Area, on the whole, meets the requirements of a “blighted area,” as is defined in Chapter 353 because of:

- Aging buildings and site improvements displaying physical deterioration,
- Unsafe and insanitary conditions and conditions endangering life and property,
- Lack of existing buildings with desirability for new uses, and
- Stagnating property values not keeping pace with other commercial areas of the City or the rate of inflation.

APPENDIX A

REDEVELOPMENT AREA BOUNDARY MAP AND PARCEL LIST

EXHIBIT 1 - REDEVELOPMENT PROJECT AREA MAP



Pacific North Redevelopment Area
Springfield, MO



EXHIBIT 2 - PARCEL LIST AND CURRENT EAV

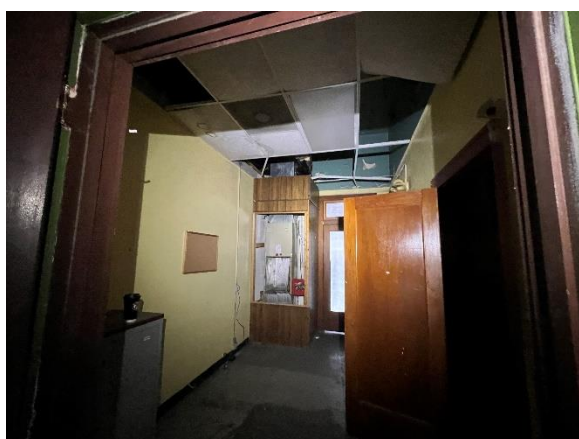
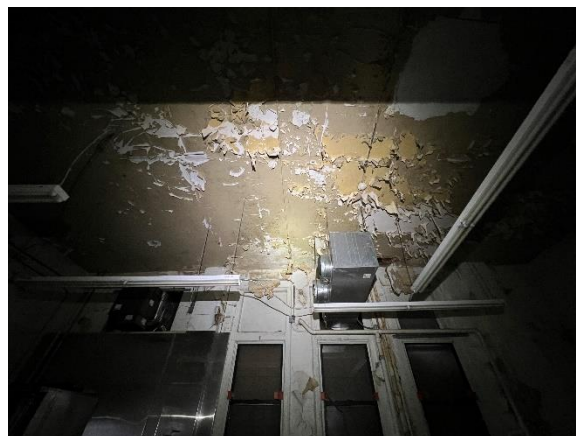
Parcel ID	Parcel Address	Owner	2022 EAV
881312324017	1703 N Benton Ave, Springfield, MO	Titus Williams LLC	\$3,840
881312324022	1706 N Jefferson Ave, Springfield, MO	Historic Commercial Development LLC	\$11,840
881312324018	1717 N Benton Ave, Springfield, MO	Historic Commercial Development LLC	\$82,040
881312324026	1720 N Jefferson Ave, Springfield, MO	Historic Commercial Development LLC	\$96,740
881312324019	420 E Blaine St.	Titus Williams LLC	\$62,270

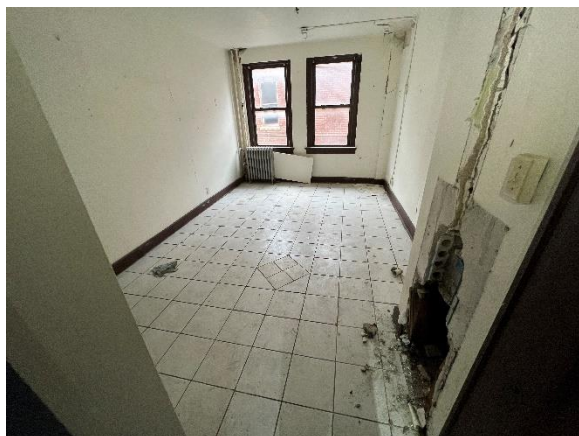
APPENDIX B

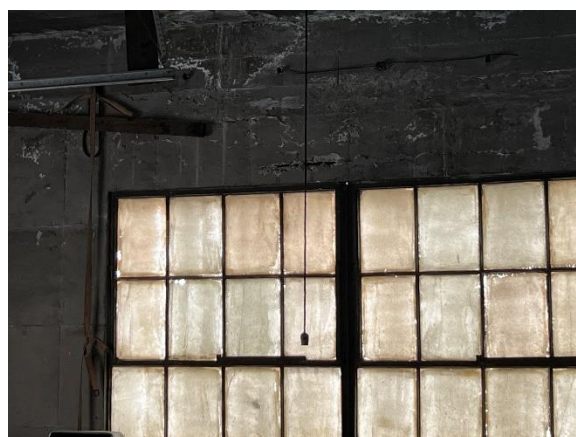
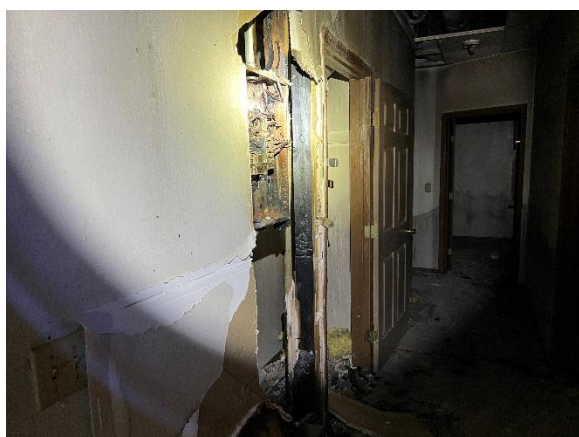
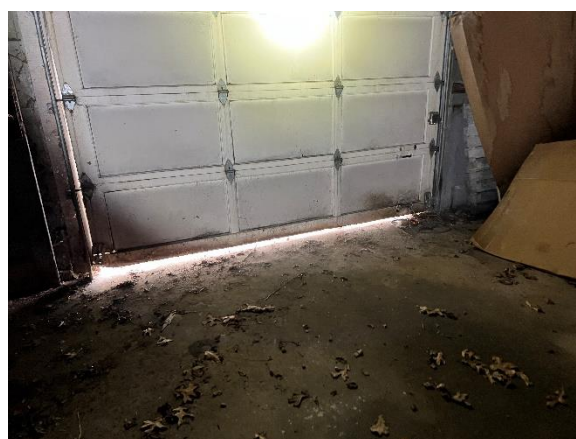
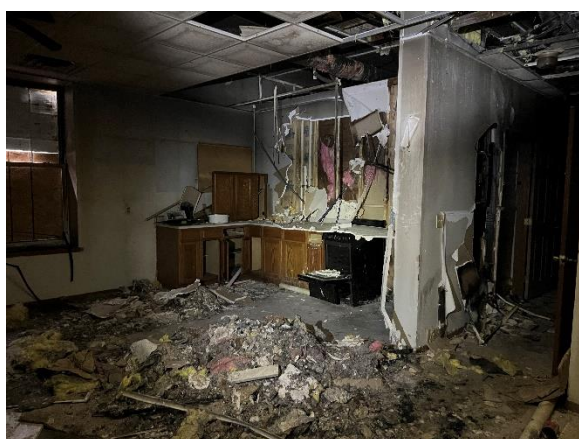
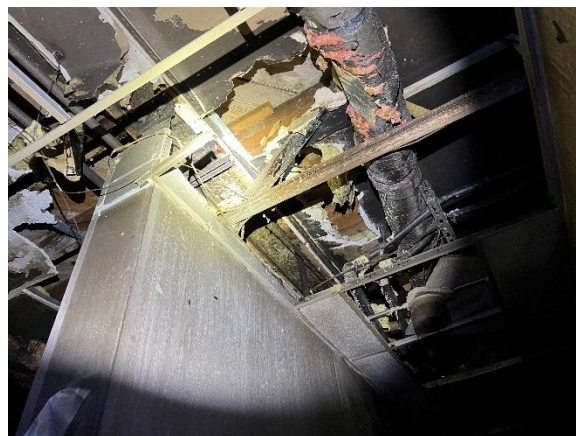
PHOTO APPENDIX





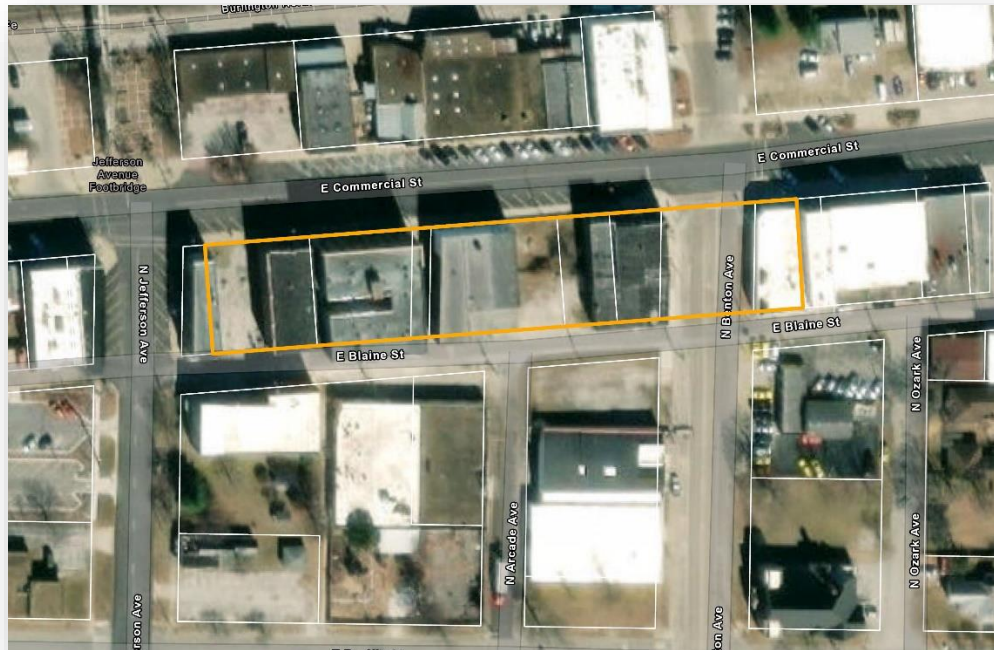








Missouri Hotel Redevelopment Area Chapter 353 Qualifications Study



CITY OF SPRINGFIELD, MISSOURI

June 14, 2023

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SECTION 1 – INTRODUCTION

PURPOSE OF THIS REPORT

The City of Springfield, Missouri (the “City”) is seeking to encourage the physical and economic revitalization of a property in the corporate limits of the City generally located within the Commercial Street Historic District hereinafter referred to as the “Area”. The Area is depicted and described in **Appendix A – Redevelopment Area Boundary Map and Parcel List** on the next page and consists of six parcels. The parcel locations and the associated parcel identification number from the Green County Assessor records are as follows:

- 500 E. Commercial Street identified by parcel identification number 881312327024.
- 424 E. Commercial Street identified by parcel identification number 881312324024.
- 434 E. Commercial Street identified by parcel identification number 881312324002.
- 438 E. Commercial Street identified by parcel identification number 881312324001.
- 412 - 420 E. Commercial Street identified by parcel identification number 881312324005.
- 410 E. Commercial Street identified by parcel identification number 881312324023.

This report reflects current conditions based on data acquisition and field investigations in April 2023, and documents the conditions that were found to be present in the Area. Additionally, the analysis reflects the current definition of “blighted area” in The Urban Redevelopment Corporations Law, Chapter 353, RSMo. (hereinafter referred to as “Chapter 353”). In 2021, the definition of “blighted area” in Section 353.020(2) of Chapter 353 was amended to cross-reference the definition of “blighted area” in Section 99.805(1), RSMo., which provides:

***"Blighted area"**, an area which, by reason of the predominance of insanitary or unsafe conditions, deterioration of site improvements, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, retards the provision of housing accommodations or constitutes an economic or social liability or a menace to the public health, safety, or welfare in its present condition and use.*

A finding that an area is a “blighted area” as defined by Chapter 353 is required for the establishment of an “area” pursuant to Chapter 353. However, Chapter 353 also defines “Area” in a larger context. This recognizes that a Chapter 353 Area may include properties that are not blighted but are required to implement the overall redevelopment plan. Chapter 353 defines “area” as follows:

***“Area”**, that portion of the city which the legislative authority of such city has found or shall find to be blighted so that the clearance, replanning, rehabilitation, or reconstruction thereof is necessary to effectuate the purposes of this law. Any such area may include buildings or improvements not in themselves blighted, and any real property, whether improved or unimproved, the inclusion of which is deemed necessary for the effective clearance, replanning, reconstruction, or rehabilitation of the area of which such buildings, improvements or real property form a part. (Section 353.020(1) of Chapter 353).*

Among other things, Chapter 353 allows cities to:

- Identify and designate areas for redevelopment that qualify as “blighted areas”.
- Adopt a development plan that designates an area in need of redevelopment and states the objectives to be attained and the redevelopment project to be undertaken.
- Approve a redevelopment project for implementation of such development plan.
- Utilize the tools set forth in Chapter 353 to assist in reducing or eliminating those factors and conditions that cause the area to qualify as a “blighted area” through the completion of a redevelopment project.

As set forth in Chapter 353, certain of the above-listed actions may be delegated by the City to an “urban redevelopment corporation”, as defined in Chapter 353.

AREA DESCRIPTION AND BACKGROUND

Based on our review of City documents, the buildings within the Area which are the subject of this report do not appear to be historically designated but are located within the Commercial Street Historic District. These are historically significant structures that are in need of significant repair and rehabilitation. In addition, ongoing uses of such structures often need adaptive reuse because they are no longer useful or suitable for their original intended purposes. Redeveloping historic or architecturally significant buildings is far more costly and usually more so if they are to be put to another use. Often the cost of revitalization of such structures exceeds the value of land and buildings in their present condition even if the building(s) is sound overall.

The Area benefits from a location within a Tax Increment Financing (TIF) district and Community Improvement District (CID) and the associated financial incentive assistance vehicles that have been put in place. Chapter 353 designation can provide an additional financial resources, providing up to 25 years of real estate tax abatement to assist projects that now need financial assistance in order to cover extraordinary costs associated with revitalization and redevelopment.

SECTION 2 – BASIS FOR DESIGNATION AS A BLIGHTED AREA

This report is based upon on-site investigation of the Area conducted by PGAV Planners, LLC (“PGAV”) in April 2023. City staff also provided information used in this analysis along with information from the property owners. PGAV relied upon its experience, knowledge of the Springfield real estate market, and professional expertise in the preparation of the analysis. Photographs illustrating representative blighting conditions taken during the site visit are displayed in **Appendix B**. Characteristics of the blighting conditions are discussed in this section of the report. However, this report will not reflect changes in conditions or events that have occurred after the most recent field investigation of the Area or publication of this report.

PHYSICAL DETERIORATION

In general, deterioration refers to the physical and economic deterioration of the improvements of the Area both in terms of buildings and other above-ground structures, below-grade supporting structures such as water, sewer, and electric utilities, and surface site improvements such as parking areas, access and circulation roadways and drives, and lighting fixtures, signage, etc.

Deterioration may be evident in otherwise sound buildings containing minor defects, such as a lack of painting, loose, missing, or deteriorating roofing materials, deteriorating floor or ceiling plates or holes and cracks over limited areas. Deterioration that is not easily curable during normal maintenance includes defects in the primary and secondary building components. Primary building components include the foundation, exterior walls, floors, roofs, wiring, plumbing, etc. Secondary building components include the doors, windows, frames, fire escapes, gutters, downspouts, siding, and fascia materials, driveways, parking areas, garages, etc.

Deterioration of site improvements is a function of many factors that are typically the result of deferred maintenance that occurs over time. If ongoing maintenance is not carried out, the conditions become much more extensive and expensive to fix. Physical deterioration is accelerated over time by other contributing factors all of which are present within the Area.

Based on field review, the parcels comprising the Area have buildings and site improvements or both that exhibit signs of physical deterioration. These range in severity but include interior water damage, exposed wiring, damaged fascia and soffits, peeling paint, broken or damaged windows and doors, cracking and/or pot-holed parking lots, and the presence of trash and debris.

As detailed in the photographs in **Appendix B**, during field investigations, PGAV observed instances of physical deterioration of site improvements such as buildings, accessory structures, lighting, infrastructure, and paved surfaces (e.g., roadways and parking areas) in the Area:

- The age of the structures virtually assures the presence of lead-based paint. Depending on interior improvements that have been made over the years, asbestos may be present in some of the building materials. Without further inspection it isn't known if these materials are exposed or have been encapsulated by repainting over the years. The likely presence of this paint may increase the cost of building rehabilitation and reuse.
- Again, the age of the structures and property inspections indicates that asbestos may be present in the mastic used for some floor coverings and windows frames that may have asbestos sealants around the glass and frames and the doors. Like lead-based paint, the asbestos may be encapsulated. However, this may also become a cost issue when rehabilitation is undertaken.
- Changes to electrical, plumbing, heating and air conditioning likely occurred over time and most likely do not meet current building code standards and modern equipment needs. Additionally, during the site visit exposed wiring was identified in multiple places. Exposed piping in ceilings and walls showed signs of damage, and leakage with mold developing in some locations. Indoor and outdoor electrical boxes and wiring showed signs of tampering and damage in some buildings.
- Interior ceilings and walls show evidence of water damage, missing ceiling tiles, peeling paint, and other deterioration. In some instances, entire portions of ceilings and walls were stripped, with the building materials laying in piles in the room. Interior flooring showed deterioration including from water damage and broken or missing flooring materials.
- Building exteriors showed signs of significant deterioration, including cracked and crumbling exterior walls, peeling paint, and missing siding. In some instances, exterior improvements such as stairs, railings, eaves, window, and door frames are deteriorated and require repair or replacement.
- Wood building elements, both indoor and outdoor, showed signs of rotting.
- Several windows and doors were broken, unsealed, or otherwise deteriorated. They were at various locations that represent prime entry points for vermin, as well as access points for individuals trespassing.
- Overgrown vegetation is present on and around some buildings.
- Paved surfaces on private property exhibit evidence of widespread cracking or potholes that need resealing, repair, or replacement.
- In one building, an indoor air handling unit was found to be leaking oil or some other material onto the floor.

In general, the age and condition of the buildings in the Area impedes its redevelopment and advances physical deterioration, particularly when the structures have little attractiveness for uses other than their current ones. Building codes and safety and environmental regulations have also significantly changed over the past decades, which could mean aspects of these buildings are nonconforming to the City's current building codes. Other factors such as energy efficiency (older lighting systems, heating, and cooling units, and building insulation) resulting from their age contribute to their declining usability and increases redevelopment costs.

INSANITARY OR UNSAFE CONDITIONS

During field investigations, there were no observations of vermin but in some instances, there were indications of their activity; therefore, review of the various properties indicated that their presence is likely. Openings in various deteriorating building materials on buildings provide ideal access locations for birds, squirrels, mice, rats, and bats. Various types of debris, discarded materials, and overgrowth are scattered around the Area and within isolated locations on the exterior of some buildings. These factors represent unsanitary and unsafe conditions.

The broken windows in several of the buildings are allowing water infiltration and thus promoting interior damage and mold. In other instances, interior building materials have been torn out, vandalized, or otherwise damaged leaving behind spaces that are dangerous to physically navigate because of the extent of the debris.

CONDITIONS ENDANGERING LIFE OR PROPERTY

Buildings within the Area are vacant and insufficiently secured. During the site visit, buildings had damage to windows and doors, and there were signs of possible trespassing and illegal entry to these properties. A number of the buildings had significant damage to walls and ceilings exposing missing electrical and plumbing pieces, likely the result of theft. The abandoned nature of these buildings is also conducive to crime and a fire hazard.

ECONOMIC LIABILITY

The Area, by reason of physical deterioration has become an economic liability. PGAV conducted an analysis of the equalized assessed valuation (EAV) of all the parcels in the Area between 2013 and 2022. Since 2023 equalization has not yet occurred and property tax rates have not been set, 2023 EAV was not used.

Table 1 – EAV History, below, shows that between 2018 and 2023, the combined EAV for the area grew by 17.8%. However, the entirety of that growth occurred between 2018 and 2019. Three of the parcels in the area went from tax-exempt to taxable between 2017 and 2018, following their purchase from Kitchen, Inc., a nonprofit. Since this purchase occurred in February 2017, 2018 taxes would represent an incomplete year, likely accounting for the increase in value in 2019 following the first complete taxable year. While this analysis focuses on change in EAV for the Area since 2018 which amounts to 17.8%, it is important to note that

for the last three years, the Area's EAV has not changed. It should also be noted that according to Assessor data, 2023 preliminary assessed value for the Area decreases by 7.6% from 2022 values. It is not known what this decrease is based on, but given the condition of the properties, it is likely due to their continued decline in condition.

Table 1- EAV History

Missouri Hotel Redevelopment		
Tax Year	Assessed Value	Annual % Change
2018	\$221,040	
2019	\$259,810	18%
2020	\$259,810	0%
2021	\$260,330	0%
2022	\$260,330	0%
% Change 2018-2022		17.8%

Since there have been no visible improvements or significant City-issued building permits for these properties and given the property conditions shown in the photos in **Appendix B**, this change in value of 17.8% since 2018 is largely a combination of an incomplete tax year in 2018 and inflationary adjustment. This also may be the result of an increase in the value of the land and not the improvements. Therefore, it is clear that all the assessed value changes are the result of Assessor valuation models and not real investment.

In order to more accurately determine whether land and improvements are becoming an economic liability for the City and the taxing districts is to compare the rate of increase of EAV with inflation using the Consumer Price Index (CPI) and to compare the Area to the changes in EAV for the City over the same period.

Table 2 – CPI for All Urban Consumers (CPI-U) below shows the CPI trends from 2018-2022. By comparison to the CPI, the assessed valuation of the Area increased by 17.8% while the CPI went up by 15.7%. Therefore, the Area's growth is higher than inflation. **Table 3 – City of Springfield, Real Property Tax Assessed Value History** below shows that over the 2018-2022 period the City's assessed value increased by 12.8%.

Table 2**Consumer Price Index
All Urban Consumers
(CPI-U)***

Year	CPI	Annual % Change
2018	251.107	
2019	255.657	1.8%
2020	258.811	1.2%
2021	270.970	4.7%
2022	292.655	8.0%
% Change 2018-2022		15.7%

* Not Seasonally Adjusted

Table 3**City of Springfield
Real Property Tax
Assessed Value History**

Year	Assessed Value	Annual % Change
2018	\$2,437,156,000	
2019	\$2,454,547,000	0.7%
2020	\$2,600,436,000	5.9%
2021	\$2,635,436,000	1.3%
2022	\$2,749,976,000	4.3%
% Change 2018-2022		12.8%

Despite the fact that the average annual change in EAV since 2018 is higher than that of inflation and the City's growth rate, the following factors indicate that the area is experiencing overall economic stagnation and decline:

1. The entirety of the Area's EAV growth occurred between 2018 and 2019.
2. No further economic growth has occurred between 2019 and 2022.
3. Preliminary assessments for 2023 show 7.6% decline in EAV in the Area.
4. There have been no visible improvements or significant City-issued building permits for these properties.

Consequently, these properties will continue to be an economic liability for the City until their physical deterioration is addressed.

SECTION 3 – SUMMARY

The discussion of the preceding sections of this report and the photographic evidence presented in **Appendix B** provides evidence that the Area meets the “blighted area” requirements for designation as a Chapter 353 Area by indicating the existence of blighting factors within the Area.

Parcels in the Area show varying levels of deterioration of site improvements, including:

- Deterioration of building exteriors (walls, siding, windows, doors, painted surfaces, etc.).
- Deterioration of building interiors (walls, ceilings, flooring, wiring, plumbing, etc.).
- Deterioration of site improvements such as driveways and parking areas.

Additionally, the Area has unsafe and insanitary conditions, as well as conditions endangering life and property, as a result of building vacancy, evidence of trespassing and breaking and entering, and conditions attractive to vermin.

The Area’s physical deterioration coupled with age and outmoded design for modern uses have hampered the Area’s economic value and performance as a generator of tax revenue for affected taxing districts. The lack of significant new development has impacted the Area’s ability to generate reasonable tax revenues for the taxing jurisdictions that rely on the Area for revenues to fund public services (e.g., fire, police, sanitary, sewer, education, etc.) for area residents. Also, the vacancies and unsafe conditions in the Area may result in additional burden and/or cost to public services. Ultimately, the area presents an economic liability due to the stagnating property values which will likely not improve without significant rehabilitation or redevelopment of these properties.

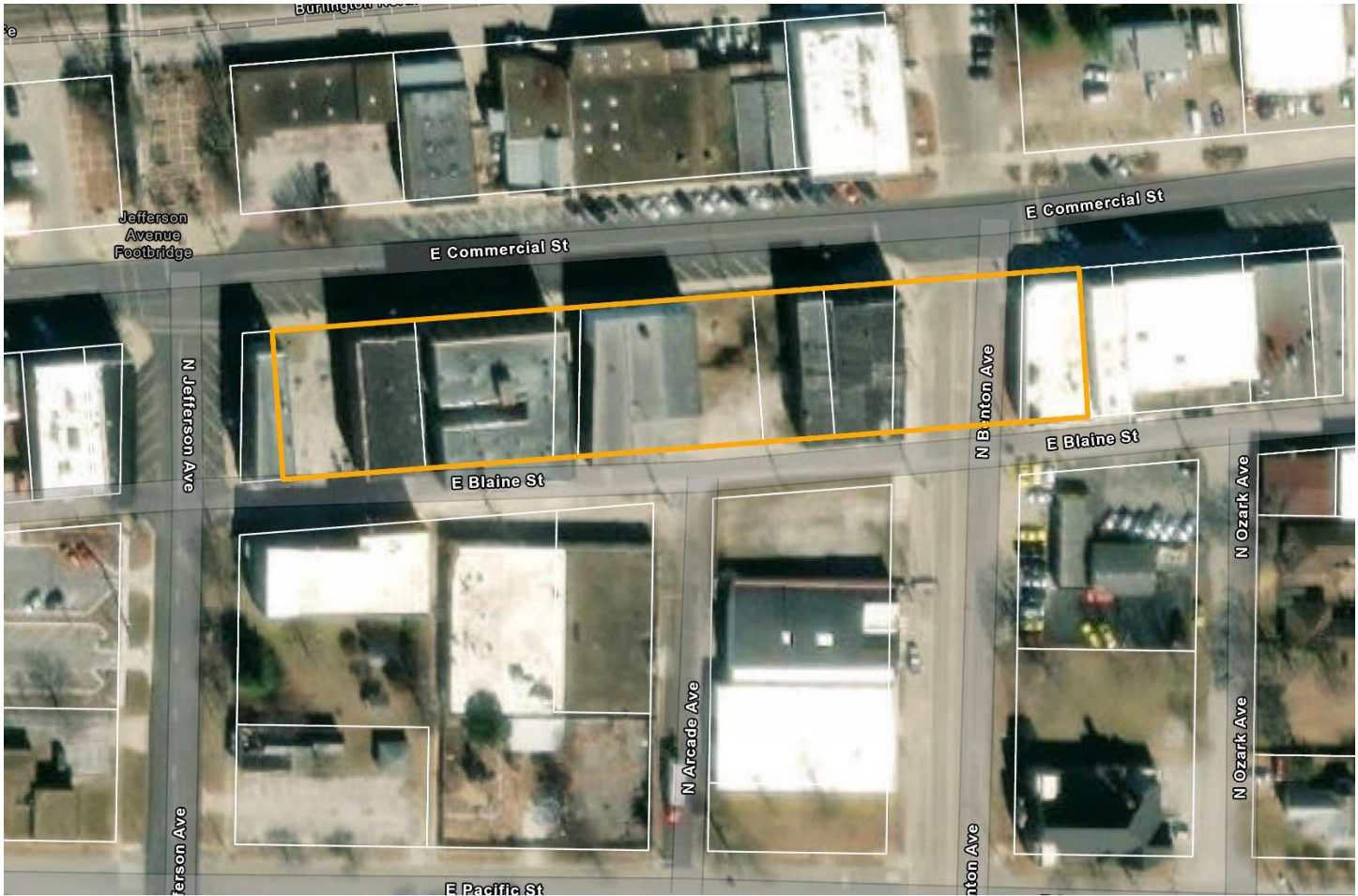
This report clearly demonstrates that the Area meets the Chapter 353 criteria for qualifying as a blighted area. However, as noted in the “Introduction” section of this report, Section 353.020, (1) of Chapter 353 does not require all buildings and improvements to be blighted if their inclusion in an area is required for effective clearance, replanning, reconstruction, or rehabilitation of the area. Therefore, this report supports the finding that the Area, on the whole, meets the requirements of a “blighted area,” as is defined in Chapter 353 because of:

- Aging buildings and site improvements displaying physical deterioration,
- Unsafe and insanitary conditions and conditions endangering life and property,
- Lack of existing buildings with desirability for new uses, and
- Stagnating property values not keeping pace with other commercial areas of the City or the rate of inflation.

APPENDIX A

REDEVELOPMENT AREA BOUNDARY MAP AND PARCEL LIST

EXHIBIT 1 - REDEVELOPMENT PROJECT AREA MAP



Missouri Hotel Redevelopment Area
Springfield, MO



EXHIBIT 2 - PARCEL LIST AND CURRENT EAV

Parcel ID	Parcel Address	Owner	2022 EAV
881312327024	500 E Commercial St., Springfield, MO	Historic Commercial Developments LLC	\$30,850
881312324024	424 E Commercial St., Springfield, MO	Historic Commercial Development LLC	\$41,510
881312324002	434 E Commercial St., Springfield, MO	Historic Commercial Development LLC	\$18,720
881312324001	438 E Commercial St, Springfield, MO	Historic Commercial Development LLC	\$46,940
881312324005	412 - 420 E Commercial St., Springfield, MO	Historic Commercial Development LLC	\$79,780
881312324023	410 E Commercial St., Springfield, MO	Historic Commercial Development LLC	\$42,530

APPENDIX B

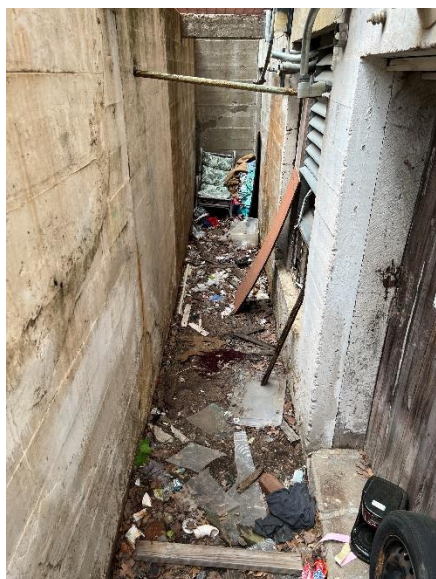
PHOTO APPENDIX

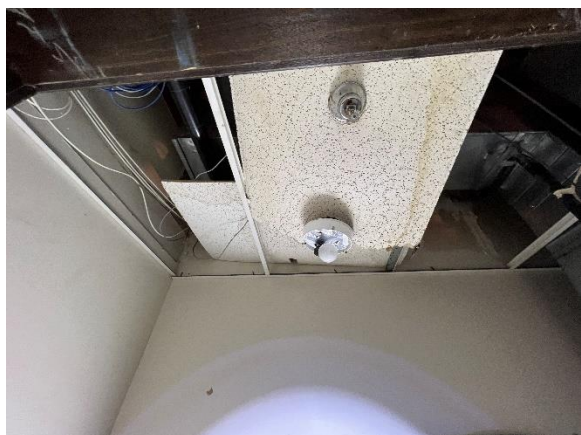
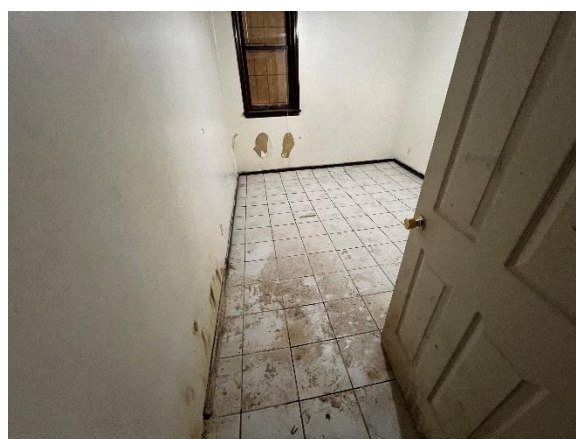
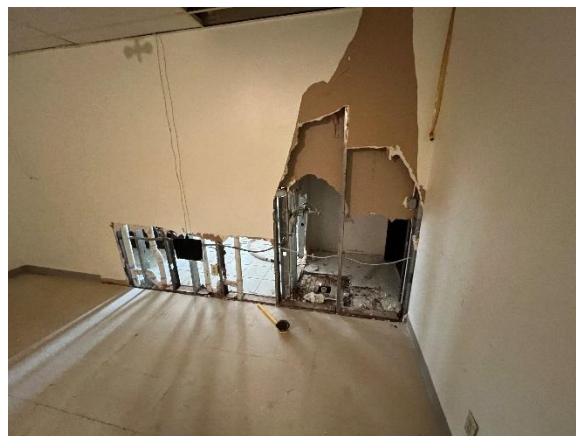
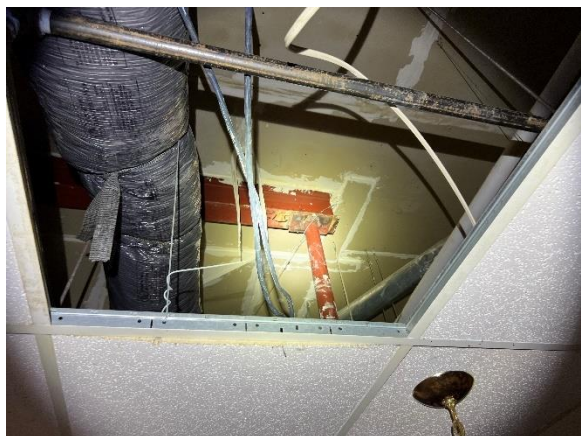




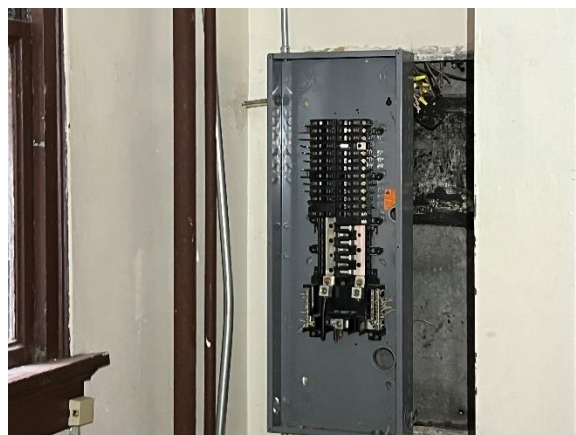
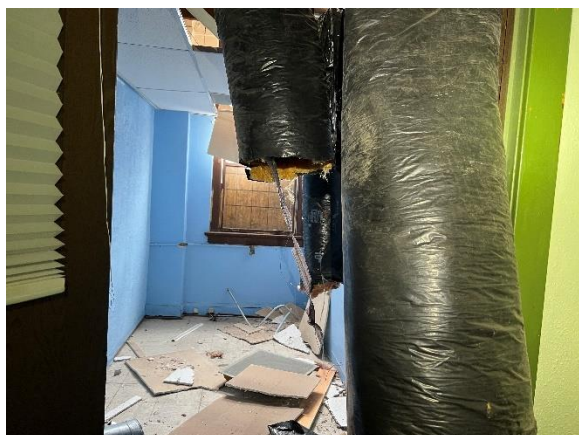


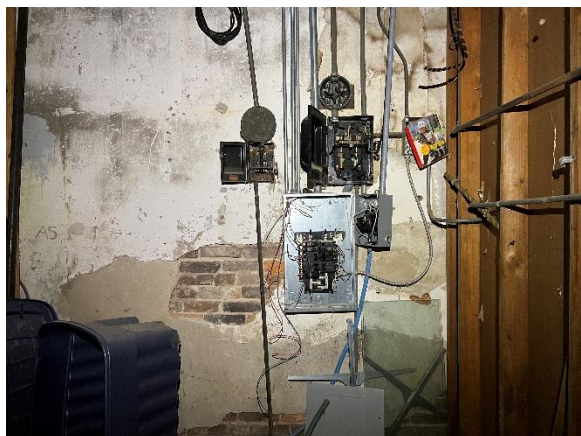












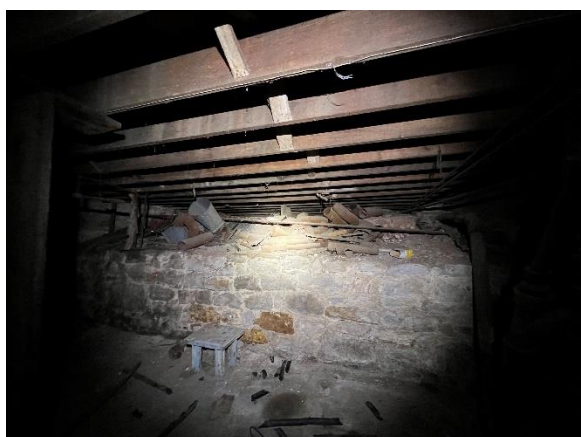
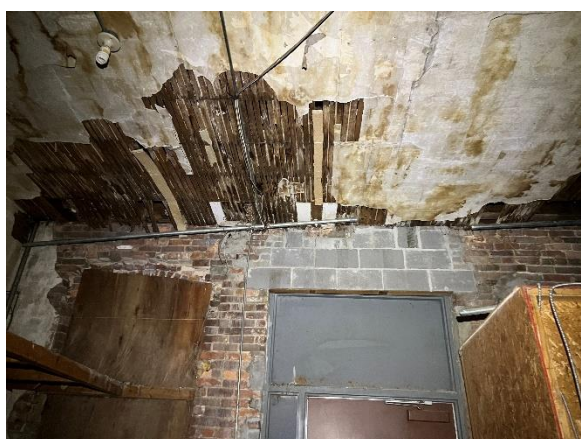


Exhibit 2

SPACE ABOVE THIS LINE IS FOR RECORDER'S USE ONLY

Title of Document: 353 Redevelopment Agreement

Date of Document: _____, 2024

Grantor: City of Springfield, a municipal corporation

Grantee: Commercial-Pacific Street Redevelopment Corporation
1660 N Campbell Ave
Springfield, MO 65803

Legal Description: See Exhibit A attached hereto.

Please return recorded document to: City of Springfield
Economic Vitality Department
P.O. Box 8368
840 N. Boonville Ave.
Springfield, MO 65801

This cover page is attached solely for the purpose of complying with the requirements stated in §§ 59.310.2; 59.313.2 RSMo. of the Missouri Recording Act. The information provided on this cover page shall not be construed as either modifying or supplementing the substantive provisions of the attached 353 Redevelopment Agreement. In the event of a conflict between the provisions of the attached 353 Redevelopment Agreement and the provisions of this cover page, the attached 353 Redevelopment Agreement shall prevail and control.

353 REDEVELOPMENT AGREEMENT
BETWEEN
COMMERCIAL-PACIFIC STREET REDEVELOPMENT CORPORATION
AND
CITY OF SPRINGFIELD, MISSOURI
FOR THE PACIFIC SOUTH REDEVELOPMENT PROJECT INSIDE THE
COMMERCIAL-PACIFIC STREET REDEVELOPMENT AREA

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EXHIBITS

EXHIBIT A – Legal Description of Redevelopment Project Area

EXHIBIT B – Development Plan

353 REDEVELOPMENT AGREEMENT

THIS 353 REDEVELOPMENT AGREEMENT (this “**Agreement**”), is being entered into this ____ day of _____, 2024, by and between the CITY OF SPRINGFIELD, MISSOURI, a municipal corporation (the “**City**”), and COMMERCIAL-PACIFIC STREET REDEVELOPMENT CORPORATION (“**Developer**”), a corporation duly organized and existing pursuant to Section 353.010 *et seq.*, RSMo. (“**The Urban Redevelopment Corporations Law**”), with a mailing address of 1600 North Campbell Avenue, Springfield, Missouri 65803.

W I T N E S S E T H:

WHEREAS, on or about January 26, 2024, Developer filed with the City Clerk of Springfield, Missouri a redevelopment plan (the “**Development Plan**”) providing for the construction of the Redevelopment Project (as defined in Section 3 hereof), in the City of Springfield, Greene County, Missouri, on the land described in the Development Plan (the “**Redevelopment Project Area**” as defined in Section 2 hereof), together with an application for approval of the Development Plan (the “**Application**”); and

WHEREAS, on _____, 2024, the City Council of Springfield, Missouri passed Special Ordinance _____ (the “**Ordinance**”), which approved the Application and Development Plan and authorized and directed the City Manager to enter into an agreement with Developer for the implementation of the Development Plan.

NOW, THEREFORE, for and in consideration of the premises, and the mutual covenants herein contained, the City and Developer agree as follows:

1. Items Incorporated in this Agreement. The provisions of the Ordinance; the provisions of the Development Plan, which is attached hereto as Exhibit B, and a copy of which is on file at the office of the City Clerk; and the provisions of Chapter 353, RSMo., as amended as of and including the date of this Agreement, are hereby incorporated herein by reference and made a part of this Agreement.
2. Legal Descriptions. The Redevelopment Project Area is legally described in Exhibit A, which is attached hereto and incorporated herein by reference.
3. Development Improvements. In accordance with the terms and conditions of the Development Plan and this Agreement, Developer shall rehabilitate, construct or cause to be constructed within the Redevelopment Project Area, those certain improvements pursuant to the Ordinance and the Development Plan. The Redevelopment Project Area is generally located at 1630 North Jefferson Avenue and 1635 North Benton Avenue. The Development Plan proposes construction of the Pacific South Redevelopment Project, a 72-unit, townhouse style, multi-family residential development pursuant to Planned Development 386, as approved by the Springfield City Council by General Ordinance 6800 (the “**Redevelopment Project**”).

4. Time Schedule. Blight removal and construction of the Redevelopment Project shall commence and be completed no later than the dates set below:

- a. Property Acquisition: _____, a Missouri limited liability company that is registered to transact business in the State of Missouri (the “**Company**”), will own the real property and improvements located in the Redevelopment Project Area. Developer will acquire such property and improvements from the Company on or before December 31, 2025.
- b. Blight Removal and Redevelopment: Blight will be removed, and the Redevelopment Project Area will be redeveloped and used in accordance with the approved Development Plan. All blight removal and redevelopment activities shall be complete for the Redevelopment Project Area on or before December 31, 2025, subject to Section 16, below.

Subject to the provisions of Section 16 of this Agreement, Excusable Delays, if Developer fails to adhere to and satisfy the above schedule for blight removal and redevelopment, and if such failure continues for a period of two (2) years, then Developer’s rights hereunder shall terminate without further action by the City.

- 5. Demolition of Buildings. The buildings located inside the Redevelopment Project Area will be demolished to facilitate construction of the Redevelopment Project.
- 6. Relocation Plan. There are no residents or businesses within the Redevelopment Project Area that are being relocated, so no relocation benefits are being provided.
- 7. Control of Project. Developer shall have complete and exclusive control over the renovation of the Redevelopment Project which it owns or controls insofar as the City is concerned, subject, however, to all applicable laws, rules and regulations, including, but not limited to, all ordinances, rules and regulations of the City, such as zoning ordinances, building codes, and property maintenance codes. Developer hereby grants to the City, its agents, and employees the right to enter upon all improvements under the control of Developer and located in the Redevelopment Project Area, for the purpose of inspecting the Redevelopment Project during regular business hours with at least 24 hours prior notice, except in case of an emergency. Developer shall have complete and exclusive control over the construction, management, disposition and leasing of property which it owns within the Redevelopment Project Area. Developer’s control over leasing includes, without limitation, the determination of rent rates and the selection or rejection of potential tenants. Notwithstanding the foregoing, the overall design of the Redevelopment Project, including but not limited to, architectural style, theme, building placement, building materials, site amenities and landscaping shall be subject to the reasonable approval of the Department of Building Development Services and the Department of Planning and Development in accordance with

any City code requirements, as evidenced in writing by a letter signed by the Directors of said Departments.

8. Tax Abatement.

- a. First Ten Years - Land Only; Payments in Lieu of Taxes. The real property in the Redevelopment Project Area shall not be subject to assessment or payment of general ad valorem taxes imposed by the City, the State of Missouri, or any political subdivision thereof, for a period of ten (10) years after the date that Developer becomes the owner of such real property (the "**Ten-Year Term**") except to such extent and in such amount as may be imposed upon such real property during such period measured solely by the amount of the assessed valuation of the land, exclusive of improvements, as was determined by the Assessor of Greene County, Missouri (the "**Assessor**"), for taxes due and payable thereon during the calendar year preceding the calendar year during which the Developer acquired the real property and improvements located within the Redevelopment Project Area (the "**Unabated Taxes**"). The amounts of such general ad valorem tax assessments shall not be increased during said Ten-Year Term so long as the real property is used in accordance with the Development Plan. If any portion of such real property was tax exempt, or if the Assessor has not previously assessed such real property immediately prior to its acquisition by Developer, then the Assessor, upon acquisition of such property by the Developer and upon request of the City, shall promptly assess such real property, exclusive of improvements, in accordance with the provisions of Section 353.110.2, RSMo. The amount of such assessed valuation so fixed by the Assessor or in the manner as provided by law shall not be increased during the Ten-Year Term, so long as said real property is used in accordance with the Development Plan. Developer shall notify the City, in writing, of any tax exempt real property which it acquires in connection with the Redevelopment Project.

Notwithstanding the tax abatement provided for in Section 353.110, RSMo., so long as the Redevelopment Project Area receives the benefit of the tax abatement set forth in this Section, during the Ten-Year Term, the Developer, the Company, or any successor owner, shall pay or cause to be paid annually payments in lieu of taxes ("**PILOTs**") in an amount equal to a) the amount of ad valorem taxes that were due during the calendar year preceding the calendar year during which the Developer acquired the real property and improvements located within the Redevelopment Project Area, less the Unabated Taxes. The Developer shall make such PILOTs to the Greene County Collector of Revenue (the "**Collector**") by December 31st of each calendar year. Pursuant to Section 353.110, RSMo, the Collector shall allocate all revenues received from such PILOTs among all taxing authorities whose property tax revenues are affected by the abatement on

the same pro rata basis and in the same manner as the ad valorem property tax revenues received by each taxing authority from such real property in the Redevelopment Project Area in the year such payments are due.

- b. Subsequent Fifteen Years. After the Ten-Year Term above-described, and for the next ensuing period of fifteen (15) years, ad valorem taxes upon the real property in the Redevelopment Project Area shall be measured by the assessed valuation thereof as determined by the Assessor, upon the basis of not to exceed fifty percent (50%) of the true value of such real property, including any improvements thereon. Such valuation shall not be increased above fifty percent (50%) of the true value of such real property from year to year during said period of fifteen (15) years, so long as the real property in the Redevelopment Project Area is used in accordance with the Development Plan.
- c. Full Assessment - Election to Opt Out After Completion. After the twenty-five (25) year period provided in Sections 8.a and 8.b above, the real property in the Redevelopment Project Area shall be subject to assessments by the Assessor and to payment of all ad valorem taxes, including, but not limited to, City, State, and County taxes, based on the full true value of the real property and the standard assessment ratio then in use for similar property by the Assessor. Furthermore, after the twenty-five (25) year period provided in Sections 8.a and 8.b above, the real property in said Redevelopment Project Area shall be owned and operated by Developer free from the conditions, restrictions, and provisions of The Urban Redevelopment Corporations Law, any rules or regulations adopted pursuant thereto, the Ordinance, the Development Plan, and this Agreement.

Pursuant to section 353.110.2, RSMo, if at any time after the completion of the Redevelopment Project and prior to the expiration of the twenty-five (25) year period addressed in Sections 8.a and 8.b above, the Developer elects to pay the sum equivalent to the amount of the general ad valorem taxes, not including interest and penalties, which would have been levied on the full value of such property from the date of the completion of the Redevelopment Project, then from the date of this election such real property shall be owned and operated by Developer free from the conditions, restrictions, and provisions of The Urban Redevelopment Corporations Law, any rules or regulations adopted pursuant thereto, the Ordinance, the Development Plan, and this Agreement.

- d. Abatement Contingent on Compliance With Development Plan - Special Assessments. The tax relief provided in this Section 8 for any real property within the Redevelopment Project Area shall be contingent upon the real property's material compliance with the Development Plan and this

Agreement, and shall apply to general ad valorem taxes only and shall not be deemed or construed to exempt Developer or its successors in interest, in whole or in part, from special assessments, or from fees, service charges, or other taxes which may be made by the City or other governmental unit.

9. Effect of Sale on Tax Relief. Any portion of the real property in the Redevelopment Project Area that is sold or otherwise disposed of shall be entitled to the tax relief provided under Section 8 of this Agreement, provided that it shall be developed and held in accordance with the provisions of the Development Plan applicable thereto and complies with all provisions of Chapter 353, RSMo.
10. Earnings Limitation.
 - a. Net Earnings not to Exceed Eight Percent. The net earnings of Developer from the Redevelopment Project, during the period of the tax relief provided for in Section 8 of this Agreement, shall be limited to an amount not to exceed eight percent (8%) per annum of the cost to Developer of the Redevelopment Project, including the cost of the land or the balance of such total cost of the Redevelopment Project as reduced by amortization payments, provided that the net earnings derived from the Redevelopment Project shall in no event exceed a sum equal to eight percent (8%) per annum upon the entire cost thereof. Such net earnings shall be computed after deducting from gross earnings the following:
 - i. all reasonable costs and expenses of maintenance and operation;
 - ii. amounts paid for taxes, assessments, insurance premiums and other similar charges; and
 - iii. an annual amount sufficient to amortize the cost of the entire Redevelopment Project at the end of the period, which shall be no more than sixty (60) years from the date of completion of the Redevelopment Project.
 - b. Cost of Redevelopment Project. The “**cost of the Redevelopment Project**,” as said term is used in this Agreement, means those costs attributable to planning, developing, constructing, and equipping the improvements in the Redevelopment Project, including, without limitation, planning costs, costs of feasibility work, construction costs, architect and engineering fees, contractor fees and overhead, interest, insurance and taxes during construction, developer fees, off-site and on-site land improvements, surveys, soil testing, costs necessary to make the real property in the Redevelopment Project Area environmentally safe, land and land acquisition costs, demolition costs and expenses, utility relocation costs and street improvements, site preparation, and all other land costs, attorney fees, and loan costs and expenses.

c. Allowable Uses of Surplus Earnings - Accounting to City Therefore. Surplus earnings of Developer derived from the Redevelopment Project, in excess of those provided for in subsection a of this Section 10, at the option of Developer may be used as follows:

- i. held by Developer as a reserve for maintenance of such rate of return in the future and may be used by Developer to offset any deficiency in such rate of return which may have occurred in prior years;
- ii. to accelerate the amortization payments;
- iii. for enlargement of the Redevelopment Project; or
- iv. for a reduction in rentals therein.

At the termination of the twenty-five (25) year tax relief provided for in Section 8 of this Agreement, Developer shall make a strict accounting of surplus earnings not previously used for one or more of the purposes herein set forth. If requested by the City, in writing, after review of the accounting made by Developer, Developer shall, at its own expense, have an audit made of its books by a firm of independent certified public accountants reasonably acceptable to the City, and the findings of such audit shall be made available to the City Manager. If it is determined by such audit that there are surplus earnings not previously used for one or more of the purposes set forth in this Agreement, then such earnings shall be paid to the City.

d. Certain Purchasers Subject to Earnings Limitations. If all or any portion of the real property located in the Redevelopment Project Area during the period of tax relief provided in Section 8 of this Agreement is purchased by an urban redevelopment corporation or a life insurance company operating as an urban redevelopment corporation, the earnings derived from the Redevelopment Project shall be limited in the manner and to the extent set forth in subsection a of this Section 10. If all or any portion of the real property located in the Redevelopment Project Area during the period of tax relief provided in Section 8 of this Agreement is purchased by purchaser that is not an urban redevelopment corporation or life insurance company operating as an urban redevelopment corporation then the provisions set forth in subsection a, b, and c of this Section 10 shall not apply.

11. Indebtedness Limitation. As per Section 353.030(10), RSMo, Developer shall not issue income debentures paying an interest rate in excess of nine percent (9%), provided however, that this limitation shall not apply to other debt of Developer as per the provisions of Section 353.030(10), RSMo. Developer shall not pay any interest on its income debentures, or dividends on its stock, regardless of class or

preference, during any dividend year, unless there shall exist at the time of such payment no default under any amortization requirements with respect to its indebtedness, nor unless all accrued interest, taxes, and other public charges shall have been duly paid or reserves set up for the payment thereof, and adequate reserves provided for depreciation, obsolescence, and other proper reserves.

12. Accounting Practices. Developer shall establish and maintain depreciation, obsolescence and other reserves and surplus and other accounts, including a reserve for the payment of taxes, in Developer's reasonable discretion, according to recognized standard accounting practices.
13. Sale or Disposition of Project Property.
 - a. Continuation of Abatement. In the event of the sale or other disposition of any or all of the real property of Developer in the Redevelopment Project Area by reason of the foreclosure of any mortgage or other lien, through insolvency or bankruptcy proceedings, by order of any court of competent jurisdiction, or by voluntary transfer or otherwise, the tax relief provided in Section 8 of this Agreement and under the provisions of The Urban Redevelopment Corporations Law shall inure, with respect to the real property so sold or otherwise disposed of, to any purchaser or transferee of such real property so long as such purchaser or transferee shall continue to use, operate, and maintain such real property in accordance with the provisions of the Development Plan and this Agreement, including compliance with all provisions of this Agreement. However, if such real property shall be used for a purpose different than that described in the Development Plan and this Agreement, or if the purchaser does not desire the property to continue under the Development Plan, the real property shall be assessed for ad valorem taxes based upon the full true value of such real property and may be owned and operated free from any of the conditions, restrictions, or provisions of The Urban Redevelopment Corporations Law, any rules or regulations adopted pursuant thereto, the Ordinance, the Development Plan, and this Agreement.
 - b. Obligation to Clear Blight - Covenant Running with Land. Developer, with respect to the property acquired by it, shall be required to clear the blight or to rehabilitate to eliminate the physical blight existing in the Redevelopment Project Area, or to make adequate provisions satisfactory to the City for the clearance of such blight. This obligation shall be a covenant running with the land and shall not be affected by any such sale or disposition. Any purchaser of property in the blighted area by deed from Developer or any of Developer's successors in title, who wishes to receive the development rights and tax abatement granted by this Agreement, shall acquire title subject to this obligation insofar as it pertains to the land so acquired.

14. Assignment of Development Plan. This Agreement shall be binding upon and shall inure to the benefit of Developer and its successors and assigns, and the term “**Developer**” as used herein shall be deemed to include such successors and assigns (including any subsequent purchasers or transferees of any portion or all of the real property located within the Redevelopment Project Area); provided, however, that no assignment of the Development Plan shall be effective nor discharge Developer of its obligations hereunder unless and until it has been approved by the City Council (“**Council**”) by ordinance, which approval shall not be unreasonably withheld, conditioned, or delayed. Notwithstanding the foregoing, any assignment to an affiliate of the Developer under the same ownership and control (an “**Affiliate Transfer**”) shall not require prior Council approval. Council approval is not required for the sale of all or any portion of the real property located in the Redevelopment Project Area. Developer shall notify the City Manager in writing of any assignment of any or all of the Development Plan at least ten (10) days after said assignment. Said notice shall specify the name and address of the assignee. The assignee, within six (6) months after the date of assignment, shall notify the City Manager in writing of the assignee’s election to continue under the Development Plan. No such assignment shall release Developer of its rights and obligations hereunder without approval of the Council.
15. Breach - Failure to Comply. If Developer does not materially comply with the provisions of this Agreement, including the provisions of the Development Plan not inconsistent with this Agreement, within the time limits and in the manner for the completion of the Redevelopment Project as stated herein, except for reasonable delays caused by unforeseen circumstances beyond its control, and subject to all notice, grace, and cure periods and provisions, or shall do, permit to be done, or fail or omit to do anything contrary to or required of it by this Agreement, The Urban Redevelopment Corporations Law, or shall be about to so do, permit to be done, or fail or omit to have done, then upon certification of such fact to the Council by the City Manager, the Council may authorize the City Attorney to commence a proceeding in the Circuit Court in the name of the City to have such action, failure, omission, or threatened action or omission stopped, prevented, or rectified by injunction or otherwise, or in the name of the City may bring an action for damages against Developer for breach of any of the provisions of the Development Plan or of this Agreement.
16. Excusable Delays. Notwithstanding any provisions of this Agreement or the Development Plan to the contrary, performance by Developer shall not be deemed to be in default where delays or defaults are due to war, insurrection, strikes, lock-outs, riots, floods, earthquakes, fires, casualties, acts of God, labor disputes, governmental restrictions or priorities, embargoes, litigation, tornadoes, unusually severe weather, pandemics, formally declared emergencies, inability to obtain or secure necessary labor, materials, or tools, delays of any contractor, subcontractor, materialman or supplier, acts or failure to act of the City or of any other governmental agency or entity, or any other causes beyond the control or without the fault of Developer. With the approval of the City, the time of

performance hereunder shall be extended for the period of any delay or delays caused or resulting from any of the foregoing causes. All extensions hereunder shall be effective only if approved by the Council by ordinance, which approval shall not be arbitrarily or unreasonably withheld, conditioned, or delayed, it being understood that Developer is entitled to such extensions upon presentation of documentation of the periods of such delays. Developer shall not excessively delay filing an application for extension of time, but Developer shall not be prejudiced by failing inadvertently to make timely application therefor.

17. Default. In the event Developer materially defaults in the performance of any of its obligations pursuant to the terms of the Development Plan or this Agreement, the City may, after giving Developer thirty (30) days written notice and a reasonable opportunity to cure such material default, including any additional time as is reasonably necessary if the default is of such a nature it cannot be cured within thirty (30) days after receiving notice and the Developer is diligently working to cure such default, terminate this Agreement, including the Development Plan, and all rights granted pursuant thereto. Said termination shall include the rights, if any, to continuing tax abatement as provided in Section 8 of this Agreement. Upon such termination, the City Attorney shall commence such proceedings in the appropriate court to terminate the tax abatement.
18. Notice. Any notice required by this Agreement is deemed to be given if it is mailed by United States certified mail, postage prepaid, and addressed as hereinafter specified:

To the City:

Springfield City Manager
840 Boonville Avenue
Springfield, MO 65802

With a copy to:

Springfield City Attorney
840 Boonville Avenue
Springfield, MO 65802

To the Developer:

Commercial-Pacific Street
Redevelopment Corporation
1324 West Warren Avenue
Ozark, MO 65721

With a copy to:

Spencer Fane, LLP
2144 E. Republic Rd, Ste B300
Springfield, MO 65804

Attn: Shelby Wood

Each party has the right to specify that notice be addressed to any other address by giving to the other party ten (10) days written notice thereof.

19. Modification - Interpretation. The terms, conditions, and provisions of this Agreement and of the Development Plan can neither be modified nor eliminated except by mutual agreement between the City and Developer and approved by an ordinance or ordinances duly adopted by the Council; *provided, however*, that this

Agreement shall not be construed as an enlargement of the authority conferred upon the City by The Urban Redevelopment Corporations Law.

20. Effective Date. This Agreement becomes effective on the effective date of the Ordinance or the date of the actual execution hereof by the City and Developer, whichever last occurs, and shall remain in full force and effect so long as Developer shall either be entitled to enjoy tax relief pursuant to the provisions of Section 8 of this Agreement or shall have any right under the provisions of the Development Plan to commence construction of any buildings or improvements in said Redevelopment Project pursuant to Sections 3 and 4 hereof, and at the end of such period so determined, this Agreement shall terminate and become null and void.
21. Applicability. This Agreement applies only to the Redevelopment Project referred to herein.
22. Recording. This Agreement shall be recorded by the City in the Recorder's Office of Greene County, Missouri.
23. Continuing Obligation to Maintain Redevelopment Project Area and Redevelopment Project. Developer agrees to maintain the Redevelopment Project Area and Redevelopment Project in a condition of good repair which includes compliance with all City Codes of Springfield, Missouri. In the event Developer assigns its rights under the Development Plan and this Agreement to an unrelated party and said assignment is approved by ordinance pursuant to Section 14 of this Agreement, then, in such an event, Developer's obligations under this Section 23 shall be released.
24. Interpretation. In the event of any conflict between the terms of the Development Plan and this Agreement, the terms of this Agreement shall prevail.
25. Headings. The headings or captions of this Agreement are for convenience and reference only, and in no way define, limit, or describe the scope or intent of the Agreement or any provision hereof.
26. Severability. The provisions of this Agreement shall be deemed severable. In the event that any provision of this Agreement is found by a court of competent jurisdiction to be invalid, the remaining provisions of this Agreement shall remain valid unless the court finds that the valid provisions are so essentially and inseparably connected with and so dependent upon the invalid provisions that it cannot be presumed that the parties hereto would have agreed to the valid provisions of this Agreement; or unless the court finds the valid provisions, standing alone, are incomplete and incapable of being executed in accordance with the contracting parties' intent.

27. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which shall constitute one and the same instrument.
28. Conflicts. No salaried officer or employee of the city, and no member of the City Council or the Corporation shall have a financial interest, direct or indirect, in this Agreement. A violation of this provision renders the Agreement void. Any applicable federal regulations and applicable provisions in Section 105.450 et seq. RSMo. shall not be violated. Developer covenants that it presently has no interest and shall not acquire any interest, of a direct or indirect nature, which would conflict in any manner or degree with the performance of services to be performed under this Agreement. Developer further covenants that in the performance of this Agreement no person having such interest shall be employed or compensated by Developer.
29. Jurisdiction. This agreement and every question arising hereunder shall be construed and determined according to the law of the State of Missouri. Should any part of this agreement be adjudicated, venue shall be proper only in the Circuit Court of Greene County, Missouri.
30. Discrimination. Developer agrees in the performance of this Agreement not to discriminate on the ground or because of race, color, religion, sex, sexual orientation, gender identity, national origin, age, status as a protected veteran or status as a qualified individual with a disability, or political opinion or affiliation, against any employee of Developer or applicant for employment and shall include a similar provision in all subcontracts let or awarded hereunder. The parties hereby incorporate the requirements of 41 C.F.R. §§ 60-1.4(a)(7), 29 C.F.R. Part 471, Appendix A to Subpart A, 41 C.F.R. § 60-300.5(a) and 41 C.F.R. § 60-741.5(a), if applicable.
- a. This Developer and any authorized subcontractor shall abide by the requirements of 41 C.F.R. § 60-300.5(a). This regulation prohibits discrimination against qualified protected veterans, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans.
 - b. This Developer and any authorized subcontractor shall abide by the requirements of 41 C.F.R. § 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.
31. Affidavit for Contracts Over \$5,000.00. Pursuant to Missouri Revised Statute Sections 285.525 through 285.550, if this Agreement exceeds the amount of \$5,000.00 and Developer is associated with a business entity, Developer shall provide a notarized affidavit acceptable to the City stating that the associated

business entity is enrolled in and participates in a federal work authorization program with respect to the employees working in connection with the contracted services, and that said business entity does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. Additionally, Developer must provide documentation for said business entity evidencing current enrollment in a federal work authorization program.

32. Certificate of Compliance with 34.600 RSMo. (Anti-Discrimination Against Israel Act). Pursuant to Missouri Revised Statute Sections 34.600 et seq., Developer must provide a written certification of compliance with the Anti-Discrimination Against Israel Act, RSMo. 34.600 et seq., that Developer is not currently engaged in and shall not, for the duration of the Agreement, engage in a boycott of goods or services from the State of Israel; companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel; or persons or entities doing business in the State of Israel. This section shall not apply to contracts with a total potential value of less than one hundred thousand dollars (\$100,000) or to contractors with fewer than ten (10) employees.

33. Nonresident/Foreign Consultants. Developer shall procure and maintain during the life of this Agreement:

- a. If Developer is a foreign corporation, a certificate of authority to transact business in the State of Missouri from the Secretary of State, unless exempt pursuant to the provisions of Section 351.572 RSMo.; and
- b. A certificate from the Missouri Director of Revenue evidencing compliance with the transient employer financial assurance law, unless exempt pursuant to the provisions of Section 285.230 RSMo.

34. General Independent Consultant Clause. This Agreement does not create an employee/employer relationship between the parties. It is the parties' intention that the Developer will be an independent contractor and not the City's employee for all purposes, including, but not limited to: the application of the Fair Labor Standards Act minimum wage and overtime payments, Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act, the provisions of the Internal Revenue Code, Missouri revenue and taxation laws, and Missouri workers' compensation and unemployment insurance laws. The Developer will retain sole and absolute discretion in the judgment of the manner and means of carrying out the Developer's activities and responsibilities hereunder. The Developer agrees that it is a separate and independent enterprise from the City, that it has a full opportunity to find other work, that it has made its own investment in its business, and that it will utilize a high level of skill necessary to perform the services. This Agreement shall not be construed as creating any joint employment relationship between the Developer and the City, and the City

will not be liable for any obligation incurred by the Developer, including but not limited to unpaid minimum wages and/or overtime premiums.

35. City Benefits. Developer shall not be entitled to any of the benefits established for the employees of the City nor be covered by the Workers' Compensation Program of the City.
36. Liability and Indemnity. The parties mutually agree to the following:
- a. In no event shall the City be liable to the Developer for special, indirect, or consequential damages, except those caused by the City's gross negligence or willful or wanton misconduct directly and solely resulting in a breach of this Agreement.
 - b. Developer shall defend, indemnify, and hold the City harmless from and against all claims, including but not limited to, losses and liabilities arising out of personal injuries, including death, and damage to property, which are caused by the Developer arising out of or in any way connected with this Agreement.
 - c. Developer shall indemnify and hold the City harmless from all wages or overtime compensation due Developer's employees in rendering services pursuant to this Agreement, including payment of reasonable and documented attorney fees and costs in the defense of any claim made under the Fair Labor Standards Act or any other federal or state law.
37. Attorney Fees. In the event of any litigation arising from breach of this Agreement where a court of competent jurisdiction finds the Developer to be liable, the City shall be entitled to recover from the Developer all reasonable and documented costs incurred for such litigation, including staff time, court costs, reasonable and documented attorney fees, and all other reasonable related expenses incurred in such litigation.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have set their hands and seals the day and year first above written.

CITY OF SPRINGFIELD, MISSOURI

By: _____
Jason Gage, City Manager

ATTEST:

Anita Cotter, City Clerk

Approved as to form and legality:

Paul Jordan, City Attorney

COMMERCIAL-PACIFIC STREET REDEVELOPMENT CORPORATION

By: _____

Print Name: _____

Its: _____

ATTEST:

Print Name: _____

Its: _____

STATE OF MISSOURI)
) ss.
COUNTY OF GREENE)

BE IT REMEMBERED, that on this _____ day of _____, 2024, before me, the undersigned, a Notary Public in and for the County and State aforesaid, came _____, _____ of the of the City of Springfield, Missouri, a municipal corporation duly organized, incorporated and existing under and by virtue of the laws of the State of Missouri who is personally known to me to be the same person who executed, as such official, the within instrument on behalf of said municipal corporation, and such person duly acknowledged the execution of the same to be the act and deed of said municipal corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

Notary Public

My Commission Expires:

STATE OF MISSOURI)
) ss.
COUNTY OF GREENE)

BE IT REMEMBERED, that on this _____ day of _____, 2024, before me, the undersigned, a Notary Public in and for the County and State aforesaid, came _____, _____ of the Commercial-Pacific Street Redevelopment Corporation, a corporation duly organized, incorporated and existing under and by virtue of The Urban Redevelopment Corporations Law of Missouri, who is personally known to me to be the same person who executed, as such officers, the within instrument on behalf of said corporation, and such person duly acknowledged the execution of the same to be the act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

Notary Public

My Commission Expires:

EXHIBIT A

LEGAL DESCRIPTION OF REDEVELOPMENT PROJECT AREA

PART OF BLOCK 18 IN THE ORIGINAL TOWN OF NORTH SPRINGFIELD, NOW IN THE CITY OF SPRINGFIELD, GREENE COUNTY, MISSOURI, BEING ALL OF LOTS 1, 2, 3, 10, 11, AND 12 INCLUDING THE VACATED ALLEY BETWEEN SAID LOTS, ALSO ALL OF LOT 9, ALL BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID BLOCK 18 BEING THE NORTHWEST CORNER OF SAID LOT 12; THENCE SOUTH 89°17'12" EAST ALONG THE NORTH LINE OF SAID BLOCK 18, 438.50 FEET TO THE NORTHEAST CORNER OF SAID BLOCK 18 AND THE NORTHEAST CORNER OF SAID LOT 1; THENCE SOUTH 01°06'58" WEST ALONG THE EAST LINE OF SAID BLOCK 18, 198.73 FEET TO THE SOUTHEAST CORNER OF SAID LOT 3; THENCE NORTH 89°18'51" WEST ALONG THE SOUTH LINE OF SAID LOT 3 AND ITS EXTENSION, 227.64 FEET TO THE NORTHEAST CORNER OF SAID LOT 9; THENCE SOUTH 01°09'18" WEST, 66.00 FEET TO THE SOUTHEAST CORNER OF SAID LOT 9; THENCE NORTH 89°18'51" WEST, 211.17 FEET TO THE SOUTHWEST CORNER OF SAID LOT 9; THENCE NORTH 01°11'35" EAST ALONG THE WEST LINE OF SAID BLOCK 18, 264.95 FEET TO THE POINT OF BEGINNING.

EXHIBIT B
DEVELOPMENT PLAN



EXPLANATION TO COUNCIL BILL 2024-053 (JENSON)

FILED: 04/01/2024

ORIGINATING DEPARTMENT: Planning and Development

TITLE: A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 3.3 acres of property generally located at 1330 South Kansas Avenue and a portion of 1518, 1512, and 1506 West Meadowmere Street from R-SF, Residential Single-Family District to R-LD, Low-Density Multifamily Residential District with Conditional Overlay District No. 246; and adopting an updated Official Zoning Map. (By: Eoff Land Trust; 1330 South Kansas Avenue; Z-1-2024 with Conditional Overlay District No. 246)

PURPOSE: Amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 3.3 acres of property generally located at 1330 South Kansas Avenue and a portion of 1518, 1512, 1506 West Meadowmere Street from R-SF, Residential Single-family to R-LD, Low-density Multifamily Residential district with Conditional Overlay District No. 246 (Staff and Planning and Zoning Commission recommend approval).

BACKGROUND INFORMATION: ZONING CASE NUMBER Z-1-2024/ CONDITIONAL OVERLAY DISTRICT NO. 246

The applicant is requesting to rezone approximately 3.3 acre of property generally located at 1330 South Kansas Avenue from R-SF, Residential Single-family to R-LD, Low-density Multifamily Residential district with Conditional Overlay District No. 246. The applicant intends to build a low-density multifamily housing development.

REMARKS: The Planning and Zoning Commission held a public hearing on February 15, 2024, and recommended to approve, by a vote of 7 to 0.

The Planning and Development staff recommends the application be approved (see the attached Development Review Staff Report).

FINDINGS FOR STAFF RECOMMENDATION:

1. The applicant is requesting to rezone approximately 3.3 acre of property generally located at 1330 South Kansas Avenue from R-SF, Residential Single-family to R-LD, Low-density Multifamily Residential district with Conditional Overlay District No. 246. The applicant intends to build a low-density multifamily housing development.
2. The Comprehensive Plan's Land Use & Development chapter identifies the subject

property as the Traditional neighborhood placetype.

3. The Traditional neighborhood placetype lists low-intensity multi-family as a supporting land use. This application, which limits the maximum density to eleven (11) dwelling units per acre, is considered to be low-intensity. The standard R-LD district allows up to eighteen (18) dwellings units per acre.

4. The Land Use & Development chapter states that “the design of higher density residential uses integrated into the Residential Neighborhood Placetype should complement the scale and character of the surrounding neighborhood. Attention should be given to building height, orientation, architectural style, and setback to ensure the existing neighborhood character is retained.” The proposed COD’s design requirements are consistent with this recommendation by addressing each of these criteria outlined below:

- Building height: The COD places a building height restriction of thirty (30) feet in height or two stories. The existing and surrounding R-SF district allows building height to be thirty-five (35) feet in height when side yards are less than 15 feet or forty-five (45) feet in height when side yards are greater than 15 feet. This provision will help to complement the scale of the surrounding neighborhood.
- Orientation: The COD requires that each building that is directly adjacent to Kansas Avenue shall have a front door entrance to each ground floor unit. At least half of the units facing Kansas Avenue shall have a front porch that projects at least three (3) feet beyond the front building façade.
- Architectural style: The COD requires that the roof orientation, roof pitch and window openings be compatible with the single-family homes in the area. Flat roofs are prohibited to Vinyl siding is prohibited on buildings. Chain-link fences are also prohibited. Units that face Kansas Avenue will be articulated to ensure that the building does not appear monolithic in nature and complement the character of the area.
- Setback: The front yard setback shall be fifteen (15) feet from Kansas Avenue and garages will be setback at least twenty (20) feet.

5. The proposed COD has site design requirements which provide for internal sidewalks within the development, benches that serve as pedestrian amenities, provisions for lighting to minimize impacts to neighboring properties and the preservation of healthy, native and mature trees that can be used within the bufferyard area.

6. This application is consistent with the Comprehensive Plan’s Housing and Neighborhoods chapter which encourages creative housing solutions to add housing diversity and support downsizing households, young professionals, and aging-in-place. The Plan encourages the use of “missing middle” housing types. Missing middle housing sits in the middle of the development spectrum between single-family homes

and mid-rise to high-rise apartment buildings. These housing types should be integrated into Springfield's existing neighborhoods to increase housing diversity and provide a wider, more equitable range of housing choices.

7. Missing middle housing types provide opportunities for the City to increase the diversity of its housing stock through moderate increases in density, while maintaining the neighborhood character Springfield residents cherish. They range from low density duplexes to mid density multiplexes and triplexes, which can be integrated into the City's housing mix by using single-family lots to accommodate two to three units in a context-sensitive manner.

8. The Plan recommends a "stepped down" approach to be used to transition from higher density/intensity residential and non-residential uses to single-family residential homes and uses, with greater densities/intensities located on higher functioning roadways, at the periphery of the neighborhood. Although the subject property is located on Kansas Avenue, classified as a local street, traffic from the proposed development does not have to traverse far through a neighborhood to get to a higher classification street. Bennett is classified as a collector roadway and is located one-hundred and fifty feet from the subject property. Kansas Expressway approximately one-quarter mile to the west of the neighborhood.

9. This application proposes to rezone a portion of the properties at 1518, 1512, 1506 West Meadowmere Street. The applicant intends to utilize a portion of the rear yards in the proposed development for the stormwater management in this area. The COD requires that the property will be subdivided along the zoning district boundary following the Subdivision Regulations.

10. The subject property has access to City Utilities infrastructure, and any necessary extension of such services can be provided via City Utilities' extension policy, though new easements may be necessary to accommodate this.

11. There are few changing conditions in the area affected that make the proposed rezoning necessary.

12. The range of uses in the proposed R-LD district and COD are compatible with the uses permitted on other property in the immediate vicinity.

13. There are adequate utility and sewer and water facilities existing or can be provided to serve the uses that would be permitted on the property if it were rezoned.

14. The impact of the uses, which would be permitted if the property were rezoned, is not expected to significantly increase the volume of vehicular and pedestrian traffic or reduce traffic safety in the vicinity.

15. The proposed zoning will not correct an error in the application of this article, but



rather will provide a viable use of the property subject to the provisions of the zoning district.

16. A reasonably viable economic use of the subject property will not be precluded if the proposed rezoning is denied.

STAFF RECOMMENDATION: Staff recommends approval based on the proposal's general conformance to the Comprehensive Plan's Traditional Neighborhood placetype and on the finding of facts above.

Submitted By: Michael Sparlin, Senior City Planner

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

- Attachments:**
1. Z-1-2024 COD 246 _ Ord
 2. COD_exh A
 3. Legal Description_exhB
 4. ROP_exhC
 5. Z-1-2024 COD 246_exhD

One-rdg. _____
P. Hrngs. X
Pgs. 51
Filed: 03-05-24

Sponsored by: Jenson

First Reading: _____

Second Reading: _____

COUNCIL BILL 2024-053

GENERAL ORDINANCE _____

AN ORDINANCE

1 AMENDING the Springfield Land Development Code, Section 36-306, 'Official
2 zoning map and rules for interpretation,' by rezoning approximately
3 3.3 acres of property generally located at 1330 South Kansas
4 Avenue and a portion of 1518, 1512, and 1506 West Meadowmere
5 Street from R-SF, Residential Single-Family District to R-LD, Low-
6 Density Multifamily Residential District with Conditional Overlay
7 District No. 246; and adopting an updated Official Zoning Map.
8
9 _____

10 WHEREAS, an application has been filed for a zoning change of the property
11 generally located at 1330 South Kansas Avenue and a portion of 1518, 1512, and 1506
12 West Meadowmere Street from R-SF, Residential Single-Family District to R-LD, Low-
13 Density Multifamily Residential District with Conditional Overlay District No. 246; and
14

15 WHEREAS, Conditional Overlay District No. 246 shall modify the requirements of
16 the Springfield Land Development Code Section 36-382, Low-Density Multifamily
17 Residential District, by requiring that the property described in "Exhibit B" comply with
18 the requirements described in "Exhibit A" attached herein; and
19

20 WHEREAS, following proper notice, the Planning and Zoning Commission held a
21 public hearing on February 15, 2024, a copy of the Record of Proceedings from said
22 public hearing being attached hereto and incorporated herein by this reference as
23 "Exhibit C," and said Commission made its recommendation; and
24

25 WHEREAS, the City has reviewed the applicant's request and prepared a staff
26 report concerning the application, which is attached hereto and incorporated herein by
27 this reference as "Exhibit D"; and
28

29 WHEREAS, proper notice was given of a public hearing before City Council, and
30 said hearing was held in accordance with the law.
31

32 NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF
33 SPRINGFIELD, MISSOURI, as follows, that:

34 Section 1 – The property described in "Exhibit B," which is attached hereto and
35 incorporated herein by this reference, is hereby rezoned from R-SF, Residential Single-
36 Family District to R-LD, Low-Density Multifamily Residential District with Conditional
37 Overlay District No. 246. Springfield Land Development Code, Section 36-306, 'Official
38 zoning map and rules for interpretation,' is hereby amended, changed, and modified
39 consistent with this Ordinance.

40
41 Section 2 – City Council hereby establishes Conditional Overlay District No. 246,
42 which shall contain the requirements and standards provided in "Exhibit A," which is
43 attached hereto and incorporated herein by this reference as though set forth herein.
44 The requirements of Conditional Overlay District No. 246 shall modify the requirements
45 of the Springfield Land Development Code Section 36-382, Low-Density Multifamily
46 Residential District, by requiring the property described in "Exhibit B" to comply with the
47 requirements contained in "Exhibit A."

48
49 Section 3 – City Council hereby directs the City Manager, or designee, to update
50 the City's digital zoning map to reflect this rezoning, and City Council adopts the map
51 thereby amended as the Official Zoning Map of Springfield, Missouri, as provided for in
52 the Springfield Land Development Code, Section 36-306, 'Official zoning maps and
53 rules of interpretation.'

54
55 Section 4 – The Official Zoning Map herein adopted shall be maintained and
56 archived in the same digital form in which this Council has approved its adoption.

57
58 Section 5 – This Ordinance shall be in full force and effect from and after
59 passage.

60
61 Passed at meeting: _____

62
63 _____
64 Mayor

65
66 Attest: _____, City Clerk

67
68 Filed as Ordinance: _____

69
70 Approved as to form: Laura Vales, Assistant City Attorney

71
72
73 Approved for Council action: Jason A. Hays, City Manager
74

EXHIBIT A

CONDITIONAL OVERLAY DISTRICT PROVISIONS NO. 246

The requirements of Section 36-382 of the Springfield Zoning Ordinance shall be modified herein for development within this district to include the following:

1. The subject property shall be subdivided along the zoning district boundaries following the current Subdivision Regulations.

Use limitations:

1. The maximum density shall be eleven (11) dwelling units per acre.

Minimum yard requirements:

1. The front yard setback shall be fifteen (15) feet from Kansas Avenue.
2. Attached and detached garages shall be setback twenty (20) feet from Kansas Avenue.

Maximum building height:

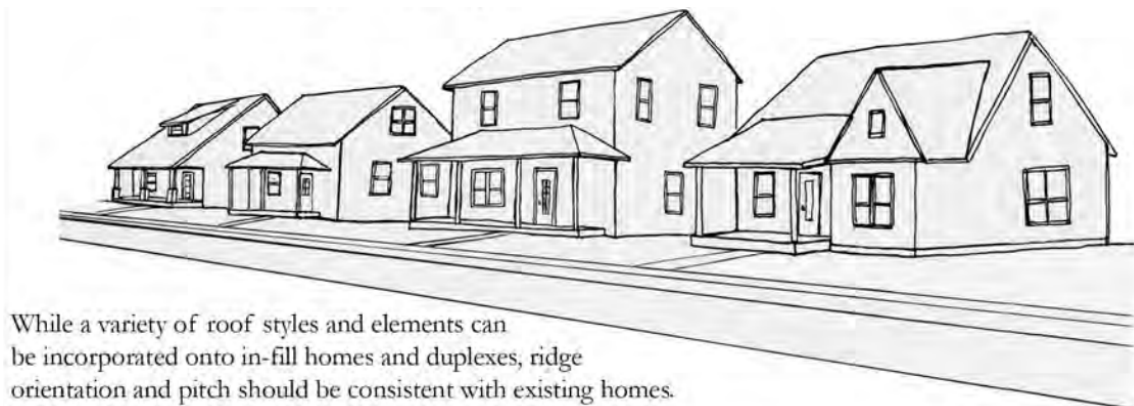
1. The maximum building height shall be thirty (30) feet in height or two stories.

Bufferyard:

1. In addition to the standard bufferyard type B, a six (6) foot solid wood fence, solid metal fence, masonry or brick wall, or evergreen hedge or any combination thereof that provides a six (6) foot solid screen, shall be required along the east property line adjacent to R-SF zoned property.

Design requirements:

1. Each building that is directly adjacent to Kansas Avenue shall have a front door entrance to each ground floor dwelling unit.
2. The structures roof pitch and orientation of the roof ridge shall be compatible with the single-family homes in the vicinity. The roof style, including gables and dormers, shall be consistent with the single-family homes in the vicinity. Flat



While a variety of roof styles and elements can be incorporated onto in-fill homes and duplexes, ridge orientation and pitch should be consistent with existing homes.

roofs shall be prohibited. The following figure illustrates the intent of this requirement.

(Figure from City of Springfield's *Affordable Housing Design Guidelines*)

3. On facades which face Kansas Avenue, window openings shall be similar in rhythm, size and proportion to that of the majority of single-family homes in the vicinity; i.e. uniform size and spacing on building façade. The following figure illustrates the intent of this requirement.

(Figure from City of Springfield's *Affordable Housing Design Guidelines*)

4. At least half of the units facing Kansas Avenue shall have a front porch that



Yes. All windows on this home are a consistent size and are evenly spaced.

No. The window in the upper right corner is much smaller than other windows. Such a situation can be a result of a floor plan that places a bathroom or kitchen against the front building facade.

No. The lack of rhythm in the spacing of the second floor windows results in an unbroken expanse of siding on the front building facade.

No. The vertical windows on the first floor and the horizontal windows on the second floor clash and create an inconsistency of style.

projects at least three (3) feet beyond the front building façade.

5. Vinyl siding shall be prohibited as a façade treatment on buildings.
6. Chain-link fences shall be prohibited.
7. Each unit that faces Kansas Avenue shall be articulated from the neighboring unit with bays, projections, or recesses. Articulation means a difference in the vertical plane of the building at least 18 inches or more.

Site design requirements:

1. Internal, private sidewalks shall connect to all buildings located on the site.
2. Pedestrian amenities shall include three benches placed along internal sidewalks at appropriate locations throughout the development.
3. Lighting sources or luminaries that do not have a cutoff and are used in parking lots and pedestrian ways shall not exceed a maximum of 15 feet in height.
4. All healthy and native existing trees of 6" caliper or greater shall be preserved or replaced with 2-inch caliper trees. A landscaping plan shall be submitted conforming to these requirements for building permits.

EXHIBIT B

LEGAL DESCRIPTION
ZONING CASE Z-1-2024 COD No. 246

All that part of Lots 1 and 2 of Ingleside Subdivision and that part of Lots 1 through 5 of Eoff Subdivision, both lying in the City of Springfield, Greene County, Missouri as shown on the recorded plats thereof, and being more particularly described as follows: BEGINNING at an existing iron pin at the Northeast corner of Lot 1 of Eoff Subdivision; thence, South $03^{\circ}17'31''$ West, along and with the East line of said Lot 1, also being the original East line of Lot 1 of Ingleside Subdivision, a distance of 119.97 feet to the POINT OF BEGINNING; thence, continue South $03^{\circ}17'31''$ West, along and with said East line, a distance of 269.73 feet to an existing iron pin at the Southeast corner of said Lot 1, Ingleside Subdivision; thence, North $88^{\circ}48'33''$ West, a distance of 30.23 feet to an existing iron pin; thence, South $03^{\circ}21'21''$ West, a distance of 240.18 feet to an existing iron pin at the Southeast corner of Tract "B" of City of Springfield Administrative Subdivision AS-6001; thence, North $87^{\circ}38'50''$ West, along and with the South line of said Tract "B", a distance of 275.13 feet to the West line of Lot 2 of Ingleside Subdivision, also being the East right-of-way line of Kansas Avenue; thence, North $03^{\circ}47'47''$ East, along and with said East line, a distance of 503.01 feet to a point lying 30.00 feet North of the Southwest corner of Lot 5 of Eoff Subdivision; thence, South $89^{\circ}04'38''$ East, running 30 feet North of and parallel to the South line of said Eoff Subdivision, a distance of 301.40 feet to the POINT OF BEGINNING, containing 3.36 acres, more or less, and being subject to easements, restrictions, or rights-of-way, if any.

EXHIBIT C

RECORD OF PROCEEDINGS

Z-1-2024 COD 246
1330 South Kansas Avenue
Applicant: Eoff Land Trust

Mr. Sparlin stated that this is a request to rezone approximately 3.3 acres of property from R-SF, Residential Single-family to R-LD, Low-density Multifamily Residential district with Conditional Overlay District No. 246. He also noted the update in the staff report within 72 hours of posting the agenda, clarifying that the buffering and landscaping language had changed from "six-foot solid wooden fence along the south and east property line" to "six foot sold screen along the east property line."

Mr. Daniel Richards, 1200 E. Woodhurst Drive noting that they have accepted all the recommendations provided by the City's Comprehensive Plan and amended the zoning boundary and worked with the neighborhood and noted their concerns regarding traffic and there will be a 20% increase in overall traffic, but the AM and PM traffic peak hours noted no additional traffic.

Mr. Cameron Eoff, 618 N. Maplewood Hills, Nixa noted that he is the owner of the property and has family that still lives on the property. He noted that everything will be new, clean, working, and safe in perpetuity and went over the benefits of the project.

Mr. Pauly asked about the mature trees currently on the property and what are the plans to keep them.

Mr. Eoff noted that the perimeter trees will be kept and easy to maintain, but there is one large tree centered on the property and they will see what can be done to preserve it.

Mr. Denis Levangie, 1371 S. Newton, noted that he lives in an old home and stated it was built on a civil war campsite and believes the development will not fit on the acreage and noted his concerns regarding traffic.

Ms. Dulcy Stewart, 1507 S. Newton, is in favor of the project and gave a brief background of working with the Eoff family on past projects, etc., noting that he is a neighborhood guy.

Ms. Lynna Alumbaugh, 1237 S. Kansas Avenue noted that she has townhouses directly behind her and has several problems with people trespassing into her yard, yelling, etc., and has concerns regarding adding more people into the area and increased traffic.

Mr. Robert Leazer, 1232 S. Kansas Avenue is not opposed to him building on his land but would like him to reconsider building ranch style homes instead of apartments.

Ms. Collen Alexander, 1419 W. Bennett Street and are in favor of the development and has worked with well with the Eoff family as good neighbors.

Mr. Gary Alexander, 1419 W. Bennett Street and are in favor, but would not like to see "great big, tall apartments." Believes it will raise property values and will clean up some of the fence rows but did voice his concern regarding traffic.

Mr. David Lane, 1644 W. Catalpa and is opposed to the rezoning stating that there is already a lot of apartments in that location and how the Kensington Park townhomes tower over his six-foot privacy fence into his backyard and people allowing their pets to potty along the fence and causing smells.

Ms. Emily Logan, 1622 W. Catalpa voiced her concerns regarding traffic, and if there is wheelchair access for the project and would like to have a sidewalk, stating that it is hard to go walking or dog walking and would like to see plans of what they are proposing.

Ms. Kim Eoff, 618 N. Maplewood Hills, Nixa stated that they have lived on the property for 19 years and have raised their children there and understands people's concerns and noted that traffic is a nuisance, but they see this as an opportunity to develop a neighborhood.

Mr. Brad King, 5453 E. Farm Road 192 stated that he is a builder and developer and has worked with Cameron on several developments and is in favor of the project and here to answer any questions.

Ms. Broekhoven closed the public hearing.

Ms. Broekhoven asked about a traffic study.

Mr. Zickefoose, Traffic Engineering explained that the applicant did provide traffic generation numbers for the proposed development, and we also ran our own numbers and there were very small differences. He summarized that the development on an hourly would potentially increase of seven trips a day and they are supporting the rezoning.

Mr. Colony noted that this is an attractive location, and the owner could easily sell the property and believes the owner will do a nice high-quality development.

Mr. Lebeck asked about traffic and went over his numbers that he has calculated and believes the increase is roughly 35% between as it is currently zoned versus rezoned. Discussion on sidewalks and the developer will have to build a sidewalk on the property that fronts Meadowmere.

Mr. Lebeck noted that his neighborhood is going through possible changes and that the Commission will act on the rezoning based on eight factors. Fits with the Springfield Comprehensive Plan, appropriate sewer, and water, and whether the change of conditions could affect neighborhood properties and one of them is about traffic and what impact it will have on the area and hopes that the City hears the concerns regarding traffic and notes the developer is going to do everything he can to make this a nice development and will recommend rezoning.

Ms. Broekhoven noted about the 17 conditions on top of the zoning request and whether it will have to come back to the Commission once they submit their designs for additional oversight.

Mr. Sparlin noted that if approved by City Council then the next step would be for them to submit building plans and they will be looked at in the review process by Planning staff and would review the Conditional Overlay District provisions.

Mr. Childers noted that this is one of the better Conditional Overlay District packets presented and does cover a lot of the items mentioned tonight and noting that the developer is preserving much of the vegetation that currently exists.

Mr. Knuckles believes that the developer has looked at the zoning change and traffic concerns and have concerns for the way the land will be developed and is putting an effort into making this fit in the community.

Mr. Colony believes this scale of housing will easily integrate into the neighborhood with little impact and will support this rezoning.

COMMISSION ACTION:

Lebeck, Commissioner Colony, Commissioner Knuckles. Nays: None. Absent: Commissioner Scott.

Planning and Zoning Commission Board Member Colony moved to approve Z-1-2024 COD 246, Commissioner Lebeck seconded the motion. It Passed with the following vote: Ayes: Commissioner Ridge, Commissioner Broekhoven, Commissioner Gunther, Commissioner Pauly, Commissioner Abstain: None.

A handwritten signature in black ink, appearing to read 'Bob Hosmer', written over a horizontal line.

Bob Hosmer, AICP
Planning Manager

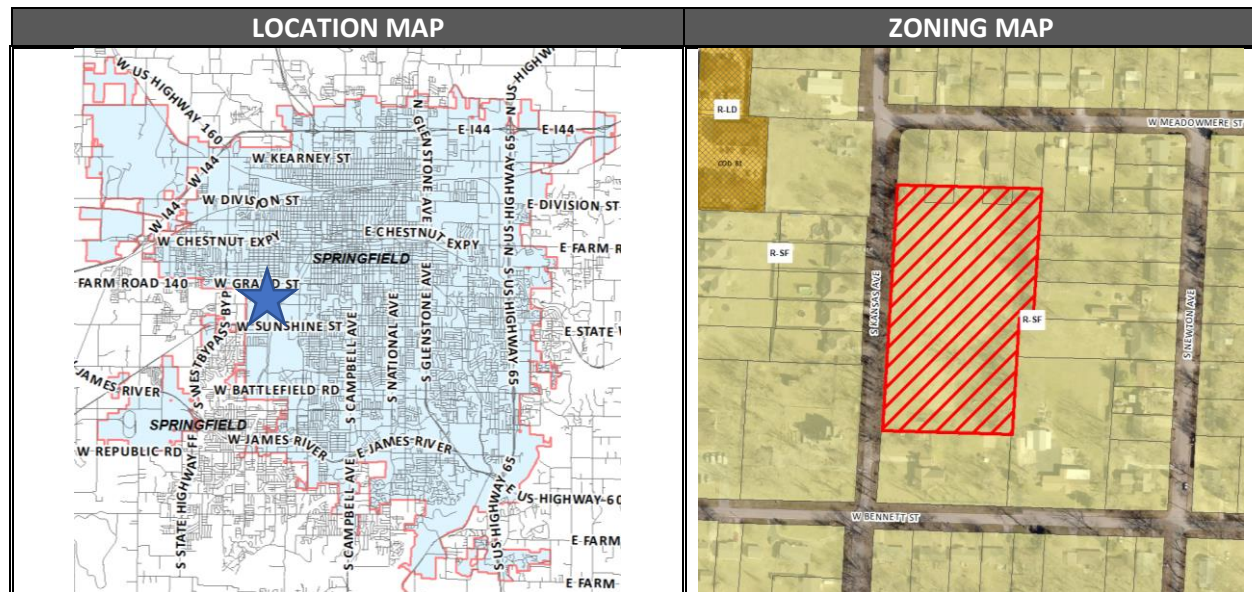
DEVELOPMENT REVIEW STAFF REPORT

PROJECT INFORMATION

Case Number:	Z-1-2024 with Conditional Overlay District No. 246
Location:	1330 South Kansas Avenue
Total Acres:	3.3 acres
Applicant:	Eoff Land Trust
Existing Land Use:	Undeveloped land
Neighborhood Meeting:	December 11, 2023
Planning and Zoning Commission:	February 15, 2024
City Council:	March 11, 2024
Public Notification:	Mail, posted property, and legal in Daily Events
Staff:	Michael Sparlin, Senior Planner
Staff recommendation:	Staff recommends approval
Proposed motion:	I move to recommend approval of rezoning case Z-1-2024 with Conditional Overlay District No. 246 as set forth in Attachment 1 (All commission motions are made in the affirmative).
Required Vote:	A majority of those present (5 members are a quorum).

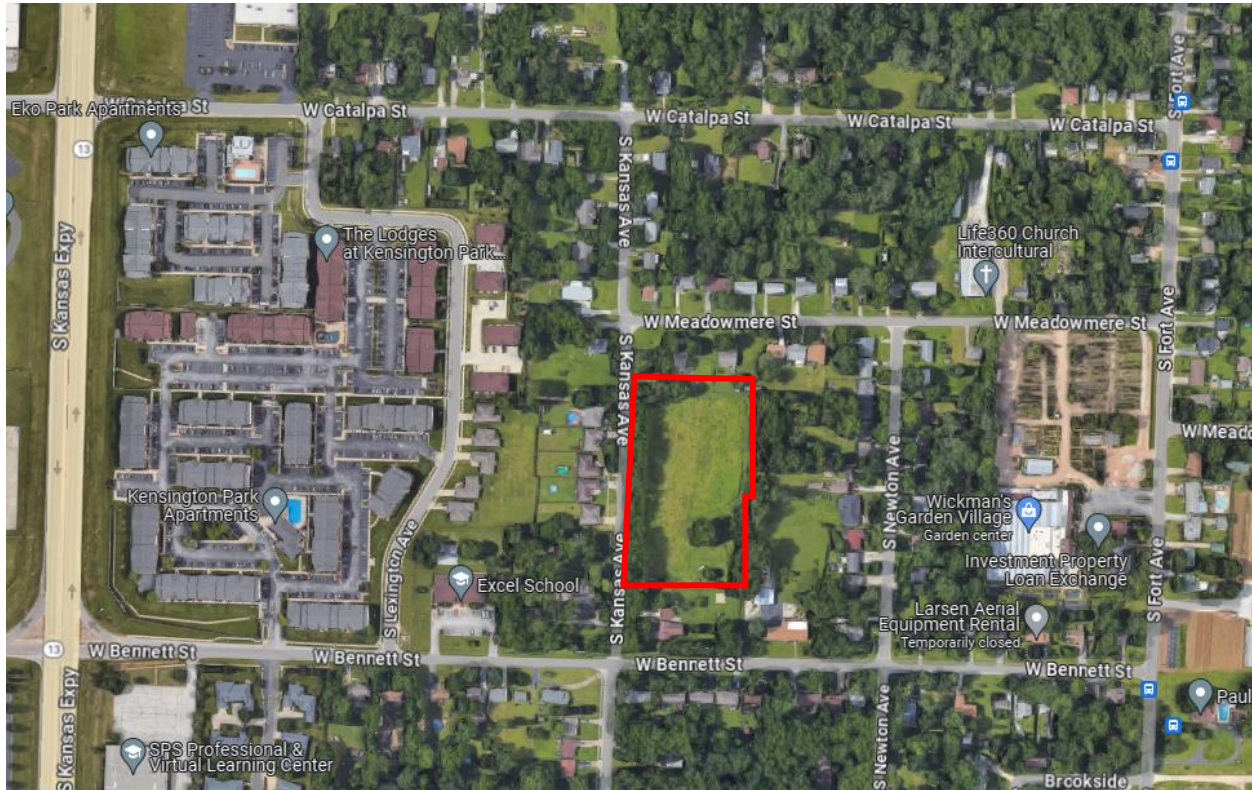
PROJECT SUMMARY:

Request to rezone approximately 3.3 acres of property generally located at 1330 South Kansas Avenue and a portion of 1518, 1512, 1506 West Meadowmere Street from R-SF, Residential Single-family to R-LD, Low-density Multifamily Residential district with Conditional Overlay District No. 246.



DEVELOPMENT REVIEW STAFF REPORT

GOOGLE AERIAL OF LANDMARKS, BUSINESSES, AND ATTRACTIONS:



GOOGLE STREETVIEW:



DEVELOPMENT REVIEW STAFF REPORT

PROPERTY HISTORY:

The subject property was zoned R-SF in the city-wide remapping in 1995.

PLANNING AND ZONING COMMISSION AUTHORITY:

Sec. 36-367. – Amendments

(7) Findings by the commission.

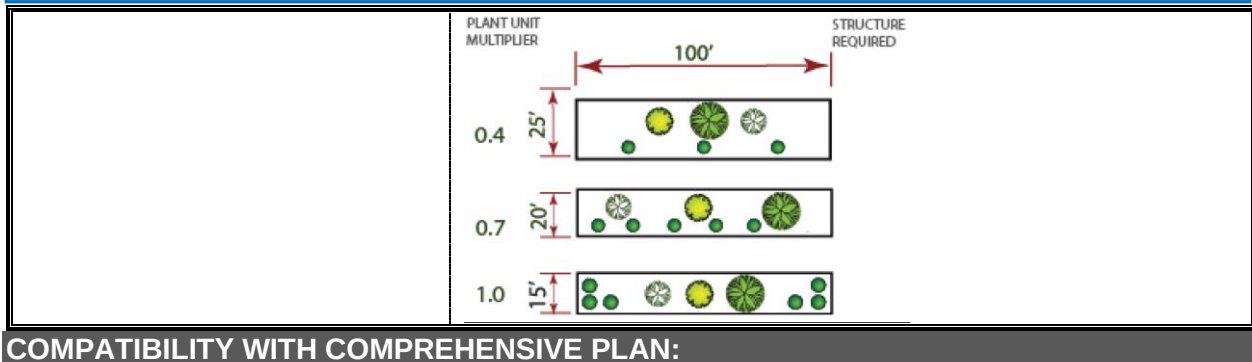
(a) Rezoning. If the application is for a reclassification of property to a different zoning district classification on the zoning map, the report of the planning and zoning commission may consider:

1. Whether the proposed zoning district classification is consistent with the Springfield Comprehensive Plan;
2. Whether there are any changed or changing conditions in the area affected that make the proposed rezoning necessary;
3. Whether the range of uses in the proposed zoning district classification are compatible with the uses permitted on other property in the immediate vicinity;
4. Whether adequate utility and sewer and water facilities exist or can be provided to serve the uses that would be permitted on the property if it were rezoned;
5. The impact the uses, which would be permitted if the property were rezoned, will have upon the volume of vehicular and pedestrian traffic and traffic safety in the vicinity;
6. Whether the proposed rezoning would correct an error in the application of this article as applied to the subject property;
7. Whether a reasonably viable economic use of the subject property will be precluded if the proposed rezoning is denied; and
8. Information submitted at the public hearing.

ZONING ORDINANCE REQUIREMENTS:

CODE ITEM	REQUIREMENTS FOR R-LD
Minimum Yard Requirements	Front yard: a. Fifteen feet along a street classified as a local street or as required by section 36-453 (garages shall be set back a minimum of 20 feet).
Maximum Structure Height	The maximum building height shall be thirty (30) feet in height or two stories.
Minimum Open Space	Not less than 20 percent.
Buffering and Landscaping	A bufferyard type B will be required adjacent to the R-SF zoned property in addition to a six (6) foot solid screen along the east property line.

DEVELOPMENT REVIEW STAFF REPORT



COMPATIBILITY WITH COMPREHENSIVE PLAN:

PLACETYPE:

The *Comprehensive Plan's Land Use & Development* chapter identifies the subject property as the Traditional neighborhood placetype. Traditional Neighborhoods are comprised of post-war residential neighborhoods that contain predominantly single-family detached dwellings with uniform setbacks, building designs, and parcel sizes, that are separated from dissimilar uses by distinct zoning boundaries and buffer yards. Housing in Traditional Neighborhoods range from bungalows to expansive ranch style homes constructed with a variety of materials and methods. Neighborhood parks, schools, and churches are dispersed throughout to serve nearby residents. These neighborhoods can follow a gridded block pattern or curvilinear streets and are well connected internally with sidewalks and trails. Traditional Neighborhoods tend to be expansive, isolating residents from services and resources on the edges, often beyond walking distance. Planning for Traditional Neighborhoods should strive to increase and integrate quality of place and complete neighborhood characteristics. These characteristics could include beautification efforts such as planting street trees, expanding connections and access to the greenway and trail system, and support for low-intensity multi-family, low-intensity neighborhood commercial, or a mix of uses to serve area residents. Multi-family, neighborhood commercial, or mixed use should be located on the edges of the greenway system, on higher classification roadways, or areas identified by residents during the neighborhood planning process. Preservation of residential housing and housing patterns should be prioritized where lots are predominately accessed from side or internal local streets.

Redevelopment of traditional single-family residential housing for higher-density housing or commercial should be limited to areas adjacent to identified activity centers, where circulation and access will not negatively affect the adjoining neighborhood.

LAND USES PRIMARY USES

- Single-family detached

SUPPORTING USES

- Single-family attached
- Low-intensity multifamily
- Low-intensity, neighborhood commercial

DEVELOPMENT REVIEW STAFF REPORT

- Parks, greenways, and open space
- Public and private schools and places of worship
- Low-intensity urban agriculture

CHARACTERISTICS TRANSPORTATION & INFRASTRUCTURE

- Traffic-calming measures, such as speed-humps, bump-outs, roundabouts, landscaped chicanes with integrated stormwater management, and on-street parking are used to slow traffic.
- Best management practices for stormwater management are required in development projects and within public rights-of-way, such as permeable paving, rain gardens, green roofs, native landscaping, and other low impact design strategies.
- Sidewalk gaps are filled, and sidewalks connect to transit routes, greenways and trails, and supportive uses are located within the neighborhood and around the perimeter.
- Alleys provide pedestrian connections, alternative access to rear yards, detached garages, and other approved accessory uses. • Sense of place and identity is enhanced through neighborhood organization efforts, preservation and planting trees, neighborhood identification signs, and traffic calming improvements that double as streetscape elements.
- As technology, trends, and funds permit, utilities are buried or are consolidated along rear property lines, reducing conflicts with street trees, pedestrian infrastructure, and viewsheds.
- Major entrances into neighborhoods are marked by identification signs and landscaping.

URBAN DESIGN - BUILDING AND SITE TYPOLOGY

- The main entrances of new residential developments are oriented towards the primary street.
- Preservation and adaptive reuse of neighborhood schools and surplus buildings are encouraged.
- When appropriate, adaptive reuse of residential structures for low-intensity, neighborhood-scale nonresidential uses, including missing middle housing types, is encouraged at neighborhood nodes and along edges.
- Accommodations are made to allow expanded home occupations, without detracting from the character of the neighborhood, being conscious of changing trends and advances in technologies.
- New and infill buildings maintain the proportions and architectural features common in the existing block.
- When commercial buildings are located within or adjacent to the neighborhood, they are oriented to the street, focus on pedestrian-scale, and provide limited vehicle parking.

TRADITIONAL NEIGHBORHOOD

- Residential subdivisions are designed and platted with curvilinear streets in structured layouts that maximize use of land.

DEVELOPMENT REVIEW STAFF REPORT

- Lots have uniform widths, depths, and setbacks that align with home sizes and densities.
- Attached garages are a standard element, typically integrated into the design of the home and make up a dominant part of the front elevation, reducing the on-street parking demands.
- Vehicular driveways are provided for each home and are accessed almost exclusively from the front or side street, limiting on-street parking opportunities.
- Neighborhoods are often self-regulated by covenants that limit use, size, and design of structures, as well as care and use of private amenities and common areas.

TRANSITIONS

- A “stepped down” approach is used to transition from higher density/intensity residential and non-residential uses to single-family residential homes and uses, with greater densities/intensities located on higher functioning roadways, at the periphery of the neighborhood.
- Lower density residential uses are sufficiently screened and buffered between higher density housing and nonresidential uses.
- The design of higher density residential uses integrated into the Residential Neighborhood Placetype should complement the scale and character of the surrounding neighborhood. Attention should be given to building height, orientation, architectural style, and setback to ensure the existing neighborhood character is retained.

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FUTURE PLACETYPE MAP:



PLACETYPES	LAND USES															
	Single-Family Detached	Single-Family Attached	Multi-Family	Parks & Open Space	Sports Complexes & Recreational Facilities	Urban Agriculture	Office, Hospitality, Retail Sales & Service	Neighborhood Commercial	Major Retail, Office & Service	Public & Private Schools & Innovation Spaces	Government, Colleges & Vocational Schools	Personal Services, Health Care & Institutional Facilities	Light Industry	Warehousing & Distribution Facilities	Heavy Industry & Manufacturing	Airport, Railroad & Freight Facilities
Residential Neighborhood	●	○	◇	○	◇	◇	○									
Mixed Residential	●	●	○	○	◇	◇	○									
Downtown		●	○	○	○	○	●	○	○	○	○	○	○	○	○	○
Mixed-Use	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
City Corridor		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Institutional & Employment Center		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Business Flex			○	○	○	○	○	○	○	○	○	○	○	○	○	○
Industry & Logistics			○	○	○	○	○	○	○	○	○	○	○	○	○	○
Urban Green Space & Recreation			○	○	○	○	○	○	○	○	○	○	○	○	○	○

● **Primary Land Use:**
More prominent and play a pivotal role in characterizing that placetype

○ **Supporting Land Use:**
Less prevalent and serve to support the primary land use.

◇ **Low Intensity Supporting Land Use:**
Less prevalent and serve to support the primary use at neighborhood scale

DEVELOPMENT REVIEW STAFF REPORT

MAJOR THOROUGHFARE MAP:



SURROUNDING ZONING, LAND USES AND PLACETYPES:

	NORTH	SOUTH	EAST	WEST
ZONING	R-SF	R-SF	R-SF	R-SF
LAND USE	Single-family home	Single-family home	Single-family home	Single-family home
PLACETYPES	Traditional neighborhood	Traditional neighborhood	Traditional neighborhood	Traditional neighborhood

DEPARTMENT OF BUILDING DEVELOPMENT SERVICES:

No comments.

CITY UTILITIES:

No issues

DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER MANAGEMENT DIVISION:

No issues. Tract has access to public sewer.

FIRE DEPARTMENT:

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No objections to rezoning.

DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION:

	Street Name	Street Classification	Jurisdiction	ROW from Centerline (ft.)		Traffic Count (vehicles per day)	On-Street Parking	Sidewalk	
				Required	Existing			Required	Existing
Street 1	S. Kansas Avenue	Local	City	25	25	NA	Yes	No	No

ACCESS - All new or modified driveway approaches shall comply with current City of Springfield standards for the street classification.

TRAILS, BUS STOPS, AND ADDITIONAL INFORMATION - There are no Greenway Trails near the property. There are no bus stops near the property.

IMPROVEMENTS - No improvements are required for this rezoning. A traffic study may be required at time of development.

DEPARTMENT OF PUBLIC WORKS STORMWATER ENGINEERING DIVISION:

SITE DESCRIPTION & DRAINAGE PATTERN

No existing detention or water quality Stormwater Control Measures are present on site. The property is in the Fassnight Creek and the Jordan Creek South Branch drainage basins. The property **is not** located in a FEMA designated floodplain. Staff **is** aware of flooding problems in the local or downstream area. The city **is** aware of a sinkhole downstream of this location but not on the property. The property **does not have a stream buffer on site**.

A fee in lieu of on-site stormwater detention **will not be allowed and detention is required**.

PW Stormwater has no concerns for the proposed rezoning from R-SF to R-LD. The submitted application does not have a site plan. Please note that development of the property will be subject to the following conditions at the time of development:

All chapter and section references below are to the City's Flood Control and Water Quality Protection Manual Version April 2022.

DETENTION AND DISCHARGE REQUIREMENTS

1. Any development or redevelopment that increases runoff, through the increase in impervious surface, current detention requirements must be met per Chapter 3 Sec. 2.3.3. The only exception to building detention is a Fee in Lieu of detention application per the City of Springfield Code and the manual dependent on approvable by the Director of Public Works.

2. City of Springfield only allows three acceptable methods of discharge for stormwater if a property has been modified to increase the amount, location, or character of discharge per Chapter 2 Sec 4.1.4. If none of the three options are available then the development must be

DEVELOPMENT REVIEW STAFF REPORT

modified so that the amount, location, or character of discharge is not changed, or a downstream easement must be obtained.

- (1) To a Public Right-of-way.
- (2) A recorded drainage easement, continuing to a public right-of-way or public drainage system.
- (3) A certified natural watercourse.

WATER QUALITY REQUIREMENTS

1. Water Quality is required for new development projects or redevelopment projects, with new or increased impervious surfacing, within the city limits of Springfield that disturb 1 acre or greater. Including projects less than 1 acre that are part of a larger common plan of development or sale that will disturb 1 or more acres over the life of the project. Chapter 10 Sec. 2.0.

2. A land disturbance permit will be required with disturbing 1 acre or greater per Chapter 4 Section 5 of the City's Flood Control and Water Quality Protection Manual.

FLOODPLAIN

N/A

NATURAL CHANNEL & STREAM BUFFERS

N/A

SINKHOLES & KARST FEATURES

1. Sinkhole S092 is downstream of the mentioned property and is located at 1415-1317 W Meadowmere St. The Sinkhole is large and several homes have been built in the sinkhole. The 1330 S Kansas Ave property partially drains to the watershed of the sinkhole. Any development will require detention to prevent the base flood elevation of the sinkhole from increasing.

ADDITIONAL STORMWATER REQUIREMENTS

1. Operation and maintenance agreements are required for any permanent stormwater control measures. O&M will need to be approved during the process and will be reviewed by ES-Water Quality per Chapter 12 Sec. 3.0.

STAFF ANALYSIS AND RECOMMENDATION:

1. The applicant is requesting to rezone approximately 3.3 acre of property generally located at 1330 South Kansas Avenue from R-SF, Residential Single-family to R-LD, Low-density Multifamily Residential district with Conditional Overlay District No. 246. The applicant intends to build a low-density multifamily housing development.
2. The *Comprehensive Plan's Land Use & Development* chapter identifies the subject property as the Traditional neighborhood placetype.

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3. The Traditional neighborhood placetype lists low-intensity multi-family as a supporting land use. This application, which limits the maximum density to eleven (11) dwelling units per acre, is considered to be low-intensity. The standard R-LD district allows up to eighteen (18) dwellings units per acre.
4. The *Land Use & Development* chapter states that “the design of higher density residential uses integrated into the Residential Neighborhood Placetype should complement the scale and character of the surrounding neighborhood. Attention should be given to building height, orientation, architectural style, and setback to ensure the existing neighborhood character is retained.” The proposed COD’s design requirements are consistent with this recommendation by addressing each of these criteria outlined below:
 - Building height: The COD places a building height restriction of thirty (30) feet in height or two stories. The existing and surrounding R-SF district allows building height to be thirty-five (35) feet in height when side yards are less than 15 feet or forty-five (45) feet in height when side yards are greater than 15 feet. This provision will help to complement the scale of the surrounding neighborhood.
 - Orientation: The COD requires that each building that is directly adjacent to Kansas Avenue shall have a front door entrance to each ground floor unit. At least half of the units facing Kansas Avenue shall have a front porch that projects at least three (3) feet beyond the front building façade.
 - Architectural style: The COD requires that the roof orientation, roof pitch and window openings be compatible with the single-family homes in the area. Flat roofs are prohibited Vinyl siding is prohibited on buildings. Chain-link fences are also prohibited. Units that face Kansas Avenue will be articulated to ensure that the building does not appear monolithic in nature and complement the character of the area.
 - Setback: The front yard setback shall be fifteen (15) feet from Kansas Avenue and garages will be setback at least twenty (20) feet.
5. The proposed COD has site design requirements which provide for internal sidewalks within the development, benches that serve as pedestrian amenities, provisions for lighting to minimize impacts to neighboring properties and the preservation of healthy, native and mature trees that can be used within the bufferyard area.
6. This application is consistent with the *Comprehensive Plan’s Housing and Neighborhoods* chapter which encourages creative housing solutions to add housing diversity and support downsizing households, young professionals, and aging-in-place. The *Plan* encourages the use of “missing middle” housing types. Missing middle housing sits in the middle of the development spectrum between single-family homes and mid-rise to high-rise apartment buildings. These housing types should be integrated into Springfield’s existing neighborhoods to increase housing diversity and provide a wider, more equitable range of housing choices.

DEVELOPMENT REVIEW STAFF REPORT

7. Missing middle housing types provide opportunities for the City to increase the diversity of its housing stock through moderate increases in density, while maintaining the neighborhood character Springfield residents cherish. They range from low density duplexes to mid density multiplexes and triplexes, which can be integrated into the City's housing mix by using single-family lots to accommodate two to three units in a context-sensitive manner.
8. The *Plan* recommends a “stepped down” approach to be used to transition from higher density/intensity residential and non-residential uses to single-family residential homes and uses, with greater densities/intensities located on higher functioning roadways, at the periphery of the neighborhood. Although the subject property is located on Kansas Avenue, classified as a local street, traffic from the proposed development does not have to traverse far through a neighborhood to get to a higher classification street. Bennett is classified as a collector roadway and is located one-hundred and fifty feet from the subject property. Kansas Expressway approximately one-quarter mile to the west of the neighborhood.
9. This application proposes to rezone a portion of the properties at 1518, 1512, 1506 West Meadowmere Street. The applicant intends to utilize a portion of the rear yards in the proposed development for the stormwater management in this area. The COD requires that the property will be subdivided along the zoning district boundary following the Subdivision Regulations.
10. The subject property has access to City Utilities infrastructure, and any necessary extension of such services can be provided via City Utilities' extension policy, though new easements may be necessary to accommodate this.
11. There are few changing conditions in the area affected that make the proposed rezoning necessary.
12. The range of uses in the proposed R-LD district and COD are compatible with the uses permitted on other property in the immediate vicinity.
13. There are adequate utility and sewer and water facilities existing or can be provided to serve the uses that would be permitted on the property if it were rezoned.
14. The impact of the uses, which would be permitted if the property were rezoned, is not expected to significantly increase the volume of vehicular and pedestrian traffic or reduce traffic safety in the vicinity.
15. The proposed zoning will not correct an error in the application of this article, but rather will provide a viable use of the property subject to the provisions of the zoning district.
16. A reasonably viable economic use of the subject property will not be precluded if the proposed rezoning is denied.

DEVELOPMENT REVIEW STAFF REPORT

STAFF RECOMMENDATION:

1. Staff recommends approval based on the proposal's general conformance to the Comprehensive Plan's Traditional Neighborhood placetype and on the finding of facts above.

PLANNING AND ZONING OPTIONS:

The planning and zoning commission shall make one of the following recommendations in connection with each proposed change in zoning district classification of this article:

1. Recommend against the proposed change in the zoning district classification.
2. Recommend a change in the zoning district classification.
3. Recommend a change in the zoning district classification together with recommendations which, in the judgment of the planning and zoning commission, will protect adjacent property and ensure that the proposed amendment is consistent with the purpose and intent of this article.

DEVELOPMENT REVIEW STAFF REPORT

ATTACHMENT 1

CONDITIONAL OVERLAY DISTRICT PROVISIONS NO. 246

The requirements of Section 36-382 of the Springfield Zoning Ordinance shall be modified herein for development within this district to include the following:

1. The subject property shall be subdivided along the zoning district boundaries following the current Subdivision Regulations.

Use limitations:

1. The maximum density shall be eleven (11) dwelling units per acre.

Minimum yard requirements:

1. The front yard setback shall be fifteen (15) feet from Kansas Avenue.
2. Attached and detached garages shall be setback twenty (20) feet from Kansas Avenue.

Maximum building height:

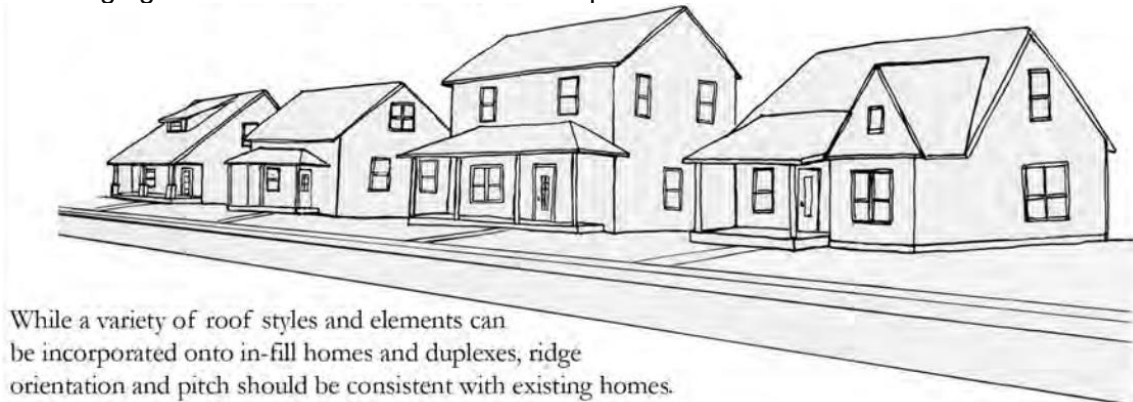
1. The maximum building height shall be thirty (30) feet in height or two stories.

Bufferyard:

1. In addition to the standard bufferyard type B, a six (6) foot solid wood fence, solid metal fence, masonry or brick wall, or evergreen hedge or any combination thereof that provides a six (6) foot solid screen, shall be required along the east property line adjacent to R-SF zoned property.

Design requirements:

1. Each building that is directly adjacent to Kansas Avenue shall have a front door entrance to each ground floor dwelling unit.
2. The structures roof pitch and orientation of the roof ridge shall be compatible with the single-family homes in the vicinity. The roof style, including gables and dormers, shall be consistent with the single-family homes in the vicinity. Flat roofs shall be prohibited. The following figure illustrates the intent of this requirement.



(Figure from City of Springfield's *Affordable Housing Design Guidelines*)

DEVELOPMENT REVIEW STAFF REPORT

3. On facades which face Kansas Avenue, window openings shall be similar in rhythm, size and proportion to that of the majority of single-family homes in the vicinity; i.e. uniform size and spacing on building façade. The following figure illustrates the intent of this requirement.



Yes. All windows on this home are a consistent size and are evenly spaced.

No. The window in the upper right corner is much smaller than other windows. Such a situation can be a result of a floor plan that places a bathroom or kitchen against the front building facade.

No. The lack of rhythm in the spacing of the second floor windows results in an unbroken expanse of siding on the front building facade.

No. The vertical windows on the first floor and the horizontal windows on the second floor clash and create an inconsistency of style.

(Figure from City of Springfield's *Affordable Housing Design Guidelines*)

4. At least half of the units facing Kansas Avenue shall have a front porch that projects at least three (3) feet beyond the front building façade.
5. Vinyl siding shall be prohibited as a façade treatment on buildings.
6. Chain-link fences shall be prohibited.
7. Each unit that faces Kansas Avenue shall be articulated from the neighboring unit with bays, projections, or recesses. Articulation means a difference in the vertical plane of the building at least 18 inches or more.

Site design requirements:

1. Internal, private sidewalks shall connect to all buildings located on the site.
2. Pedestrian amenities shall include three benches placed along internal sidewalks at appropriate locations throughout the development.
3. Lighting sources or luminaries that do not have a cutoff and are used in parking lots and pedestrian ways shall not exceed a maximum of 15 feet in height.
4. All healthy and native existing trees of 6" caliper or greater shall be preserved or replaced with 2-inch caliper trees. A landscaping plan shall be submitted conforming to these requirements for building permits.

AFFIDAVIT OF NEIGHBORHOOD NOTIFICATION AND MEETING SUMMARY

1. Request change to zoning from: R-SF to R-LD with COD
(existing zoning) (proposed zoning)
2. Meeting Date & Time: December 11th, 4:00-6:30 pm
3. Meeting Location: Fire Station 1 Community Center, 720 E Grand, Springfield, MO 65807
4. Number of invitations that were sent: 139
5. How the mailing list was generated: City of Springfield
6. Number of neighbors in attendance (attach a sign-in sheet): 12
7. List the verbal comments and how you plan to address any issues:
(City Council does not expect all the issues to be resolved to the neighborhood's satisfaction; however, the developer must explain why the issues cannot be resolved).

See the attached Neighborhood Meeting Summary and comment sheets.

8. List or attach the written comments and how you plan to address any issues:

See the attached Neighborhood Meeting Summary and comment sheets.

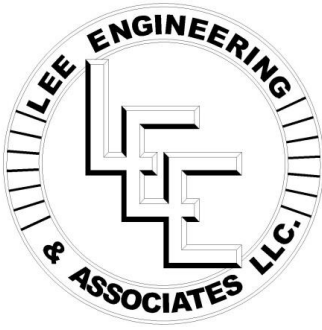
I, Martha Middleton (print name), attest that the neighborhood meeting was held on 12/11/2023 (month/date/year), and is at least twenty-one (21) days prior to the Planning and Zoning Commission public hearing and in accordance with the attached "Neighborhood Notification and Meeting Process."

Martha Middleton

Signature of person completing affidavit

Martha Middleton

Printed name of person completing affidavit



LEE ENGINEERING AND ASSOCIATES, L.L.C.

CIVIL ENGINEERING & LAND SURVEYING

1200 E. WOODHURST., SUITE D200, SPRINGFIELD, MO 65804
TELEPHONE: (417) 886-9100 • FACSIMILE: (417) 886-9336 • dlee@leeengineering.biz

December 18, 2023

RE: PLN2023-00294
Z-1-2024 COD 246 - 02.Zoning Map Amendment - 1330 S KANSAS AVE

Lee Engineering hosted a Neighborhood Meeting on December 11th at Fire Station #1 from 4:00-6:30 p.m. to discuss the proposed rezone with the neighborhood. The property owner, Cameron Eoff, was also there to answer questions.

Below is a summary of the comments we received—both written and verbal—from the neighborhood meeting and how we will address each comment. A copy of this letter will be sent to the City of Springfield Planning Department and the changes will be added to the Conditional Overlay District documents.

Screening:

A bufferyard is required between the proposed development and the adjacent single family residential. The required bufferyard is the City of Springfield bufferyard “B”, which does not require a fence. A fence was specifically requested by the neighbors to the east, and we will be adding a 6’ privacy fence as a conditional requirement to the rezoning.

Limit Building Height to Two Stories:

At the request of the neighborhood, the developer has agreed to limit the building height to 30 feet/two stories with a Conditional Overlay. R-SF zoning allows three-story, 45’ max buildings to be constructed, so the developer is agreeing to limit the height below what is even allowed under the existing zoning.

Density:

The existing R-SF zoning allows 7 units/acre. The proposed R-LD zoning would typically allow 17 units/acre, but we have agreed to limit the density to 11 units/acre based on the City of Springfield staff recommendations for this location.

Lighting:

A photometric lighting study will be submitted to the City of Springfield to meet the City’s 36-484 Lighting Standards, which regulates lighting spillover and glare.

Traffic:

We submitted a traffic memo to the City of Springfield along with our zoning request showing that 41 townhome units compared to 26 residential single-family units, which could be developed in the existing zoning, only produces 22% additional vehicles per day. Also, the proposed development does not generate the minimum criteria of 500 vehicles per day for a full traffic study to be warranted.

Property Fronting Meadowmere:

We received the comment that the land along Meadowmere should remain zoned as single-family lots. The property submitted for the rezoning from R-SF to the R-LD rezone includes land along Meadowmere; however, it is the owner’s intent to subdivide those three “fingers” into individual tracts and develop them as single family residential.

Driveway Locations:

Driveways will be located in accordance with City of Springfield design guidelines and in cooperation with the City’s traffic engineer. The current plan is to provide access off of Kansas Ave with two driveways, but that plan will need to be reviewed by city staff with the final plans for the development.

The owner wants to work with the neighborhood and city staff to develop the property in way that preserves the character of the neighborhood. To summarize, the developer has agreed to the following changes based on city staff and neighborhood comment:

- Limit density to 11 units/acre
- Orient the townhomes that are adjacent to Kansas Ave to face Kansas Ave
- Provide attached garages
- Provide a 6' privacy fence on the east property line
- Residential-style shingled roofs
- Limit the building height to 30 ft

If you have any questions or need additional information, please contact our office. Thank you.

Sincerely,
Daniel Richards





LEE ENGINEERING AND ASSOCIATES, L.L.C.

CIVIL ENGINEERING & DESIGN

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COMMENT SHEET

Neighborhood Meeting

Monday, December 11, 2023

Re: Rezone from Single Family Residential to Low Density Residential with Conditional Overlay District
SE Corner of Kansas Ave. and Meadowmere St.
Springfield, MO 65807

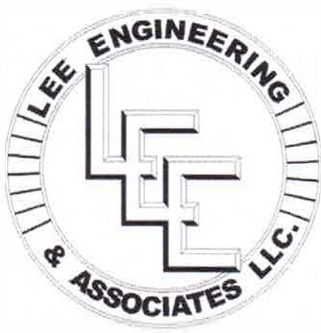
NAME	ADDRESS	PHONE
Doris EOFF	1370 S. Kansas Ave., Spfld., MO	417-865-1086

COMMENTS:

My name is Doris Eoff. I have lived on the land in question since 1974. The parents of my late husband, Tom Eoff, bought the property in the early 1940's. Three generations of Eoffs raised their families here. A lot has changed in the neighborhood during that time, but it can easily be argued no other family has been a more stabilizing influence in this neighborhood.

Today, my son, Cameron, and his family want to again invest in the neighborhood. The town-home development Cameron is proposing is the type of housing, development, investment and progress that this neighborhood and this part of Springfield need at this time.

Improving and diversifying the housing stock will make the neighborhood more active and safer



LEE ENGINEERING AND ASSOCIATES, L.L.C.

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COMMENT SHEET

Neighborhood Meeting

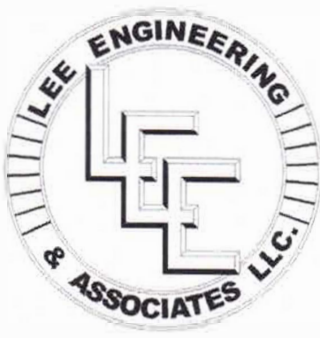
Monday, December 11, 2023

Re: Rezone from Single Family Residential to Low Density Residential with Conditional Overlay District
SE Corner of Kansas Ave. and Meadowmere St.
Springfield, MO 65807

NAME	ADDRESS	PHONE
Margie Ross	1411 W. Meadowmere	417-298-9498

COMMENTS:

No don't do it. so much wildlife live there.
Because of money another haven of animals
will go or be killed trying to get to a safe
place to lay down live. A place to go thru
to get water. why?



LEE ENGINEERING AND ASSOCIATES, L.L.C.

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COMMENT SHEET

Neighborhood Meeting

Monday, December 11, 2023

Re: Rezone from Single Family Residential to Low Density Residential with Conditional Overlay District
SE Corner of Kansas Ave. and Meadowmere St.
Springfield, MO 65807

NAME	ADDRESS	PHONE
Richard Yaktine	1327 S. Kansas Ave	417 521-7755

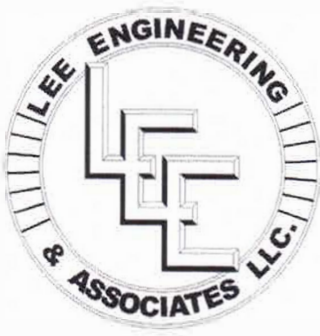
COMMENTS:

Always increases in property tax-assessment regardless of neighborhood encroachment. A 15 unit townhome northwest of my S. Kansas Ave home.

valuation, opposed to Only served to create an increased assessment to my own stagnant income.

More apartments/townhomes only increase traffic and congestion for my school age child.

Keep this as single family homes. Keep neighborhood for families to thrive. Richard Yaktine



LEE ENGINEERING AND ASSOCIATES, L.L.C.

CIVIL ENGINEERING & DESIGN

1200 E. WOODHURST DR., SUITE D200, SPRINGFIELD, MO 65804
TELEPHONE: (417) 886-9100 • FACSIMILE: (417) 886-9336 • dlee@leeengineering.biz

COMMENT SHEET

Neighborhood Meeting

Monday, December 11, 2023

Re: Rezone from Single Family Residential to Low Density Residential with Conditional Overlay District
SE Corner of Kansas Ave. and Meadowmere St.
Springfield, MO 65807

NAME	ADDRESS	PHONE
Lynna Alembaugh	1237 S. Kansas Ave	316 587 5161

COMMENTS:

Is more Power lines - Water lines
and road repaved, going to increase our taxes
(curb - gutters
fire hydrants) Main concern ↑
11 units means another 83 cars
X
2 cars Not a safe neighborhood anymore.



LEE ENGINEERING AND ASSOCIATES, L.L.C.

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COMMENT SHEET

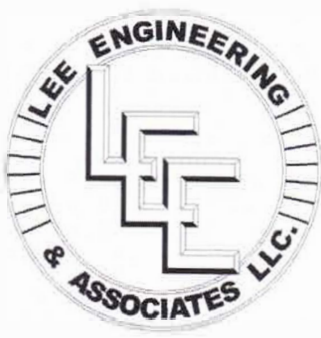
Neighborhood Meeting

Monday, December 11, 2023

Re: Rezone from Single Family Residential to Low Density Residential with Conditional Overlay District
SE Corner of Kansas Ave. and Meadowmere St.
Springfield, MO 65807

NAME	ADDRESS	PHONE
Emily R Logan	1622 W. Catalpa St Spfld MO 65807	417-299-1916

COMMENTS: Lights may be over whelming to all adjoined neighbors
Flow of traffic will generate on all sides of the
Homes complexes. Also Catalpa St Bennotte St.
I would like to see more of a plan of how the
structures will layout. Property Taxes, including mine,
will pay for this new property
development. My street has
been neglected for years.
Thanks & truly,
Emily R. Logan



LEE ENGINEERING AND ASSOCIATES, L.L.C.

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COMMENT SHEET

Neighborhood Meeting

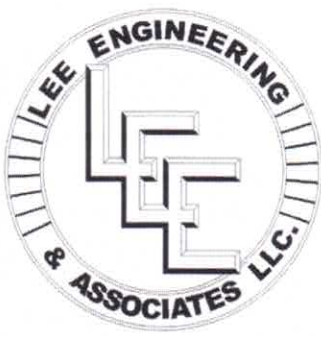
Monday, December 11, 2023

Re: Rezone from Single Family Residential to Low Density Residential with Conditional Overlay District
SE Corner of Kansas Ave. and Meadowmere St.
Springfield, MO 65807

NAME	ADDRESS	PHONE
Chuck Heidle	1335 S Newton	417-655-0009

COMMENTS:

Years ago I wanted to build a garage and city zoning would not allow the size that I submitted. So I had to make it smaller than I wanted. Zoning regulations are there for a reason, we live in a single dwelling part of Springfield and this change will upset that balance and force property values to decrease. I am not interested in the value of my home decreasing. Should this go through I would want a privacy fence at least 12 to 15 ft high, to limit the noise that would be made by 40 or 50 families across my backyard, that extended from North to South along the entire border. Kansas Ave at this time cannot support 40 or more cars that this would generate so the city would have to widen Kansas Ave. and repave the whole road next to the development. I was told at this meeting the homes would only be 1 1/2 stories high at 11 homes per acre at would mean the homes would have to be higher. That wouldn't look good in our part of town.



LEE ENGINEERING AND ASSOCIATES, L.L.C.

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TELEPHONE: (417) 886-9100 • FACSIMILE: (417) 886-9336 • dlee@leeengineering.biz

COMMENT SHEET

Neighborhood Meeting

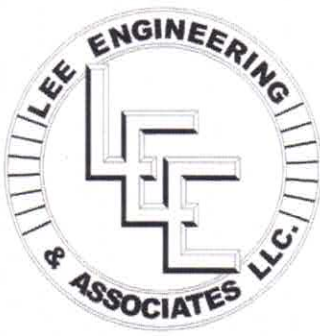
Monday, December 11, 2023

Re: Rezone from Single Family Residential to Low Density Residential with Conditional Overlay District
SE Corner of Kansas Ave. and Meadowmere St.
Springfield, MO 65807

NAME	ADDRESS	PHONE
Rebecca Holts	1502 W Bennett	417-350-7300

COMMENTS:

Very much opposed to rental multi-family units!
That # units will greatly sap the streets + serenity in our neighborhood.



LEE ENGINEERING AND ASSOCIATES, L.L.C.

CIVIL ENGINEERING & DESIGN

1200 E. WOODHURST DR., SUITE D200, SPRINGFIELD, MO 65804
TELEPHONE: (417) 886-9100 • FACSIMILE: (417) 886-9336 • dlee@leeengineering.biz

COMMENT SHEET

Neighborhood Meeting

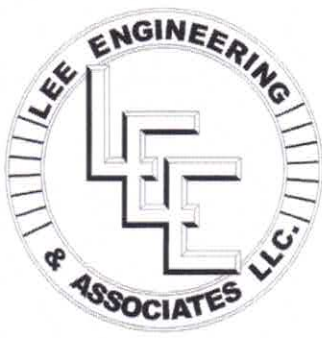
Monday, December 11, 2023

Re: Rezone from Single Family Residential to Low Density Residential with Conditional Overlay District
SE Corner of Kansas Ave. and Meadowmere St.
Springfield, MO 65807

NAME	ADDRESS	PHONE
Colton Alexander	1419 W. Bennett St. 65807	417-773-1352

COMMENTS:

We are in favor of this development.



LEE ENGINEERING AND ASSOCIATES, L.L.C.

CIVIL ENGINEERING & DESIGN

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TELEPHONE: (417) 886-9100 • FACSIMILE: (417) 886-9336 • dlee@leeengineering.biz

COMMENT SHEET

Neighborhood Meeting

Monday, December 11, 2023

Re: Rezone from Single Family Residential to Low Density Residential with Conditional Overlay District
SE Corner of Kansas Ave. and Meadowmere St.
Springfield, MO 65807

NAME	ADDRESS	PHONE
DAVID COOK	1365 S. KANSAS AVE	4179883586

COMMENTS:

I APPROVE OF THE PROPOSED CONSTRUCTION PROJECT
FOR S. KANSAS AVE.

David R. Cook
12.11.23

Daniel Richards

From: chris houghton <chrishoughton@myyahoo.com>
Sent: Tuesday, December 12, 2023 3:29 PM
To: zoning@springfieldmo.gov; Daniel Richards
Subject: rezoning request of Kansas ave and Meadowmere st.

Bob,

I am writing in reference to the rezoning request of Meadowmere St and Kansas Ave. property from single family to low density. I own 1415 W Meadowmere. Here are my thoughts. A higher use makes sense but only if done the right way.

In regards to the three lots that front Meadowmere.

1. These three lots should remain zoned single family residential lots.
2. Be deeded as individual as such to insure that no one in the future would turn the single family units into multi family units.
3. The lots should not become a storm water collection basin for runoff from the larger parcel of property. This was done with the lot at 1201 West Elm.

Along with aesthetics the property is not property maintained outside of the fence facing Elm.

4. The lots should not be developed as driveway access to parking lots of the low density housing. This will dump additional traffic onto Meadowmere.

The engineer stated at the public meeting that the city would like to see Kansas Ave street have structures that resemble single family units. I think something similar to 1361 and 1305 E Cherry would be a great addition to the neighborhood and utilize the property better than single family units. With this design you can not see that there are multiple units attached to each structure facing Cherry and all parking is at the rear of the buildings.

The design of the structure should not be more than two stories. Should not have one unit over another or stacked units. Units could be built as true townhouses being two stories but no higher. Garages could be placed on units facing Kansas ave. while additional uncovered parking could be placed in the rear. This would add to the appearance of single family units and help with parking requirements.

A poor example of a new build that would not be beneficial is 615/617 S Kickapoo. With this build the street side was not designed to resemble a single family unit. In addition the driveway placement allows the entire size of the building to be shown.

One last statement is that the developer be held to the design of the property that was presented. A number of years ago Dodson Williams auto repair requested a rezoning in order to expand their building. The apartments to the west of their building at 502 West Walnut were to be demolished with a green space retained at the front of the property. That was what was presented to the public. What was built was a 5 foot chain link fence with barbed wire and parking for damaged autos across the front of the lot. The city did not insure that the design presented was carried through in construction.

Chris Houghton
417-840-4210

Daniel Richards

From: Dulcy Stewart <dulcy@sbcglobal.net>
Sent: Friday, December 15, 2023 1:03 PM
To: Daniel Richards
Subject: rezoning on kansas

Cameron and Kim Eoff have been our neighbors and friends for the past 20 years since we moved into the neighborhood. I worked with Cameron in the early days of creating a neighborhood association and projects that were good for us, our neighborhood and the community. Cameron came to us recently and spent an afternoon explaining how he would like to develop his property, and my husband and I are excited about his vision. He explained in detail what he visualized and answered all our questions. We trust that this project will add housing to the area that will be visually appealing, a safe place to live and sustainable. We're very excited to see the fruition of this project and what it will add to our lovely little neighborhood!

Dulcy Stewart
1507 S. Newton Springfield 65807
417-840-1839

Daniel Richards

From: Jim Mayfield <jimayfield@sbcglobal.net>
Sent: Friday, December 15, 2023 1:02 PM
To: Daniel Richards
Subject: Eoff Project on Kansas Ave

Jim Mayfield
1507 S. Newton Ave
Springfield, Mo 65807
Phone 417 849 3041

Hello Daniel,

My name is Jim Mayfield. My wife, Dulcy Stewart and I enthusiastically endorse Cameron and Kim Eoff's effort to enhance our neighborhood with their conscientious development.

We have lived in the community for over 20 years, and feel like their vision will be a benefit to the area.

Cameron's thoughtful examination of the proposal was created after much concerned contemplation. He grew up here, and his mother and aunt reside here still. We have a lot of confidence in his ability to follow through on a project that will increase the value of nearby property owners, and add to the ambiance of our neighborhood. He made a special effort to personally visit with us to explain how his proposal would enrich this particular neck of the woods. The place we call "Home!"

DEVELOPMENT REVIEW NOTICE/COMMENT CARD

Enclosed you have received a notice of a "Neighborhood Meeting" submitted by the applicant to discuss a change in land use or zoning in your neighborhood. For all development applications involving an advertised public hearing, City Council requires developers to hold a neighborhood meeting and invite the property owners within 500 feet of the property and to the officers of neighborhood association on file with the Department.

A "Neighborhood Meeting" is held early enough to provide adequate time for the developer to negotiate with the neighborhood in order to resolve any issues and provide any proposed changes to City staff to evaluate and include in City staff reports.

If the developer submits an application for a change in land use or zoning, the property will be posted and there will be public notifications in the newspaper and notification by mail to the property owners within 185 feet of the project.

The Land Use or Zoning Change Process:

1. Application
2. Neighborhood Meeting (500 feet notification from subject property)
3. Planning and Zoning Commission Public Hearing (185 feet notification from subject property)
4. 1st City Council Public Hearing (185 feet notification from subject property)
5. 2nd City Council Meeting to decide either to approve or to deny the change in land use or zoning

City staff is available to meet with you or your neighborhood association representative(s) to discuss the proposed change in land use or zoning and answer questions at 417-864-1611.

Staff submits a report with a recommendation one week prior to the date of the public hearing at the Planning and Zoning Commission. You can provide comments on the attached "Comment Card" by mail or by email at zoning@springfieldmo.gov. Please include your name, address and telephone number as well as the address of the project in your correspondence.

Bob Hosmer, AICP Planning Manager
City of Springfield Development Review Office
840 Boonville Avenue
Springfield, Missouri 65801

Comment Card: Mail comments to the address above or email comments to zoning@springfieldmo.gov

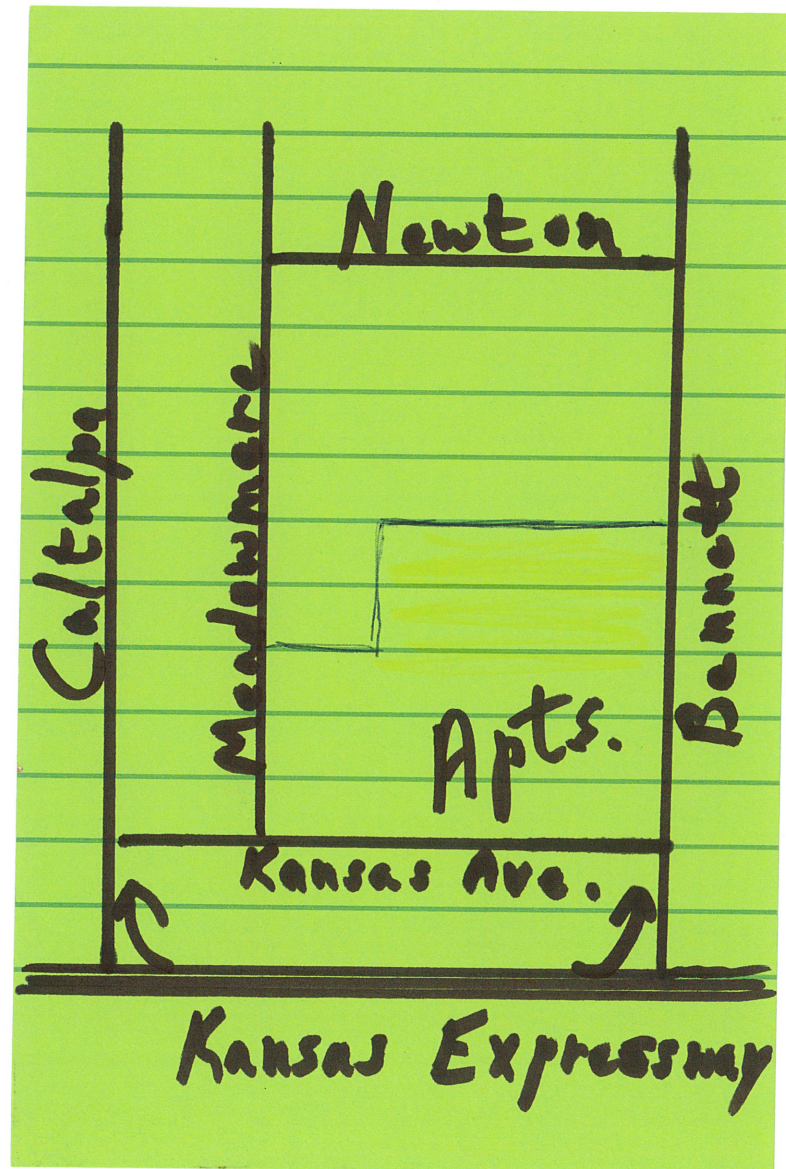
DATE:	12/4/2023	Telephone No.	417-709-5300
YOUR NAME:	Melinda Ann Burnett-Box		
YOUR ADDRESS:	1427 S. Newton Avenue		
PROJECT ADDRESS:	SE Corner of Kansas Ave. and Meadowmere St.		
COMMENTS:	This seems like an excessive amount of housing for Cameron Eoff to build in this neighborhood. I am concerned about the extra traffic that will spill onto Bennett St. and surrounding side streets. I am also concerned about the devaluation of the single family residences in the neighborhood. I am not opposed to building on his lots, but this seems excessive and overwhelming for our neighborhood.		
Thank you, Melinda A. Burnett-Box			

2-1-2024 COD 246

The signatures on these petitions are Adults who live at those addresses. Some own, some rent, some are roommates, but all would like a say about what our neighborhood should look like.

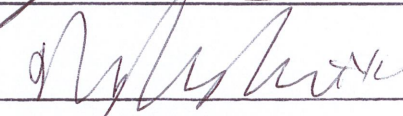
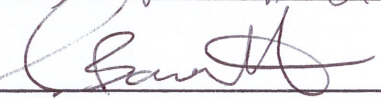
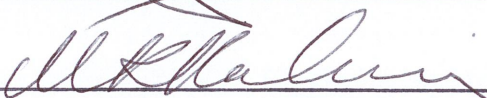
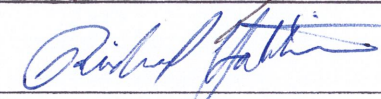
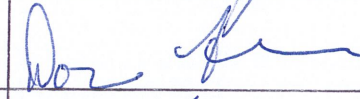
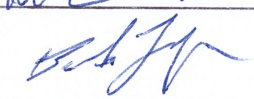
We ask that you give serious consideration to our objection to these apartments.

Lynna Alumbaugh
316-587-5161



Opposed to Z-1-2024 COD 246

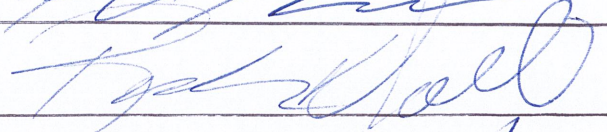
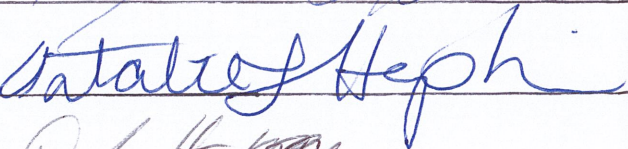
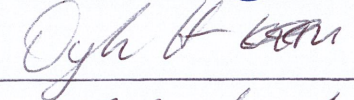
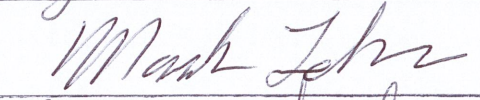
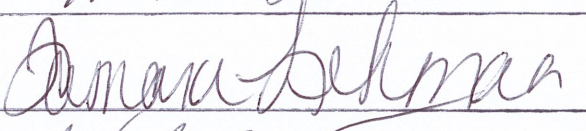
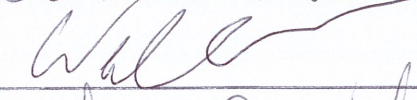
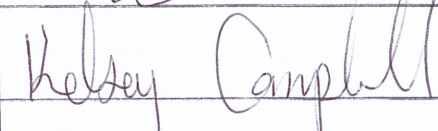
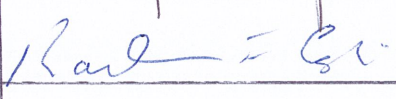
Opposed to apartments being built on Kansas Ave.
Location - **Kansas Ave.**

Name	Address	Phone	Signature
Joe Eisenbeis	1231 S Kansas Ave ^{SGF, MO 65807}	417-844-3070	
DAVID McLAUGHLIN	1222 S KANSAS	417 895 8149	
	1319 S KANSAS AVE	(417) 576 6240	
Rachel Rohani	1327 S Kansas Ave	417-350-5023	
Kalvin Ueber	1341 S Kansas Ave	417-315-3469	Kalvin Ueber
Tril Cook	1365 S. KANSAS	417 988 3586	Tril Cook
LISA COOK	1365 S, KANSAS	417 988 3586	
Richard L. Yaktine	1327 S. Kansas Ave	417 521-7755	
Donna Hopkins	1301 S. Kansas Ave	417.844.1530	
Bob Leazer	1232 S Kansas	417-824-6646	

0.01

Opposed to Z-1-2024 COD246

Opposed to apartments being built on Kansas Ave.
Location - Kansas Ave.

Name	Address	Phone	Signature
Kolt Kendrick	1231 S. Kansas Ave	417 813 3480	
Richard Doell	1226 S KANSAS AVE	417-459-0358	
Natalie Hopkins	1226 S. KANSAS AVE	417-569-3595	
Dylan Hopkins	1301 S. Kansas Ave.	417-343-1961	
Mark Lehman	1216 S. Kansas Ave	417-849-1276	
Danny Lehman	1216 S. Kansas Ave	417-849-1276	
Walker Shannan	1221 S KANSAS AVE	417-349-0565	
Kelsey Campbell	1347 S Kansas Ave	816-738-3924	
Kathryn F Egli	1335 S Kansas Ave	417-848-2091	

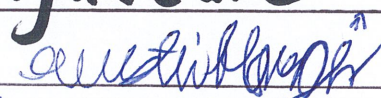
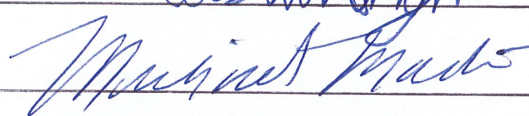
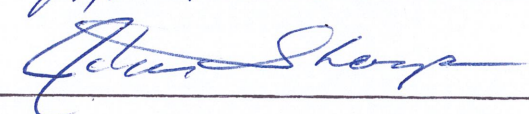
Opposed to Z-1-2024 COD 246

Opposed to apartments being built on Kansas Ave.
Location - Bennett St.

Name	Address	Phone	Signature
Taylor Caldwell	1522 W Bennett St Spg, MO 65807	815-587-5048	Taylor Caldwell
Arren Kolb	1510 W. Bennett St. Spg, MO 65807	417-965-5965	Arren Kolb
James R. Dobbs	1501 W. Bennett St Springfield MO	417.350.8304	James R. Dobbs
Rebecca L Dobbs	1503 W Bennett Spgld MO 65807	417.350.7300	Rebecca Dobbs
Brian Jacobs	1502 W Bennett St. SPFD, MO. 65807	417-631-2973	Brian Jacobs
Terry Freeman	1422 W Bennett SPFD MO 65807	417-865-9126	Terry Freeman
Sandra K. Burk	1405 S. Kansas Ave	417 862 5550	Sandra Kaye Burk

Opposed to Z-1-2024 COD 246

Opposed to apartments being built on Kansas Ave.
Location Meadowmere St.

Name	Address	Phone	Signature
Austin D. Harkins	1509 W. Meadowmere	417-379-1123	
Michael Martin	1505 W. Meadowmere	417-331-3279	
JOHN SHARP	1428 W MEADOWMERE ST	417-773-2169	
Margie Ross	1416 W. Meadowmere	417-340-2213	Margie Ross

Opposed to Z-1-2024 COD246

Opposed to apartments being built on Kansas Ave.
Location - Newton Street

Name	Address	Phone	Signature
Caleb Freeland	1501 W Meadowmere	417 366 1507	Caleb Freeland
Derick Krasser	1305 S Newton	417-450-0538	Derick Krasser
Lisa Parsons	1326 S Newton	417-576-4103	Lisa Parsons
Brad Cockron	1342 S. Newton	417-522-5031	Brad Cockron
Olena Snow	1351 S. Newton	417-860-1026	Olena Snow
for note	1347 1/2 Newton	1-417 768 0002	for note
Sarah Gallegos	1357 Newton	417-399-0278	Sarah Gallegos
Denis Lavangie	1371 S. Newton	417-838-3128	Denis Lavangie
(Carol Sue) Susie Wilson	1323 S. Newton	417-840-6001	Carol Sue Wilson
Amanda Maygard	1318 S Newton	417-365-1887	Amanda Maygard

OPPOSING

West Catalpa Street Neighbors Petition

Opposing the Proposed Multi-Complex Apartments at West Meadowmere St. and South Kansas Ave.

NAME

ADDRESS

PHONE

Signatures

Candy Jenkins-Alexander	1712 W. Catalpa	417-414-8929	Candy Jenkins-Alexander
Kyle Cosh	1721 W Catalpa St	417-689-7167	Kyle Cosh
Hope Wimmer	1433 W. Catalpa	417-351-0715	Hope Wimmer
Johnny Cordell	1433 W. Catalpa	417-983-6550	Johnny Cordell
JEFF ROBERTS	1430 W CATALPA	417-501-1163	JEFF ROBERTS
Rosella Blackely	1327 W Catalpa	417-210-0459	Rosella Blackely
Greg Logan	1622 W. Catalpa	417-576-1817	Greg Logan
Emily R. Logan	1622 W. Catalpa St.	417-299-1916	Emily R. Logan
David Lane	1644 W. Catalpa	417-869-8371	David Lane
Della Slisz	1656 W Catalpa	417-619-7412	Della Slisz
Frederick Slisz	1656 W Catalpa	417-965-3212	Frederick Slisz



EXPLANATION TO COUNCIL BILL 2024-055 (LEE)

FILED: 03/22/2024

ORIGINATING DEPARTMENT: Economic Vitality

TITLE: A resolution accepting the receipt of the Lake Springfield Plan.

PURPOSE: Accepting receipt of the Lake Springfield Plan ("the Plan"). Shown as "Exhibit 1 A&B" (link to the Plan on lakesgf.com).

BACKGROUND INFORMATION: The Lake Springfield Plan project was funded by a one-time \$800,000 grant from the U.S. Department of Commerce's Economic Development Administration ("EDA"), and \$200,000 from the Hatch Foundation, City Utilities of Springfield, and the City of Springfield's Environmental Services Department.

The EDA grant was made possible by the American Rescue Plan and EDA's \$300 million Coal Communities Commitment.

These partners have brought together the public and private sectors to create an economic development roadmap to strengthen the regional economy, support private capital investment, and create jobs.

As a result, the Plan includes the results of a hydrological study of Lake Springfield and corresponding portions of the James River, as well as a planning study with recreational, economic, and transportation opportunities in the study area. The Plan then offers recommendations for redevelopment, with inclusion of several different options. A summary of the major themes of the Plan are demonstrated via the presentation shown as "Exhibit 2."

REMARKS: The council bill acknowledges receipt of the plan and conclusion of the consultant's work.

Submitted By: Danny Perches, Assistant Director of Economic Vitality

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Maurice S. Jones, Deputy City Manager 3/29/2024

Attachments:

1. Lake Springfield Plan Acceptance_Res
2. Lake SGF_exh 1A
3. Lake SGF_exh 1B
4. Summary of Plan_exh 2

Mayor

Attest: _____, City Clerk

Filed as Resolution: _____

Approved as to form: Laura Vales, Assistant City Attorney

Approved for Council action: Jason A. Hays, City Manager



REIMAGINE

THE INTERSECTION OF NATURE, RECREATION, &
ECONOMIC DEVELOPMENT

FINAL - PENDING ACCEPTANCE



ACKNOWLEDGEMENT

This vision is the result of community dreams and desires. This plan represents over 18-months of technical work completed alongside engagement and public outreach. Feedback, analysis, and significant collaboration have gone into the renderings and aspirational vision of Lake Springfield included on the following pages.

PREPARED BY:

Crawford, Murphy & Tilly
Geosyntec
Houseal Lavigne
SWT Design
Johnson Consulting
Pratt Consulting

PLAN ACCEPTED:

Date TBD

C O N T E N T S

01

EXECUTIVE SUMMARY

PAGE 1

02

THE VISION

PAGE 15

03

CREATING THE PLAN

PAGE 65

04

TECHNICAL REPORT

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PAGE 132 - Transportation
PAGE 154 - Land Use & Programming
PAGE 177 - Economic Development

05

IMPLEMENTATION

PAGE 241

06

APPENDICES

PAGE 256

EXECUTIVE SUMMARY



TO CHANGE THE FUTURE, WE
NEED TO TAKE AN **ACTIVE ROLE**
IN TURNING IDEAS INTO REALITY.

DOING NOTHING IS NOT
AN OPTION.

REIMAGINE THE LAKE

The Lake Springfield subarea is a key natural asset to the Springfield community and the surrounding region. While it currently offers a variety of recreational amenities, such as trails, fishing docks, and boat access, there is significant opportunity to enhance the area into the recreational focal point of the region. A natural oasis within the Springfield Community, the envisioning of this area presents a once-in-a-lifetime opportunity for City Utilities, the City, and the larger region. Through expanded outdoor active and passive recreation opportunities, a commitment to design with nature when planning for economic development, and enhanced access and connectivity, the reimagining of Lake Springfield is a forward-thinking vision.

This future looking vision projects the needs for tomorrow, accounting for ways to attract tourism and events, while seeking to retain and attract residents to the community through sustainable job growth. The plan represents an opportunity to offer state-of-the art features, not found elsewhere in the region, and serve as a national draw. Additionally, Adaptive Reuse of the James River Power Station, and an overall site repurposing are key components to this final vision.

Opportunity awaits and the vision is just getting started.

HISTORY

In 2019, the City of Springfield started the process of updating their Comprehensive Plan, now adopted, known as ForwardSGF. The result is a Comprehensive Plan that identifies a vision for the Springfield community as an attractive, safe, and inclusive place for everyone to live, work and thrive into the future. ForwardSGF includes 10 initiatives that are based on community feedback and which map the priorities of the city. In addition to these 10 initiatives, such as Place Based Approach and Connecting to Nature, Forward SGF identifies five (5) subareas for further investigation. One such subarea is the Lake Springfield Subarea. This plan focuses on enhancing the lake area as a key asset to the community, where people can feel proud of a space that is accessible to all.

This work is also in line with the mission of City Utilities. As the landowner, City Utilities is acting as good stewards of the land to re-imagine this space for the community.

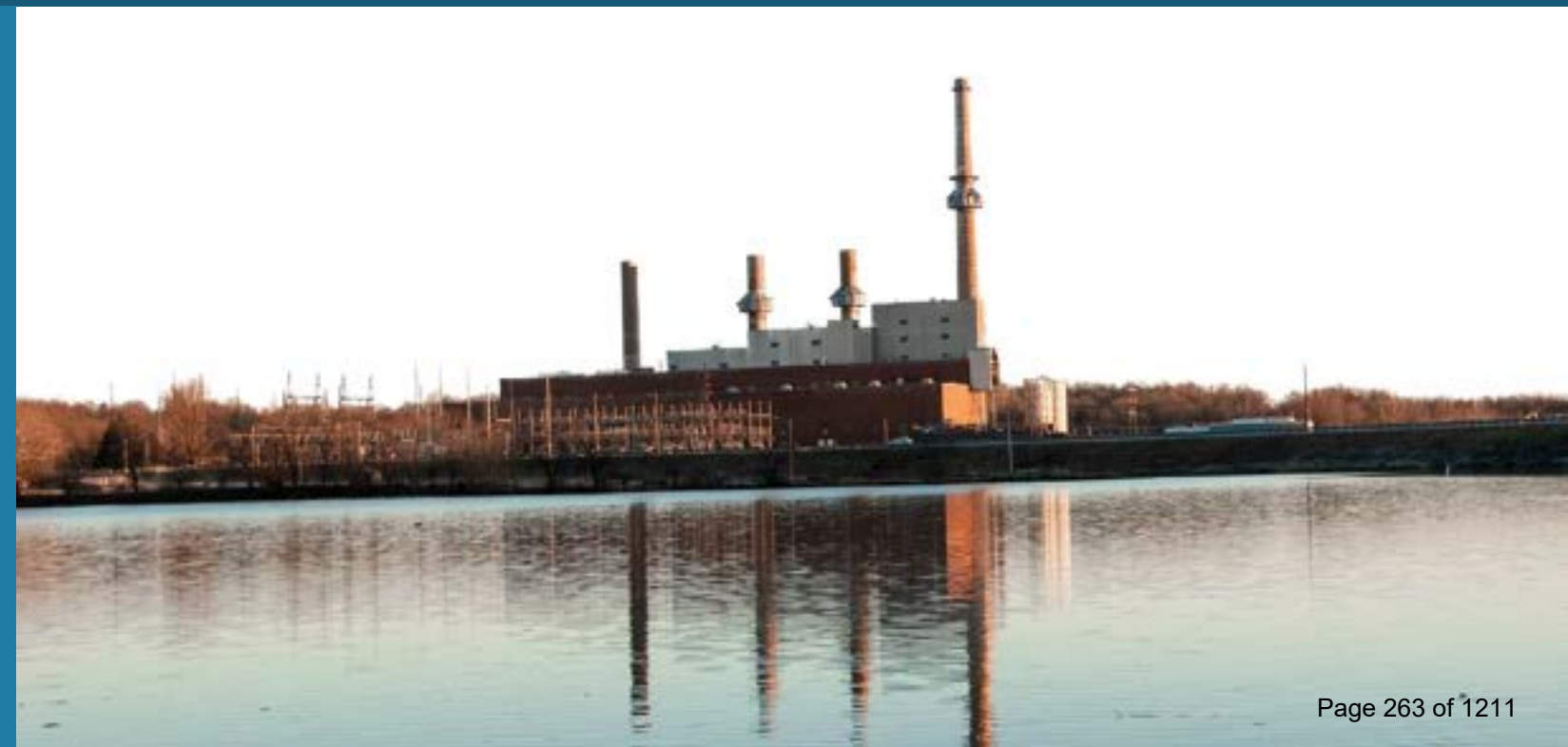
The lake previously served as a cooling waterbody for the James River Power Station, which limited the utilization of the Lake Springfield area to opportunities to connect beyond the natural environment. In recent years, the James River Power Station coal-fired units were officially retired. In February 2022, City Utilities, the owner of the 1,000-acre Lake Springfield Planning area, imploded the unit stacks, representing forward progress toward the future vision of the area and this opportunity.

This Lake Springfield Plan presents a once-in-a-lifetime opportunity for the city and the community to focus on adaptive reuse of this facility, as well as an overall repurposing of the planning area. The outcome has the potential to make a lasting impact in the City of Springfield, the Springfield Region, and the James River Power Basin.



TO **ADVANCE QUALITY OF LIFE** IN OUR
COMMUNITY THROUGH **INNOVATION,**
ENGAGEMENT, AND STEWARDSHIP.

-City Utilities Mission Statement



PLANNING GOALS

The City of Springfield applied for, and was successfully awarded, an Economic Development Administration Grant in 2022 to develop a strategic plan for the Lake Springfield area. The purposes of this grant application are to focus on economic development of the area and to create lasting growth and development within the Springfield Region.

The outcome of this process is to boost job creation and growth, with a focus on resiliency and sustainability. Key partners in the successful EDA grant process were:

- City of Springfield, MO
- City Utilities of Springfield
- Springfield-Greene County Park Board
- The Hatch Foundation

The Lake Springfield Subarea presents a significant opportunity for re-investment and a renewed focus on connection to nature, within the 1,000-acre study area. In its current form, the Lake Springfield area offers a variety of recreational amenities that are underutilized by both City of Springfield residents, as well as the greater Springfield region. Additionally, access challenges, vehicular, public transit, and bike connectivity contribute to the difficulty in fully utilizing the Lake Springfield Area as an opportunity to connect with nature.



THE SIX GOALS OUTLINED AS KEY COMPONENTS OF THE STRATEGIC PLAN INCLUDE:



THE VISION

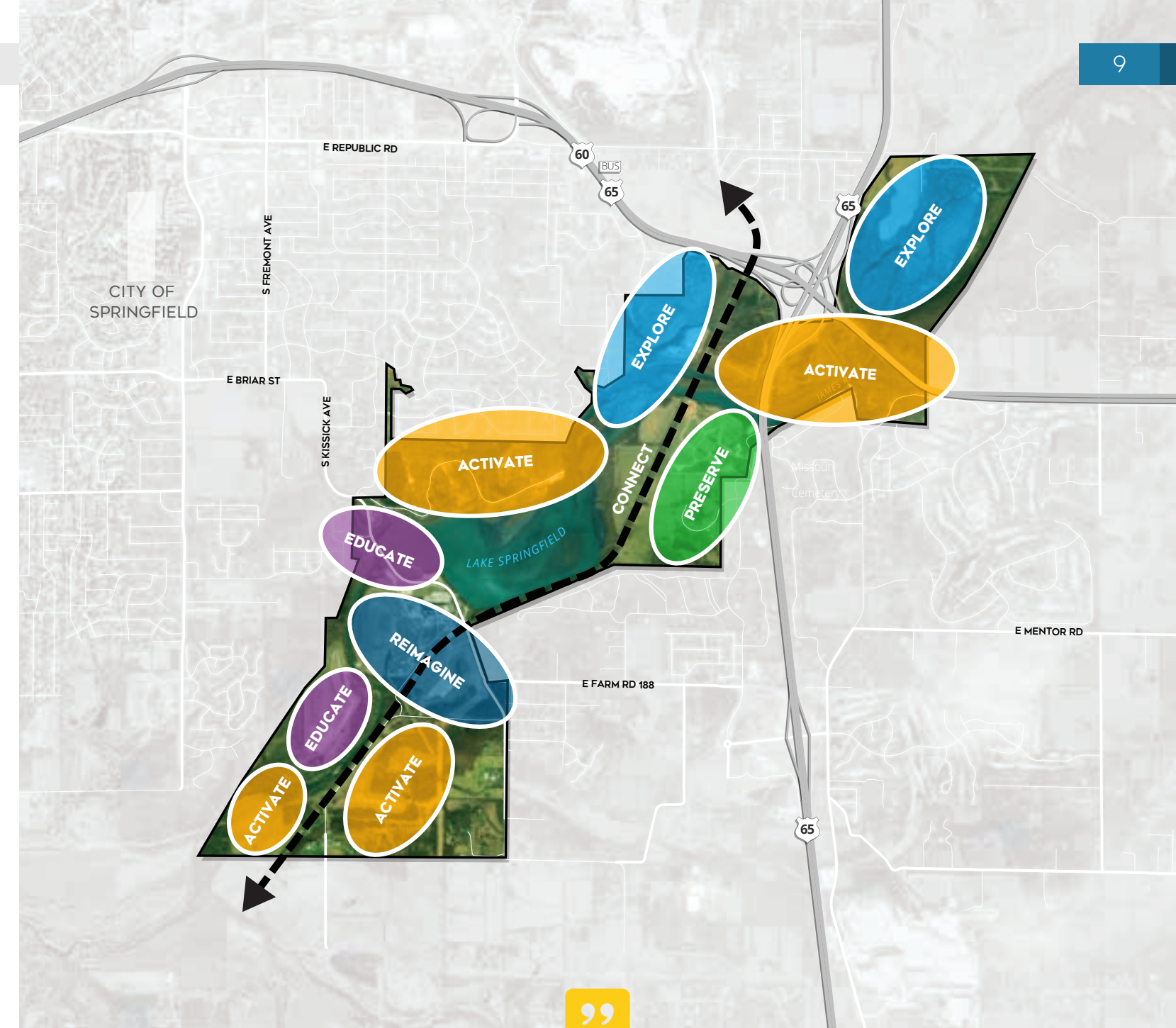
The vision of the Lake Springfield plan is to re-imagine what the area can be. This reimagining process is founded in meaningful community input with a focus on equitable activity to the lake as a natural asset. This planning process set out to intentionally engage a wide range of the public, accounting for the diverse makeup of the Springfield community. A robust community engagement strategy was deployed, to start consensus building from day one.

The planning process started with intentional listening sessions. The goal of this initial work was to ensure the planning team accounted for all levels of input, and to demonstrate that nothing had been pre-determined. The planning process has incorporated significant levels of community input, and building this trust early on is instrumental to the success of this work.

An initial focus of the planning process was to identify emerging themes of the study area to help guide the planning process. This process required significant attention to detail as we worked to remain sensitive to the area as natural asset, while focused on a vision that was rooted in development and growth opportunities. Initial emerging themes focused on:

- **Activate** – While existing recreational opportunities exist within the area, such as the Disc Golf course, as well as kayak/canoe rentals from the boathouse, an early on goal of higher activation, both within the park and the redevelopment site became clear.
- **Explore** – Situated near the interchange of U.S. 60 & U.S. 65, the Missouri Department of Conservation operates the Springfield Nature Conservation Center. Three miles of walking trails offer a place to connect with nature and learn the importance of conservation. Building on this key asset within the planning area is important.
- **Educate** – Experiential learning of nature is taking new forms in communities all across the United States. From Nature Play Scapes to outdoor classrooms, incorporating educational opportunities into future enhancements and developments is important for building off the foundation of the Lake Springfield Area as a key natural asset.
- **Reimagine** – The decommissioning of the James River Power Station presents significant opportunity for reinvestment, as well as sustainable and resilient job creation and growth. A new vision for this site, is imperative to a successful plan, and ensuing implementation.
- **Preserve** – Very early in our planning meetings, we heard several times, we love the natural beauty of Lake Springfield. Balancing preservation and development were an ongoing theme of importance throughout the planning process.
- **Connect** – A lasting comment that was mentioned several times throughout the planning process was ‘Lake Springfield feels very much like look but don’t touch’. This feedback presented a challenge to the planning for developing ways in which a user would feel more immersed in the Lake area.

These themes remained important throughout the entire process as we sought to create a visionary idea of what tomorrow looks like at Lake Springfield.



LAKE SPRINGFIELD FEELS VERY MUCH LIKE
‘LOOK BUT DON’T TOUCH.’ THAT NEEDS
 TO CHANGE.

-Tim Rosenbury



THE PROCESS

The vision of the Lake Springfield plan is to re-imagine what the area can be. This reimagining process must be founded in meaningful community input and focus on equitable activity to the lake as a natural asset.

This plan is the result of the work of a multidisciplinary team to consider all elements related to Lake Springfield. The plan includes technical evaluation of elements critical to a successful implementation. This plan concludes over 18 – months of work that combines engagement and public outreach, technical analysis and assessment, visioning and scenario planning, and final plan refinement. The outcome is a holistic vision for the future of the area, that is firmly based on community input and desires, realistic and achievable, yet offers the vision the community needs for many years to come. The overall vision is one the reimagines how within this important natural area of Springfield, connection to nature and economic development can work hand and hand and promote a more connected and accessible destination for everyone.

KEY TECHNICAL AREAS CONSIDERED IN THE PLANNING PROCESS INCLUDE:



Public Outreach & Engagement – ensuring the plan represents a diversity of backgrounds and lived experiences, and is rooted in community desire.



Water Quality and Hydraulics – analyzing water quality, assessing sediment and sediment management strategies, as well as analysis of dam modification options. A critical path item for the rest of the planning work.



Land Use and Site Development – Proposing site plans that are in line with the comprehensive plan, and also are sensitive to nature. Focusing on solutions that can foster economic development, yet keep natural amenities available for the entire community.



Transportation and Infrastructure – Identifying infrastructure and access needs to enhance the lake area as a major tourist destination. Access considerations for users of all ages and abilities.



Economic Development – identifying gaps in the market for what may make sense, and analyzing proposed activities and uses to provide an overview of economic outputs.



MAKE **NO LITTLE PLANS.**

-Daniel Burnham

THE PLAN

As you embark on this vision, the pages will showcase the hard work and dedication of a team that is committed to providing solutions for an enhanced natural asset and economic driver for the Springfield community. This plan is developed for the people of Springfield and larger Springfield region and is the result of tireless work and close collaboration with City Utilities, the City of Springfield, many involved stakeholders, and partner agencies, and most importantly the people of the community.

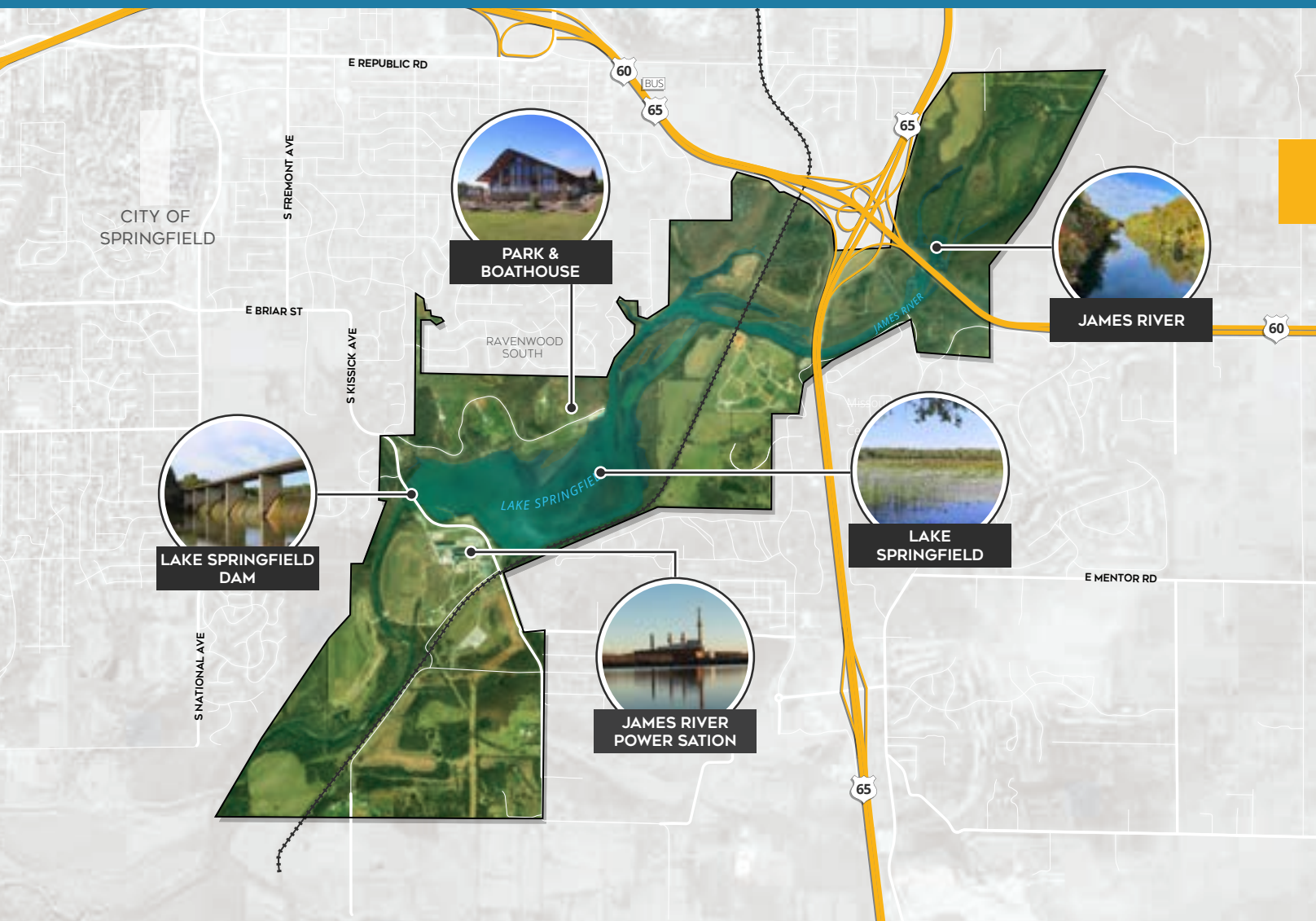
- 1 Included in the following pages you will first find our Vision for the Lake Springfield area. This aspirational component of the plan includes an overview of the site plan, proposed activities and area programming, economic drivers to the area, transportation and access enhancements, and details on water quality. This Vision section is intended to distill this planning process into a stand-alone portion of the plan, that is used to build excitement and energize community champions already working toward implementation. The section includes overall recommendations in a holistic manner that will be further defined in technical chapters of the plan. The section is filled with imaginative graphics and renderings about what Lake Springfield can look like in the future.
- 2 The next section of the plan outlines the planning process, and the detailed work behind the information included in the Vision section. Included here is information outlining the robust engagement process that transpired, a high-level overview of technical analysis by area of expertise, as well as the layout of the zones within the Lake Springfield area. The goal of this section is to follow the inspiring Vision section to demonstrate that the plan is rooted in data and community desire. Simply put, this forward-thinking plan is feasible and already has significant buy-in within the Springfield community. As implementation is beginning, the understanding of the strong consensus building and collaboration that took place will be key to successful outcomes.
- 3 Following the Planning Process section are four chapters on technical areas of expertise. These chapters are more technical in nature, and clearly call out a framework of goals and recommendations, as well as implementation partners and next steps. While the Vision and Planning Process sections are important for momentum building during the implementation phase, this technical section is meant to serve as a resource of technical details during future project phases.
- 4 Finally, the plan concludes with a section dedicated to implementation. The focus of this plan is implementation. With a key component of the EDA grant being economic development and sustainable job creation, it is clear this plan simply cannot sit on the shelf. The chapter on Implementation outlines next steps in the vision for Lake Springfield.

THE VISION

WELCOME TO THE LAKE

Located on the Southeast side of Springfield, the Lake Springfield subarea is a key natural asset to both the Springfield Community and the larger Springfield region. With a variety of recreational amenities, the subarea offers future access to the Chadwick Flyer trail, existing access to the Galloway Creek Greenway, passive recreation opportunities at the Lake Springfield Park, a regionally attractive disc golf course, and educational opportunities at the Missouri Department of Conservation Nature Center. While those who are familiar with Lake Springfield today enjoy the serene beauty of the area, there are many opportunities for more inclusive recreation opportunities and enhanced tourism and economic growth.

Envisioning the future for the Lake Springfield subarea offers a once in a generation opportunity to plan a transformative vision that can set the tone for a future where Springfield is known as an iconic region full of unparalleled experiences for everyone. The vision, presented here, is an aspirational look at what could be.



The opportunities are endless and the vision is only just a beginning when we start to imagine what an iconic Lake Springfield includes:

- **Vast park space** complete with miles of trails to explore and take in the peaceful beauty of the lake and James River.
- **Boardwalks** connecting a series of ecological islands, where visitors can immerse themselves within the Lake area, offering a different viewpoint of the area than most are familiar with today.
- **Educational opportunities** honoring those stewards of the land that came before us.
- **Adventure recreation** opportunities such as destination and nature play, bike parks, ropes courses, and water features.
- **Unique entertainment** experiences from lakeside dining, to shopping, to venues where you can catch a show or attend an event.
- **Event centers and overnight options** including hotels, eco-retreats, and RV camping to attract visitors to stay and play, all in Lake Springfield.

This vision represents Lake Springfield as an attractive destination, that preserves the natural beauty of the area, designs with nature in mind, and truly develops a Lake Springfield for all.

SO, WHAT ARE YOU WAITING FOR?

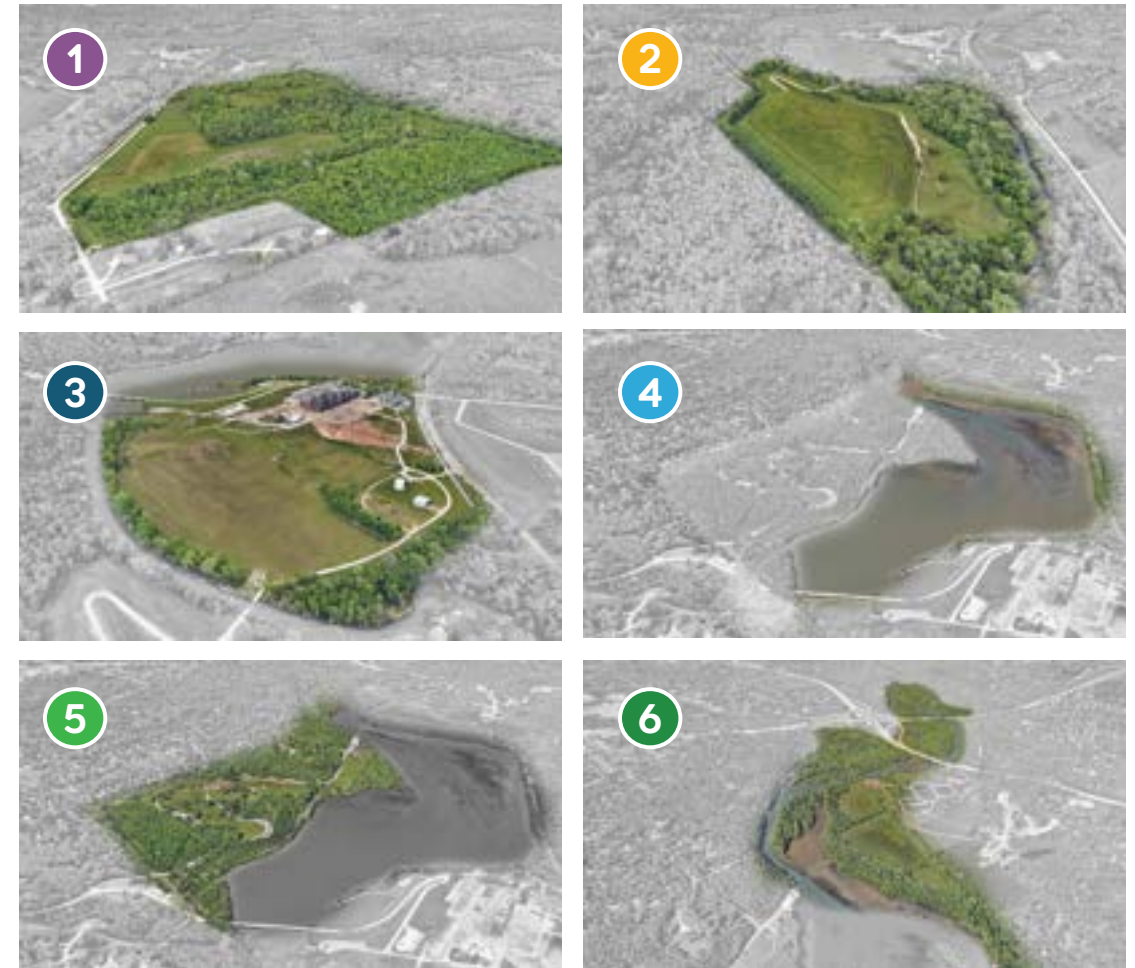
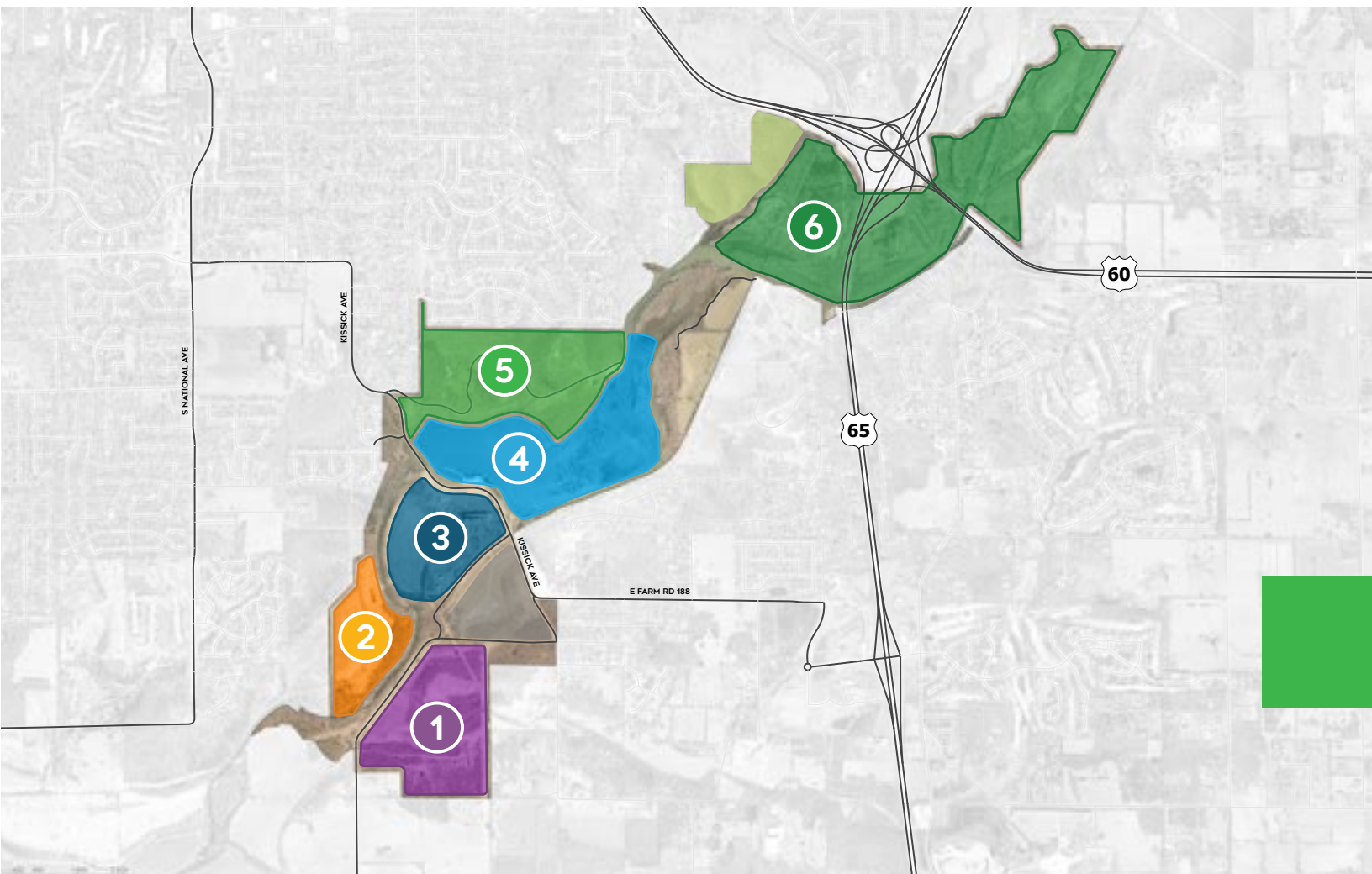
Let new adventures begin at Lake Springfield.



PLANNING ZONES

A key component of the Lake Springfield Plan is a design with nature theme. Context is key, and ensuring proposed planning opportunities as well as future uses are in line with the existing environment and beauty is a critical concern of both the community and the City. With an expansive subarea size of 1,000 acres, an early opportunity emerged to identify zones that could be further refined. The goal of the zone identification is to better scale activities and programming such that the outcome would be highly context sensitive and compatible with the natural environment. The zones are numbered one through six, and given character area names, starting at the farthest south point within the planning area and moving north:

- **ZONE 1** - South Activity Area
- **ZONE 2** - Capped Landfill
- **ZONE 3** - Power Station
- **ZONE 4** - Lake
- **ZONE 5** - Park
- **ZONE 6** - North Activity Area



Another benefit of the zone analysis is the opportunity to ensure the needs of City Utilities operations are still met. As the landowner of the Lake Springfield Subarea, an element of some pieces of the site remaining functional for the operations of City Utilities is important.

As discussed here, each zone has a unique character and context. Further segmenting the Lake Springfield Subarea in this way ensures this plan matches the unique character and context of the vastly different components within the planning area. Each zone has distinctive functional needs, and different recreational opportunities and natural amenities. Because boosting economic activity while preserving natural assets is central to this plan, the zone identification allows for a focus on economic generating activities to be highlighted in a core area, that preserves other sections of the planning site for environmental and passive recreation activities.



The outcome is a planning scenario that combines nature and development in a way that promotes **sustainable and resilient job creation and growth for the Springfield region.**

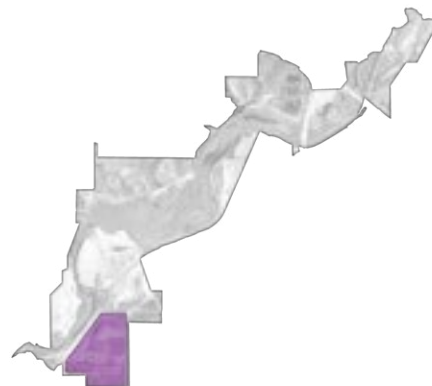
ZONE 1 - SOUTH ACTIVITY AREA



The South Activity Area is approximately 130 acres in size and is currently open fields with woodlands covering a rolling topography. The south zone is adjacent to the Chadwick Flyer Trail and the James River. The character of this site is to build on the link with the Chadwick Flyer, as well as support access and connectivity to the Power Station Site and redevelopment opportunities. Core to the south activity zone is to further support the economic generator of the Power Station Site, linking a stay and play feel between the two uses. Additionally, proposed activities include the potential to have an environmental or adventure theme.

CHARACTERISTICS

- Approximately 130 acres in size
- Adjacent to the Chadwick Flyer Trail and James River
- Utilities and creek are development considerations
- Open fields and woodlands covering rolling topography
- South access point for Lake Springfield
- Destination Activity



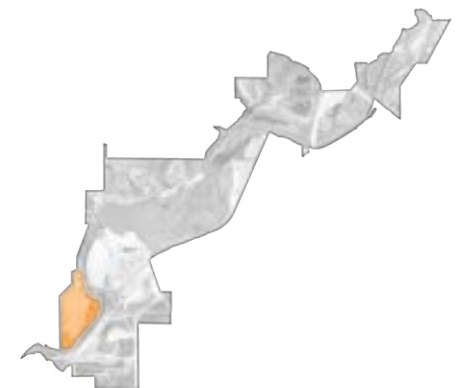
ZONE 2 - FUTURE ENERGY INNOVATION



The Future Energy Innovation zone is south of the Power Station and is approximately 50 acres in size. The existing land is flat and provides open space for passive or light active recreation. To access this zone, you have to cross the James River. The site provides links between the Power Station Site and the South Activity Area. Any re-use of this area requires significant coordination and planning with City Utilities given that it is still an active utility landfill. This area is not included for site enhancements as a part of this Lake Springfield Plan.

CHARACTERISTICS

- Approximately 50 acres in size
- Location access requires crossing the James River
- Flat and open space for use as a passive or light active recreation amenity area
- CU Infrastructure and pilot demonstration site
- Solar Array and innovated cover
- View of power station and dam



ZONE 3 - POWER STATION

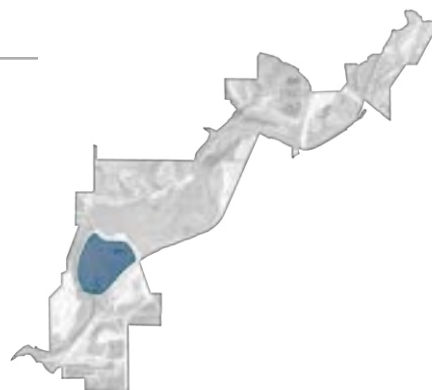


The Power Station Site is central to the entire Lake Springfield Plan. A key focus of this effort is to promote job creation and enhance economic growth, the redevelopment of the James River Power Station is a pillar of this work. Zone three is the economic and trip generator for the Lake Springfield Subarea. While this zone is a signature space for the Lake Springfield area, there are several surrounding areas of this site that must remain in service for operations of City Utilities. Zone 3 presents the most significant opportunity to catalyze economic development, and promote sustainable and resilient jobs, while at the same time providing recreation opportunities and activities for residents of the Springfield community and the larger region. In fact, this site should be viewed as an opportunity for national investment, attention, and tourism.

Also included in Zone 3 is the dam. Options for dam improvements are considered in this analysis as the future of Lake Springfield includes a commitment to enhancing water quality and sediment management.

CHARACTERISTICS

- Signature space at Lake Springfield
- Several surrounding areas remain in service for CU
- Redevelopment as a catalyst for economic, employment and recreation opportunities
- Consider identity, character and visitor experience



ZONE 4 & ZONE 5 - LAKE & PARK

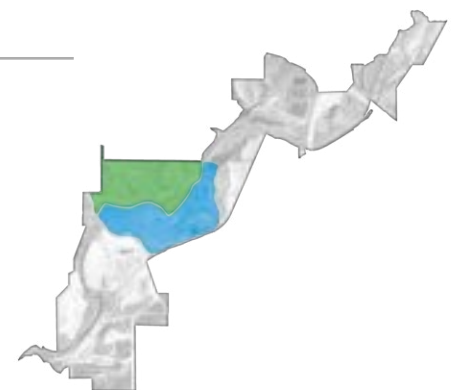


Currently, the Lake and Park zone serves as the biggest driver for visits to the Lake Springfield Subarea. Zones 4 and 5 combine to include 330 acres of the 1,000-acre planning area and are located north of the Power Station and the Dam. The Lake Springfield Disc Golf course is a nationally recognized amenity that attracts visitors from all over the United States. For example, in July 2023, over 150 unique disc golf players visited the course from over 16 states. Additional recreation opportunities exist such as boat rentals at the Boathouse, an existing park with playground structure, and several walking and biking trails.

Access to the site is challenging, with a skewed entrance from Kissick. Limited wayfinding or directional signage exists, and the zone will benefit from an enhanced entryway and focal gateway feature. In addition to updating access and wayfinding, significant opportunity exists in Zones 4 and 5 to expand on current recreational offerings and reimagine new uses to support the power station and modified dam.

CHARACTERISTICS

- Approximately 330 acres in size
- Located north of the Power Station and dam
- Opportunity to expand on its existing offerings
- Opportunity to be re-imagined based on the redeveloped power station & modified dam



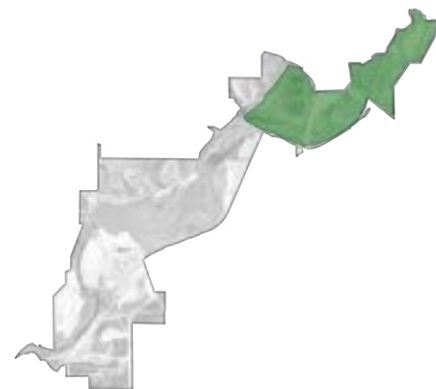
ZONE 6 - NORTH ACTIVITY AREA



The North Activity Area is the largest zone within the Lake Springfield Subarea. The North Activity Area is 450-acres in size and is along the James River. The area includes the Nature Center, a connection to the Galloway Creek Greenway, and the 65/60 Interchange. A significant portion of the zone exists in the James River Floodway and flood plain. Extensive analysis in this zone has already been completed looking for a trail connection from the Nature Center to the Galloway Creek Greenway to better connect bikers to this natural amenity.

CHARACTERISTICS

- Approximately 450 acres in size
- Along the James River north of Lake Springfield
- Includes the Nature Center, Southwood Access, and 65/60 interchange
- A significant amount of the area is located within the James River floodway and flood plain
- Existing trails provide connection over the James River, under the highways, connect to the Nature Center & Galloway Creek Greenway



PLANNING GOALS

Identified within the ForwardSGF Plan as a subarea for future study, the goals of this plan focus on economic development and adaptive reuse, water quality and sustainability, and enhanced access and connectivity. Recognizing the significant opportunity of the area for economic development, the City of Springfield and City Utilities partnered to pursue a U.S. Department of Commerce's Economic Development Administration (EDA) grant, with assistance of local match funding from the Hatch Foundation.

Within each goal in this section, recommendations from the plan are included that align with that goal. These recommendations are structured by the zones identified within the Lake Springfield Subarea, and include specific details about that recommendation.

THE SUCCESSFUL GRANT APPLICATION FOCUSES ON SIX GOALS:



Economic Development &
Resilient Job Creation



Sustainable Water Quality
& Green Infrastructure



Adaptive
Reuse



Transportation
Enhancements



Active & Passive Recreation
Opportunities



Holistic and Diverse
Community Input



■ GOAL #1

ECONOMIC DEVELOPMENT & RESILIENT JOB CREATION

The signature elements of this plan focuses on economic development and job creation. The zones with this goal as the focus include the Power Station/Dam area, the enhanced South Activity Area, and the upgrades to the Lake and Park Area. These concepts focus on centering Lake Springfield as a regional tourism destination, linking several other areas of interest in Southwest Missouri and Northwest Arkansas.

POWER STATION & DAM AREA

Two concepts are envisioned for the updates of the James River Power Station site. While the concepts vary in theme, both concepts feature new uses that are currently missing in the Springfield market and will serve as a draw to the Lake Springfield Subarea. A key component of both concepts is a large indoor event space, which is needed in Springfield. There is a large demand gap in the current market, and this area can host such a site, meeting a need within the community, serving to attract tourists, and offering jobs for residents in the hospitality industry. Both concepts are market justifiable and vary slightly based on the theme.

ENTERTAINMENT DISTRICT - CONCEPT A

Power Station & Dam

As a destination entertainment district, this concept reimagines the James River Power Station as an anchor for a unique regional attraction. With several points of entry, visitors will find access and parking simple for many modes of transportation. In this scenario, the Power Station is a mixed-use development that supports a new a large Multi-Purpose Event Center elsewhere in the zone. The vision for the mixed-use development includes entertainment, retail, residential and office. Event spaces such as concert venues, amphitheatres, and gathering spaces can host crowds, while businesses such as food and beverage halls, yard and game activities, and entertainment options will keep people returning.

In addition to this lively and vibrant redevelopment, this concept is designed in a way to bring nature into the design of the site, by offering a water overlook, riverfront recreation, a bypass channel for kayaks and canoes, event lawn, pavilion and white-water activities. These new recreation opportunities keep water experiences present throughout the site.



1. James River Power Station Reuse - Mixed Use Building
2. Bypass Channel
3. Event Lawn
4. Mixed Use Commercial, Dining, Residential, etc.
5. Whitewater Recreation



ENTERTAINMENT DISTRICT - CONCEPT A

Power Station & Dam

ADVENTURE HUB - CONCEPT B

Power Station & Dam

Focusing on the experience of adventure destinations, this concept includes the reuse of the Power Station, a new large-scale conference center, hospitality services and food and beverage options. Additionally, overnight accommodations are important to offer a 'stay and play' environment for large groups looking to host conferences or events with the need for hotel rooms. Restaurants and enhanced community green space add to the overall feel guests will have when attending a conference at this event center.

In this theme, connecting with nature remains an important goal, and proposed amenities to the site include a bypass channel, a kayak basin, water adventure and green space. The site is rounded out with a community green area that further seeks to identify this location as a unique space to host meetings and events.



1. James River Power Station Reuse - Conference Center
2. Kayak Basin
3. Community Green
4. Hospitality & Restaurants



ADVENTURE HUB - CONCEPT B
Power Station & Dam

SOUTH ACTIVITY AREA

Similar to the Power Station site, the South Activity Area envisions two themes that can connect to the power station site and draw traffic and people to and from each location. With additional space to build recreation amenities as well as commercial or overnight accommodations, the South Activity area is an important zone for economic development within the subarea.

ECO RETREAT - CONCEPT A

South Activity Area

Working in tandem with the Entertainment District theme for the Power Station site, the Eco Retreat theme for the South Activity area provides overnight accommodations for people that are visiting the area and enjoying everything Springfield has to offer. In this concept, the South Activity Area features an upscale retreat center, for smaller executive level leadership retreats. Additionally, retreat cabins are another feature of this theme, which will serve the overnight needs for groups utilizing the retreat center.

Recreation opportunities included in this theme are a bike park, adventure/team building course, an aerial chairlift connection and lake amenities. The idea is that the focus of the south activity area becomes more about recreation and retreats, where visitors can travel to the entertainment district for food, dining, and commercial activities.



ADVENTURE HUB - CONCEPT B

South Activity Area

The South Activity area adventure park is the option that works with the adventure hub theme of the Power Station site. The focus of this theme is on nature-based adventure activities, such as a ropes course, a bike park, archery and water adventure in an activity lake. The site also features an Amphitheater and RV camping. In addition to these adventure activities, the site will also feature retail and food and beverage.



LAKE & PARK AREA

While the central focus of the lake and park area will not be as an economic driver for the subarea, there is some potential to expand operations at the Boathouse, as well as recreational offerings to draw more people to the Springfield area. The Park and Lake Zone will have a larger development footprint than the North Zone but will maintain a focus on the natural assets at Lake Springfield. Proposed programming in this zone features an improved and expanded Boathouse and Ecology Center, a marina, a boardwalk, a destination play area, cross country, disc golf, river crossing access, and trail connections.

The expanded boathouse will provide the opportunity to host more reception-style events at the location, where guests will be able to stay on site at some of the proposed overnight accommodations located elsewhere in Lake Springfield. The boardwalk and nature-based play will serve as 'destination' play and experience opportunities for residents of Springfield, that will travel across town to use these amenities.

ECO ISLANDS

Lake & Park Area



1. Chadwick Flyer Trail
2. Expanded Boathouse
3. Marina
4. Boardwalk Trails
5. Destination Play



ECO ISLANDS

Lake & Park Area



■ GOAL #2

SUSTAINABLE WATER QUALITY & GREEN INFRASTRUCTURE

LAKE & PARK AREA

Within the Lake & Park area, there is significant focus on the water quality and green infrastructure. An initial step in this planning process was the completion of a hydrology study for a better understanding of the existing issues within Lake Springfield. The outcomes are separated into distinct topics of (1) Sediment Management and (2) Dam Options.

Sediment Management

Sediment management refers to a plan to manage the existing sediment within Lake Springfield. Sediment continues to enter Lake Springfield from 270 square miles of land in the Upper James River. The Bathymetric survey completed as part of this plan revealed that the lake’s depth has largely decreased since originally constructed via Lake Springfield Dam in 1950. The depth of the lake ranges from 1 foot to 4 feet outside of the historic James River Channel, and ranges from 7 feet to 8 feet within the historic James River Channel. From both visual observations and the profiling completed as a part of this plan, sediment deposits are present in the lake, and the lake continues to receive sediment load from the upstream watershed, approximately 7,900 cubic yards/year.

This plan calls for a sediment management strategy to deal with the existing sediment within the lake, as well as manage the continued sediment load from the James River Watershed. While costs range significantly based on the type of plan, and amount of sediment to address, this will be a critical component to a successful Lake Springfield Vision. A breakdown of these costs is included here.

Sediment Management Option	Estimated Cost
2-4 ft of sediment	\$22M - \$57M
As-built to grade	\$35M - \$89M

As discussed in the previous section, the new boardwalk trail system, connecting ecological islands is proposed as a way to repurpose the existing sediment, so that it is engineered in a way that becomes useful to the lake area. The connection of these ecology islands, via a new 1.4 mile trail of boardwalks, will greatly enhance the user experience at Lake Springfield. While the lake is not suitable for primary water contact, the addition of this activity gives users a unique way to experience the beauty of the lake from a new vantagepoint on this one-of-a-kind boardwalk system.

Dam Options Alternatives

The Lake Springfield Dam was originally constructed in 1956, the first water over the spillway occurred January 17, 1957, to supply cooling water to the James River Power Station. The damming of the James River created Lake Springfield and is currently an underutilized recreation asset within the City of Springfield. An important question in this plan, is the future of the Dam and the Lake. Three scenarios related to Dam modifications are included.

1. Dam Removal (partial or full)

There are a couple of benefits to full dam removal. First, the removal of the dam re-establishes the river eco-system. Additionally, the removal of the dam may reduce or remove the liability of maintaining the dam. Full dam removal is the most costly option ranging from \$17 million to \$44 million. This alternative is not recommended given other concepts within the plan that focus on the lake as an asset.

2. Dam modifications (concrete dam or earth embankment)

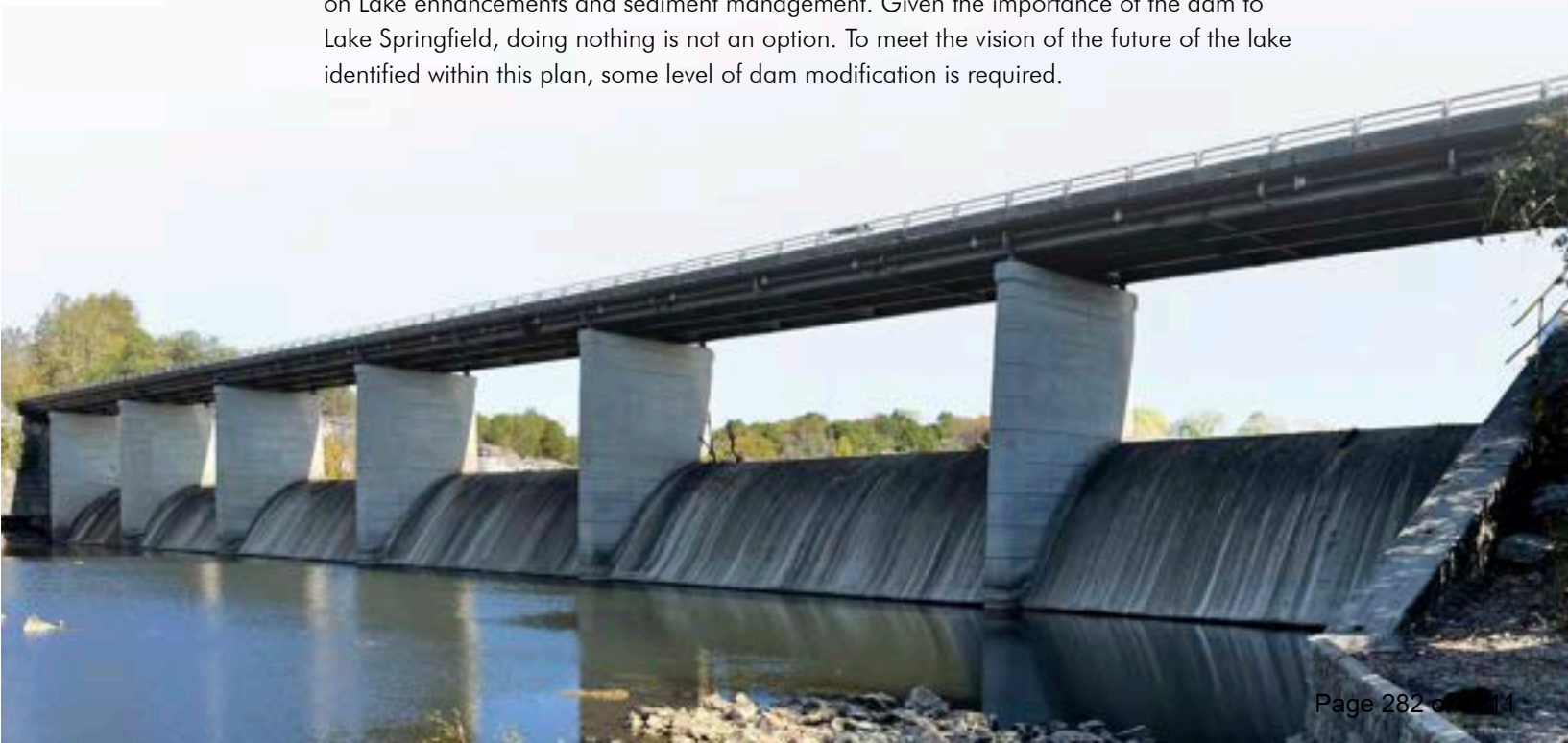
The benefit of Dam modifications is to provide fish and kayak passage, while not embarking on the significant scale of project that is associated with dam removal. Some sort of dam modifications are the preferred scenario to meet the vision of the Lake Springfield Plan.

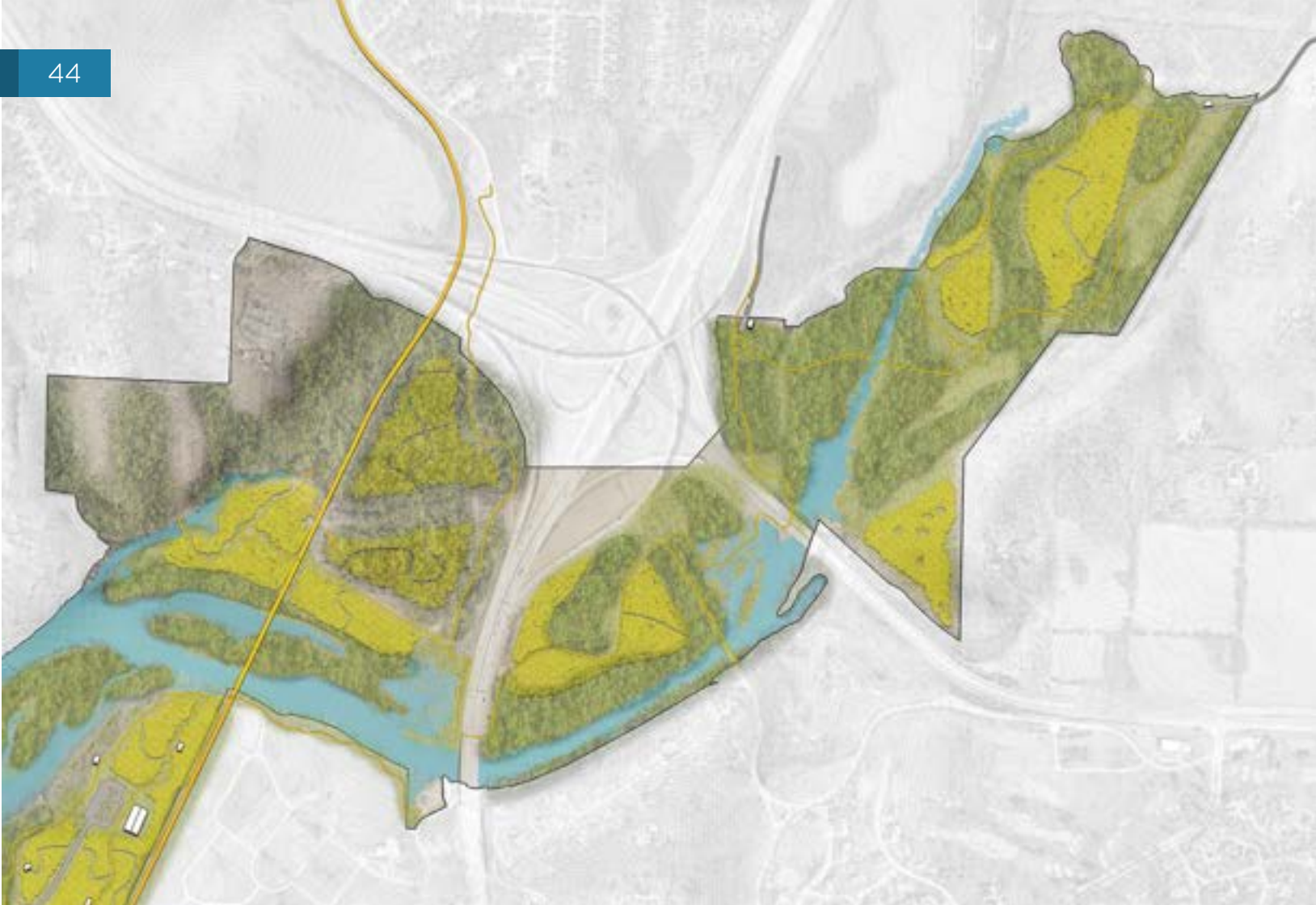
By modifying the earthen embankment, a bypass channel can be constructed that runs through Zone 3, and serves as an asset to the proposed entertainment district or adventure hub on that site. This option is also the most affordable option ranging from \$5 million to \$11 million.

Partial dam removal of the concrete structure is another option here, though not the preferred option. The range in cost here is \$8 million to \$12 million. While this does allow for kayak passage, the proximity is a bit removed from other sites within the planning subarea, and does not become as big as an asset as the bypass channel.

3. No Modification

The final option assessed within this plan is the option to do nothing with the dam and focus on Lake enhancements and sediment management. Given the importance of the dam to Lake Springfield, doing nothing is not an option. To meet the vision of the future of the lake identified within this plan, some level of dam modification is required.





NORTH ACTIVITY AREA

The focus of the North Activity area is preserving the natural amenities of the zone, supporting bike access to the lake, and featuring passive recreation opportunities to remain minimally invasive to the natural environment. The main components of this area are wetland preservation, trails, meadows, river access, nature amenity areas, a nature center, and an event lawn. There is a significant focus on culture and education within this zone with light development.

The North Activity area prioritizes preservation of natural resources, supports enhanced walking and biking access through a network of nearly 7 miles of trails, and offers enhanced river access and trailhead locations along the James River. With direct connection to the Chadwick flyer trail, this zone offers the opportunity for scenic departures for trail users. The Chadwick Flyer Trail bridge offers enhanced access across the James River and to the local neighborhoods, further supporting a connected zone, and the ability of residents within the adjacent neighborhoods to travel to the Lake Springfield Subarea using a more sustainable form of transportation.

With a focus on the ability to use sustainable transportation to access the Lake Springfield Area, this zone supports green infrastructure offering enhanced connections to the North Activity Zone, and within the larger Lake Springfield subarea.

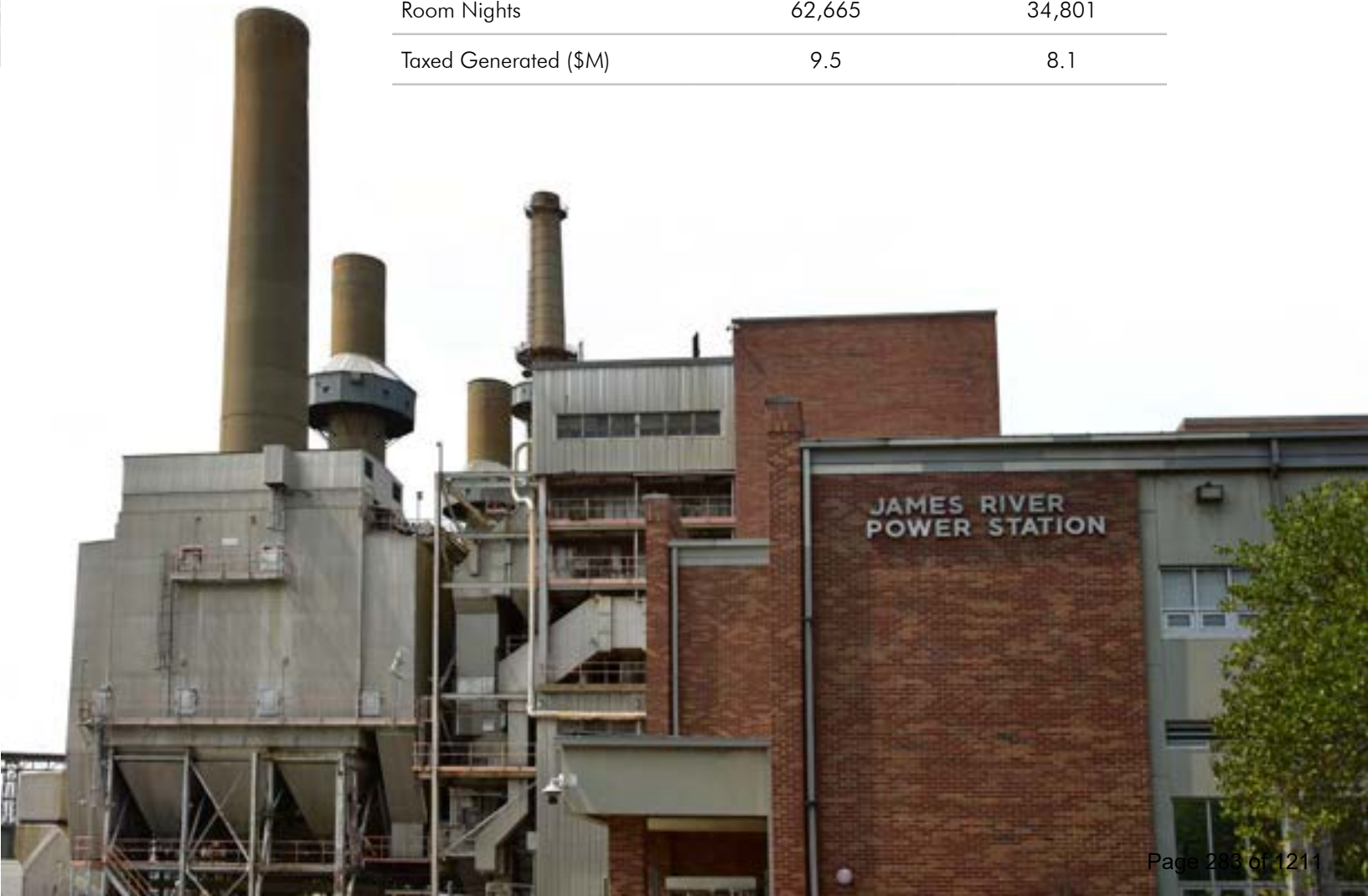


■ GOAL #3
ADAPTIVE REUSE STRATEGY

The cornerstone of this plan is the re-envisioning of the James River Power Station and surrounding site as an economic driver. A central focus on the power station zone as a new tourist destination and amenity for Springfield residents is a key theme of this plan. With enhanced access and connectivity to the site, guests will now find the area easy to reach and find. As identified within the goal on Economic Development, the adaptive re-use of the Power Station is two distinct concepts, both with the potential to be significant anchors to the Lake Springfield subarea.

In both of these scenarios (Entertainment District & Adventure Hub), the economic impact in 10-years of full build out is significant for the Springfield community:

Economic Impact	Entertainment District	Adventure Hub
Jobs	1,091	946
Direct Visitor Spending (\$M)	197.5	171.2
Room Nights	62,665	34,801
Taxed Generated (\$M)	9.5	8.1



POWER STATION/DAM AREA



Concept A – Entertainment District (Multi-Use Event Venue & Mixed-Use Building)

In this concept, the James River Power Station serves as an anchor to the entertainment district as a mixed use-building, featuring commercial, residential, office and entertainment. An additional feature of the Power Station zone features a large, 270,000 square foot multi-use event venue. This venue may attract various events that would encourage overnight stays elsewhere on the site, and combined with the commercial, hospitality and retail available within the area, people are able to fully stay and play. Once you are on the site, a connected network of trails ensures that you do not need to get in your car to access other amenities located within Lake Springfield.

Additional recreation opportunities located within the power station zone can help attract larger events and functions to come to this site, with the promise of a one site, many activities options for participants and those travelling with participants.



Concept B – Adventure Hub (Conference Center)

In this concept, the James River Power Station is slated for re-use to accompany a new large-scale conference center. This conference center meets a gap that has been identified in the Springfield market. The re-use in this scenario focuses on attracting conferences and events to the area, by promoting a unique environment for conference participants. The conference experience is more destination based versus what you might find in other conference centers.



■ GOAL #4

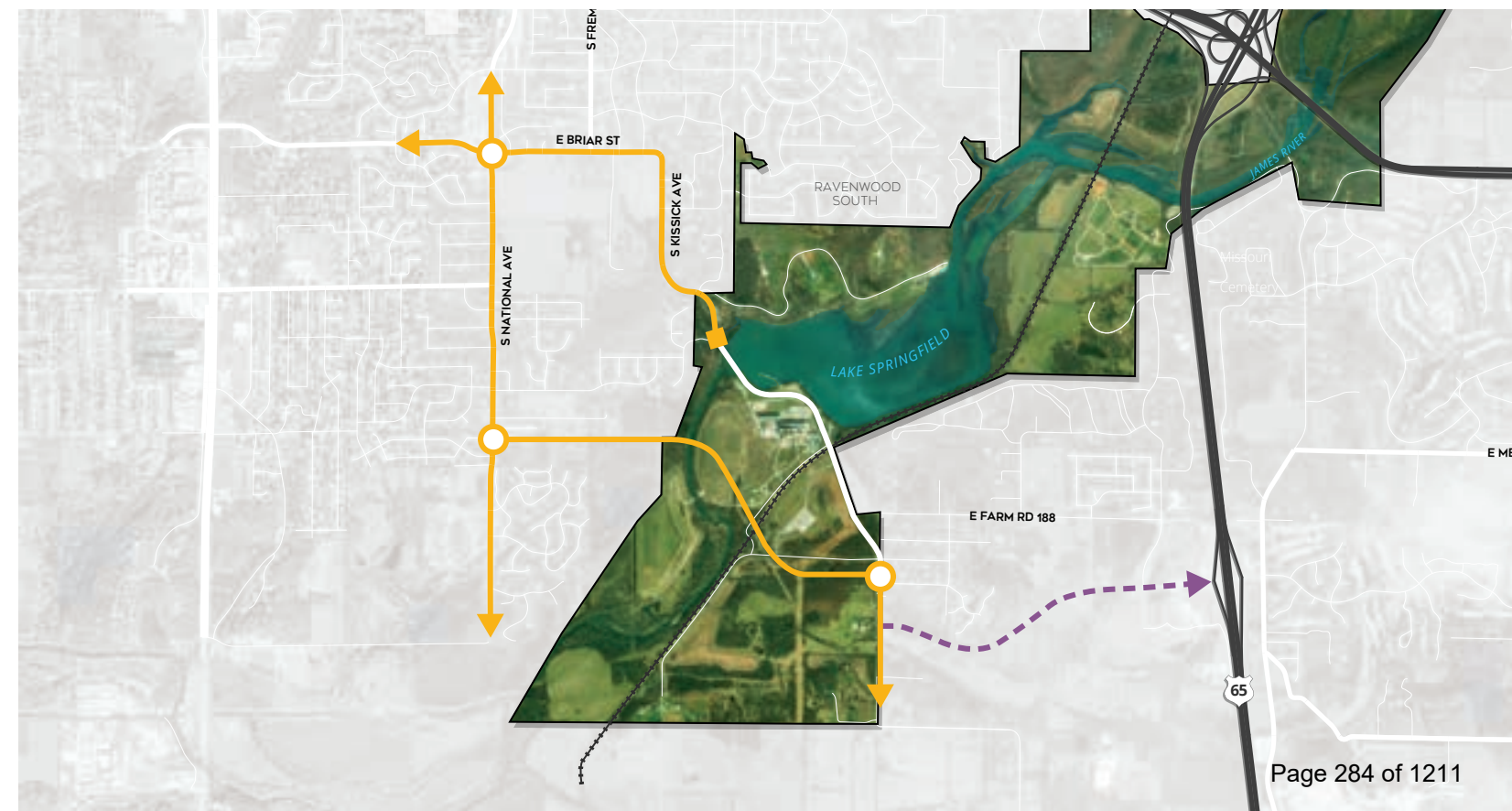
TRANSPORTATION ENHANCEMENTS

Currently, and by design, due to the function of the James River Power Station, Lake Springfield is not easy to find, with limited vehicular access. Reaching the Lake Springfield subarea by foot, bike, or transit is even more challenging with no sidewalk access along many of the main roads that lead to the zones. Ensuring high quality access, regardless of age or ability, is important for fulfilling the vision of Lake Springfield. Several enhancements are recommended here to ensure enhanced access, and identifying Lake Springfield as a place that you know when you have arrived.

POWER STATION/DAM AREA

As the major trip generator, updated access to the Power Station and Dam area is going to be an immediate need to realize the vision of the plan. Currently, Kissick over the dam moves traffic to and from the Power Station site. The bridge is a 2-lane narrow section and does not have space to move people outside of cars. Additionally, if the focus of Kissick is to move heavy volumes of vehicular traffic, the road becomes a major barrier between the power station zone and other zones north of Kissick. Significant bridge upgrades are required if the focus of Kissick is vehicular traffic.

To effectively move motorists to and from the power station site, as well as provide additional space for people on foot and bike, building a new access road, the Southwest Gateway, connecting to National Avenue is a critical first step to ensuring a viable development site.



There are several benefits of this new road to enhance access and connectivity to and within the Lake Springfield Subarea.

Bike Connectivity

Following the recommended designs standards of the Ozark Transportation Organization (OTO), designing the new roadway as a collector road will allow for the opportunity to take a Complete Streets approach, and provide enhancements, such as a shared use path, to further enable direct biking and walking connections.

Chadwick Flyer

Closing Kissick to vehicular traffic, removes an at grade conflict between motor vehicles and trail traffic where the Chadwick Flyer crosses Kissick. The vision of the new Southwest Gateway is a grade separated roadway to ensure the Chadwick Flyer remains a regional trail spine, that is fully separated from motor vehicle traffic.

Gateway Opportunities

currently, when you arrive at Lake Springfield, it is not clear that you have arrived. The new road provides the opportunity to use gateway treatments for both traffic on National Avenue, the parking lot entrance to the power station site, and at Farm Road 169. The idea for Farm Road 169 connection is a new roundabout that features an iconic Lake Springfield Gateway.



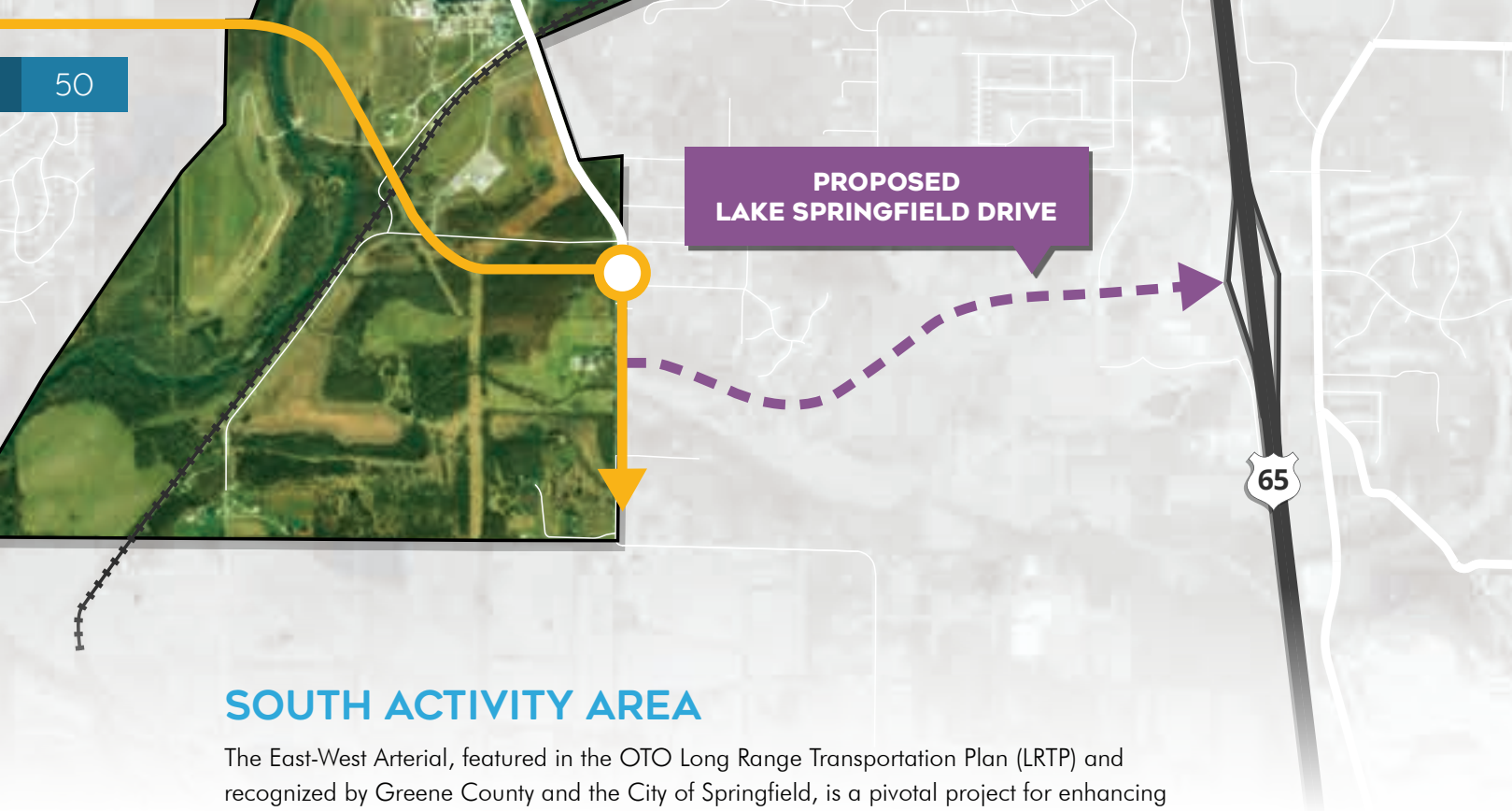
Kissick Linear Park

A common concern during this plan is the lack of safe pedestrian facilities to access the Lake and Park Area. By closing Kissick to vehicular traffic north of the existing dam structure, until after the Chadwick Flyer trail crossing, there is enhanced connectivity for people on foot and bike. The bridge becomes a linear park, that further seeks to connect the experience from the Power Station site to the Lake and Park Area.

Minimize Cut-Thru Traffic

Another concern during this plan is from adjacent neighbors that experience cut-thru traffic for motorists trying to access Kissick to connect south. By closing Kissick to vehicular traffic, and building the new Gateway Road, this cut-thru traffic is minimized for local neighbors, who now have a more pleasant experience walking and biking to the Lake area.





SOUTH ACTIVITY AREA

The East-West Arterial, featured in the OTO Long Range Transportation Plan (LRTP) and recognized by Greene County and the City of Springfield, is a pivotal project for enhancing network connectivity in the Springfield region. Designed to facilitate east-west traffic, it spans from the Kansas Expressway Extension to Campbell, extending southward through the Lake Springfield area to the interchange at US 65 and Evans Road. Although acknowledged in the LRTP and having secured right-of-way (ROW) in part of Springfield, it is not currently a priority for transportation agencies. Moreover, when it becomes a priority, the primary focus is on the section outside the Lake Springfield area, connecting Campbell to National.

Recognizing the regional importance of this route, the recommendation emphasizes the initial development of a section connecting to the Power Station Site and South Activity Area. Despite significant grading challenges in the landscape, prioritizing the construction of this portion of the East-West Arterial is essential for enhanced access to both the South Activity Area and the Power Station site. The stretch from Kissick to Evans Road is particularly prioritized to establish necessary vehicular connections, aligning with the proposed vision for the planning area.

The enhanced intersection at Kissick and Lake Springfield Drive, forming the new East-West Arterial, is envisioned as an iconic gateway, guiding visitors and providing clear directions upon arrival. The project's phased approach is designed to prevent cut-through traffic at the power station site. While the ultimate goal is to connect to the west alignment of the East West Arterial, a phased design strategy ensures that the full build-out of the arterial road is not initially executed. Preserving right-of-way for the final design size is crucial in early project phases, with a focus on designing the road as a collector road to meet projected vehicular needs until the west phase of the East West Arterial, west of Kissick, is prioritized for development.

The goal of this project is for Lake Springfield Drive to connect to the new Southwest Gateway, with this road segment (from US 65 to National) serving site traffic, designed to the standards of a collector road. Once the E/W arterial project west of Kissick becomes a priority, the road can be designed to the standards of an arterial road. At the time of the full E/W arterial buildout (west of Kissick), intersection upgrades at Kissick have become critical to differentiate Lake Springfield traffic, from regional traffic seeking to move east and west throughout the region.

LAKE & PARK AREA

Within the Lake and Park area, the theme for transportation enhancements is about access and identifying the Lake Springfield Subarea as a place. The existing entry to the park is a skewed intersection, set off Kissick, with minimal signage once you have arrived, or signs along the way. In line with the goal of enhanced access, designing Briar and Kissick to be in line with OTO Collector Road Design standards will allow for better access for vehicular traffic, and foot and bike traffic when taking a complete streets approach.

A redesign to the park entry provides an opportunity to serve as an iconic gateway feature, further reinforcing your arrival at the Lake Springfield area. The plan calls for a roundabout at this entry point, which serves as a physical monument to your arrival at the lake and park. Furthermore, this roundabout serves a key functional purpose when Kissick is closed to vehicular traffic. The roundabout provides an updated intersection to remove the dysfunctional skew that exists today, but then also provides an opportunity to bring out the nature-based branding of the area. The roundabout can feature a monument designed by a local artist, or plantings that are in line with the theme of the vision for the Lake Springfield Area.





Another important project for transportation improvements and enhanced access is the addition of a shared use path from Republic Road to the Lake and Park area. This 1.5-mile shared use path runs through neighborhoods, along an existing utility corridor, and provides a direct connection to the public transit stop that is in the closest proximity to the Lake Springfield Subarea. A 1.5-mile path is about a 35-minute walk, or an 18-minute bike ride. The addition of this path ensures that Lake Springfield is an accessible place for everyone in the community, regardless of your ability to own or operate a vehicle.

The updated shared use path to the transit stop on Republic Road presents opportunities to develop the transit stop as an entry point to Lake Springfield for public transit users. Through enhanced placemaking strategies, this stop can be branded as the front door to Lake Springfield for those using public transit. Through updated wayfinding, interesting features, like paint or public art, and enhanced transit amenities (branded shelter or benches), the opportunity to connect public transit users with Lake Springfield is enormous. With a focus on an equitable project, that caters to many different needs and desires in Springfield, ensuring the area is accessible for those that do not own or operate a car is paramount.



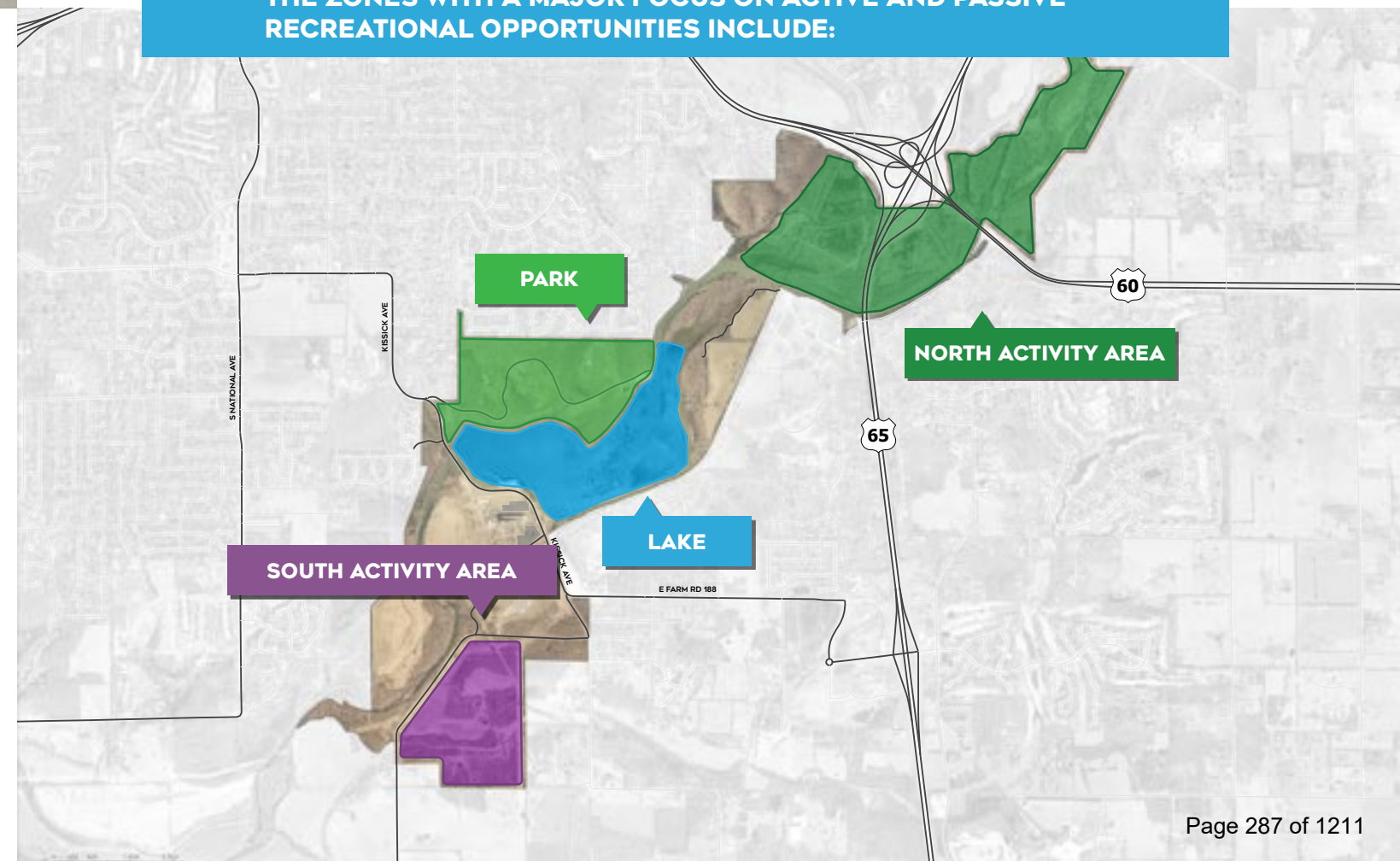
■ GOAL #5

ACTIVE & PASSIVE RECREATIONAL OPPORTUNITIES

The influential concept, to 'Design with Nature', developed by Ian McHarg, is the cornerstone of this goal. McHarg, one of the most influential environmental planners and landscape architects of the 20th century, introduced this concept to reinforce the idea that spaces are best designed when done with careful regard to the ecology and characteristic of the landscape. Additionally, the belief focuses on the idea that when communities live with the powerful forces and flows of the landscape, places gain a stronger sense of place and identity. Designing with nature is paramount to the successful vision for the Lake Springfield subarea discussed here.

While there is some element of nature and natural amenities within every zone, the focus on three of these zones is nature elements meant to supplement the economic activity taking place at the Power Station Site. The overall vision for the area is that by promoting destination activities, with a central theme of nature, economic activity can be largely focused on specific areas on the site, minimizing impacts to the natural environment of the 1,000 acres.

THE ZONES WITH A MAJOR FOCUS ON ACTIVE AND PASSIVE RECREATIONAL OPPORTUNITIES INCLUDE:



NORTH ACTIVITY AREA

The North Activity area prioritizes preservation of the natural environment in both concepts for the plan. The largest zone within the Lake Springfield subarea, at 450-acres, with good access to the James River, and including the Nature Conservation Center, a focus of the natural environment in this zone is important to preserving the natural beauty and habitat of the area. Additionally, a network of nearly 7 miles of trails offers enhanced areas for both active recreation (walking and biking) or passive, where guests may detour from the trails to points of interest or scenic detours.

Another signature element of programming within the North Activity area that focuses on passive recreation are enhanced habitat areas, such as bird meadows or riverside wetlands. These habitats help enrich wildlife and environmental health. When compiled with the additional trail network, this area presents significant opportunity for hikers to further explore and enjoy nature through activities such as birding. Also included along the trail system is the opportunity for interpretive signage, where visitors can learn about the history of the area, habitat and the environment.

A key component to the North Activity area that focuses on active and passive recreation, is the opportunity to celebrate the history and contributions of Native American populations on the land long before the City of Springfield existing. Included in this zone is a new cultural education center, located east of Lake Springfield, and connected to the North area via the new Chadwick Flyer trail bridge, and to the lake and park area over a new bridge near the boathouse. This cultural center will honor the contributions of these populations to the land, and is dedicated to promoting education, enrichment, and appreciation of Springfield Native Americans.



The activities focused in the north activity area enable the overall plan to be a forward-thinking vision for development yet rooted in the natural setting of Lake Springfield. In fact, these activities may be a deciding factor in way a group chooses Lake Springfield for a conference or event, understanding their guests will have a unique experience of fully immersing themselves in the outdoors, and taking in all that our natural environment has to offer.



LAKE AND PARK AREA

While the Lake and Park area currently offers the most ability to connect with nature, the land is vastly underutilized in terms of being able to experience nature. Existing amenities within this area include a hilltop pavilion, a small trail network, and well-loved disc golf course. Additionally, the boathouse offers limited meeting/event space and boat rentals. In current configuration, it is not easy to access the other side of Lake Springfield from the boathouse area by foot or bike due to no safe facilities for walking and biking. The vision for the plan is to promote an expanded area to enjoy nature and recreation, while at the same time being able to connect across and around the lake on a dedicated network of trails, including boardwalks, and enhanced or new bridge facilities.

The iconic element of the Lake and Park area of the plan is the addition of Wetland/Ecology islands. Given the desire to further immerse themselves within the lake area, the addition of these islands allows visitors to get close to the lake, through an enhanced boardwalk of nearly 1.5 miles that connects these new islands adjacent to the Boathouse. Scenic overlooks are recommended just south of the park entry, as well as off the Power Station site. Furthermore, the addition of two bridges enhances circulation and connectivity across and around the lake. One bridge connects the boathouse to the trail of honor and new cultural pavilion and education center, and the second bridge connects from the ecology islands to the Power Station site. In addition to these new enhancements for better foot and bike access and circulation, the closure of Kissick to vehicular traffic provides another opportunity for an enhanced linear park that better connects the zones within the planning area.



Another signature component of this new vision is the addition of a destination nature playground. Springfield does not currently have a destination nature playground, and the location of this type of feature within the site will be an important reason that many residents come to visit the area. Play is hugely significant for childhood development, and creating a safe, interactive, and stimulating environment for children to play is a reason parents and caregivers from across the Springfield region visit Lake Springfield.

In recent years, natural playgrounds are becoming increasingly popular, and offer a way for children to better connect with nature in a safe and inviting way. Research shows that natural playgrounds stimulate imagination and boost energy levels of children. Following the natural theme of the Lake Springfield area, the Lake and Park area is a perfect place to have a destination nature play area. The addition of the destination nature play area is a feature that will serve the residents of Springfield, but also campers to the area at the Group Camp/Retreat Center, another significant component of the Lake and Park area. In the new vision, there are several reasons this camping center becomes a regional draw, including all of the amenities to connect with nature on site, but also all of the amenities within the Lake Springfield area that are not accessible via foot or bike.

SOUTH ACTIVITY AREA

The south activity area focuses on economic enhancements that further support the power station site, but is also designed to meet the natural environment, while filling unique adventure experiences that will draw visitors to Lake Springfield. In fact, the South Activity area can be the selling point that makes this destination, entertainment district or adventure hub, the destination to host events and conferences, given the distinctive experiences offered within this zone.

In both concepts Eco Retreat (supplements the Entertainment District of the Power Station site), and Destination Adventure Park (supplements the adventure hub of the Power Station site), economic activities on the site are largely supplemented by active and passive recreation opportunities. These activities offer an experience like no other in the region and have the potential to be a national draw in recruiting large scale events and conferences. The programming is thoughtful when looking holistically at both the Power Station site and the south activity area to ensure that through the advancement of programming that is a catalyst for economic growth, there are also exclusive recreational opportunities that you can only find at Lake Springfield.

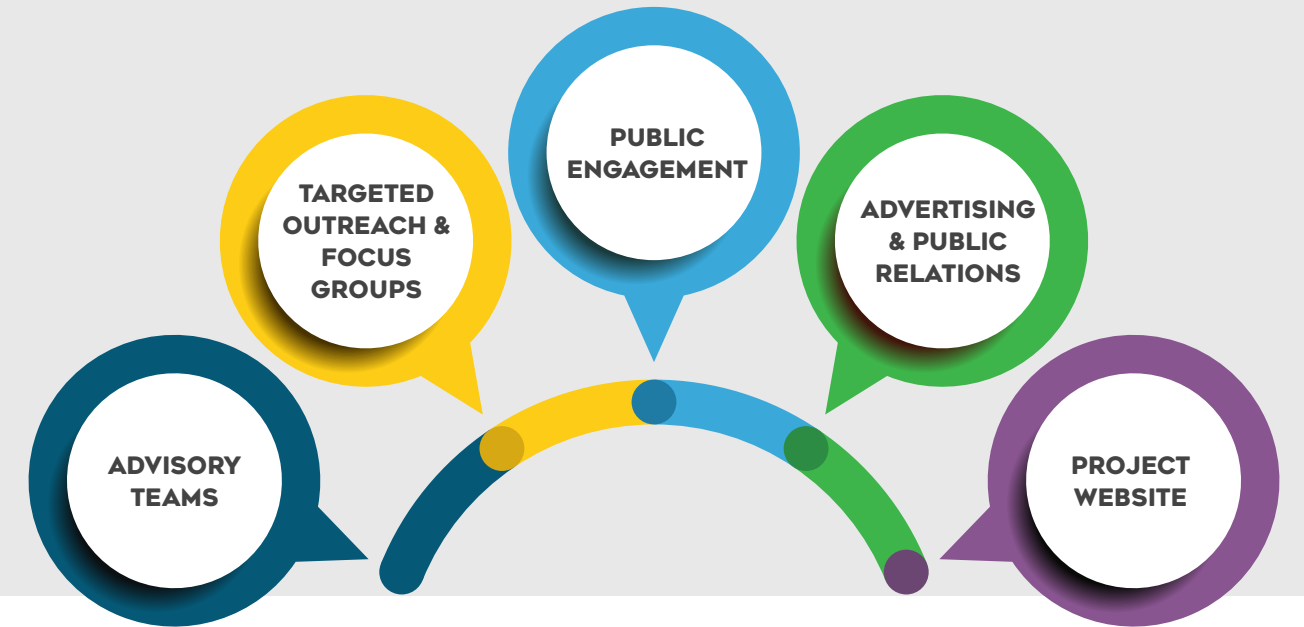
Eco Retreat (+ Entertainment District)

Within the eco retreat concept, the economic catalysts are the high-end retreat center, that offers an exclusive getaway for high level executives or corporate needs. The retreat center also boasts state of the art overnight lakes and cabins for an elite 'glamping experience.' The retreat center is connected via aerial chairlift, offering scenic views of the expansive Lake Area, to a destination recreation park. The destination recreation park supplements overnight stays by offering guests the opportunity to experience nature through active and passive recreational opportunities while at Lake Springfield. Additional amenities for active and passive recreation include a state-of-the-art bike park, as well as an additional outdoor space for adventure exploration and team building. The focus of this concept is attracting visitors to the Eco Retreat conference center by boasting an immersive adventure experience within this expanded network of active and passive recreational offerings.

Destination Adventure Park (+ Adventure Hub)

Within the adventure hub concept, the economic catalyst is the addition of high-end RV parking, of which there is currently a gap within the Springfield Market. Additional economic opportunities include shows or events to take place at the new outdoor amphitheater, which offers a scenic experience for travelling acts and artists a chance to perform in this one-of-a-kind destination. Retail and food and beverage offerings also offer the opportunity for people to purchase everything they need on site while they stay and play. The overnight stays and amphitheater experience are supplemented by destination based recreational offerings, meaning that guests within Springfield and the region will travel here to experience these activities. Activities such as a bike park, archery, water features, and a canopy ropes or zipline course are distinct active recreation opportunities not found elsewhere in the region.





■ GOAL #6

HOLISTIC VISION BASED ON DIVERSE COMMUNITY INPUT

With an overarching vision of making sure this plan is designed for everyone and by everyone, the planning team reached deep within the fabric of the Springfield community and sought to bring all voices to the table. As a significant public amenity for the Springfield community currently, a focus on remaining accessible to all, while still serving as an economic catalyst was imperative to a successful planning process. The core components of the engagement framework for the Lake Springfield plan are depicted in the graphic above.

Advisory Teams

- Community Advisory team (appointed by City staff, representing a variety of interests within the community to provide feedback)
- Technical Advisory team (appointed by the City, representing peer planning and partner agencies with a vested interest in implementation)

Public Engagement

- Public meetings and events
- Online survey opportunities

Targeted Outreach/Focus Groups

- Coordination with adjacent projects in the City of Springfield
- Coordination with community groups or populations of the community interested in learning more and getting involved

PUBLIC SURVEYS

Through three online surveys (two specific to this project and one related to water resources), over 1,000 people within the community were engaged. The planning team carefully reviewed input during each phase of the process to ensure recommendations and collaboration on key planning themes were founded in both technical analysis and detail, but also community vision and desires. The plan is a result of this collaboration, and truly represents a transformative experience developed for and in tandem with the community.

UNIQUE ENGAGEMENT EXPERIENCES

Given the grandiose scale of the plan, and building off the momentum of the ForwardSGF adoption, there was significant interest in this plan and learning more about the vision. Additional environmental and nature concerns elevated the interest and offered the planning team an opportunity to engage with the public through a series of meaningful conversations and more focused dialogue around specific areas of interest. In total, representatives from the planning team participated in over **70 unique engagement opportunities throughout the 18-month span** of this planning process. As a result of this intentional collaboration, implementation champions are already being identified to ensure swift momentum from adoption to implementation.

RACE/ETHNICITY OF RESPONDENTS

Through engagement opportunities, participant race/ethnicity was tracked. The goal of this tracking is to ensure the feedback for the plan is closely aligned with the population diversity of the City of Springfield. The table included here represents responses to the planning process and the demographic makeup fo Springfield.

	Responses	City of Springfield
White	91.08%	87.65%
Hispanic/Latino	2.55%	4.33%
Black/ African American	2.55%	4.28%
American Indian/Alaskan native	1.91%	0.67%
Asian	0.64%	1.81%
Native Hawaiian/Other Pacific Islander	0.00%	0.04%
Other	1.27%	

The level of input and excitement on this project is outstanding and remains a jewel of this work. It is because of this intentional outreach that momentum continues to build toward implementation.

IMPLEMENTATION

The momentum gained for the new vision of Lake Springfield is extremely positive, with several partners and community champions already working toward implementation. Harnessing the positive feedback and keeping the momentum going is important for this next phase. This high level overview presents next steps to move toward implementation. A more detailed chapter on implementation is included as the final chapter of this planning document. This overview focuses on high level considerations, whereas the Implementation Chapter discusses details, by technical area, of implementation steps such as specific projects, funding, and other key partners.

THE IMPLEMENTATION PLAN INCLUDES FOUR LEVELS OF ADMINISTRATION:

1

Establish & Define an Ownership Model
An important first step in implementation is to create a logical ownership model. While this ownership model may evolve over the lifetime of the project, a strong foundation is important from the start. This includes engaging a project manager or executive to champion project advancement. This step should occur within the next 12 months.

2

Implement a Fundraising Entity & Explore Further Funding Mechanisms
This should be a top priority and will catalyze fundraising and prepare for project investments. Establishing this entity to start raising philanthropic dollars, apply for grants, organize other contributions is needed to keep the project progressing. This should occur in the next 12 months.

3

Public Realm Investment
Identifying priority public realm investments included in this plan, and advancing these projects will spark interest in the area by private investors and other potential project contributors. These initial public investments are necessary to re-invigorate the area and attract the private development scenarios identified in this plan.

4

Private Realm Investment
Private development interest is already occurring, and will continue to strengthen as the first three steps are completed. At this step, further market feasibility of final site programming proposals is recommended. Marketing and branding is an important component of this step and should occur within the first 12 months following the other initial steps. Also included in this step is the formation of a special purpose corporation, in association with City Utilities to allow this work to commence. This will serve as the foundation to build the project and align the vision and mission of the project.

CREATING THE PLAN



A PLAN THAT IS ROOTED
IN **COMMUNITY DESIRES**
IS A PLAN THAT **CAN BE**
IMPLEMENTED.

-Mary Shukert

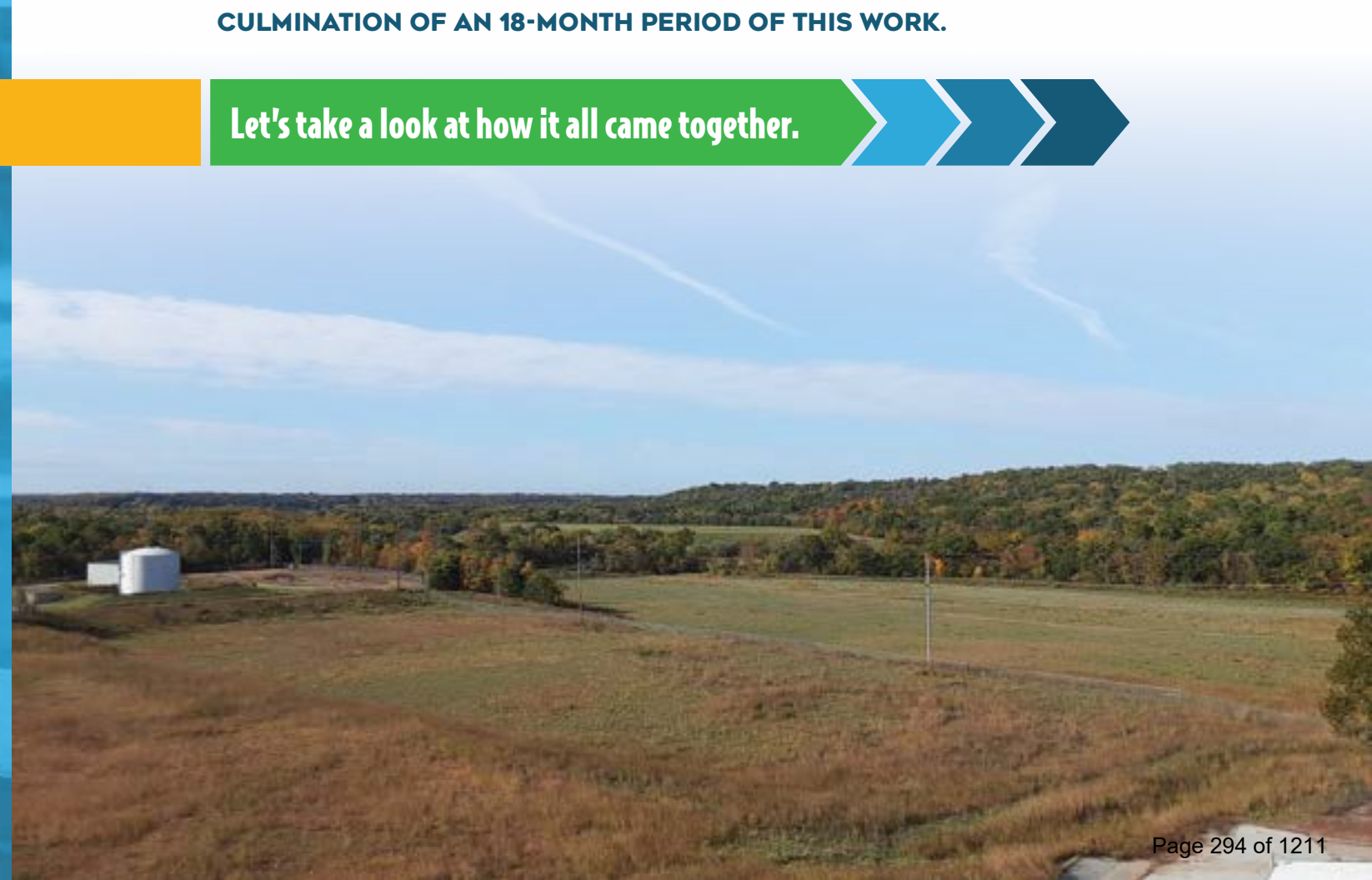
PLANNING PROCESS

This planning process is the result of an intentional effort to engage the community in a way that is inclusive of a diverse and multicultural perspective. The plan incorporates many unique voices from across the community and includes feedback from over 70 distinct engagement opportunities, ranging from public meetings to online surveys, to focused stakeholder meetings and individual interviews.

The engagement feedback is integrated with the technical analysis, and the outcome is a plan that is implementable, with clear action items to achieve the long-term vision for the area, while at the same time is founded in community desire and dreams. Community plans work best when developed in tandem with community residents, and this vision is truly a result of that process.

**THE FINAL PLAN ENVISIONED HERE IS THE
CULMINATION OF AN 18-MONTH PERIOD OF THIS WORK.**

Let's take a look at how it all came together.





Lake Springfield area identified as redevelopment opportunity area in the Comprehensive Plan.

GETTING STARTED

Crawford, Murphy & Tilly selected through competitive bidding process. Formation of Community Advisory Team (CAT) and Technical Advisory Team (TAT). Stakeholder groups identified.

PUBLIC ENGAGEMENT

Public Meeting and Survey. Engagements with stakeholder groups, CAT and TAT.

PUBLIC ENGAGEMENT

Public Meeting and Survey. Continued engagements with stakeholder groups, CAT and TAT.

ACTIVITIES & AMENITIES

CMT presents findings on recreational potential.

VISION

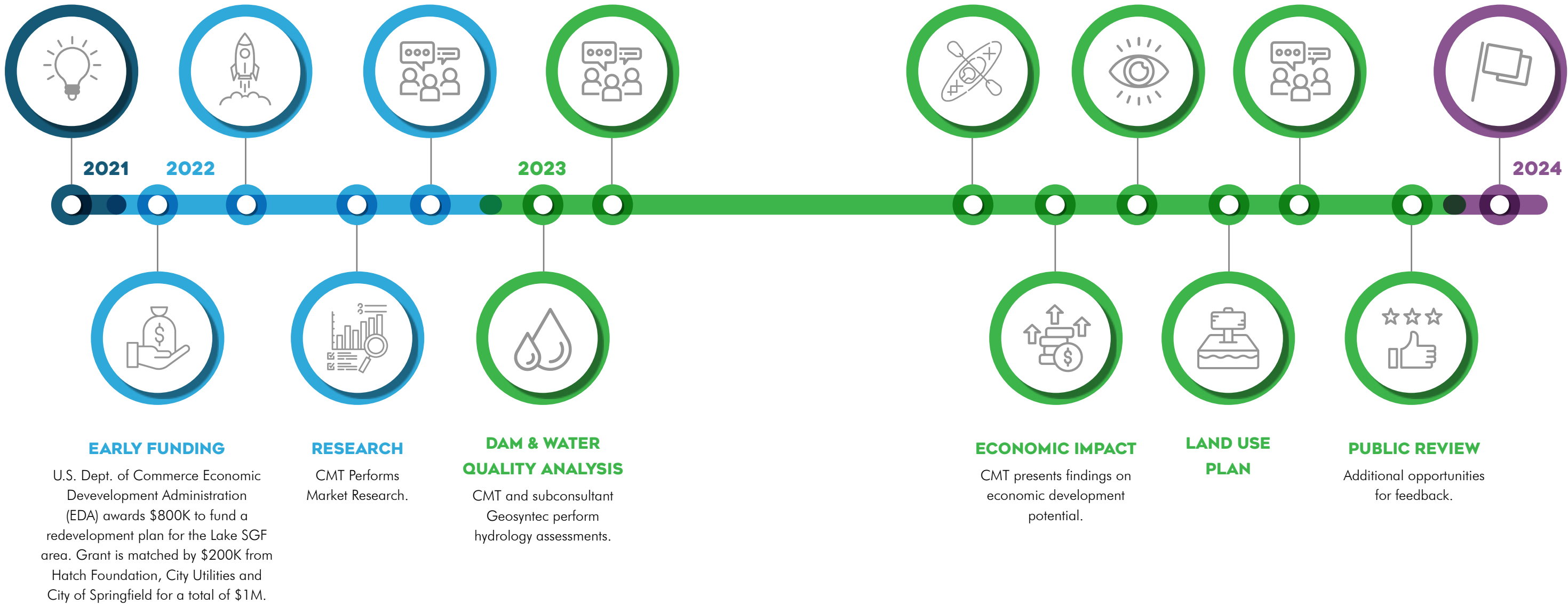
CMT presents vision based on public engagements and research.

PUBLIC ENGAGEMENT

Public Meeting and Survey. First opportunity for feedback on Land Use Plan. Continued engagements with stakeholder groups, CAT and TAT.



ADOPTION



PLANNING TIMELINE

ENGAGEMENT

By the Fall of 2023, more than 1,000 people participated in the Lake Springfield Plan. Through a series of meetings, open houses, focused discussions, and advisory groups, the plan engagement strategy has focused on reaching the widest audience of people, representing diverse perspectives, and lived experiences. The input received is critical to the creation of this plan and represents a collaborative partnership between the City of Springfield and City Utilities, as well as significant input from the public about the Vision set forward in this plan.

From day one, the planning team has focused on ensuring the plan represents all voices within the community, and that the vision for the future site remains accessible to all Springfield residents. Ensuring equitable access to recreational amenities is paramount to the future vision for the area. As such, the plan presents a mixture of opportunities that range in scale for accessible and affordable or free chances to connect with nature and enjoy the serene beauty of the area, and programming that focuses on economic drivers and paid attractions. The balance of the proposed programming is critical to the success of developing the Lake Springfield subarea as an equitable asset within the Springfield region, and as a regional and national tourism driver that creates sustainable and resilient job opportunities.

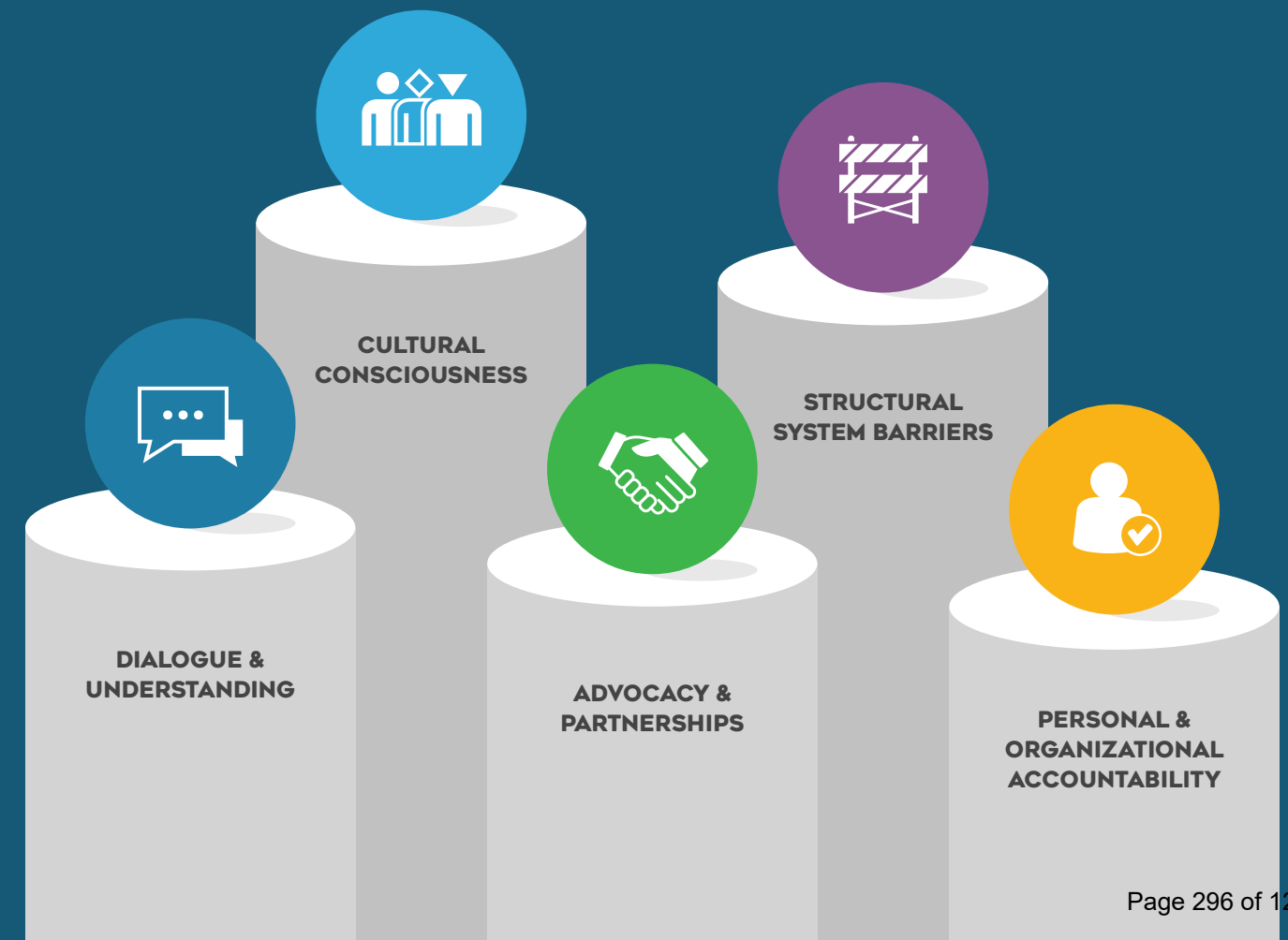


DIVERSE & INCLUSIVE ENGAGEMENT

The engagement process for the Lake Springfield Plan is focused on a diverse and multicultural perspective. The result is a process that provides a wide variety of input through intentional outreach and meeting people where they are. For too long in traditional planning processes, residents from historically excluded race/ethnic and intersectional groups, which includes populations in harder to reach locations in the community have been left out, with a voice not represented at the table. The result tends to be plans that do not represent the vast and varying lived experiences within the community, and lead to infrastructure investments that are harder to access. Acknowledging this shortfall in the planning profession as whole is a key driver as to why diverse engagement is included in one of the six priority goals for the outcome of this plan.

This goal is directly in line with the charge of the Springfield Mayor's Initiative on Equity and Equality. Within this initiative are the Five Pillars of Change that promote inclusive access to opportunities, recognizing that every person within the community has dignity, value and worth. Throughout the Lake Springfield Plan, the Five Pillars of Change were continuously monitored to ensure this recognized value of every Springfield resident's voice is included in the vision set forth in this document.

THESE FIVE PILLARS OF CHANGE ARE:

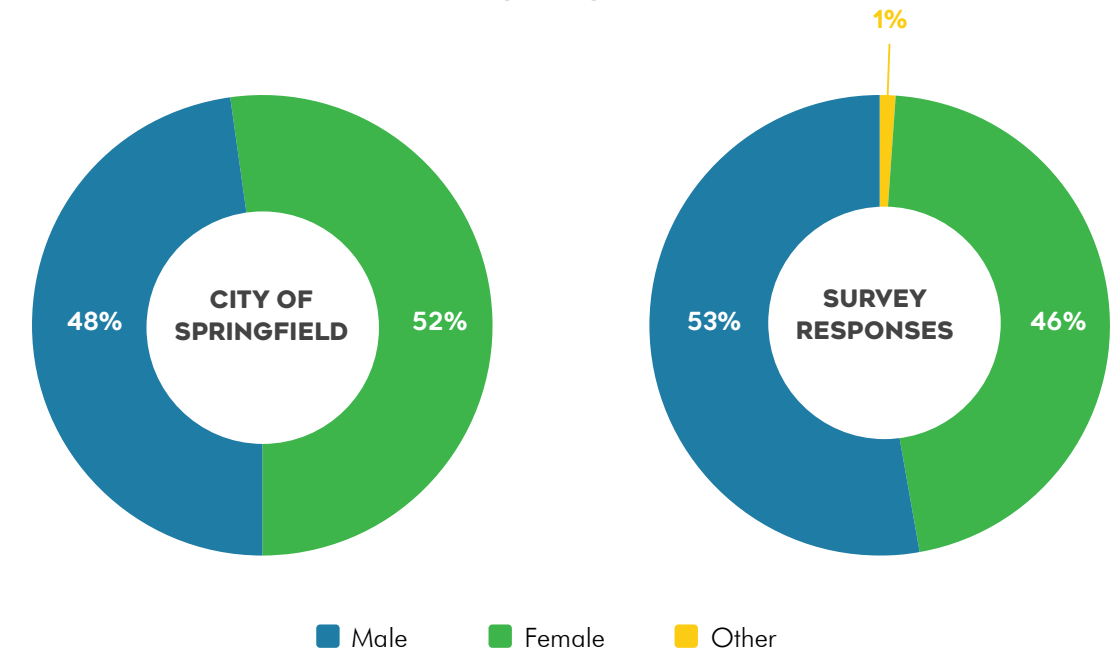


The deliberate outreach within all areas of the community is captured by the responses received throughout the duration of this planning process. Over 1,000 responses have been received on three surveys throughout the planning process, and over 1,000 residents have attended various public meetings, focus group discussions, and in-person outreach events. The breakdown of responses received to the survey is comparable to the demographic makeup within the City of Springfield, which demonstrates the success of this focused outreach to capture all voices for a representative vision for the Lake Springfield Plan.

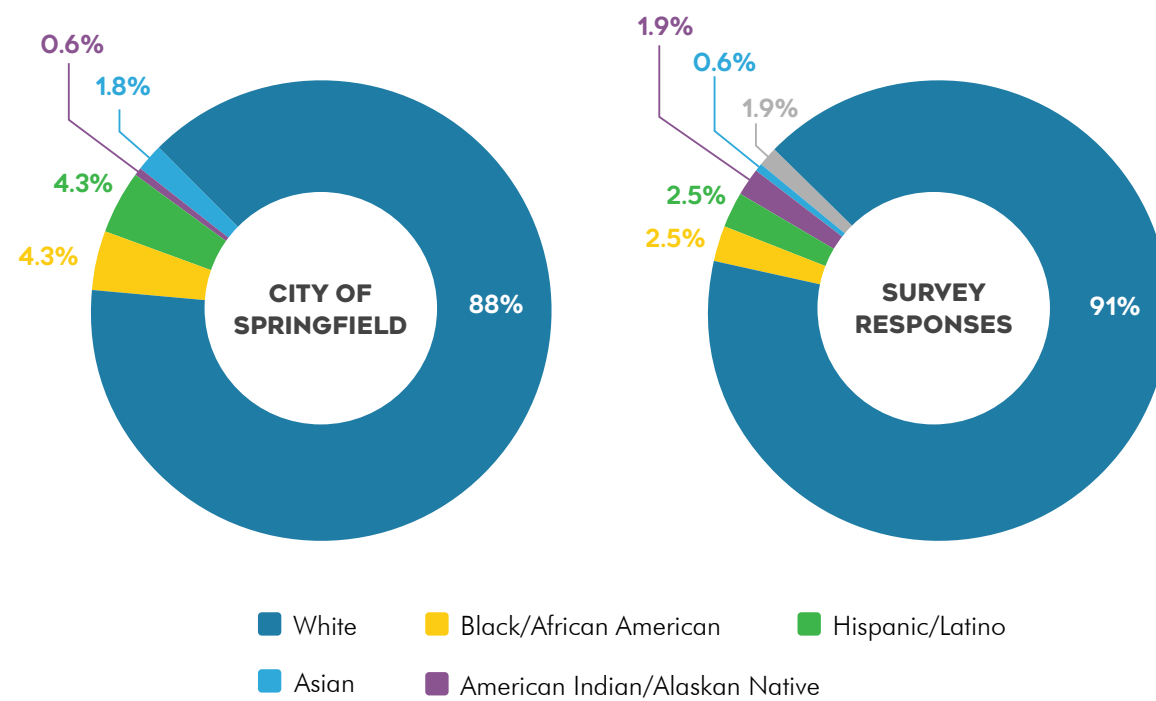
Additional outreach was conducted with members of native American communities as well as Empower Abilities. We recognize the work of those people that were on this land long before us, and this plan represents an opportunity to honor history, while educating the public. Including representatives from these populations on our Community Advisory Team ensured that the final proposed site plan is thoughtful and inclusive to this history. It is also important the lake remains an accessible amenity for everyone, including people with disabilities. Our team presented the plan to Empower Abilities, who also was involved in our Community Advisory Group. During design in future stages, accessibility is essential.

Survey demographic responses are included here as a comparison with City of Springfield demographics, which was used as a key benchmark for ensuring diversity of input.

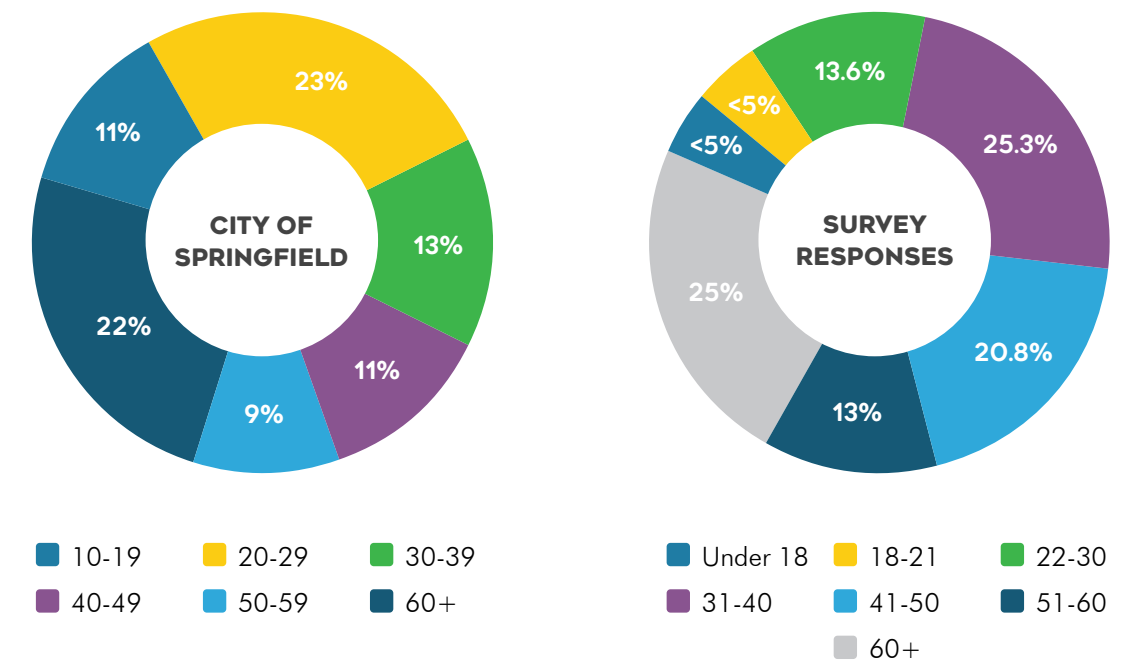
Gender Survey Response Breakdown



Ethnicity/Race Survey Response Breakdown

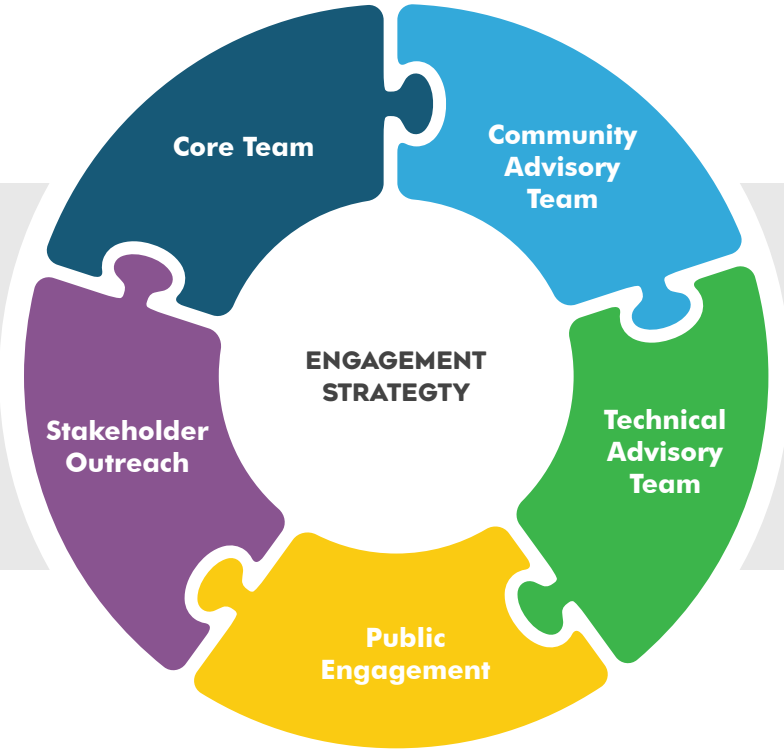


Age Survey Response Breakdown*



*Reported age breakdown does not match exactly with options on Lake Springfield survey

In total, the meaningful input received as a part of this effort ensures the feedback is representative of the entire community. The output is a product that becomes an equitable and accessible asset to the Springfield community, the larger region, and even a national attraction. Activities and amenities are designed in a way to include people with disabilities, as well as provide free opportunities to connect with nature. Additionally, with a focus on active transportation connections, and a path connection to the closest transit stop, access to this important amenity will remain open regardless of transportation mode.



CORE TEAM

The core team meeting met regularly (bi-weekly) throughout the planning process to ensure the project stayed on schedule and keep the direction of the project in line with both the goals outlined within the EDA grant, as well as the public input received during the process. The project was managed by the City of Springfield Department of Economic Vitality, and core team participants included members from several other city departments such as public works, planning, public information, and the mayor’s office. Additional agencies represented on the Core team included City Utilities staff, as well as Springfield Greene County Park Board. Periodically, additional representatives were invited to attend these meetings and provide updates on specific project milestones as the project progressed.



COMMUNITY ADVISORY TEAM

The Community Advisory Team was established with input from the City of Springfield and members of the consulting team (Pratt Consultants). The purpose of the community advisory team is to ensure that community values and needs were incorporated in this plan. The Community Advisory Team met 2 times during the planning process, and served as a critical sounding board for ideas, programming, and ongoing vision of the Lake Springfield Area.

The Community Advisory team includes members from various geographic areas of the Springfield community, as well as with different connections to both the planning area and the project. Additionally, the community advisory team was charged with bringing an equitable community building lens to the project to ensure economic growth and sustainable job creating, worked to enhance the quality of life for all Springfield Residents.

The full list of Community Advisory Team members includes:

Brian Ash	Jeremy Parsons	Jasmine Cooper	Rob Blevins
Stephen Hall	Dana Hubbard	Darlin Mabins	David Burton
Suzanne Shaw	Mark Miller	David Miller	Lindsey McDaniel
Susie Turner	Jon Mooney	Ian Alaimo	Stephanie Pendergrass
Danny Collins	Greg Burris	Bernard Kitheka	Jenny Fillmer Edwards
Lindsey McDaniel	Gary Leonard	Tom Prater	Erin Danastasio
John McQueary	Todd Wagner	Katie Towns	David Catlin
Todd Parnell	Myra Scroggs	Loring Bullard	Bruce Adib-Yazdi
Barry Rowell	Martin MacDonald	Gabrielle Martin	



TECHNICAL ADVISORY TEAM

The Technical Advisory team was established to serve as a review board of technical professionals, which included representatives from several peer planning and partner agencies with the City of Springfield. Members of this advisory team represented organizations from around the Springfield region, that have some level of overlap with goals or mission of this planning process. These agencies have a vested interest in the outcoming of this plan as a way to further advance these regional initiatives.

Technical advisory team members included representatives from organizations such as the Ozark Transportation Organization, the Missouri Department of Conservation, Ozark Greenways, and many more. This team met three times throughout the planning process to review milestone progress and provide feedback to the planning team that was critical in making any adjustments before sharing updates in public settings. In addition, this team kicked off the project with a full-day retreat after the initial neighborhood public meeting. The retreat served as a collaborative environment to share ideas about visions and goals for the final outcome from a wide range of stakeholders as the process commenced.

The full list of Technical Advisory Team agencies and members includes:

Amanda Ohlensehlen	Danny Perches	Mary Kromrey	Sara Fields
Bailey Fowler	Errin Kemper	Matt Crawford	Steve Stodden
Ben Jones	Frank Miller	Melissa Hase	Tim Rosenbury
Brent Stock	Jeff Smith	Mike Kromery	Taj Suleyman
Carrie Lamb	Jon Carney	Miles Park	Megan Morris-Stack
Colten Harris	Justin Smith	Randall Whitman	Eric Roberts
Kristen Milam	Kelly Turner	Ray Eaton	Jason Ray
Cora Scott	Martin Gugel	Saki Urushidani	Megan Buchbinder
Roddy Rogers	Joel Alexander	David Miller	Erin Danastasio
Daniel Hedrick	Mark Hecquet	Dean Thompson	

PUBLIC MEETINGS

With the goal of this project being centered on ‘diverse and inclusive’ public input, the public meetings during this planning process served as an important step in advancing planning ideas while shaping the final vision laid out in this document. The goal of each public meeting was to share updates on the project by distilling very technical information into a format that is suitable for public consumption. The planning team worked to ensure meeting material was understandable and accessible to participants with a variety of backgrounds. As such, each public meeting was structured slightly differently and held at various locations throughout the Springfield area.



Neighbor Meeting

📅 October 13, 2022 📍 Lake Springfield Boathouse

Recognizing neighbors living adjacent to the planning area may be most interested in the plan and impacted by implementation, an initial public meeting was held with neighbors that lived within a adjacent of the planning area. The goal of this meeting was to serve as a listening session. The project was introduced within the context of the EDA grant but was then an open forum for questions and answers. At the time of this meeting, no technical work had commenced, and the planning team was intentional in seeking feedback without having preconceived notions on the plan outcome.

The format included a formal presentation by City staff, the Mayor, City Utilities staff, and the consultant team. Following the formal presentation, consulting team members discussed concerns and issues with attendees while looking at large scale maps of the planning area, as well as historical photos. Over 85 neighbors attended the meeting. In addition to the meeting, a survey that was only made available to these adjacent neighbors was also available online. The meeting was publicized by local news outlets. After this neighborhood kickoff, the planning team and technical advisory team commenced project work with a full-day kickoff retreat the following day.



Public Meeting 1

November 17, 2022 Springfield Art Museum

Approximately one-month after the project kickoff with the neighbors and technical advisory team, the first public meeting was held in conjunction with a community advisory team meeting. Similar to the neighborhood meeting, the goal of this first input format was to serve as a listening session. No initial ideas or concepts were shared, rather the project was introduced, and input was solicited. Approximately XX people attended this meeting at the Springfield Art Museum. The meeting was publicized on several local news outlets.

The presentation was introduced within the context of the grant application, and the audience heard from City staff, the Mayor, City Utilities, and consulting team members. Information was shared about the planning area and project schedule, and the meeting culminated with a series of live polling questions and open dialogue. Results from the live polling questions were shared on the screen so participants could see what the audience was sharing and how others were responding to questions. Following the live polling, participants were able to meet with the project team for one-on-one conversations around a series of large format maps and historical photographs.



Public Meeting 2

May 4, 2023 Lake Springfield Boathouse

On May 4, 2023, over 100 participants gathered at the Lake Springfield Boathouse, eager with anticipation for initial concepts and ideas from the planning process. With so much information to share, the meeting format included both a formal presentation as well as station-based engagement to garner very specific feedback to initial planning ideas including programming, land uses, access, and dam options alternatives. In addition to the formal meeting, participants were able to register in advance and take tours of the James River Power Station. Approximately 60 meeting participants signed up for those tours, including EDA representatives in town to meet with City staff on the project and grant process.

The meeting kicked off with a formal presentation inside the Lake Springfield Boathouse. The presentation was structured by technical discipline were consulting team members shared on the following areas of the plan:

- Economic development and programming
- Land uses and site plan
- Water quality and dam options alternatives
- Access and mobility

Following the formal presentation inside, participants were invited outside to provide feedback at stations organized by discipline. The interactive feedback boards used at the open house were the same questions used as a public survey online. The online survey was available for people that were not able to attend the public meeting. Additionally, respondents at the meeting were encouraged to submit their responses online, via a QR code, as they navigated the boards.

The meeting was advertised on several local news outlets and participation was successful. Ideas and concepts presented at the second public meeting were the culmination of both technical analysis and a series of several small focus group and stakeholder discussions that transpired from fall 2022 – spring 2023. The feedback received at this meeting, as well as from the online survey, was important in guiding the direction of the more refined site plan and recommended programming for Lake Springfield.



Public Meeting 3

📅 October 12, 2023 📍 Springfield Art Museum

The final public meeting occurred on October 12, 2023, at the Springfield Art Museum. Prior to the final public meeting, a media briefing was held the day before to share with local news outlets about the meeting and details to be made publicly available at the meeting. The goal of this final meeting was to be informational in nature and share the final concepts that are included in this plan. A formal presentation was given, outlining each technical area and recommendations, as well as brief information on the analysis and input that went into each of these overall plan themes.

The presentation included the final site plan options, with two theme potentials, as well as projected numbers on revenue generation and costs to build. Also included was detailed information on costs for sediment management strategies and dam options alternatives, as well as proposed new routes for access and connectivity. Once the formal presentation ended, participants were invited to share their feedback in a one-on-one dialogue with team members. Large format site plan posters were displayed in the lobby of the art museum to be used as a basis for discussion.

Following the final public meeting the presentation that was given was posted to the plan website for participants to review ideas.

STAKEHOLDER MEETINGS

In addition to the formal advisory groups and public engagement opportunities, stakeholder meetings were held on a regular basis throughout the plan. The purpose of these stakeholder meetings was to build consensus with partner agencies during the process, as well as provide a final program that was both visionary and feasible. Critical to this focus on implementation were these discussions, ensuring that our planning team was accounting for day-to-day operating challenges, while still providing creative themes and solutions.

Throughout the planning process, over 70 unique stakeholder group meetings occurred, ranging in everything from meeting style to audience. The value of these added perspectives allowed the planning team to ensure the vision you see here is inclusive, equitable, feasible, and accessible, while serving as an aspirational goal of what can be.

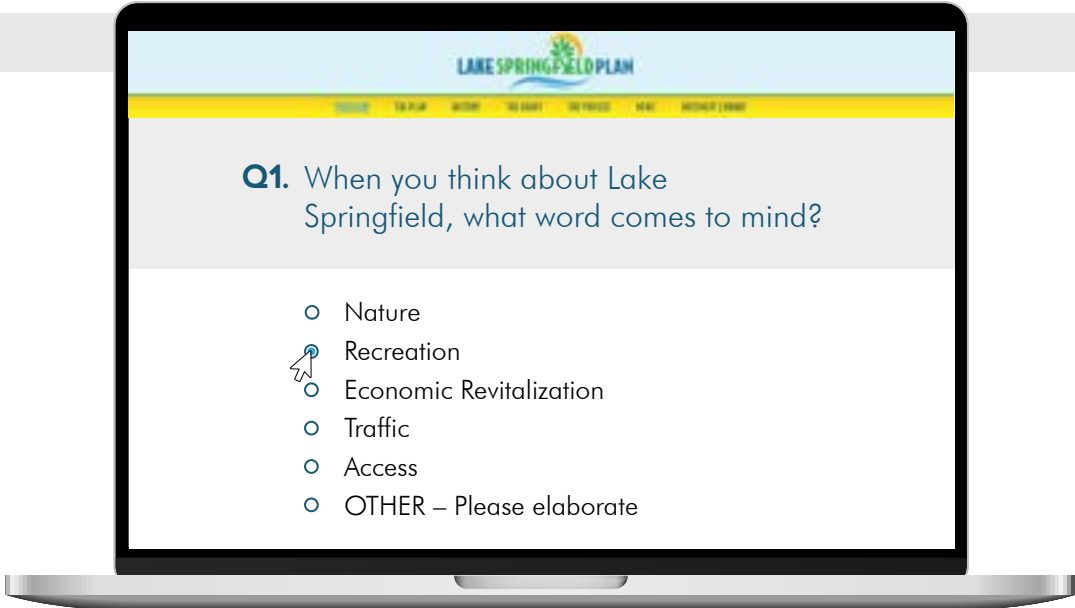
Examples of groups that were engaged during this unique process include:

- Springfield Greene County Parks Board
- Convention Visitors Bureau
- Missouri Department of Conservation
- Environmental Advisory Board
- Springfield City Manager
- Leadership Springfield
- + Many more



In addition to the groups listed here, several other residents and communities within the City of Springfield and the surrounding region were engaged. Given the rich history of the land, the team was intentional on integrating feedback from native American populations in the process, and how the vision may honor the history of those on the land long before our time. Another way to engaged with a different audience was the work the Missouri State University Planning Program. The capstone practicum class for the Spring 2023 semester was engaged in scenario planning for the area. Additionally, close coordination with the several ongoing planning initiatives in the City was key. The Lake Springfield team met with City Utilities – Transit on their ongoing transit study, as well as the consultant team doing the watershed assessment of the James River Watershed through the City.

In addition to the focus group meetings, the project was widely publicized online in various press outlets, including KY3 and with a dedicated KWTO radio interview. Throughout the planning process, the project garnered significant interest, which also led to ongoing discussions with landowners and potential developers. A high level of collaboration and transparency of the planning process has resulted in a vision that meets the community needs and is widely accepted, with implementation steps already occurring.



ONLINE SURVEYS

In addition to the various in person and virtual meeting opportunities, online surveys were used as a tool to supplement feedback and provide people with a quicker way to engage in the project.

Neighbor Survey

The first survey was made available to neighbors living adjacent to the Lake Springfield area. This survey was a benchmark survey to understand existing feelings about the lake area as well as amenities residents currently enjoyed and questions about residents’ desires of items to be included in the Lake Springfield Plan. For the most part, questions were open-ended, and offered qualitative feedback to the planning team. The survey was available for approximately 1-month after the neighbor kickoff meeting.

Key themes that came out because of the survey:

- Protect the natural environment
- Enhance access to the lake and the park areas
- Develop brand and create a sense of pride
- Consider a plan that is self-sustaining

The survey confirmed much of what was shared with the team at the first planning meeting. From the beginning of this process the design with nature theme became an important conversation.

Public Survey – Concept Feedback

In conjunction with the May 4 public open house, an online survey was developed that matched the input boards at the public meeting. Participants were asked to respond to emerging concepts and themes in each discipline: economic development, land use and programming, water quality and dam options, and transportation and mobility. Approximately 160 people completed the survey, which helped identify concepts the public enjoyed.

The questions included feedback on general programming concepts and activities that should be included at Lake Springfield, as well as the opportunity to vote on their preferred theme or priorities for each of the planning zones. Participants were also asked to provide feedback on the preferred dam option alternative, as well as preferred transportation enhancements for pedestrian, bike and vehicular connectivity. Using input from this meeting, the planning team worked through a collaborative design charette to piece together zones, themes, programming, access, and overall vision.

SCHEDULE

The Lake Springfield Plan lasted approximately 18 months from start to finish. Critical path items, such as water quality analysis, were included initially, to keep concepts rooted in reality. The following breakdown highlights the key project milestones by timeline from start to finish.

WINTER 2022-2023

Technical analysis continued through 2022 and into the start of 2023. Water quality and dam analysis was near complete by the end of winter 2023. During this time market analysis of the Springfield region was completed. This included gap analysis and case study review of similar projects. Existing conditions included transportation and land use analysis, and zone analysis began. Stakeholder meetings continued.

SUMMER 2023

A second public meeting occurred in May, which was followed by a collaborate design session by the full planning team. Detailed land use and programming was outlined and considered against project goals and site impacts.

The output from this collaborative design session was the vision for two distinct options for development: Entertainment District & Adventure hub. All zones within these themes remain the same, with the exception of the Power Station Site and South Activity Area.

During this time, refined economic analysis projected market impacts in each proposed scenario, including jobs created, room nights generated, etc. At the same time, cost estimates were provided for order of magnitude costs for implementation of the plan.

WINTER 2023-2024

The plan was compiled during winter 2023 and delivered to the City as a draft in early 2024. Comments and feedback was incorporated into the final version of the plan, submitted in late winter 2024.



FALL 2022

Immediate project task items included the neighborhood kick off meeting, as well as kick off meetings with the technical advisory committee and the community advisory committee. The first public meeting was also included in Fall 2022.

Technical analysis completed in this phase was focused on water quality and dam analysis. Future recommendations required this detailed analysis up front.

SPRING 2023

The water quality and dam analysis were completed by spring 2023. During the spring of 2023, existing conditions analysis wrapped up for all disciplines, and the project moved to the concepting phase. Potential programming options were identified, and themes for the entire area, as well as by zone, were detailed. New access options emerged for vehicular, foot and bike connectivity. Input opportunities included the second public meeting and an online survey.

SPRING 2023

After compiling the economic outputs, projected costs, and refined site plans, meetings were held with both the community advisory and technical advisory committee in fall 2023. These meetings were essentially testing the options before being shared with the public. Input received at these meetings was incorporated into the final public meeting presentation.

Also, during the fall, the project was advertised by several local groups and within the local media. Additionally, a media briefing occurred the day before the public meeting to give local media outlets the opportunity to learn about the project and ask specific questions in a smaller setting. Fall 2023 wrapped up with the final public meeting.

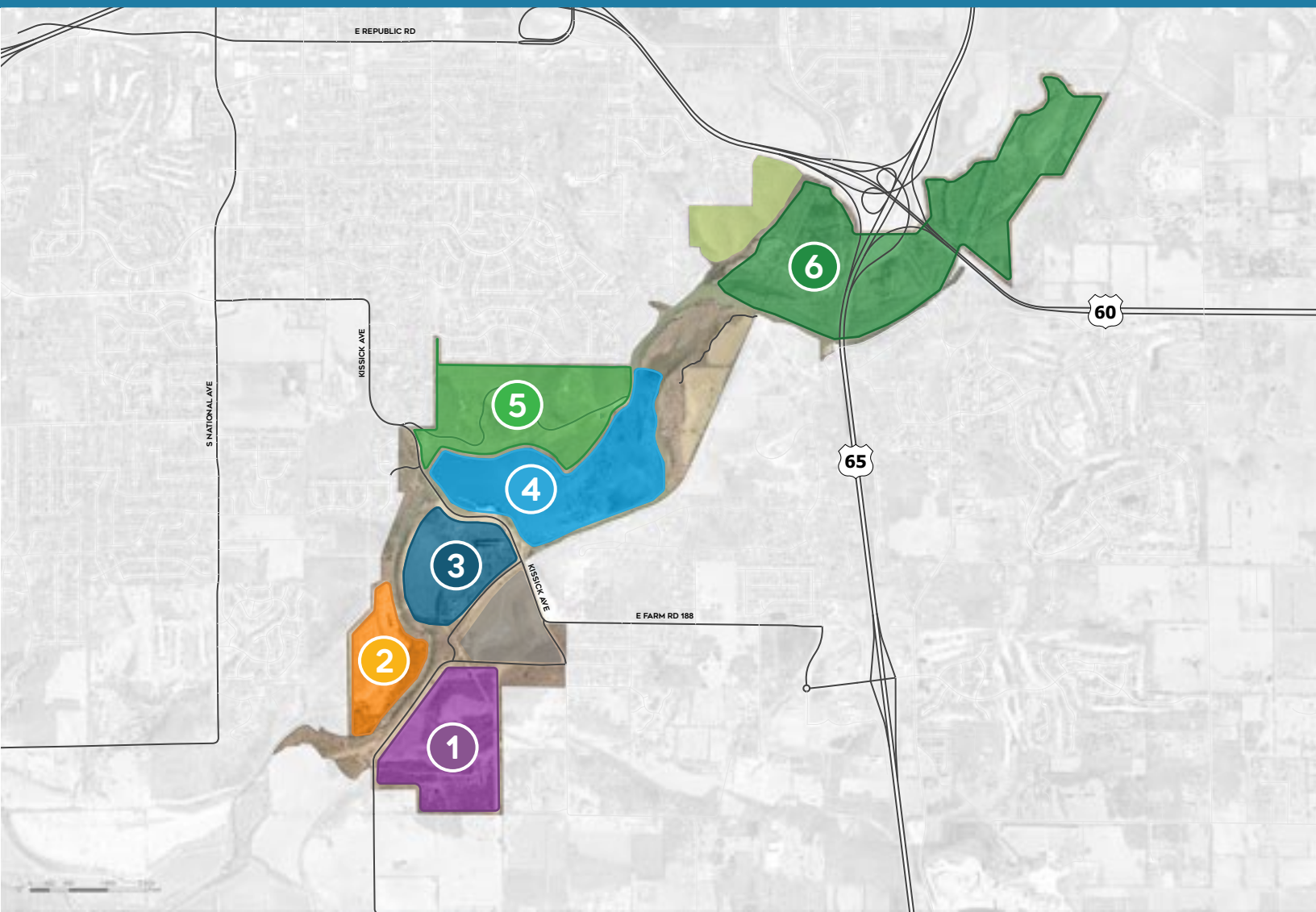
SPRING 2024

The plan was formally adopted in spring 2024. Several meetings with implementation partners have already occurred and there remains significant motivation for the Lake Springfield Plan to move from vision to implementation.

PLAN CREATION

The 18-month planning period was an opportunity for the planning team to fully immerse themselves within the Springfield community, and the Lake Springfield area. As previously discussed, a robust engagement process focused on both public input and stakeholder engagement that ensured our team became intimately familiar with the deep appreciation for the lake as a natural amenity, as well as the importance of focusing on an adaptive re-use with sustainable economic development strategy.

As discussed in the vision section, the lake area was firstly segmented by zones. Technical disciplines focused on existing conditions and challenges within the zones, before collaborating on ideas and concepts. During the programming and site planning, goals were further evaluated by their economic and social impact, to understand in which scenario was the final product meeting both major overarching themes. The final product is a holistic plan, that provides both social and economic impact, in a sustainable way for the region and the state.



ZONE ANALYSIS

Following the place-based approach identified in the ForwardSGF plan, identifying unique contextual needs of the different acres within the 1,000 acres of the planning area was an important initial component of the planning process. Spanning such a large area, and opportunities for programming, the planning team identified 6 zones for further segmenting specific programmatic opportunities. This breakdown allows for a focus on both the economic and natural elements of the planning area.

Zone 1: South Activity Area

Coming at 130 acres in size, adjacent to the Chadwick Flyer, the South Activity Area is an important space to complement the economic development potential of the adaptive re-use at the James River Power Station. Ongoing City Utilities operations remain an element of this site, but the focus is on recreation + economy in the south activity area.

Zone 2: Future Energy Innovation Site **Not Further Studied**

CU plans to maintain control of this 50 acres as a possible future location for energy innovation. This zone is adjacent to both the South Activity Area and the Power Station site. Significant environmental coordination will need to occur before any re-use of this land can be considered and the site was not further analyzed during this planning process.

Zone 3: Power Station

The Power Station site is the anchor of the plan. Adaptive re-use of the James River Power Station is important for creating sustainable jobs and enhancing economic activity. Additional development promotes a vibrant campus environment where one can visit many businesses, participate in recreational activities, and experience natural elements, such as a proposed bypass channel for the James River.

Zones 4 & 5: Lake and Park

The lake and park are the current drivers for traffic to the Lake Springfield area. A well-loved disc golf course is in these areas, as well as the existing boathouse and playground. Trails connect various spaces within the lake and park area. The vision for this area builds on existing assets and focuses on a destination playground and expanded boathouse and marina.

Zone 6: North Activity Area

The North Activity Area is the largest zone at 450 acres. With the location of the Nature Center being in this zone, a central theme here is to remain a largely natural asset with a focus on passive recreation. The plan proposes enhanced trail connections and activities where users can experience nature and pay homage to those on the land before us.

PROCESS BY DISCIPLINE

In addition to spanning a large geographic area, the plan spans a large technical area. Several technical leads created the planning team, and provided important analysis to ensure the plan here is feasible for implementation.

HYDRAULICS & WATER QUALITY

Before informed planning could take place for the lake area, it was important to establish a baseline understanding of the Lake Springfield waterbody and dam. The results of this initial work informed decisions on potential future recreational activities as well as economic opportunities within the area. The work was completed from October 2022 – February 2023 and culminated in the final Lake Hydrology report focused on three main components of the planning area: the Upper James River Watershed, the Lake and the Dam. Detailed information on this can be found in the technical chapter, as well as in the technical appendices.

THE MARKET & ECONOMIC CASE STUDIES

To analyze the future opportunities for Lake Springfield, the team undertook a detailed analysis of market conditions in Springfield and its surrounding area, relative to state and national averages. While characteristics such as population, employment, and income are not strict predictors of performance for potential developments, these variables provide insight into the capacity and ability of a market to provide ongoing support for such facilities and activities. Overlaid with the market analysis was the review of case studies to inform potential options for inclusion in the plan. The economic analysis was closely linked with the site planning and programming to ensure a cohesive product that promotes sustainable job creation.

TRANSPORTATION AND INFRASTRUCTURE

Given the very functional nature of City Utilities' operations, the Lake Springfield area currently feels very hidden and hard to get to, very much by design. However, with a new focus on attraction to the area transportation and access were an important component of this process. Collaborating with the team on proposed programming allowed for informed infrastructure decisions given the potential trips generated by the new uses. Additionally, connectivity for all modes of transportation is a key component of this plan, as evidenced by the connected trail network and safer spaces for people on foot or bike.

LAND USE & PROGRAMMING

An iterative and collaborative process occurred with the team after existing conditions analysis was completed to develop the final two proposed concepts for the site. Specific attention was focused on areas that should largely remain nature focused with passive enjoyment and areas that have the potential to be major economic generating locations within the plan. Collaborating on infrastructure needs also helped identify connectivity to and within the 1,000-acre site so that once people arrive at Lake Springfield, there is no reason to leave.

The final result of the collaboration between these discipline leads, sets forward an aspirational picture of what Lake Springfield looks like in the future, that is based in data and rooted in feasibility.



RISK ASSESSMENT

An important component of the Lake Springfield Planning Process was to determine risks associated with the plan and mitigate the risks throughout the planning process. The goal of this process is to ensure collaboration at every step of the way, and aid in consensus as the plan moves from final plan document to implementation. This risk assessment is vital to the success of the project, as the project team reviewed and tracked project risks and associated consequences throughout the planning process. Risks likelihood and impacts are on variable scale, and thus, continuing to review risks as the project progresses is key for mitigating and managing risks. Risks are categorized by high, medium and low level, depending on their likelihood of occurring, as well as the impact should the risk occur.

THE RISK ASSESSMENT PROCESS WORKS TO ACHIEVE THE FOLLOWING OUTCOMES FOR THE LAKE SPRINGFIELD PLAN:

- ✓ Establish risk categories that are critical to the project
- ✓ Include individuals with knowledge of Lake Springfield and experts in various disciplines to identify risks.
- ✓ Include stakeholders with area knowledge and a desire to have their concerns be part of the risk assessment process
- ✓ Achieve a better understanding of risks and opportunities for the Lake Springfield area
- ✓ Understand which risks are of a higher concern to prioritize mitigation strategies
- ✓ Consider cost and schedule contingency to assist in Development Inquiries
- ✓ Organize allocation, mitigation, and acceptance strategies for high-level risks to prioritize mitigation strategies
- ✓ Help identify the Development Community perspective to risk and how it will impact the submittal/cost

RISK ASSESSMENT STEPS

There are five primary steps in the risk assessment process. Steps 1 – 4 were completed by the planning team, in conjunction with the technical advisory team, at the Lake Springfield Kickoff retreat in October, 13, 2022. Following the retreat, the risk assessment process remained in the final step (tracking, monitoring, and updating) throughout the duration of the plan. It is important to note that risks should continue to be monitored and mitigated during each step of implementation.

- 1 **Risk/Opportunity Identification Brainstorming Session** – this occurred at project kickoff retreat. Risks were reviewed, consolidated, and organized by the project team.
- 2 **Qualitative Risk Assessment** – Risks were separated into specific categories and reviewed for likelihood and consequences. Each technical team member worked through this process in December 2022 and January 2023.
- 3 **Risk Analysis** – This is an important step for high level risks. For each of these, the risk analysis phase estimates the likelihood of the risk occurring (0% - 100%), and the associated costs or schedule impacts to the project. The risk analysis was worked through in tandem with step 2.
- 4 **Risk Mitigation and Risk Allocation/Acceptance** – The objective of this step is to explore response strategies for identified risks. This step is key in understanding who is responsible for the risks and the approach to accepting, mitigating, ignoring, or sharing the risk. Team members worked through this alongside steps 2 and 3.
- 5 **Tracking, Monitoring and Updating** – The project team continued to monitor the risks identified during the planning phase. Following the second public open house in May, 2023, the project team reviewed the risks list and reassessed the likelihood as well as consequences should that risk occur. Also at this time, new risks were added to the risk register that had been identified following the initial risk register identification in Fall 2022.



RISK ASSESSMENT SUMMARY

In total, 109 risks were developed during the brainstorming session at the project kickoff retreat. The list was reviewed and consolidated to combine overlapping risks and assign risks to the appropriate technical category (water, parks and rec, etc.). Once risks were categorized, team members by technical expertise reviewed risks and completed steps 2 – 4 for their respective risks. At this stage, some risks were removed or consolidated further.



INITIAL RISK ASSESSMENT SUMMARY

Completed October 2022 – January 2023

In total, 62 risks were identified in this category. The summary list here is completed by technical area as identified previously. The total number of risks for that category are included, as well as a listing of the risks identified as ‘high level’ during this phase of the risk assessment, as well as the identified project owner.

After reviewing the initial list from the retreat, 62 risks were identified for the Lake Springfield Plan. These risks are identified here by category, and by risk level within each category. A brief summary of each risk assessment report is included here. The full risk assessment following both the initial risk register identification, and the tracking, monitoring and updating phase, are included in the technical appendix of this plan.

TRACKING, MONITORING & UPDATING SUMMARY

Completed June – August 2023

Following the public meeting in May 2023, the project team reviewed the risk register to monitor and track identified risks. This summary outlines where any risks had changed in level or, if any risks have been added to or removed from the risk register at this stage in the planning process. Additional risks were added that had come to light during the planning process, with the new number of identified risks associated with the Lake Springfield Plan as 65.

TECHNICAL RISK AREAS

The technical areas of risks were categorized by the following:

Parks and Recreation

These risks involve the recreational aspects of the planning process as well as items related to park systems, including operations and maintenance.

- 1. Initial Assessment: Eight (8) total risks were included in this category after the initial identification at the kickoff retreat. Three (3) total risks were flagged as high level risks.
 - Lack of plan or support for operational/maintenance budget sufficient to maintain the park vision (owner: Springfield-Greene County Park Board)
 - Negative impacts to natural character of the lake and park / loss of native habitat / unimproved or worse water quality (owner: City of Springfield)
 - Pedestrian / user safety (water & land recreation) (owner: City of Springfield)
- 2. Second Assessment: Eight (8) total risks were included in this category after the initial identification at the kickoff retreat. During the assessment phase, two (2) risks were downgraded to moderate level, and one (1) risk remains as high level.
 - Lack of plan or support for operational/maintenance budget sufficient to maintain the park vision (owner: Springfield-Greene County Park Board)

Economic Development

The risks identified in this category deal with economic development related to the planning process. These development risks may be associated with real estate needs, jobs creation, ability to re-use physical/existing structures within the planning area, or potentially divisive development ideas within the community.

- 1. Initial Assessment: Seven (7) total risks were included in this category after the initial identification at the kickoff retreat. There was one (1) risk flagged as high level.
 - Power Station – unable to use or cost prohibitive to re-use due to previous use (owner: City Utilities – which may change depending on if CU leases building or sells to a potential developer)
- 2. Second Assessment: Seven (7) total risks were included in this category after the initial identification at the kickoff retreat. Two (2) additional risks were added within this category that were not previously included in the initial risk register. One (1) risk remains high level.
 - Power Station – unable to use or cost prohibitive to re-use due to previous use (owner: City Utilities – which may change depending on if CU leases building or sells to a potential developer)

Transportation

The risks identified in this category are focused on transportation both to, and within, the Lake Springfield area. These risks are focused on how people within the City of Springfield and the Springfield region can access the lake as a regional amenity, as well as circulation within the lake area. Transportation also focuses on all modes of access and connectivity, including vehicular connections, as well as safe access for people walking and biking. While public transit routes do not currently service the Lake Springfield area, this is also an important component of access, as we plan for an equitable recreation amenity for the community.

- 1. **Initial Assessment:** In total, eight (8) risks were identified in this category. While no high-level risks were identified initially, transportation and access was determined to be a major consideration with any redevelopment scenario. At present day, vehicular access to the lake is not direct or intuitive. Local neighbors are already concerned about cut-thru traffic and what a redevelopment looks like. Additionally, it was noted that access for those not traveling in private vehicles is limited, with poor existing connections for people on foot, bike or taking public transportation.
- 2. **Second Assessment:** In total, eight (8) risks were identified in this category. As a key consideration of the plan remains access to all Springfield residents, one (1) risk was elevated to high level, indicating the need to consider how those that do not have the ability to own or operate a vehicle access the Lake Springfield area.
 - Inclusivity of a plan with no access to Lake Springfield via Public Transit (owner – City of Springfield)

Public Relations

Effective communication and engagement are paramount to a successful planning process. Risks outlined within the public relations category focus on project issues that may arise from public relations associated tasks. The initial engagement work has garnered significant support and demonstrated a high level of collaboration that is important moving forward.

- 1. **Initial Assessment:** In total, seven (7) risks were identified in this category. Due to the robust engagement effort put forth by both the City and the planning team, no high level risks were identified. Ongoing collaboration and consensus building was identified as key tool to continue to mitigate risks in this category.
- 2. **Second Assessment:** In total, seven (7) risks were identified in this category. Due to the robust engagement effort put forth by both the City and the planning team, no high level risks were identified. Continued collaboration remains key.

Dam

Risks identified in this category are related to the central part of Lake Springfield, the Lake Springfield Dam. The first part of the planning process was the dam analysis and hydrological study. To vision and develop feasible concepts for implementation, understanding existing conditions of the Dam and water was a critical first step.

- 1. **Initial Assessment:** Nine (9) total risks were identified in this category. Of these risks, one (1) was identified as a high level risk.
 - Sedimentation (owner: City Utilities)

- 2. **Second Assessment:** Nine (9) total risks were identified in this category. Of these risks, one (1) was remained identified as a high level risk.
 - Sedimentation (owner: City Utilities)

Environmental

This category combines both concerns over development uses and their compatibility with nature, with issues related to redevelopment of a former power station and any remediation that needs to take place. The natural beauty and sanctity of the lake is a significant asset for the Springfield community and region. Preserving this beauty, while working with nature to better design a more regional amenity is an important component of the Lake Springfield Plan.

- 1. **Initial Assessment:** In total, ten (10) risks were identified in this category. Of these risks, one (1) was identified as high level.
 - Dredging of the lake may consider elevated contaminants (owner: City Utilities)
- 2. **Second Assessment:** In total, ten (10) risks were identified in this category. Of these risks, one (1) was identified as high level.
 - Dredging of the lake may consider elevated contaminants (owner: City Utilities)

Utilities

With the decommissioned power station presenting significant opportunity for development, utility impacts are another key consideration of this plan. City Utilities owns much of the infrastructure within the Lake Springfield area, and there is a balance between maintaining affordable services for City of Springfield residents, while focusing on development opportunities and recreational amenities.

- 1. **Initial Assessment:** In total, seven (7) risks were identified in this category. While no risks were identified as high level, it is important to understand existing needs for City Utility operations and ensure redevelopment accounts for those.
- 2. **Second Assessment:** In total, eight (8) risks were identified in this category. While no risks were identified as high level, one risk was added to this category. It remained important to understand existing needs for City Utility operations and ensure redevelopment accounts for those.

General

General risks may impact the overall project and are not specific to a certain expertise involved in the planning process. These are more economic factors that may interrupt the project, and specifically have impacts to implementation. Thus, these risks need to be carefully monitored and considering during concepts and recommendations, to ensure the Lake Springfield Plan is feasible and implementable.

- 1. **Initial Assessment:** In total, five (5) risks were identified in this category. While no high level risks were identified, it is important to note that general awareness of the concern for the environment and outside economic factors is critical to a successful plan.
- 2. **Second Assessment:** In total, five (5) risks were identified in this category. While no high level risks were identified, it is important to note that general awareness of the concern for the environment and outside economic factors is critical to a successful plan.

GOAL ALIGNMENT REVIEW

To remain consistent with the vision for the planning area, the recommended programming that resulted from the collaborative teamwork was analyzed for its impact in three categories: Economic, Environmental and Social. The concept of comparing potential social and economic impacts is important for fostering a healthy balance of revenue-generating and community-centric assets. Programs such as hotels, dining, and conference centers contribute to the economic health of Springfield and the lake area, while assets like nature playgrounds, trails, and open spaces contribute to the healthy of vibrant community spaces.

ECONOMIC	ENVIRONMENT	SOCIAL
E1 Innovative Economic Opportunities	N1 New/Green Infrastructure	S1 Innovative Recreation Opportunities
E2 New Funding Allocations	N2 Sustainable Water Quality	S2 Access & Equitable Transportation
E3 New Business Development	N3 Appealing Outdoor Amenities	S3 Water Access for Recreation
E4 Attract Private Investment	N4 Identity - Gateway to the Ozarks	S4 Elevating Quality of Life
E5 Resilient Job Creation	N5 Unique Adaptive Reuse	S5 Regional Draw

Using these indicators by topic, the team analyzed each of the significant programmatic items by zone. Diagrams were created to highlight each zone, call out the major programmatic elements, and identify how these elements achieve project goals, as well as their potential economic and social impacts. Program items showing up more heavily in green indicate an asset that is centered on economic goals, where as program items showing up in purple indicate an asset centered on social goals. The final product of each of these analysis by zones, ensured the team continued to balance the economic components of this plan and the social goals of the plan.

READING THE GOAL ALIGNMENT DIAGRAMS

The following pages detail the methodology for how goals were aligned during the planning process. Programmatic elements of each zone were reviewed against the goals, and scored. Within each activity area on the following pages, each program is assigned a score for economic and social impact.

Each cell labeled with a letter and number refers to its corresponding box in the grid to the left. As you can see, the first sample programmatic element will have minimal economic impact (green), but a strong social impact (purple). Whereas the second sample will have a slightly lesser social impact but a much stronger economic impact. Environmental impact was also assessed and is visible for each programmatic element (blue).



1. Sample Programmatic Element

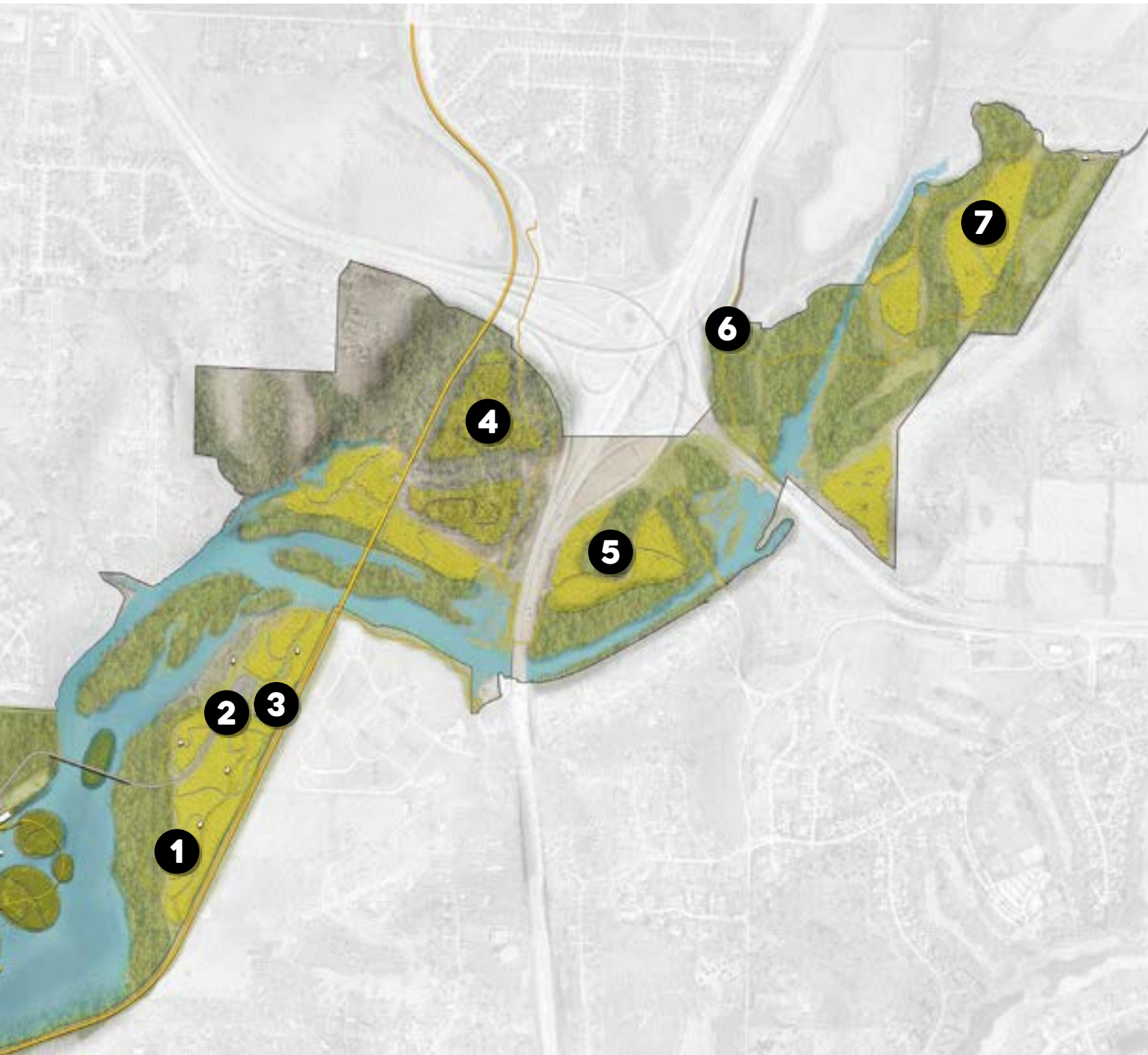


2. Sample Programmatic Element



NORTH ACTIVITY AREA

The north activity area, with its central focus on passive recreation and nature preserve, falls largely within the social and environmental goals. As indicated here, blue and purple are more heavily weighted in reviewing programming opportunities. The area is a complement to the economic drivers at the Power Station Site and South Activity Area.



1. Culture Meadow

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●●○

2. Culture Center Lawn

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●○○

3. Culture Center

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●●●○○

Social Impact ●●○○○

4. Bird Meadow

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●●○

5. Preserved Nature & Trail

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●●○

6. River Access & Trailhead

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●●○

7. Nature Amenity Area

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●●○

PARK & LAKE

Most activities in the lake and park area fall heavily on the environmental and social impact component of the plan. However, the expanded marina and boat house, as well as the eco retreat buildings. This area offers more of a mix of economic and nature, but is still largely an area to remain important for natural recreation amenities.



1. Park Entry



2. Park Entry



3. Preserved Nature & Trail



4. Wetland Boardwalk



5. Eco Retreat Buildings



6. Eco Retreat Support



PARK & LAKE
(CONTINUED)



7. Hilltop Overlook

E1	E2	E3	E4	E5	N1	N2	N3	N4	N5	S1	S2	S3	S4	S5
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Economic Impact ●○○○○

Social Impact ●●●○○

8. Destination Play

E1	E2	E3	E4	E5	N1	N2	N3	N4	N5	S1	S2	S3	S4	S5
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Economic Impact ●○○○○

Social Impact ●●●●○

9. Bridge

E1	E2	E3	E4	E5	N1	N2	N3	N4	N5	S1	S2	S3	S4	S5
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Economic Impact ●○○○○

Social Impact ●●●○○

10. Boathouse/Eco Center

E1	E2	E3	E4	E5	N1	N2	N3	N4	N5	S1	S2	S3	S4	S5
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Economic Impact ●●●○○

Social Impact ●●●○○

11. Marina

E1	E2	E3	E4	E5	N1	N2	N3	N4	N5	S1	S2	S3	S4	S5
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Economic Impact ●●●○○

Social Impact ●●●●○

POWER STATION - ENTERTAINMENT DISTRICT

In the entertainment district concept, the Power Station Site is more heavily weighted toward the goal of economic impact. Paid attractions and businesses will serve as drivers for the area, as well as the anchor of the area with the multipurpose event space. The outdoor event lawn and other free natural amenities supplement as the social impact goals for the site.



1. Riverfront Play Area



Economic Impact ●●○○○

Social Impact ●●●○○

2. Riverfront Hospitality



Economic Impact ●●○○○

Social Impact ●●●○○

3. Water Adventure



Economic Impact ●●○○○

Social Impact ●●●○○

4. Ropes Course



Economic Impact ●●○○○

Social Impact ●●●○○

5. Adventure Island



Economic Impact ●●○○○

Social Impact ●●●○○

6. Multi-Purpose Event



Economic Impact ●●●○○

Social Impact ●●●○○

POWER STATION - ENTERTAINMENT DISTRICT
(CONTINUED)



7. Restaurant/Overlook

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●●●○○

Social Impact ●●●●○

8. Bypass Channel

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●○○○

9. Powerplant & Addition

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●●●●○

Social Impact ●●●●○

10. Event Lawn

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●○○

11. Entertainment Building

E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●●○○○

Social Impact ●●○○○

12. Mxed Use Buildings

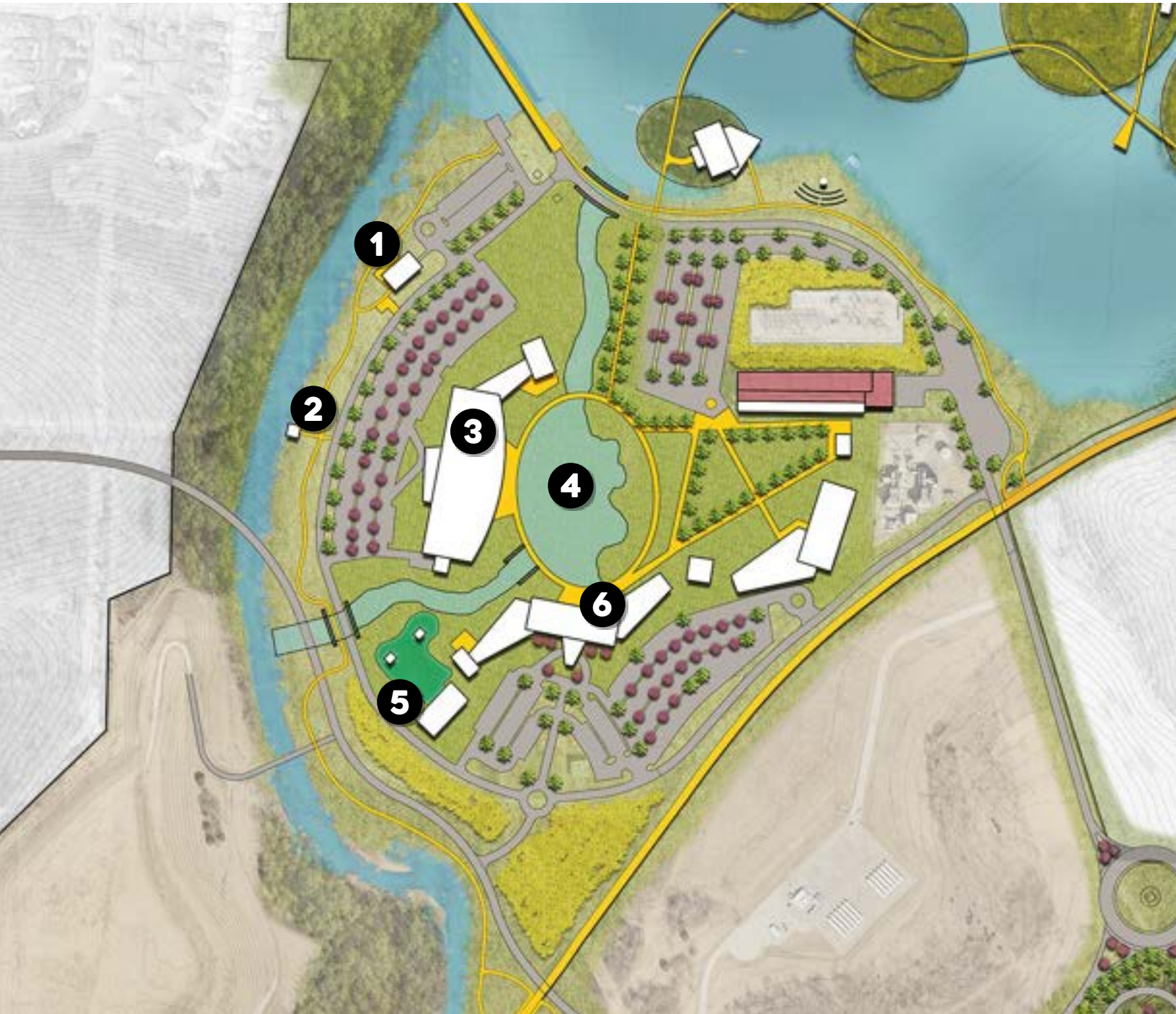
E1 E2 E3 E4 E5 N1 N2 N3 N4 N5 S1 S2 S3 S4 S5

Economic Impact ●●●●○

Social Impact ●●●○○

POWER STATION - ADVENTURE HUB

In the adventure hub concept, the Power Station Site is more heavily weighted toward the goal of economic impact. The conference center is an anchor for the area, which also features paid attractions and commercial needs of guests attending conferences at Lake Springfield. With a heavier focus on outdoor and recreation activities, this concept is also more in line with the social impact goals of the project.



1. Riverfront Dining



2. Riverfront Amenity



3. Multi-Purpose Event



4. Water Adventure



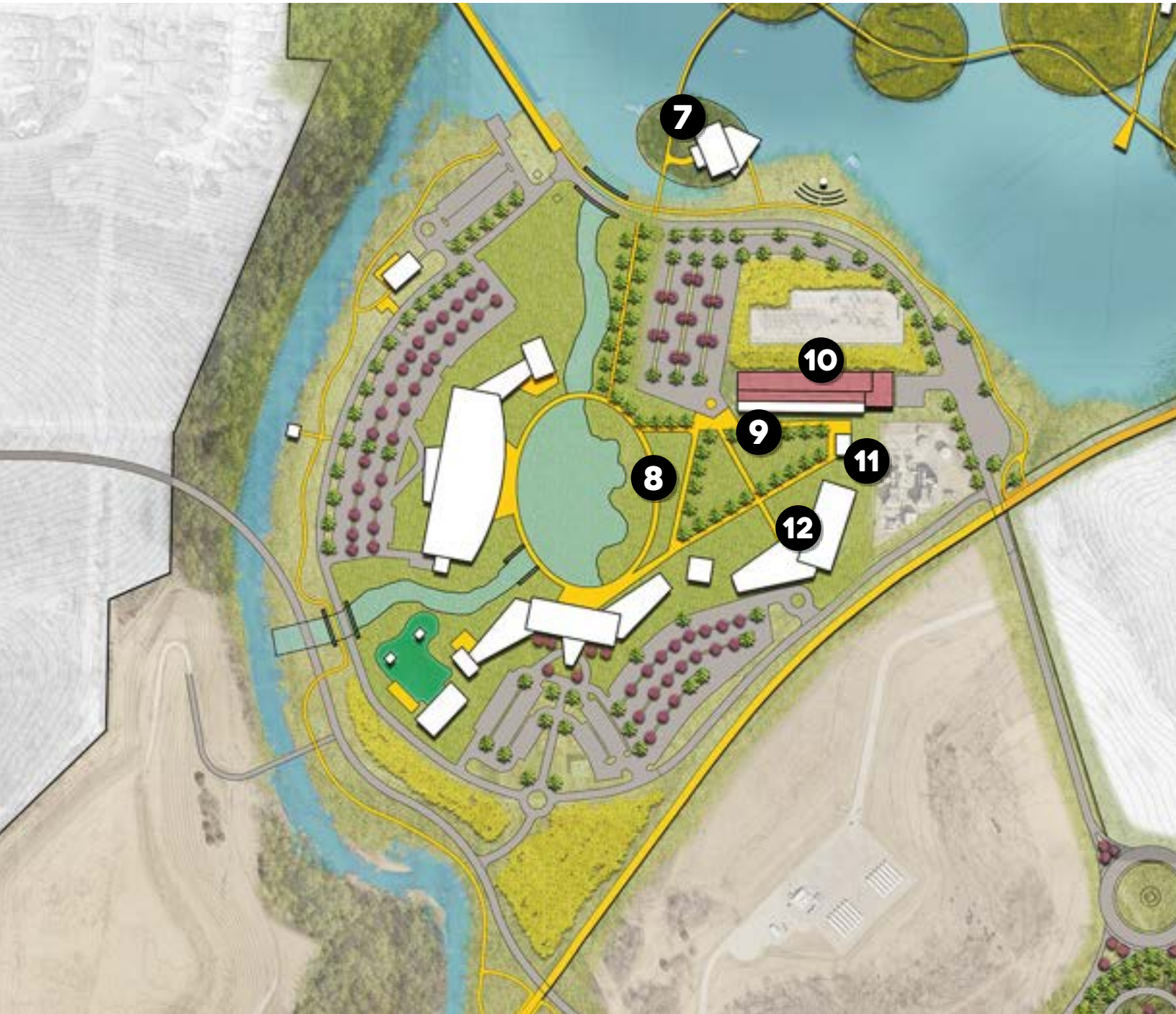
5. Recreation/Entertainment



6. Mixed Use Building



POWER STATION -
ADVENTURE HUB
(CONTINUED)



7. Restaurant/Overlook



8. Surrounding Green



9. Community Green



10. Powerplant & Addition



11. Ampitheater

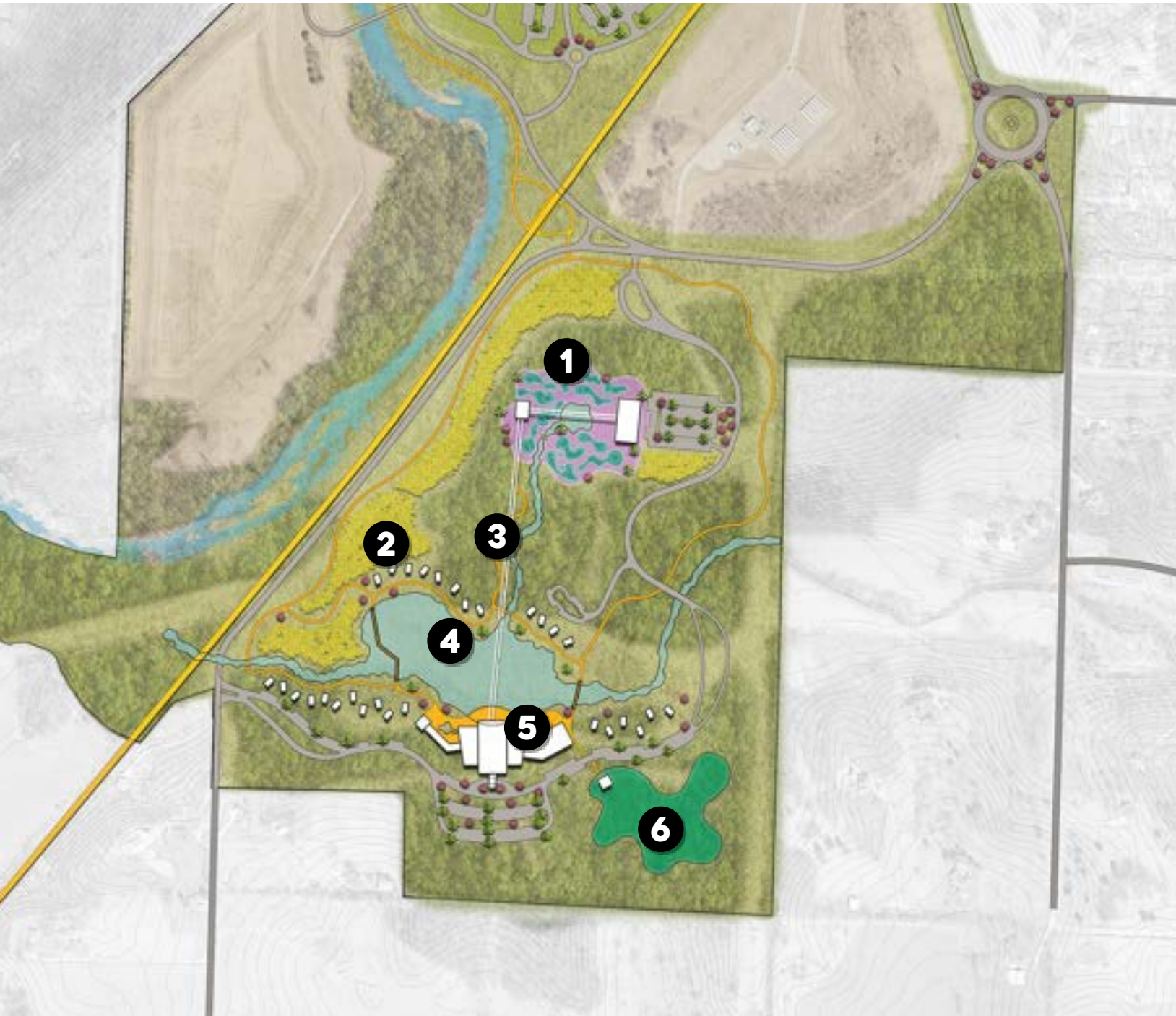


12. Mixed Use Building



SOUTH ACTIVITY AREA - ECO-RETREAT

In the entertainment district concept, the South Activity Area is a healthy mix of programming that achieves both social and economic impact goals of the plan. The economic focal point of the area is the executive retreat center, with more boutique overnight accommodation for CEO or executive level meetings. Additional recreation opportunities such as destination plan, and lake adventure feature programming that is in line with the social goals of the project.



1. Destination Play



Economic Impact ●○○○○

Social Impact ●●●●○

2. Retreat Cabins & Yurts



Economic Impact ●●○○○

Social Impact ●●○○○

3. Aerial Chairlift



Economic Impact ●●●○○

Social Impact ●●●○○

4. Lake Adventure



Economic Impact ●●○○○

Social Impact ●●○○○

5. Retreat Center



Economic Impact ●●○○○

Social Impact ●●○○○

6. Adventure/Team Building



Economic Impact ●○○○○

Social Impact ●●●●○

SOUTH ACTIVITY AREA -
ECO-RETREAT

(CONTINUED)



7. Preserved Nature & Trail



8. Bike Park



9. Park Entry



SOUTH ACTIVITY AREA - ADVENTURE HUB

In the adventure hub concept, the economic focal point of the area is the RV camping area, which will be a unique feature for the region and offer a more upscale RV camping experience. Paid nature attractions promote enhanced economic activity, that is further supported by free chances to connect with nature. In this theme the programming meets social and economic plan goals at the same level.



1. Archery



2. Lake Adventure



3. Preserved Nature & Trail



4. Bike Park & RC Track



5. Amenities Plaza



6. Ampitheater



SOUTH ACTIVITY AREA - ADVENTURE HUB

(CONTINUED)



7. Retail/Food/Beverage



8. Ropes Course



9. RV Camping Area



10. RV Camping Area



11. Park Entry



TECHNICAL REPORT

READ THE FULL REPORT

In the following pages of this document, are more detailed chapters of each discipline included in the process. Equipped with the aspirational vision for Lake Springfield, dive into each area of this important plan by technical discipline. Each section includes existing conditions, recommendations, and steps toward implementation. The plan culminates with a detailed call to action in the implementation chapter.





ENVISIONING THE FUTURE FOR LAKE

SPRINGFIELD OFFERS A

ONCE IN A GENERATION OPPORTUNITY

TO CREATE A DESTINATION THAT

PROVIDES RECREATIONAL AMENITIES,

ECONOMIC OPPORTUNITIES, AND

ECOLOGICAL RETREAT TO THE

SPRINGFIELD COMMUNITY.

HYDRAULICS & WATER QUALITY

Geosyntec Consultants Inc. (Geosyntec) performed a multi-faceted hydrology study as part of the Lake Springfield Sub-area planning process. The purpose of the study was to establish a baseline understanding of the Lake Springfield waterbody (the Lake) and the Lake Springfield Dam (the Dam). The results of the study will be used to inform the development of potential economic growth opportunities and enhancements to recreational opportunities desired by the community.

Geosyntec commenced work in October 2022 by first collecting water quality and sediment quality data from the Lake. The work concluded in February 2023 with the submission of the hydrology report that presents an assessment of three main components of the Lake Springfield study area, the Upper James River watershed, the Lake, and the Dam.

The field data collected in 2022 was intended to supplement previously collected watershed-wide data by others. As part of the field data collection effort, a detailed bathymetry survey and sediment profiling were performed to build an initial understanding of the sediment distribution within the Lake. The assessment of the 270 square mile James River watershed included an analysis of the flow regime from stream gage data collected since 1955. The study also included a regulatory compliance assessment of the dam, along with an identification of potential dam modification alternatives. A brief overview of the study and assessment is provided below. The detailed hydrology report prepared by Geosyntec is included as Appendix ().

LAKE & WATERSHED ASSESSMENT

Geosyntec reviewed available reports, plans, and studies performed previously and collected target supplemental data to provide an assessment of the Springfield Lake and tributary watershed. A list of the reviewed documents is included in the hydrology report in Appendix ().

Let's take a closer look at the tehcnical findings.

WATER QUALITY ASSESSMENT

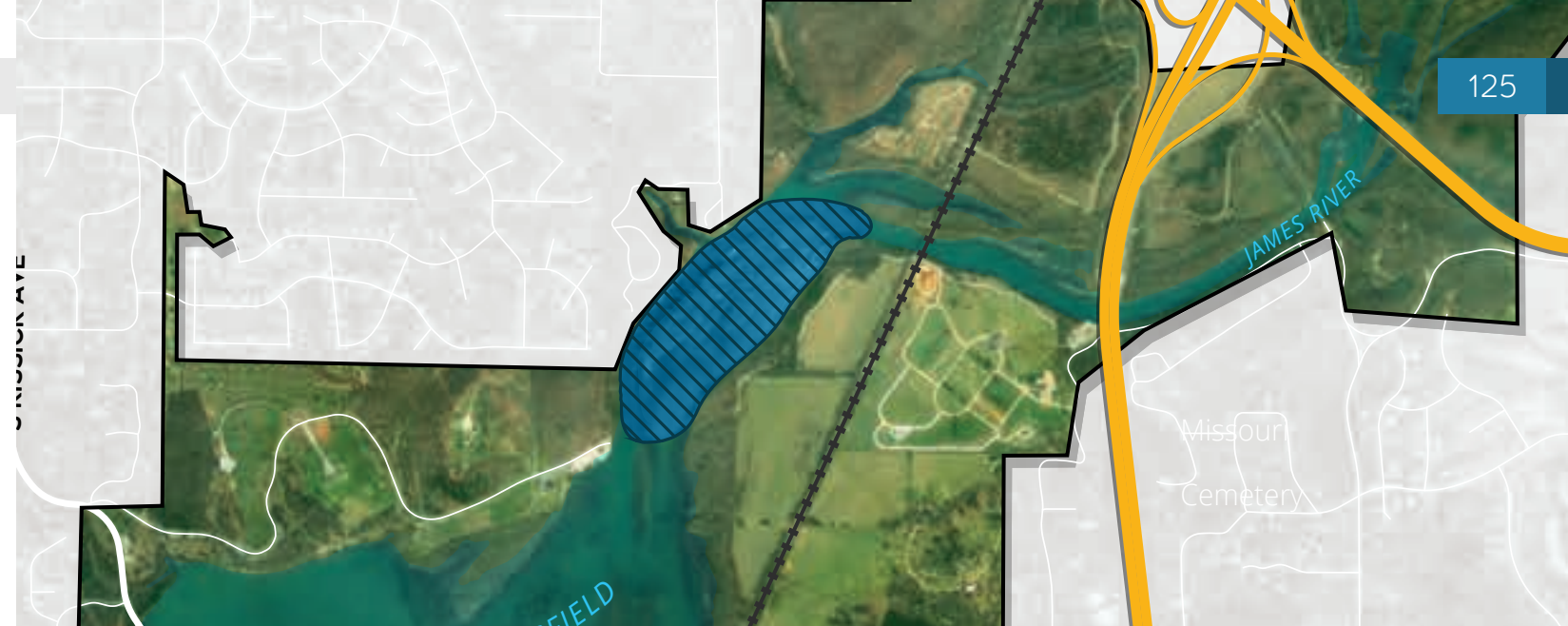
The Lake is a large (~300-acre) waterbody that is currently experiencing periodic low dissolved oxygen levels which is vital for aquatic life. The Missouri Department of Natural Resources (MoDNR) designates all waters within the state to protect aquatic life. Currently the Lake is listed under the 303d list for aquatic life impairment, largely due to high algae concentration in the Lake. The contributing factors include the nutrient-rich runoff from the upstream watershed, the buildup of sediment upstream of the dam, and the back water pool of stagnant water upstream of the dam during low flow conditions.

The Springfield-Greene County Integrated Plan, (2017) indicates that the James River flowing into the Lake has a higher bacteria concentration than the concentration measured immediately downstream of the dam. The concentration measured in the upstream reach of the James River was above the limit for whole body contact recreation category B and secondary contact recreation, which includes kayaking and activities that do not typically result in complete submergence of the body. The concentration was above the limit for whole body contact recreation category A, which includes swimming. The reported concentration below the dam was below all three limits, including whole body contact recreation category A.

Geosyntec collected eleven water quality samples from five select locations: one upstream of the Lake at Crighton beach access, one immediately downstream of the Dam at Tailwater public access, and three in the Lake. The rationale for these sampling locations was to understand upstream inputs, downstream outputs, and water quality gradients within the lake itself. The brief window during which water quality samples were collected provides useful but limited information regarding long-term water quality conditions for Lake Springfield. Water quality samples collected in November and December 2022 provide insight to lake homogeneity, and water quality changes upstream to downstream.

Recommendations

- **Aquatic Life Use Monitoring.** Continued monitoring of the Lake for microcystin and cylindrospermopsin (algal toxins) is recommended as the lake likely will continue to receive excess nutrients from unregulated, upstream nonpoint sources. Although algal toxin criteria are not currently promulgated in the Missouri water quality standards, the United States Environmental Protection Agency recommends the national criteria. An expanded watershed-based approach, similar to the Watershed and JRBP only going efforts can be implemented as a mitigation strategy to improve the Lake's water quality for the protection of aquatic life.
- **Human Recreational Use Monitoring.** Historically, bacteria data have not been collected in the Lake during the recreational season (April 1–October 31). Bacteria concentration during the recreational season should be obtained and monitored for one or more recreational season(s) to better understand the health risks.
- **Microbial Source Tracking (MST).** If bacteria concentration levels are elevated methods of source tracking can be used to determine the origin of the bacteria. Microbial source tracking (MST) tools are host-associated quantitative Polymerase Chain Reaction (qPCR) methods, which can measure fecal pollution levels and identify the source of the pollution. Researchers use qPCR methods to make millions of copies of highly diluted fecal bacterial host-associated target genes found in a contaminated water sample to determine if a particular pollution source is present and at what level.



SEDIMENT ASSESSMENT

Fish tissue analyses from the Missouri Department of Conservation provided a historical (2016–2017) insight into the bioaccumulation of polychlorinated biphenyls (PCBs) in fish tissues recovered from the Lake, which is useful when evaluating human health protection.

Geosyntec collected sediment samples at 41 locations from the top 6 inches of substrate using a Ponar grab sampler in early December 2022. Sampling locations were selected for maximum lake coverage in readily accessible areas and in areas of potential concern, including near the historic cooling water discharge pipe and at the Dam. The sampling strategy examined more recent sediment deposition by sampling the six inches, which is more likely to impact aquatic life and recreators. The 2022 sediment samples had PCB below detectable concentrations, potentially indicating that significant PCBs are not present within recent sediment accumulating in the lake.

Bathymetric mapping and sediment thickness profiling were conducted in early November of 2022 within the boatable portions (>2.0 feet water depth) of the Lake. The extent of the mapping extended from the Dam to upstream of the Lake Springfield Boat House launch. Transects approximately 100 feet apart were established across the boatable portions of the lake where data was collected. A raster surface was created in Geographic Information System (GIS) to illustrate sediment thickness across the Lake.

The data showed presence of approximately 476 thousand cubic yards of unconsolidated (loose) sediment distributed across the Lake. The Lake is relatively shallow outside of the historic James River channel, which hugs the southern shoreline of the Lake, with varying sediment thicknesses. Since the construction of the Dam, the lake's depth has significantly decreased due to the accumulation of sediment. The depth of unconsolidated sediment ranges from 1.0 to 4.0 feet across the lake, and in some places the depth is equal to 14 feet.

Geosyntec performed a preliminary assessment of the sediment accumulation rate from the Upper James River watershed using a watershed-based predictive model. The model results indicate that the Lake could potentially continue to accumulate an average of 7,900 cubic yard of sediment on an annual basis.

Recommendations

- Future projects requiring dredging of sediment beyond the top 6-inch horizon should perform additional sediment characterization of deeper sediment horizons for handling and disposal (if contaminated) or re-use (if clean).
- Proactive management of sediment loading can be achieved by reducing erosion within the upstream watershed by using stormwater runoff control measures where applicable.
- Creating a wetland restoration area upstream of the Lake to filter sediment prior to entering the Lake will help to reduce the sediment accumulating within the lake.
- Manage erosion along the eastern bank of the Lake by creating a wetland restoration area upstream of the lake.
- Physical management of sediment inventory can be achieved through mechanical or hydraulic dredging. Variables influencing the selection of dredging techniques include the physical properties of the sediment; size, shape, and water depth of the waterbody being dredged; and available space for staging and equipment setup; and the presence or absence of significant debris. Dredged materials removed from the lake must be dewatered and prepared for its ultimate disposal or re-use.
- Sediment management as a sustainable design strategy should be implemented if the dredged materials are found to be clean. Detailed sampling analysis would be needed to verify there are not elevated levels of contaminants or pollutants of concern. Example beneficial use strategies could include:
 1. Dredge and place material in study area for land contouring.
 2. Adding dredged material to marginally characteristic soil could alter the physical and chemical characteristics to make water and nutrients more available for crop growth.
 3. Dredge or reposition sediment within the lake to create deeper pools to mitigate algae formation and allow for habitat features.
 4. Use of dredged material as the substrate for habitat development is one of the most common and important beneficial categories.
 5. “Eco” Islands can be created by repositioning dredged material. Additional study and geotechnical work are required to determine suitability for engineered fill within the Lake. Sections of the Lake will need to be confined within a cofferdam and dried before placing fill.

WATERSHED ASSESSMENT

About 270 square miles of the Upper James River basin is tributary to Lake Springfield. Eight sub-watersheds—Headwaters, Dry Creek, Panther Creek, Turnbo Creek, Sawyer Creek, Pearson Creek, Turner Creek and Lake Springfield—make up the Upper James River basin and extend across portions of Greene and Webster Counties.

Agricultural uses, primarily cattle on pastures, covers 47% of the basin and is the predominate land use. The next highest land cover is forested areas, at 35% of the basin. Approximately 13% of the watershed is mapped as developed area, which is concentrated around the City of Springfield and urbanized Greene County. The change in land cover composition per the USGS National Land Cover Database estimates an increase in developed areas by about 2,020 acres and a decrease in forest land about 850 acres occurred from 2001 to 2022.

Land cover changes influence environmental conditions in many ways, such as altering hydrologic regimes, runoff patterns, and flood buffering in watersheds. Changes can also affect water quality, habitat and species composition, climate, and carbon storage. If this trend of an increase in imperviousness along with a decrease in forested areas observed in the past 20 years continues, the Lake will experience increased stream flows during wet weather conditions.

Geosyntec utilized stream gage data to assess seasonal and annual fluctuations in the flow regime since 1955. Quantifying the range of flows is highly useful in planning for potential recreational activities, such as determining the minimum depth of flow within the channel to support kayaking or determining typical seasonal high flows where the anticipated discharges over the dam would preclude recreational activities due to safety. From the data, the typical wet months are March, April, and May; whereas the typical dry recreational months are July, August, and September. The average daily flow during the wet months range from 188 cfs to 253 cfs. The average daily flow during the dry months range from 20 cfs to 45 cfs. To graphically depict the seasonal fluctuations of the flow, flow data from 2012 through 2022 is presented as Figure 1.

In addition to evaluating the typical flow regime that could be anticipated, the flow data from 1955 was used to evaluate extreme high flow events. Figure 2 presents the annual maximum flow from 1955 through 2022. In comparing the most recent 21 years of high flow events (2001 through 2022) to the prior 45 years, a distinct increase in extreme events is visible. Flow regime assessment indicates seasonal drought and high flow conditions that should be considered as future recreational opportunities are planned.

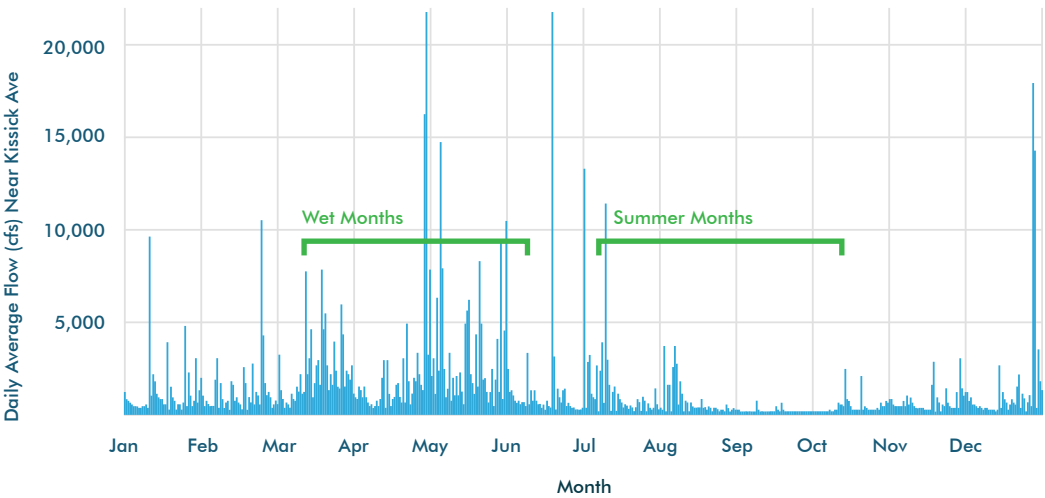


FIGURE 1: DAILY AVERAGE FLOWS IN A TYPICAL YEAR (PERIOD OF RECORD 2012-2022)

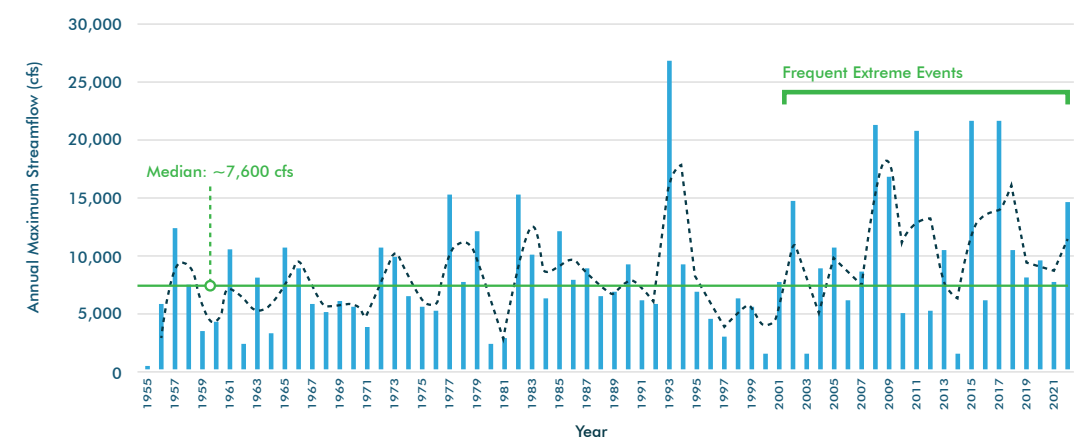


FIGURE 2: ANNUAL MAXIMUM STREAMFLOW SHOWING FREQUENT EXTREME EVENTS

Recommendations

- Recreational activities included within the plan should consider and accommodate the seasonal flow fluctuations, as well as protecting individuals during wet weather events.
- Operational flexibility could be incorporated into the plan by managing reservoir levels and flow rates.
- To mitigate potential impacts due to climate change and development within the watershed, floodplains and wetlands in the Upper James River watershed should be preserved. Their preservation will maintain a healthy watershed ecosystem, maintain flood storage to attenuate flood flows, and minimize an increase in sediment loads or a decrease in water quality.

DAM ASSESSMENT

DAM REGULATORY ASSESSMENT

The Dam, registered with the National Inventory of Dams as MO.20023, is owned and operated by City Utilities of Springfield, Missouri. The Dam is an earth fill dam with a concrete ogee spillway section located on the right (north) abutment. Construction of the Dam was completed in late 1956/early 1957 to function as a cooling water impoundment for the adjacent James River Power Station. Until January 28, 2021, when the power station was decommissioned, the Dam was under the jurisdiction of the Federal Energy Regulatory Commission. Currently considered a recreational dam, the Dam is regulated by MoDNR and registered as a Class 1 dam (high hazard potential classification).

Dam Components

The earth embankment section is approximately 1,400 feet long with a maximum height of approximately 45 feet. The earth embankment is primarily founded on rock and is comprised of low plasticity clays for the core and coarser materials on the upstream and downstream slopes. A rock

toe is present along the embankment. Upstream and downstream slopes of the earth embankment were designed to be 2-horizontal to 1-vertical (2H:1V). A paved road (S Farm Road 169/S Kissick Avenue) is atop the crest of the dam.

The spillway consists of a concrete gravity ogee section, with a maximum height of 30 feet. A 10-foot-deep cutoff is present on the upstream toe of the gravity section. The upstream slope of the Dam is vertical. A 30-foot-long concrete apron extends below the toe of the gravity sections with a 4-foot-deep cut off. The spillway is 563 feet long and contains six concrete piers which support the roadway bridge superstructure.

Regulatory Review

MoDNR was identified as the sole regulatory authority for the Dam, and Geosyntec researched MoDNR’s current (2019) state-level dam rules and regulations. The Dam was built in 1955 and owned by City Utilities. An initial registration permit for the Dam was completed in 1987 following the change in dam safety state regulations. This permit package was used as the main source of information to assess hydrologic and hydraulics, geotechnical, and structural engineering components of the dam. A graphical representation of historic congressional and state regulatory updates in relation to the dam is provided in Figure (3).

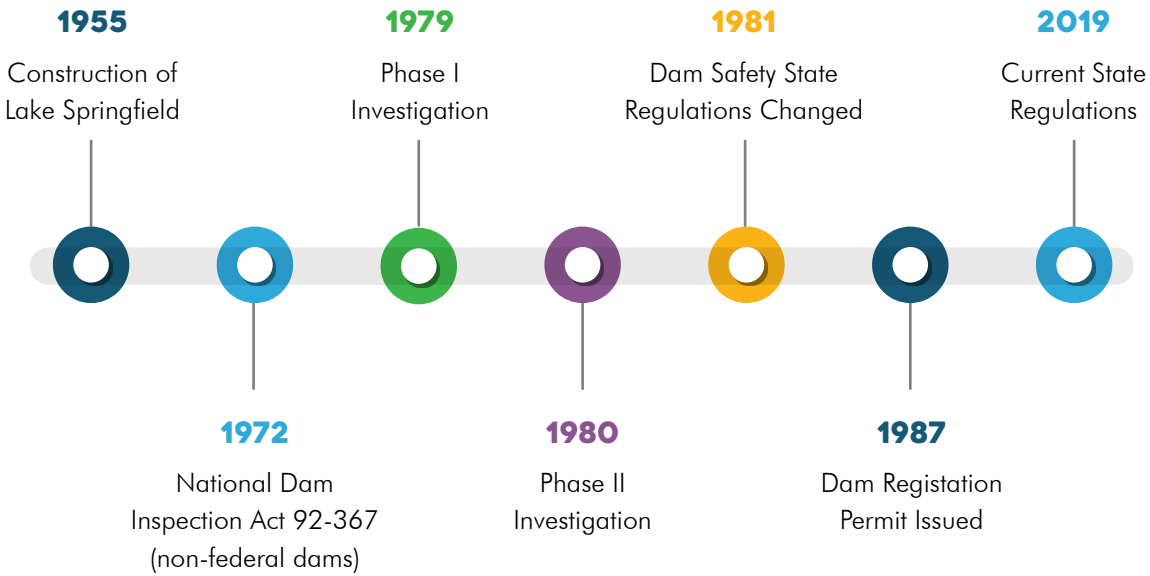


FIGURE 3: HISTORIC CONGRESSIONAL AND STATE REGULATORY UPDATES ON DAM SAFETY

The original engineering analyses performed when the dam was designed and permitted appear to have complied with regulations at the time the dam was constructed and subsequently permitted. Since the issuance of the Dam Regulation Permit in 1987, dam safety requirements have evolved. If the dam is modified, a dam construction permit must be obtained from the MoDNR Dam and Reservoir Safety Program must be obtain. To obtain the construction permit, all supporting analyses and calculations must comply with current regulations.

DAM MODIFICATION ALTERNATIVES

Geosyntec evaluated potential modification alternatives to the Dam to support recreational opportunities while enhancing the environment through improving water quality and aquatic habitat. The following modification alternatives were assessed:

- **Dam Removal:** Full or partial Dam removal with the intent of restoring the historic James River alignment. Full removal would comprise of removing the entire width of the concrete dam or lowering the entire width of the concrete dam by a minimum of 20 feet. Partial removal would comprise of lowering only the middle two bays by a minimum of 20 feet.
- **Concrete Dam Modification:** Lowering either the south or center concrete bay by 2 feet and creating a kayak and/or fish ladder at the downstream face of the Dam.
- **Earth Dam Modification:** Grading a channel in the earthen Dam/embankment by creating a 50-foot-wide opening at an elevation 2-feet deeper than the primary spillway.
- **No Modification:** No structural modification to the Dam’s components, but an update to engineering analysis using current practices based on current state regulations.

Amongst all the alternatives, the earth dam modification presents the opportunity to create fish or kayak passage while the concrete dam is kept in-place to support the existing superstructure (Kissick Ave.) As the report moves through the implementation process, further investigation of all dam modification alternatives may be warranted. Additional public input including engagement of residents near Lake Springfield will be required before implementation.

Any significant structural modification that changes the original function of the dam will require associated engineering analyses and a construction permit from MoDNR. A sediment management plan for present and future sediment load would be critical, regardless of the selected alternative, as it would impact what recreational amenities or activities are chosen. The implementation cost of each alternative should consider an itemized sequence of construction, permit coordination, associated engineering analysis, environmental impacts, and sediment management.

Recommendations

- Further study and develop a concept for Earth Dam Modification by incorporating a bypass channel. The bypass channel would be 50-foot wide at an elevation 2-feet deeper than the primary dam spillway. This modification would facilitate passage for kayakers traveling along the James River Water Trail while maintaining the existing Lake Springfield waterbody.

COST CONSIDERATIONS

Geosyntec developed planning level cost predictions for the select dam modification alternatives (Table (2)); standard of care costs are needed for the operation and maintenance of the Dam whether modified or not modified (Table (3)); and prediction of cost for removing sediment deposited in the lake and future deposition from the watershed (Table (4)). Line items considered in developing cost range for dam modification alternatives are presented in Appendix E.

For dam modification alternatives, assumptions included general contractor mobilization, site access, temporary water retention structures, dewatering inside cofferdam, demolition of concrete weir features, finishing of concrete to remain, removal of temporary water retention structures, and site restoration.

Cost Range Prediction
(2023 Dollars in Millions)

Alternative	Description	Cost Range Prediction (2023 Dollars in Millions)		
		Lower	Middle	Upper
A-1	Complete removal	\$17M	\$27M	\$44M
A-2	Partial Removal	\$8M	\$12M	\$20M
C-1, C-2, or C-3	Earthen Embankment Bypass	\$5M	\$7M	\$11M

TABLE 1: DAM MODIFICATION COST PREDICTION SUMMARY

To achieve a standard of care for the operation and maintenance of the existing dam, routine and capital maintenance are expected to be around \$28,000 in the first year escalating to over 1 million in the next 20 to 30 years. Routine maintenance is assumed to include monthly and annual inspection and mowing of the earth embankment. While capital maintenance is assumed to include periodic inspection (every 5 years), seeding of eroded areas, backfill of settlement and animal borrow areas, clearing of large vegetation, riprap replacement, debris removal from the spillway, and minor concrete repairs.

As of the date of this report, no additional sediment investigation has been performed to determine the condition of the sediment. The cost to remove unconsolidated sediment is predicted to range from \$22 Million to \$57 Million. The cost to remove unconsolidated and consolidated sediment is predicted to range from \$35 Million to \$88 Million. The unit cost assumed based on Geosyntec’s professional judgement is \$50 per cubic yard of sediment removed.

Additionally, the predicted cost to remove incoming annual sediment volume of 7,900 cubic yard (estimate based on PLET model) from the Upper James River watershed ranges from \$100,000 to \$200,000 per year.

The following elements must be considered when developing detailed project costs:

- Sediment management plan including investigation, analysis, treatment (if needed), reuse and disposal alternatives.
 - Wetlands identification, delineation and restoration or preservation.
 - Riverine or lake reservoir restoration.
 - Fish passage and kayak passage design alternatives.
 - Water pump and treat system design alternatives.
 - Continuous water quality monitoring for public health and safety.
- Operation and preventative maintenance of the Dam structure and the Lake.
 - Drawdown operation of impoundment and earth embankment bypass feature.
 - Extent of revegetation of the formerly inundated area and long-term maintenance.
 - Engineering analysis and design.
 - Local, state and federal permitting and compliance requirements.
 - Construction and oversight.

TRANSPORTATION & INFRASTRUCTURE

By design, the Lake Springfield area is not an intuitive or easy place to find within the Springfield community. Due to the functional needs of the James River Power Station, as well as the several utility needs that the Lake area served, the main purpose of the site was not to serve as an attractor within the community. Thus, routes to Lake Springfield are not direct, and wayfinding in its current state is limited. Additionally, there are known infrastructure impacts that will need to be accounted for and addressed as the plan moves to implementation. This chapter outlines these technical elements of the planning process.

EXISTING CONDITIONS

Several times throughout the planning process, our team heard from residents about the challenges of getting to the Lake Springfield area. Additionally, we heard concerns from City Utilities about the ongoing utility needs of the area located around the James River Power Station, as well as the known infrastructure that will be critical to account for during site build out. Examining existing conditions of the planning area as important to aide in moving to through the visioning and concept portion of the planning process.

VEHICULAR ACCESS & CONNECTIONS

Functional Classification

Roadway functional classification is governed by federal guidelines and refers to the process by which roads, streets and highways are grouped into classes according to the type of vehicular service they are intended to provide. The functional classification network outlines the role a particular street or road is intended to serve within the transportation network. Because the functional classification refers to the role a particular road, street or highway is to have within the system, it also carries with it expectations about roadway design, including speed, capacity, and relationship to future land use development. Roadways serve two primary travel needs: access to and from specific locations and mobility. The classification of roadways progresses from a lower classification, handling these shorter trips with more access, to a higher classification, intended for longer trips to connect regional traffic. Functional classification is assigned based on how the roadway currently functions and is maintained by MoDOT. Ozark Transportation Organization (OTO) endorses any functional classification changes within their planning region and maintains the OTO Major Thoroughfare Plan. That plan shows how OTO sees function changing over time.



Republic Road and National Avenue are primary arterials. Kissick Drive, Briar Street, Fremont Avenue, and Farm Road 188 are secondary arterials. Timbercrest, Southwood, Wildwood, Arlington, Charleston, and Nottingham are collectors. Other nearby streets are local streets, with several streets like Lake Springfield Park Road being private streets.

LakeSPF Thoroughfare with Legend

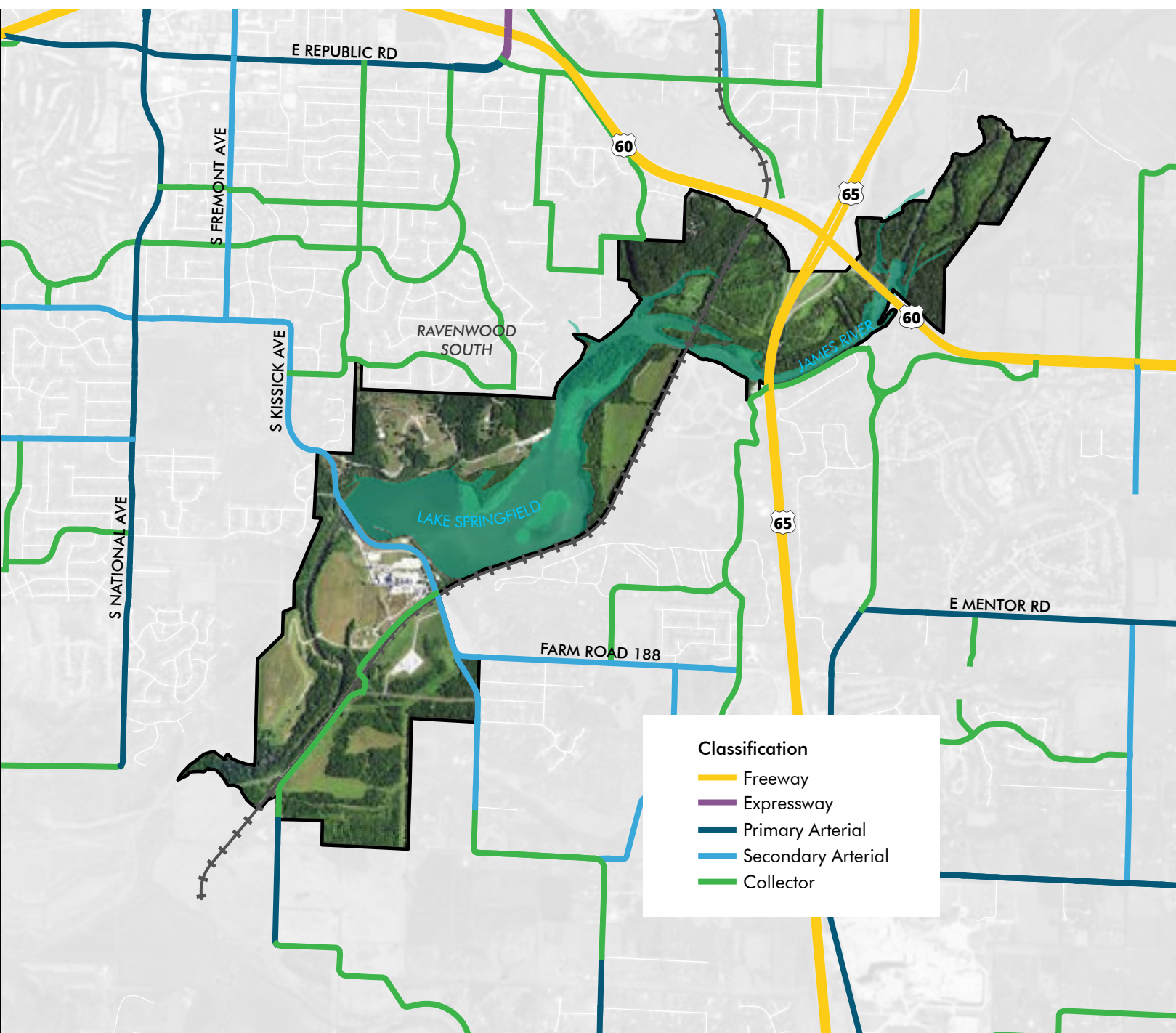
Access & Parking

The main direct and primary vehicular entry points are Kissick from the north and south. There are currently limited ways to reach various destinations around Lake Springfield, and some routes involve taking indirect routes through (or “cutting through”) local streets, of which there have been some complaints from nearby residents of increased through traffic on their residential streets with vehicle traffic trying to reach the lake and park areas.

The primary way that people access the Lake and Park area is via Briar. In current conditions, a motorist travelling from north of the lake will be routed to Fremont and connect to Briar, versus utilizing Republic Road. While Fremont is a secondary arterial on the roadway functional classification map, the current design of Fremont is a two-lane section with stop control at the intersection of Briar. Most land uses adjacent to Fremont are residential. In future conditions, and with the need to move much more vehicular traffic, National is a critical connection for moving vehicular traffic from the north. In its current condition the roadway is 5-lanes, with commercial land use adjacent, and a full traffic signal at the intersection of Briar.

Vehicular traffic coming from the south exits US 65 at Evans Road, connects north via a roundabout and Southwoods Road, and continues west on Evans Road before connecting to Kissick just south of the Lake near the Power Station and South Activity sites. The current design of these roads will not accommodate projected traffic volumes in the new development conditions.

There are an estimated 9 parking lots serving Lake Springfield with a combined total of approximately 443 parking spaces. The two largest lots are at the Springfield Conservation Nature Center (110 spaces) and at the Lake Springfield Park & Boathouse (186 spaces). Other smaller lots are scattered across the area, ranging from about 20-30 spaces each, including at the Northwoods Pavilion, Hilltop Pavilion, Maintenance Road, Clay Henshaw Memorial Access, and Lake Springfield Fishing Access. No parking, and accompanying access to parking exist at either the Power Station site or the South Activity area in current conditions.



Roadway Typical Sections & Accommodations

A brief description is included here of the most common roadways for accessing Lake Springfield. Trip generation was completed for the proposed uses, which helps identify future roadway needs to accommodate increased levels of vehicular traffic.

North

Fremont: The typical section from Fremont between Republic and Briar is a 20-foot, 2-lane roadway, with two 10-foot lanes. There is a continuous 4-foot sidewalk on the east side of the road, and sporadic 4-foot sidewalk segments on the west side of the road.

National: The typical section from Republic to Briar is a 72-foot, 5-lane roadway, with two 14-foot thru lanes in both the northbound and southbound directions. There is a 16-foot center median where turning movements are not needed, that provides space for left turning movements where access to adjacent land uses exists. There is a continuous 4-foot sidewalk that exists on both the east and west side of the road.

Briar: The typical section from National to Kissick is a 24-foot wide, 2-lane section, with two 12-foot lanes. There is no sidewalk connectivity. Briar is signalized at National and stop controlled at Fremont.

Kissick: The typical section from Briar to the lake and park entry is a 22-foot wide, 2-lane section, with two 11-foot lanes. There is no sidewalk connectivity. The intersection entry at the lake and park is only stop controlled for traffic exiting the park, and sites at a skew which causes site challenges for the turning movements.

Republic Road via US65 interchange: The only access point to the Nature Center is via Republic Road, Nature Center way which is a 2-lane, 30-foot section to the parking lot entry. There are no sidewalk accommodations, but there are elevated asphalt shoulders approximately 5-foot in width one each side of the road.

South

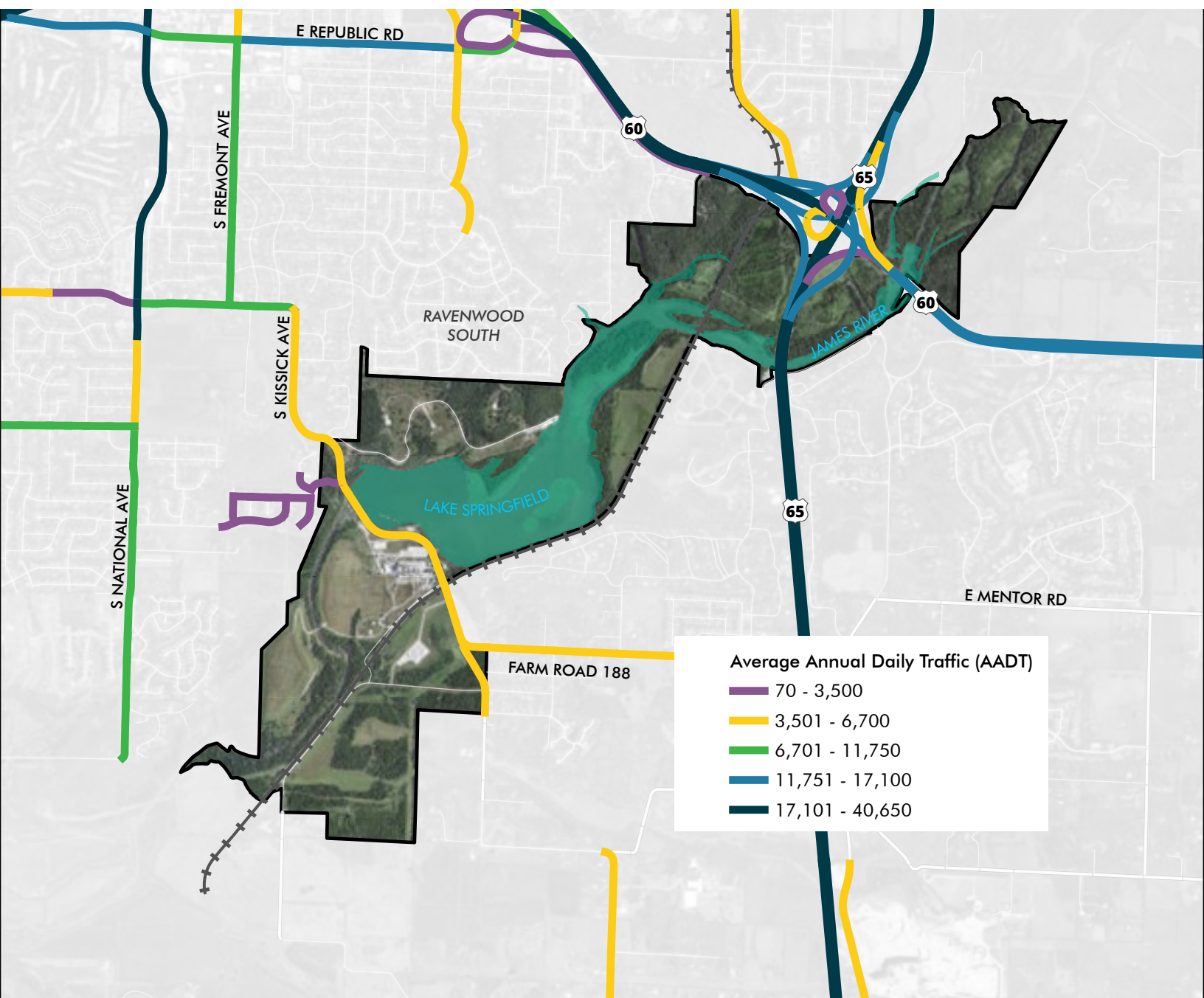
Evans: The section of Evans from US65 is built to accommodate heavy vehicular trip movements pending new development as well as an east-west arterial connection. The section of Evans from Southwoods to Kissick is a 20-foot wide, 2-lane section, with two 10-foot lanes. There is no sidewalk connectivity.

Southwoods: The typical section from Evans at US65 off ramp, to Evans/Farm Road 188, is a 56-foot, 2-lane divided roadway with 18-foot travel lanes in each direction. There is a 20-foot center grassy median. Turn lanes are built out at a future entry point pending site redevelopment in between the off ramp and the Evans connection (about 650 feet north of the roundabout). A 6-foot sidewalk runs along both the east and west side of the road, terminating at Evans, and connecting south to the Mercy Hospital development.

Kissick: The typical section from Briar to the lake and park entry is a 22-foot wide, 2-lane section, with two 11-foot lanes. There is no sidewalk connectivity.

Existing Plans

The most significant planned project that exists within the study area is the addition of a new East West Arterial. The proposed arterial road connects to the roundabout at Evans/Southwoods, runs south of the lake (partially through the south activity area), connects to National, and then continuous west to the Kansas Expressway Extension. The roadway is partially City of Springfield jurisdiction and partially Greene County Jurisdiction. An ordinance preserving the space for roadway buildout has been passed within the City of Springfield. While there are several challenges associated with full project buildout, the connection from US65 to Kissick remains an important vehicular connection to the lake Springfield Area. There are several challenge associated with full project buildout.



WALKING AND BIKING

Existing Trail Connections

There are currently several trail segments and connections within the Lake Springfield Planning Area. While connectivity within the planning area via trails is good, connectivity to the Lake Springfield area, specifically the Lake and Park zones, as well as the Power Station Site is limited. Additionally, there is not connecting trail around and across the lake, which presents significant barriers for multimodal connections to access all components of the current lake area.

Galloway Creek Greenway

The Galloway Creek Greenway is 5-miles in total length and connects from Pershing Middle School to the Old Iron Bridge in the north activity area. There is a parking lot at the Old Iron Bridge for recreational riders. While this trail is in close proximity to the Trail of Honor, (south of US 65), there are not bike accommodations to access the Trail of Honor Loop. The Galloway Creek Greenway does connect to the Nature Center Trail system, but there is no dedicated bike parking facility before accessing the Nature Center. There is also a connection to the James River Water Trail, for those wishing to explore that trail via canoe or kayak.



Lake and Park Trails

Connecting to a parking lot on Kissick, just south of the Lake and Park entry, is a .8-mile trail that can be used to access the Lake and Park Boathouse. The trail does not connect to any other zones within the Lake Springfield planning area. In addition to this paved trail entry, there is a 1.4 mile wood chipped trail.

Trail of Honor

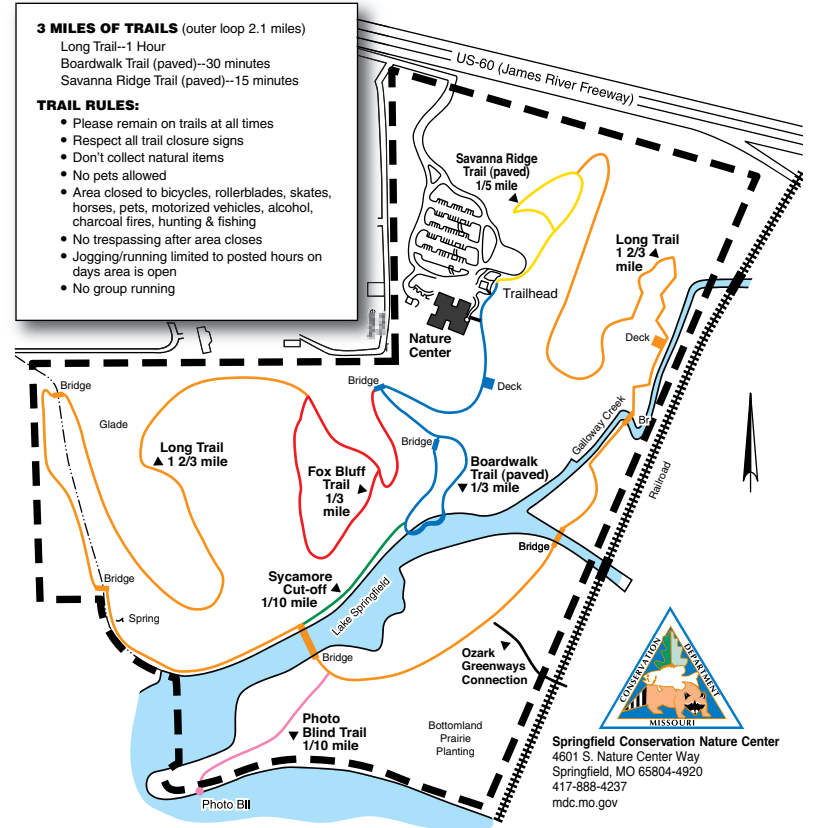
The Trail of Honor is a .8 mile section of the James River Greenway that meanders along the James River near Veteran's Memorial Cemetery. There is a large stone gateway that frames the trail as you enter from the adjacent parking lot.



Nature Center Trails

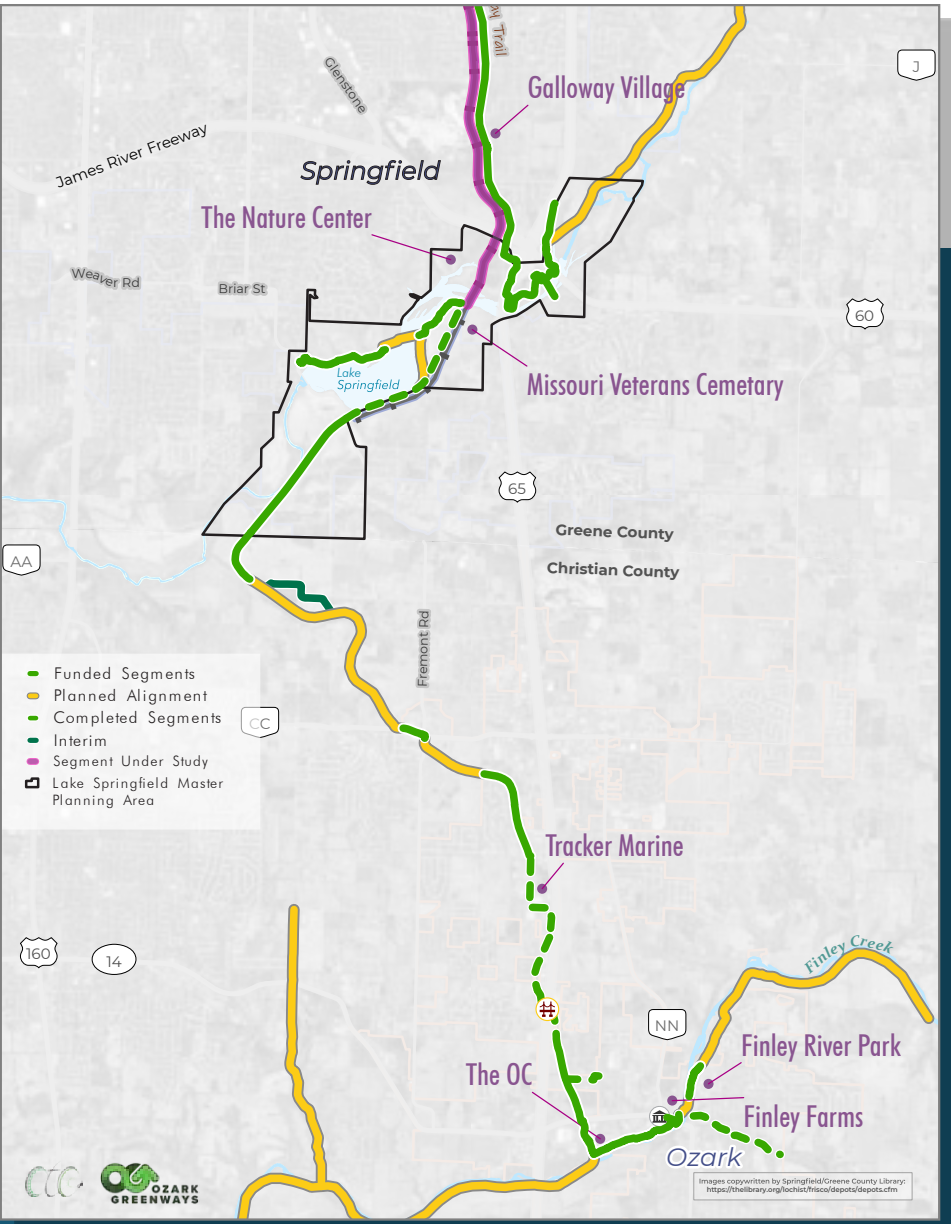
There are 3-miles of trails within the 80-acre Nature Center site. The trails are a mix of paved and natural surface. The trails are meant for passive recreation and strictly prohibit group running, bicycles and pets. Jogging is only allowed at certain times when the center is not busy with group outings and field trips.

Welcome to the Springfield Conservation Nature Center Trails



Chadwick Flyer

The Chadwick Flyer Trail is planned 12-mile connection from Sunshine Street in Springfield to several destinations in Ozark, such as Finley River Farms and the Ozark Community Center. During the Lake Springfield planning process, the segment through the South Activity Area and Power Station Site was built, which connects from Christian County, through the planning area, to Kissick Avenue. The City of Springfield and BNSF RR are in negotiations for the City to acquire the corridor for the trail from the Missouri Veteran’s Cemetery to Sunshine Street. Funding is secured to extend this trail alignment which significantly enhances active transportation connections to the Lake Springfield area.

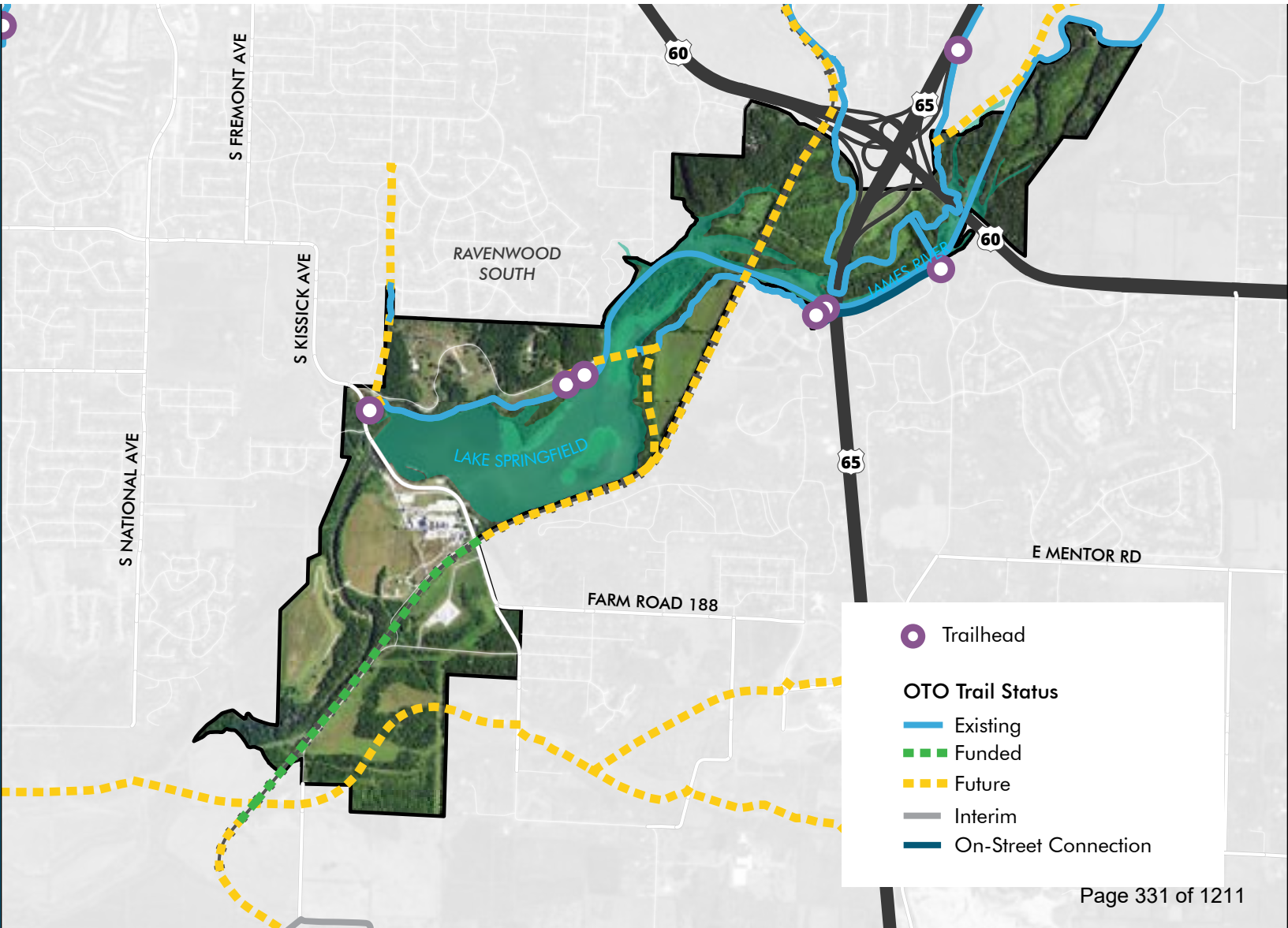


James River Water Trail

The James River Water Trail is not a trail for walking, running, or biking. This is a trail for canoeing, kayaking, fishing, and watching wildlife. The current trail is 6-miles and runs from Joe Crighton Access to the Lake Springfield Boathouse. The current terminus at the boathouse presents a significant opportunity for enhancing connectivity further south to more wildlife and outdoor destinations.

Sidewalk Connectivity & ADA accommodations

In the current state, sidewalk connectivity and ADA accommodations to the Lake Springfield planning area are non-existent. For people wanting to walk and bike to the Lake area, there are limited opportunities to make meaningful connections. In current conditions, neighbors from Lake Ridge Estates cannot safely access the Lake Springfield area by foot on any dedicated facility for walking.





Wayfinding & Signage

Limited wayfinding exists for people to know they have arrived at Lake Springfield. Similar to the discussion on vehicular access, the functional nature of the Lake for previous power station uses, is much different than envisioning a local, regional, or national tourist destination. A unique brand, with clearly identifiable wayfinding is an important component of plan implementation. Wayfinding should be scaled for all modes of transportation as well. Large scale and iconic wayfinding should be used for vehicular sense of place and arrival, where as more meaningful ‘time to destination’ wayfinding, with directional signage to key points of interest, should be used for people on foot and bike.

Existing Plans & Programmed Projects

The Ozarks Transportation Organization has several identified future trail alignments on their trail map for future implementation. These alignments are currently in a concept phase and will have to move through more refinement in planning and design. Specifically, there is an alignment along the proposed East-West Arterial Road, and the future Chadwick Flyer Trail (north of Kissick, discussed previously in the trails section).

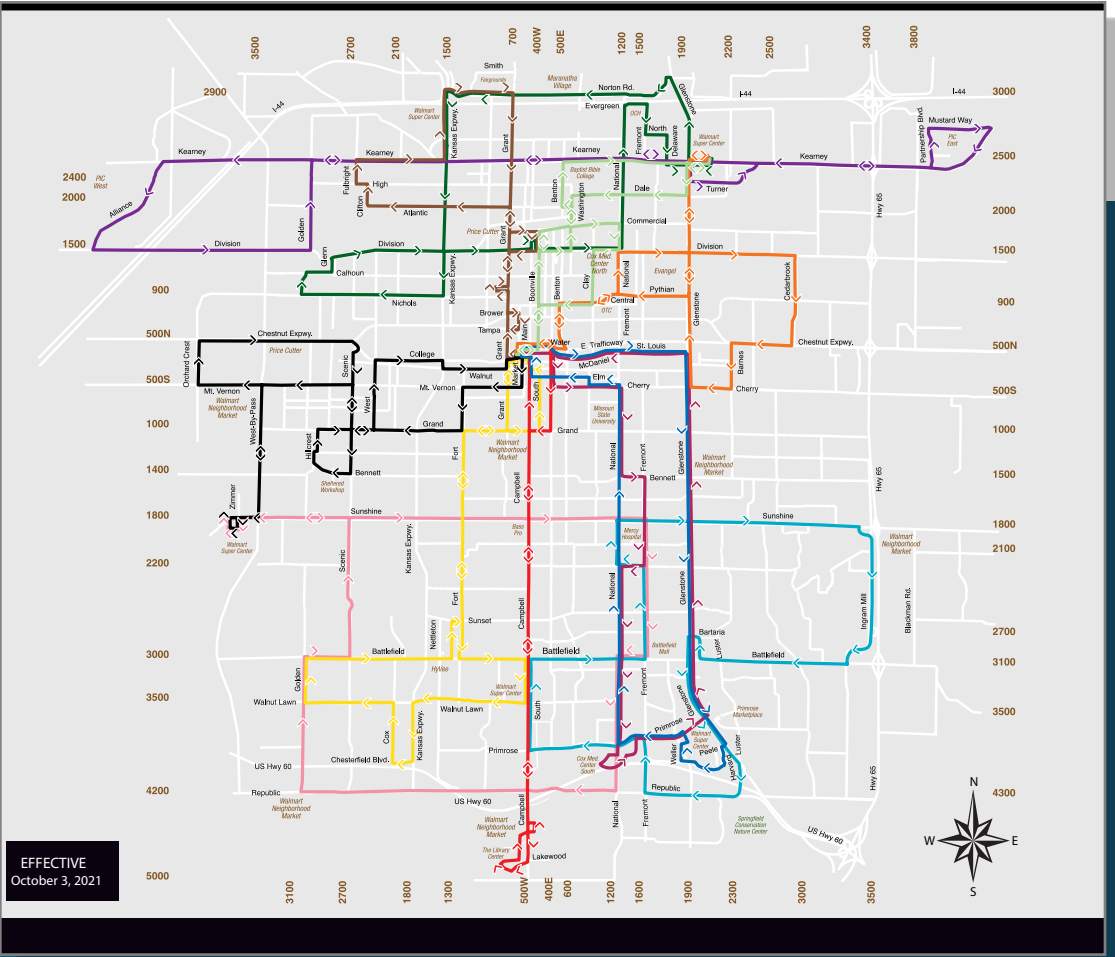
PUBLIC TRANSPORTATION

Existing Public Transit & ConnectSGF

Currently, public transportation does not serve the Lake Springfield area. City Utilities operates The Bus, A public transit system for Springfield. During the Lake Springfield Planning process, the ongoing ConnectSGF plan for public transportation improvements and future routing was ongoing. The result of ConnectSGF is to focus frequency and updates on areas more in the core of Springfield, and areas, such as Lake Springfield, will not be frequently serviced routes.

Stops and Frequency

The nearest transit stop is Republic Road near Charleston Avenue to the north of Lake Springfield. In current conditions, there is no safe way for people to get to the lake via foot or bike from that transit stop. Additional barriers to using public transportation to access Lake Springfield include the long headways, of 60-minute frequencies during the weekdays, that offer limited trips to the site. The route on Republic Road does also not service the area on Sunday or holidays.



UTILITIES

There are several known utilities within the planning area that will need to be considered during the implementation phase. These utilities are mapped in **Appendix ()** and outlined below.

- Twin 30' sewer lines through the lake
- High pressure natural gas main south of the bridge
- Southern Star Central Gas Pipeline south of the Power Station

Additionally, there is a major electrical substation north of the old power station that connects to multiple transmission circuits. City Utilities will want to retain the substation and associated electrical transmission line, natural gas transmission main, storage tanks and natural gas turbines. Any future development needs to be planned around these very critical infrastructure items.

Electric

The Land and Park areas receive power from an overhead line that runs along Lake Springfield Park Road until turning northeast and providing service to the existing maintenance building and pavilion.

There are two existing electric transmission lines, each containing two 69 kV transmission lines, that cross the James River south of the dam and receive power from the existing substation. There are two existing 161 kV transmission lines that start at the substation and run southeast along Kissick Avenue until they turn southwest after the intersection with Evans Road and cross Ridgecrest Street.

The South Activity area has two 161 kV transmission lines that cross Ridgecrest Street. After crossing Ridgecrest Street one 161 kV line heads south through the southern area. The other 161 kV line heads west then travels parallel to Crenshaw Road until it turns and crosses the James River.

Water

The Lake and Park areas have an existing 8" waterline that runs southeast from Nottingham Street serving the existing pavilion and boathouse. There is also an existing 8" water line to the maintenance building.

The Power Station Site has an existing network of 8" water lines that supply water from three deep wells to the power station. This area is also served by an existing 12" water line that runs from the South Activity area across the Chadwick Flyer Trail and then east to Kissick Avenue.

The South Activity area has an existing 12" water line located east of Crenshaw Road that continues northeast along the existing road, then heads east south of Ridgecrest Street the line then branches east/west along Ridgecrest Street until it turns and travels northeast crossing Ridgecrest to the intersection of Kissick Avenue and Farm Road 188.

Natural Gas

The Lake and Park areas have an existing 4" natural gas line located along the northwestern edge of the area that terminates before reaching Lake Springfield Park Road. There is also a 12" feeder line along the western edge that follows the electric transmission line before it splits off at Kissick Avenue and crosses the Lake along the dam.

The Power Station Site has an existing 12" natural gas feeder line that crosses the dam and continues following along Kissick Avenue providing service to the power station. There is an existing 16" City Utilities natural gas transmission line running along the south side of the Chadwick Flyer Trail to feed the existing gas turbines near Kissick Avenue.

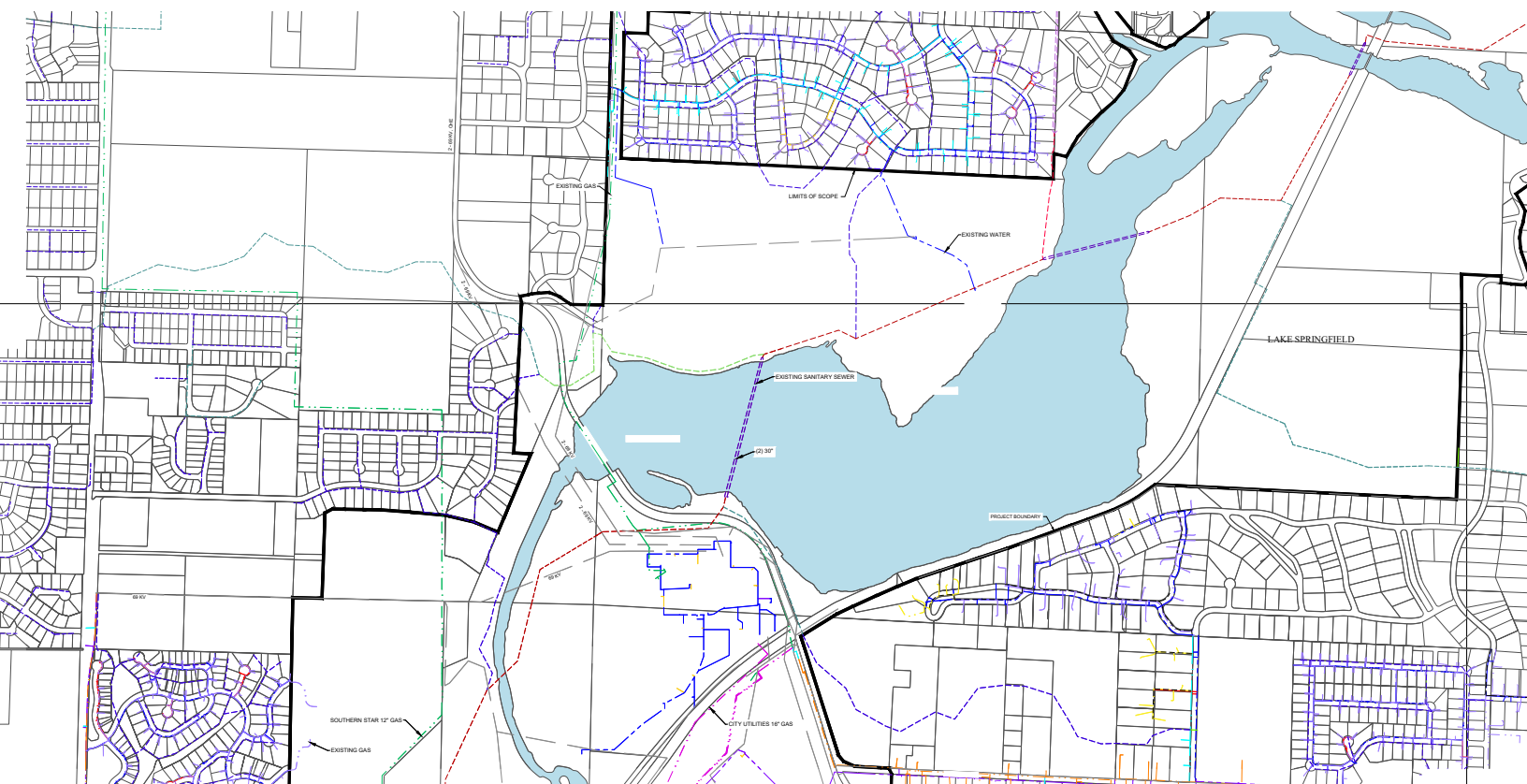
The South Activity area has an existing 16" City Utilities natural gas transmission line located east of Crenshaw Road that continues northeast along the existing road, then heads east south of Ridgecrest Street, and then turns and travels south along the eastern edge of the site. There is also a 12" Southern Star Central Gas Pipeline that travels east/west through the southern part of the South Activity area

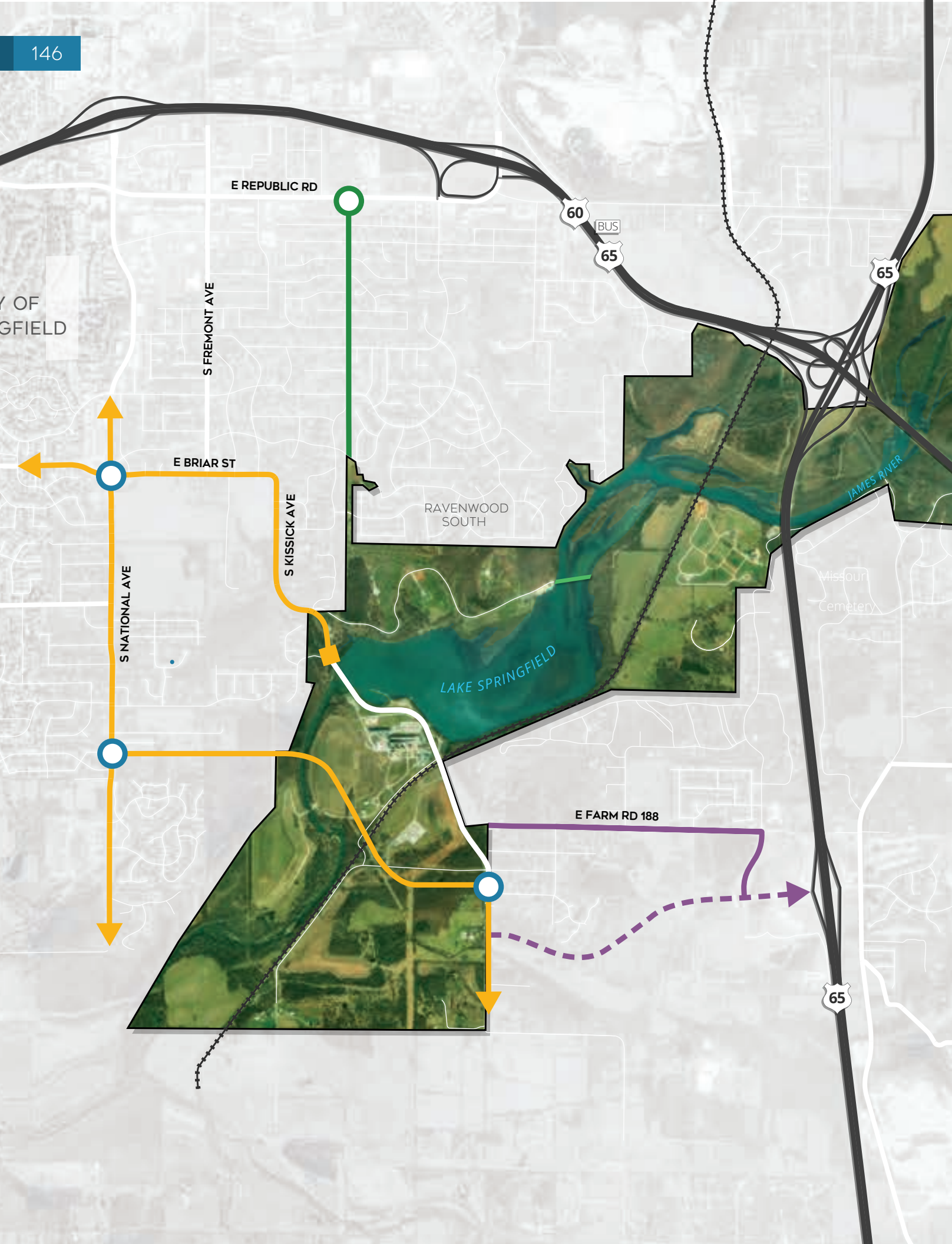
Sanitary Sewer

The Lake and Park areas have an existing 48" sanitary sewer that travels southwest across the site with a 16" and an 8" line that provide service to the residential parcels north of the project site. There is also an existing 12" sewer along the north side of the lake that provides service to residential parcels west of the project site and connects to the existing 48" sewer before crossing the lake in two 30" sewer lines.

The Power Station Site has an existing 10" sanitary sewer that follows along S Kissick Avenue and connects to an existing 48" sanitary sewer north of the power station. There is an existing 48" sanitary sewer that connects to two 30" sewer lines that travel through the lake, the 48" sewer then travels southwest and crosses the James River to the landfill.

The South Activity area has an existing 36" sanitary sewer that travels east and west through the site and connects to an existing 48" sanitary sewer to the west. The 48" sanitary sewer travels south from the landfill crossing the James River and turns to the west.





GOALS AND OBJECTIVES

The vision for the future of Lake Springfield is to create an accessible amenity and destination for the entire Springfield community, ensuring people can access and enjoy the lake, regardless of mode of travel or ability. The future site needs to provide infrastructure that supports enhanced access to the site, as well as better support the more intense uses planned for the James River Power Station and South Activity area. Objectives in this section are framed around key projects that work to achieve that goal. Just as the plan was created with the community, the intent is that the future of the area is meant for everyone in the community.

OBJECTIVES & KEY PROJECTS

Objective 1: Enhance Vehicular Access & Circulation At Lake Springfield

Current vehicular access is challenging and limited. Necessary strategies for increased vehicular access and mobility are included here.

■ Strategy: Improve Roadway connectivity to the Lake area, via a new Southwest Gateway.

The recommended Southwest Gateway is proposed to connect to National Avenue near the current Wisdom Lane and connect east to the back of the James River Power Station site. Trip generation performed for the proposed land uses in both scenarios (Entertainment District and Adventure Hub) estimates about 20,000 trips/day, with a peak hour volume of 2,000 trips. The Power Station Site and the South Activity area are the focus of major trip generation within the final site plan. While the lake and park area will see some enhanced vehicular traffic with an expanded marina and boathouse, the new mixed-use development south of Lake Springfield will be the largest driver to the area. The goal of this new roadway is to offer direct access to the site and move car parking to the back of the proposed mixed-use district. Developing the site plan in this way will promote more vehicular efficiency when connecting to the site, as well as move parking to the back of the site, to create more people-oriented uses between the site and the natural lake environment.

Given the functional purpose of the proposed Southwest Gateway, as well as the estimate traffic volumes, the recommendation is to plan, design and construct the new Southwest Gateway as a collector road, in line with Ozarks Transportation Organization Collector Design standards. These standards call for at least 65-feet of Right of Way Space, and two through lanes of traffic. Turn lanes to the site and site access points will need to be considered for within the final design once a full traffic impact study under a refined development scenario occurs. While the interim goal is to connect from the site to Lake Springfield Drive (EW Arterial discussed next), designing this road as a collector remains a vital component to keeping the scale of the site people oriented, and not separated by a primary arterial moving through the middle of the Mixed Use district.

The Southwest Gateway is one possible strategy presented by this report. City Utilities reserves the right to approve any future plans/roadway alignments to ensure existing CU property is protected for any utility infrastructure requirements.

■ **Strategy: Plan for the addition of the Springfield Portion of the East West Arterial – Lake Springfield Drive**

The East West Arterial is a long identified, yet unfunded need, for the Springfield Region. The proposed arterial serves an important East-West connection on the South side of Springfield and for the entire region. Given the recent completion of the Kansas Expressway to the south, the east west arterial priority is more focused on the portion of the alignment located in Greene County, versus the portion of the alignment that is located in Springfield. While regional priority is focused on the Kansas Extension connection, the City of Springfield has a focus on this portion of the alignment that connects to Kissick at Farm Road 188. There is currently a City Ordinance that preserves right of way along the alignment, which is an important first step in the future planning of the road.

While significant grading challenges exist, the project alignment for the original arterial was thoroughly studied and ultimately determined to be the best alignment. For the Lake Springfield Implementation, the project provides the most direct Route to Kissick, where traffic is routed north to a new Lake Springfield Entrance Gateway at Kissick and Farm Road 188. The new roadway should be planned as primary arterial in conformance with Destination 2045, the OTO Long Range Transportation Plan. This design includes at least 110-feet of right-of-way space, accommodating 4 through lanes of vehicular traffic, as well as center space that can be utilized as a turn lane or a center median where left turning movements are not required. The typical design standard also requires at least 17-feet of space outside of travel lanes to be utilized for buffer zones for people on foot or bike from vehicular traffic, as well as for pedestrian and bike accommodations.

■ **Strategy: Improve Briar to better accommodate anticipated vehicular needs**

As discussed in the existing conditions section of this report, Briar is currently a 2-lane roadway with no accommodation for people on foot or bike. According to Destination 2045 and the Major Thoroughfare Plan (MTP), Briar is identified as a secondary arterial. However, given the recommendation to close Kissick to vehicular traffic, the process to reclassify Briar as a collector on the MTP is recommended as a future project. In the proposed access and circulation scenario, Briar only serves a connection to the Lake and Park areas and will no longer be a route that serves trips in the area. The proposed designs standards for a collector will be sufficient to handle the proposed trips to the Lake and Park sites.

Collector roads require at least 65-feet of ROW and include 2 lanes of through vehicular travel. There is some flexibility in the final design width of the roadway to accommodate left turning movements where needed. However, Briar does not serve commercial uses, and thus left turn space will likely be limited to the intersection at Freemont. Space outside of the curb should be given to provide safe facilities for people on foot or bike, to further enhance multimodal access and connectivity to the Lake Springfield area.

■ **Strategy: Improve vehicular access and sense of place at Lake & Park Entrance**

The current Lake and Park entry is skewed and creates a challenging atmosphere for people leaving the park. For traffic exiting and heading northbound, sight distance for oncoming northbound traffic is limited, which creates issues for exiting traffic. Additionally, for traffic entering the site, there is limited wayfinding to indicate the entrance for inbound traffic the Lake and Park from Kissick. The current configuration is more confusing given the proximity to both a residential driveway and Timberlake Drive.

The current configuration of Kissick at the Lake and Park Entrance will benefit significantly from the addition of a roundabout to clean up access, and even further amplify to motor vehicle traffic that ‘you have arrived at Lake Springfield’. Roundabouts are shown to reduce crashes and provide a traffic calming effect on traffic entering the site, which will enhance pedestrian and bike safety within the Lake and Park areas. Additionally, roundabouts serve as important tools for defining gateway features. When the roundabout is designed, consideration should be given for enhanced landscaping or unique and iconic public art to be placed at the center of the roundabout. Additionally, gateway signage should supplement this design treatment at the Park entry.

Objective 2: Enhance Pedestrian Accommodations & Access At Lake Springfield

The current pedestrian accommodations and access points are limited to non-existent. Necessary infrastructure improvements to improve pedestrians’ safety and accessibility are included here. All recommendations should be developed using universal design standards, ensuring the Lake Springfield area remains an accessible and equitable amenity in the community and region.

■ **Strategy: Re-imagine Kissick as a Linear Park**

In current configuration, Kissick serves as the primary entry point for vehicular traffic to the James River Power Station. However, with the proposed redevelopment concept, the existing vehicular capacity will not be enough to serve the site. Additional challenges will exist to add pedestrian and bike facilities, which we heard are necessary several times during the planning process. Compounding these issues is the maintenance and upkeep of a vehicular bridge (separate from the Dam structure) this is costly to maintain and upkeep at current traffic needs and will be even costlier when widened and accommodating heavier traffic loads. A significant opportunity exists with the reimagining of Kissick as a linear park for people, not a cut through for vehicular traffic.

This re-use of the bridge structure places and emphasis on better connecting people to the lake and creating a more cohesive environment for people from the new entertainment district/adventure hub and the natural features of the planning area. Additionally, the removal of this roadway to serve vehicular needs minimizes cut-through traffic for Lake Ridge Estates neighbors and does not adversely impact travel times. Using proposed alternative routes to access locations outside of the Lake Springfield area in this scenario adds approximately 5 minutes to the total trip time.

Additionally, the linear park provides the opportunity to be a national icon in repurposing critical infrastructure that is past its intended life span, into social infrastructure, where people can foster mingle and make new connections, all while building enhanced social capital, a sense of civic pride, and stronger place attachment to the Lake Springfield area and the entire Springfield community. Linear parks are coming online in cities all over the country, and this infrastructure asset can serve as a powerful tool for tourism, especially when coupled with other site destinations.

■ **Strategy: Implement sidewalk accommodations in line with OTO MTP Design Standards on improved or new roadway infrastructure**

With the recommendation of new and updated roadway infrastructure, sidewalks and accommodations for people travelling by foot or bike should be included as standard with these updates. There are little to no sidewalks in place in the planning area today, and certainly none that allow people to make the choice to walk to Lake Springfield. Key features included in the Power Station site recommendations rely on the ability for people to park their car once and stay and play without needing to get back in a vehicle. For example, conference planners usually look for sites where guests can park a single time, and enjoy amenities such as dining, shopping, and nightlife nearby the conference site without needing to drive.

Additionally, Lake Springfield benefits from being surrounded by residential neighborhoods, where people may choose to walk to grab a bite to eat, or enjoy a family walk to the proposed nature play destination playground. A future thinking plan for transportation infrastructure, relies heavily on prioritizing all modes of transportation, with a focus on safety and connectivity of people on foot or bike, or those that are more vulnerable road users. The addition of these pedestrian accommodations on important routes that are recommended for improvements is a critical component of encouraging active transportation connections to this natural amenity.

Objective 3: Use Project Branding and Unique Public Art to Enhance Sense Of Place at Lake Springfield

Image is a key component of what makes a public space great. As such, enhancing sense of place and image around Lake Springfield is important to develop as a beloved community asset for generations to come.

■ **Strategy: Public Art elements incorporated at key gateways (Lake and Park Entrance, and Farm Road 188)**

When a place has a high-quality image and makes people feel comfortable, that place is viewed as a great public space within its community. The appearance of care for a place can significantly impact the environs as well as how people feel when they are there. Given the unique role Lake Springfield has to fill within the community, the addition of public art throughout the site, and specifically at key gateways will add quality to the overall image and appearance of the area. There are several instances in which roundabouts are coupled with interesting public art to elevate this typical roadway treatment to an iconic gateway for the community.

Utilizing this public space to enhance public art and placemaking, can be coupled with public art installations in other parts of the planning area, as well as tie in the cultural history of the land and the native populations. Public art also offers the opportunity to build buy-in within the local community. Hiring a local artist, or even opening up design ideas to an art competition can continue the collaborative approach to this planning process through design and construction.

■ **Strategy: Placemaking enhancements at Republic Road Transit Station as transit gateway to Lake Springfield**

To move the needle from function to enjoyment at public transit stops, amenities must be included beyond the basic wayfinding, comfort and ADA accommodations that should be standard. Because public transit trips often involve a wait on either trip end, or a mode shift, these stations should have people focused infrastructure that enhances user experience. As long as The Bus runs the route on Republic Road near Fremont, the public transit stop here as the public transit gateway to Lake Springfield. A new trail is proposed to connect to Republic Road, and align through the neighborhoods along an existing utility corridor to connect to the Lake and Park areas. Upgraded amenities such as interpretive signage, interactive art pieces, unique wayfinding, and many other opportunities exist to elevate the transit experience here and serve as a visual gateway for motorists and transit users alike to Lake Springfield.

■ **Strategy: Implement branded and appropriately scaled wayfinding & directional signage within the Lake Springfield area**

Another component of an accessible and equitable transportation system that supports all modes of transportation is enhanced wayfinding that is intuitive for users, easily identifiable, and placed strategically to offer guidance to key connections and destinations. In current conditions, Lake Springfield does not offer much wayfinding and signage.

When marketing the project for implementation, a project brand is important to serve as a unique identifier of the destination. This brand should be carried over to a cohesive wayfinding strategy that can be scaled at various levels depending on intended audience (motorist, bicyclist, pedestrian, interpretative, etc.). To accomplish this cohesive wayfinding, a wayfinding plan should be developed during the next steps of implementation, that can include details on sign standards, sign placement, materials, and many other factors. Similar to all the recommendations in this chapter, universal design should be considered, and people with disabilities should be involved in an advisory capacity to ensure ADA compliance.

Objective 4: Provide Enhanced Bike Connections to and Within the Lake Springfield Area

To enhance active transportation connections to Lake Springfield, providing a more connected trail network is important. While trail segments currently exist, the lack of connectivity makes bicycling as your primary mode of transportation to Lake Springfield unreliable. A connected bike network, around the across the Lake is important to enhance access for everyone.

■ **Strategy: Provide a trail corridor from Republic Road to Lake Springfield Park**

To create an accessible amenity for all, Lake Springfield must be accessible via foot and bike for people making trips from other areas of the community. The nearest public transit stop is north of Lake Springfield on Republic Road, and this additional trail corridor will add connectivity for people taking public transportation. The proposed trail corridor runs north from Lake Springfield Park on an existing utility corridor, and then runs along S. Charleston Avenue north of E. Lakewood Street, connecting to Republic Road. This proposed trail segment is 1.3 miles in length, which is approximately a 25 minute walk or a 10 minute bike ride.

In addition to the trail facility serving people taking public transit or visiting commercial locations, or the YMCA on Republic, the trail adds another way for adjacent neighbors to access Lake Springfield. A recurring concern during the planning process was the inability for nearby neighbors to access the lake and park via foot or bike. The new trail serves several neighborhoods just north of the Lake and Park areas that will not have easier access to the improved destination amenities at Lake Springfield.

■ **Strategy: Implement Bicycle accommodations in line with OTO MTP Design Standards on improved and new roadway infrastructure**

On new or improved facilities (Briar, SW Gateway, EW Arterial), bike accommodations should be designed in line with OTO MTP standards. A complete streets approach should be taken to these facilities during the design process, that will result in better connectivity for all modes of transportation. Another component of this enhanced bicycle infrastructure is taking an all age and abilities lens to design. In general, 60% of the population is interested in bike commuting, but concerned. These concerns stem largely from safe infrastructure, as well as end of trip facilities. Designing new access to Lake Springfield with this population in mind will result in an inclusive design, the promotes active transportation.

■ **Strategy: Better connect internal trail system, and provide enhanced bicycle parking**

Similar to access to the lake, current access across and around the lake is non-existent. While there are several trail segments that exist within separate areas of the planning site, these separate trails are not connected. Through internal trail updates, people will be able to arrive a Lake Springfield via car, park, and then bike to all of the zones and their planned destinations. Alternatively, people will also be able to bike to Lake Springfield and connect to each area without needing to mix in vehicular traffic. Proposed trails in the North Activity Zone create a better internal system that connects south to the Lake and Park areas, as well as across via the proposed Chadwick Flyer to the Power Station Site and South Activity area.

■ **Strategy: Provide cross-lake connectivity via a new bridge that connects the Boathouse to the Trail of Honor**

Connecting the unique amenities and proposed new assets within the Lake area is important for a cohesive place, that offers a mix of entertainment, nature, and recreation. A bridge connecting the Boathouse to the north activity area is an important feature to tie more passive recreation opportunities with more adventure focused and destination experiences. The bridge will serve primarily people on foot or bike but may be open to vehicular traffic in some capacity to facility events at the new proposed cultural pavilion in the North Activity area.

Objective 5: Plan For Adequate Public Infrastructure & Utilities

Given the higher intensity of uses with this proposed plan, as well as the need to retain some of the functional utility purposes of City Utilities operations, infrastructure and utility investments should be clearly planned during the final site development plan.

■ **Strategy: Plan for early coordination with existing known utilities in the area and City Utilities**

With limited commercial or hospitality uses currently, specific consideration needs to be included in the final site plan and utility coordination. Early discussions on utility needs, as well as impacts to existing utilities and operations is critical to a successful plan.

LAND USE & PROGRAMMING

GOALS AND OBJECTIVES

VISION GOALS

Identifying overarching goals during the master plan process is critical to ensuring the outcome meets clear expectations. The following goals established at the beginning of the project help to guide the vision and are reflected in the final plans for Lake Springfield.

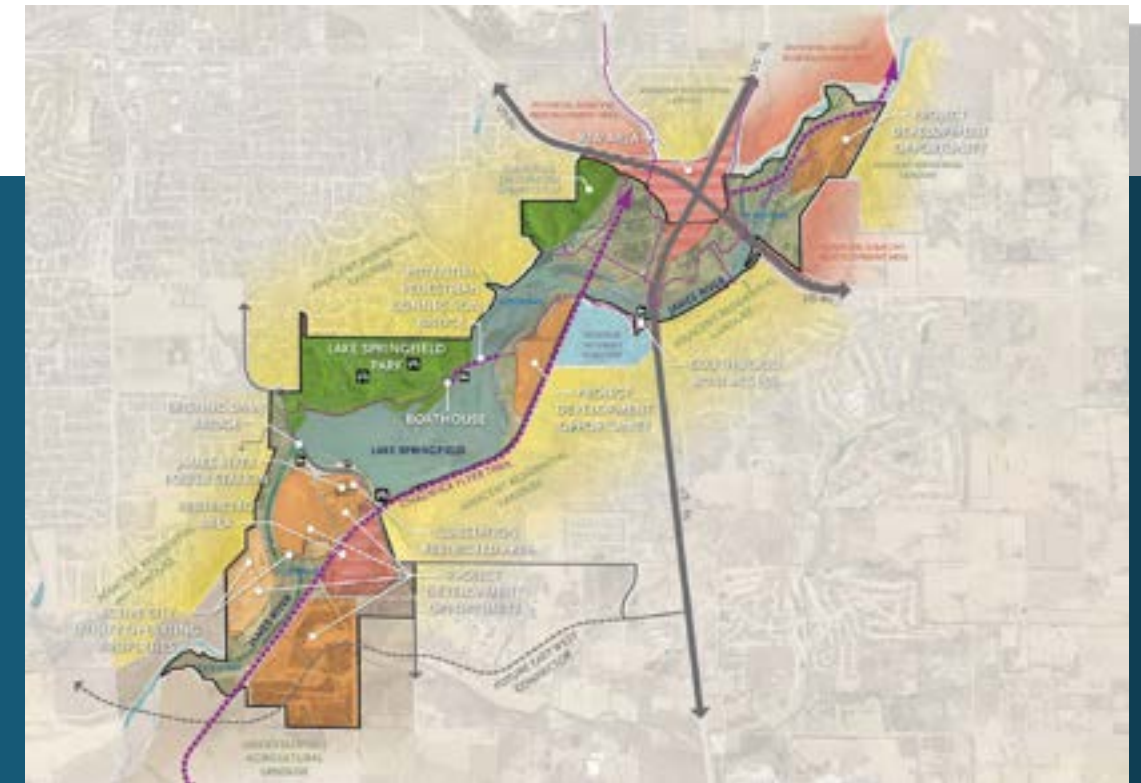
- Engage and activate the James River & Lake Springfield
- Expand pedestrian/bicycle access to & throughout the project
- Establish an identity for vehicular arrival and circulation
- Build upon the strengths of Lake Springfield Park
- Varying levels of intensity for passive & active development
- Create a destination for 'play' and 'stay'
- Opportunity to integrate the history of people and place

PROJECT IDENTITY

Shaping an identity for Lake Springfield sets the tone for a cohesive vision. When considering the entirety of 1,000 acres to be planned for, having a strong anchor is critical for managing the endless possibilities. The natural beauty of the Lake Springfield site should be admired through the lens of this area becoming the “Gateway to the Ozarks”. This identity is celebrated throughout the site, whether through preserved nature or development that takes cues from the surrounding environment. No matter if you are bustling in a lively atmosphere or reflecting in the solitude of nature, reminders of the splendor of the Ozarks will be abundant.

LAND USE ANALYSIS

With 1,000 acres of project area, Lake Springfield has a wide variety of conditions, both within and adjacent, to identify. Areas to protect, neighbors to respect, and restrictions to adhere to are outlined in the sections below.



EXISTING NATURE AND PARKLAND

The Lake Springfield Park and Springfield Conservation Nature Center north of Lake Springfield are successful public amenities. The MDC Springfield Conservation Nature Center is outside the scope of this master plan but is a valued neighbor and important partner. Considerations such as the restricted biking on trails and enhanced connectivity will be critical to a cohesive Lake Springfield.

ADJACENT RESIDENTIAL LAND USE

Any successful vision for the future of Lake Springfield depends on mindful planning and respect for the existing and future communities. Areas highlighted in yellow represent shared boundaries with adjacent residential areas. Future programs should be mindful of noise, light, traffic, and increased activities, especially near these edges.

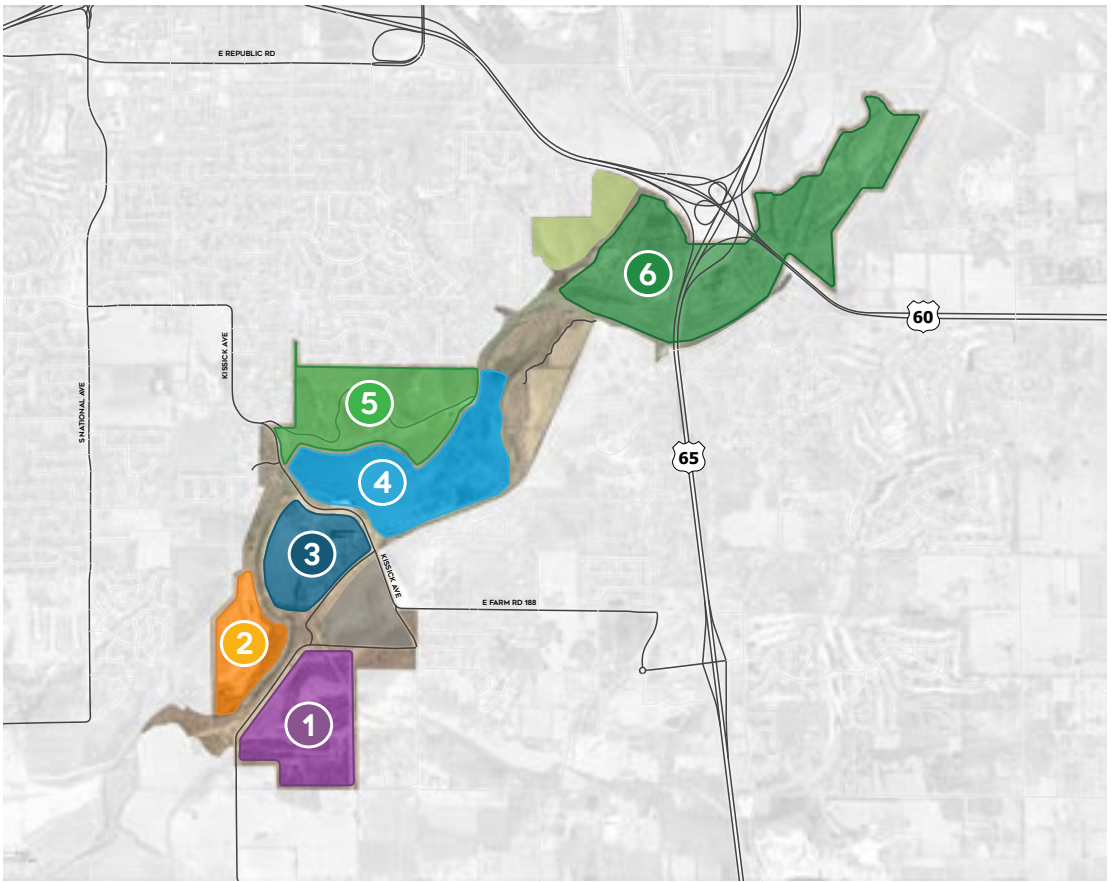
RESTRICTED AREAS

Several zones within the Lake Springfield project area have on-going City Utilities operations. Areas shown in the orange and red stripes are considered off-limits for the master plan. These zones include the power station substation, turbines, landfill, and highway right-of-way areas.

ACTIVITY ZONES

To begin conceptual design and programming, the total 1,000 acres of the site were divided into 6 activity zones. Each zone represents similar site features, access and environments with complementary possible activities.

- ZONE 1 - South Activity Area
- ZONE 2 - Future Energy Innovation Site
- ZONE 3 - Power Station
- ZONE 4 - Lake
- ZONE 5 - Park
- ZONE 6 - North Activity Area



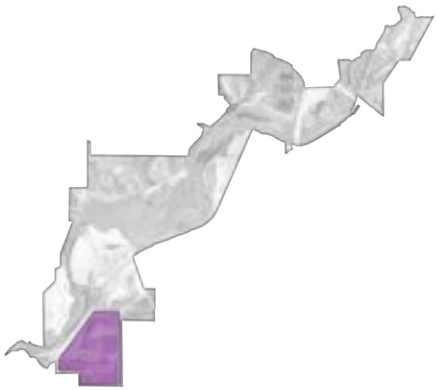
● ZONE 1 - SOUTH ACTIVITY AREA

Activity Zone Site Features:

- Approximately 130 acres in size
- Open fields and woodlands covering rolling topography
- Utilities and creek are development considerations
- Adjacent to the Chadwick Flyer Trail and the James River
- South access point for Lake Springfield
- Potential for a destination activity

Possible Activities Include:

- Lodging (Cabins / Camping)
- Lake w/ Amenities
- Playgrounds
- Trails / Trailhead
- Athletic Field Complex / Unique Sports
- Adventure Recreation (bike/skate park)
- Woodland Restoration
- River Access





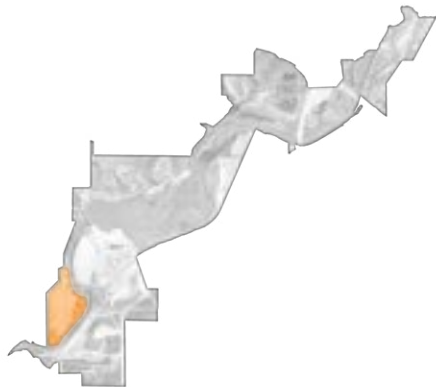
● ZONE 2 - CAPPED LANDFILL

Activity Zone Site Features:

- Approximately 50 acres in size
- Requires coordination and planning for use
- Flat and open space for use as a passive or light active recreation amenity area.
- CU infrastructure and pilot demonstration site
- Solar array and innovative cover
- Views of the power station and dam
- *Area not further developed at this time

Possible Activities Include:

- Native Landscape
- Art
- Education (site & ecology)



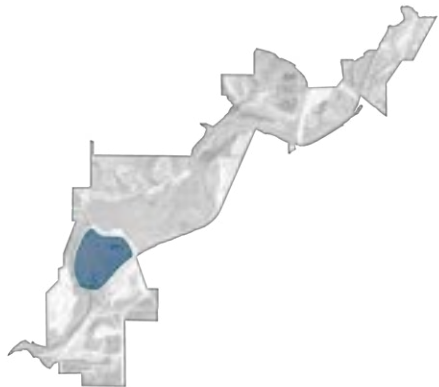
● ZONE 3 - POWER STATION

Activity Zone Site Features:

- Signature space at Lake Springfield
- Several surrounding areas remain in service for CU
- Redevelopment of the Power Station as a catalyst for economic, employment and recreation opportunities
- Consider the identity, character, and visitor experience

Possible Activities Include:

- Themed Lodging
- Museum / Skills Training
- Day Trip Outpost
- Trailhead / Transit Station
- Indoor Athletics / Adventure Recreation / Event Space
- Midway / Outdoor Education / Gardens
- River Access / Overlook
- Amphitheater / Demonstration Areas





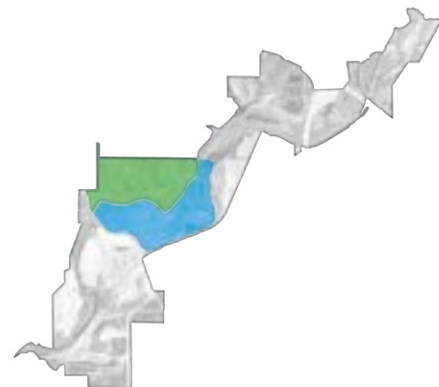
● ● ZONES 4 & 5 - LAKE AND PARK

Activity Zone Site Features:

- Approximately 330 acres of existing public park and water based amenity area.
- Located north of the Power Station and dam,
- Opportunity to expand on its existing offerings or
- Opportunity to be re-imagined based on the redeveloped Power Station and modified dam.
- Potential to expand existing boathouse

Possible Activities Include:

- Restore River Channel and Create Wetland
- Dredge Lake for Deeper Water
- Activate Lake Edge with Access
- Group Camping / Nature Based Education
- Nature Center / Marina
- Expanded Disc Golf and Day Use Amenities
- Expand Pedestrian Access to Park
- New Vehicular Entry and Park Access
- Cabins / Lodges w/ Amenities along Lake Edge



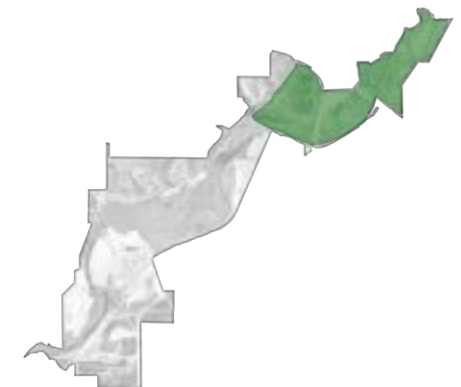
● ZONE 6 - NORTH ACTIVITY AREA

Activity Zone Site Features:

- Approximately 450 acres in size
- Along the James River north of Lake Springfield.
- Includes the Nature Center, Southwood Access, and 65/60 interchange
- A significant amount of the area is located within the James River floodway and flood plain.
- Existing trails provide connection over the James River, under the highways, and connect to the Nature Center and Galloway Creek Greenway.

Possible Activities Include:

- Bridge Crossing North of Lake Springfield
- Loop Trail Development with Chadwick Flyer
- Branding and Identity at 65/60 Interchange
- North side trailhead and river access
- E. Timbercrest Road trail connection

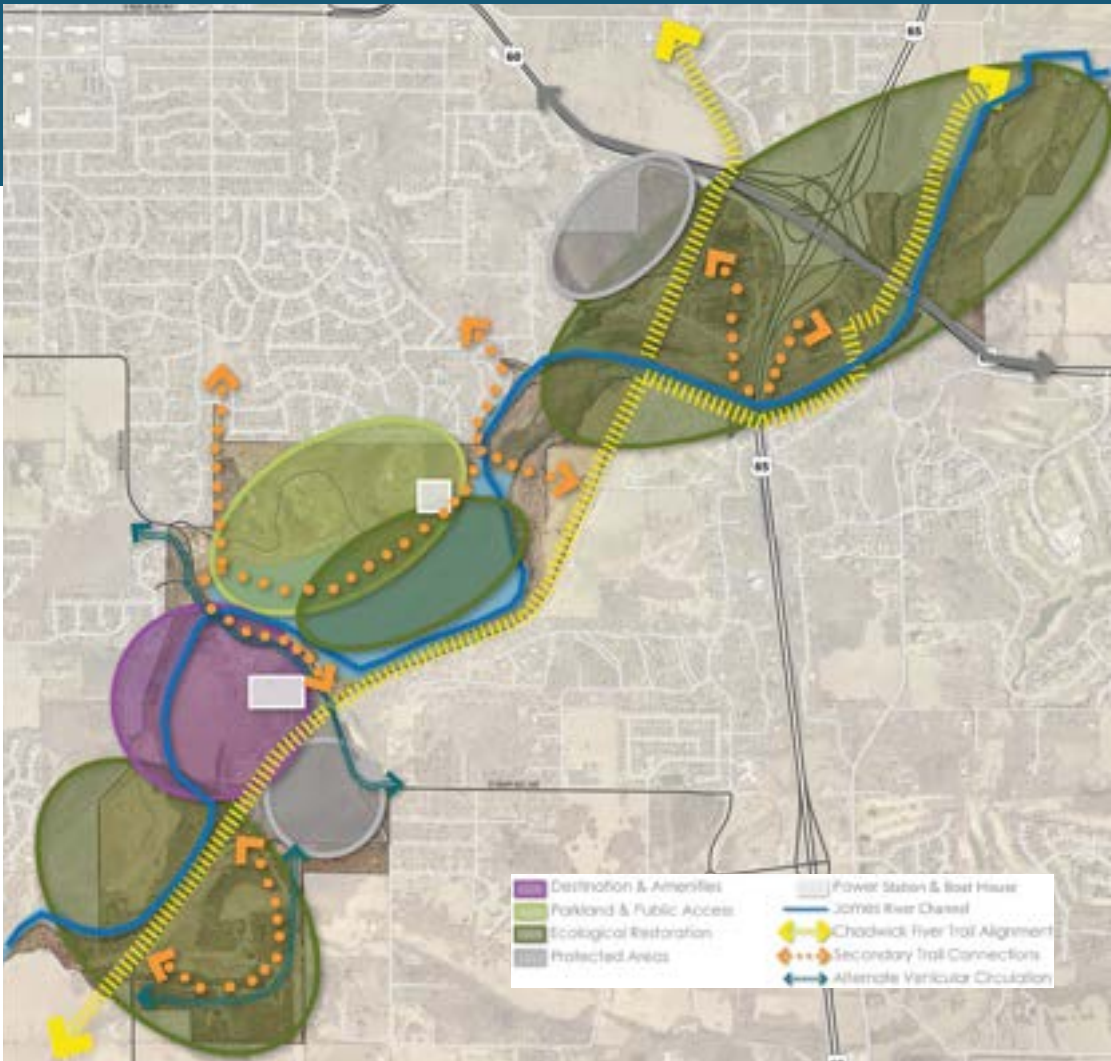


INITIAL PROGRAMMING CONCEPTS

To identify program priorities at a large scale, several concepts were developed to explore blending natural amenities, entertainment and recreation opportunities. The following concepts outline general ideas of place and event based programs and regions they might be suitable for.

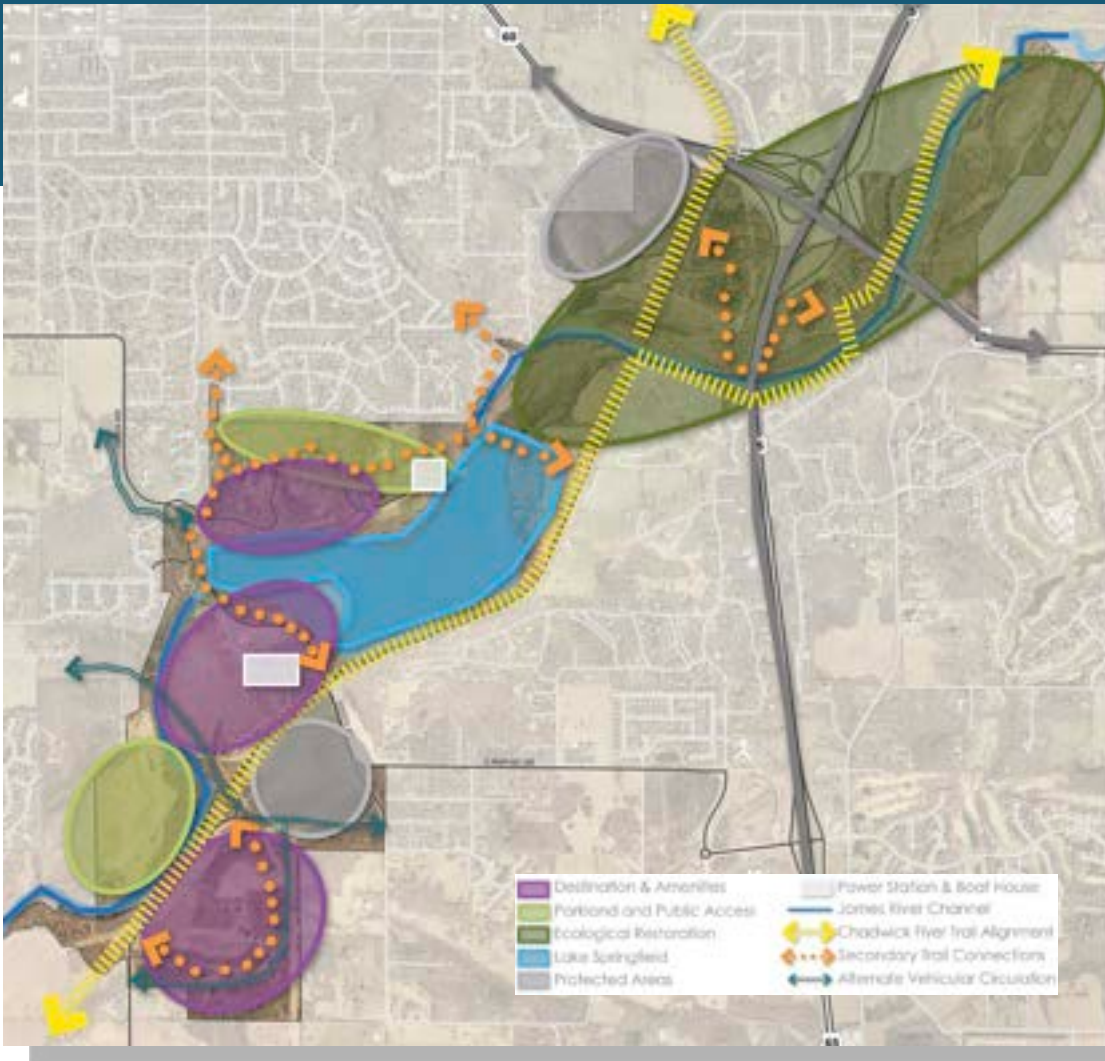
ECO-TOURISM

This place based concept distinctly prioritizes place based amenities highlighting the beauty of the Ozarks. Economic benefits would be driven by eco-tourism and spaces for those seeking connection with nature. Low impact amenities such as destination play would complement the overall goal of blending with place.



ENTERTAINMENT DISTRICT

In an active, event based scenario, the main objective is elevate entertainment experiences. Tourist attracting and revenue generating amenities are heavily featured to support events, competitions, gatherings and more. High development projects and unique businesses will attract visitors from the region and bolster economic vitality in Springfield.

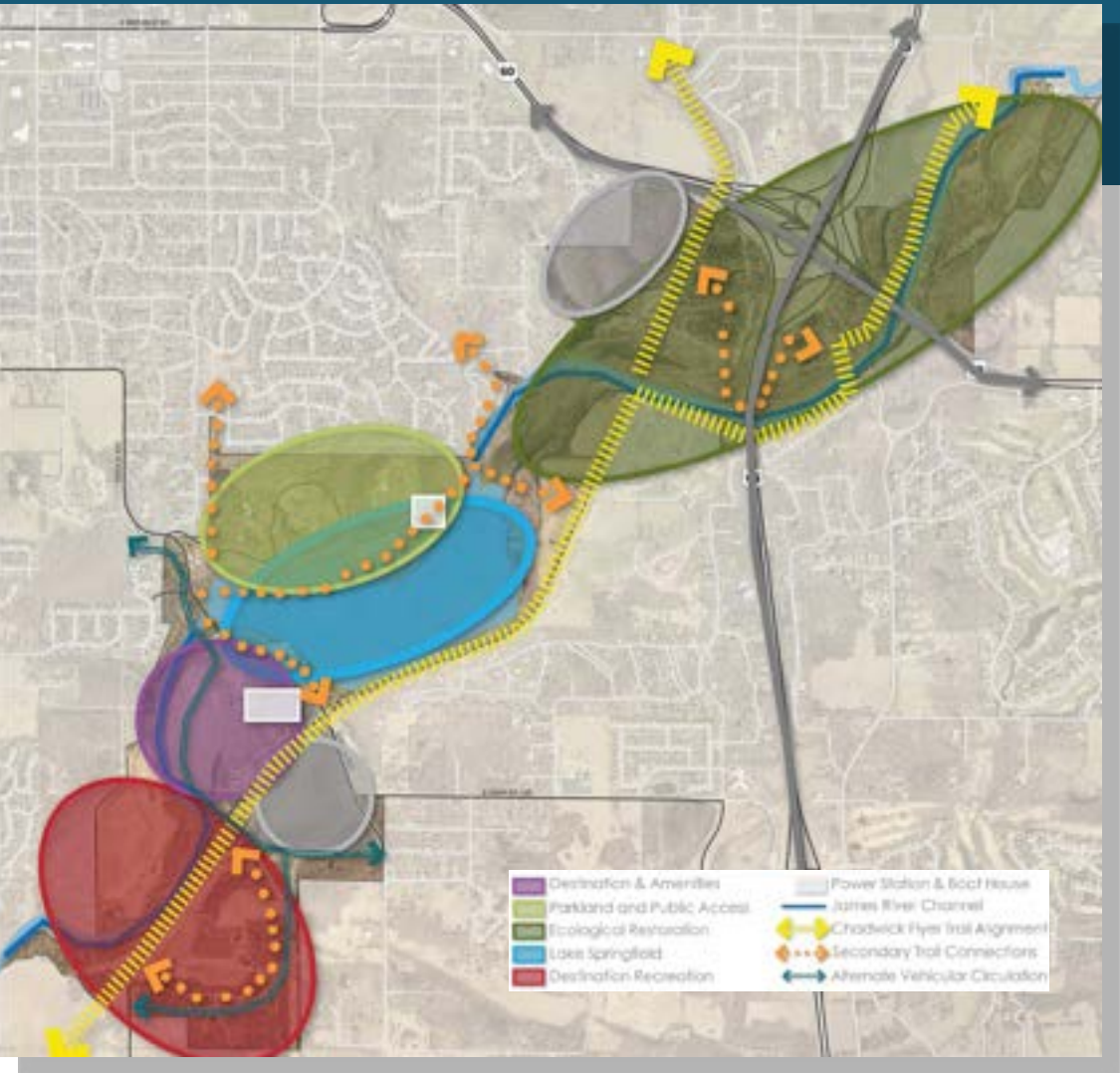


INITIAL PROGRAMMING CONCEPTS

(CONTINUED)

RECREATION DESTINATION

To blend place and event program ideas, this concept seeks to provide a variety of activities that bring people to Lake Springfield for the local amenities paired with large capacity event spaces. Visitors would be inclined to plan multi-day stays and varieties of venues with capacity for large conferences, athletic and recreation spaces would host regional or even national events.



CONCEPT REFINEMENT

Following the public open house and on-going feedback, two concepts were developed to explore more refined spatial arrangements of desired program elements.

Initial program explorations made it clear that the North Activity area should remain a place of protected environment and limited development. The current successes of the Lake Springfield Park would be transformed into an updated boathouse/marina and destination play areas.

New constructed wetland islands are imagined as way to make use of existing lake conditions and create ecologically beneficial and exciting habitats. Boardwalk trails weaving among the islands draw visitors to engage with Lake Springfield in ways never possible before.

The Power Station and South Activity areas explore two concepts, blending the ideas of entertainment, adventure, and retreat. The Entertainment District concept generates high activity programming near the James River Power Station, with a focus on unique and exciting attractions. This is complimented by destination play and retreat spaces to the south. The Adventure Hub concept prioritizes multi-use event space and recreation options. In this concept, adventure parks and a signature bike park activate the south activity area.

Both concepts include other dining, retail, commercial and lodging options. Miles of trails connect these activity areas to other zones within the Lake Springfield project area. Options for new water activities, including kayaking, white water rafting, or other water adventures, will bring visitors from the surrounding region and beyond seeking time on the water.



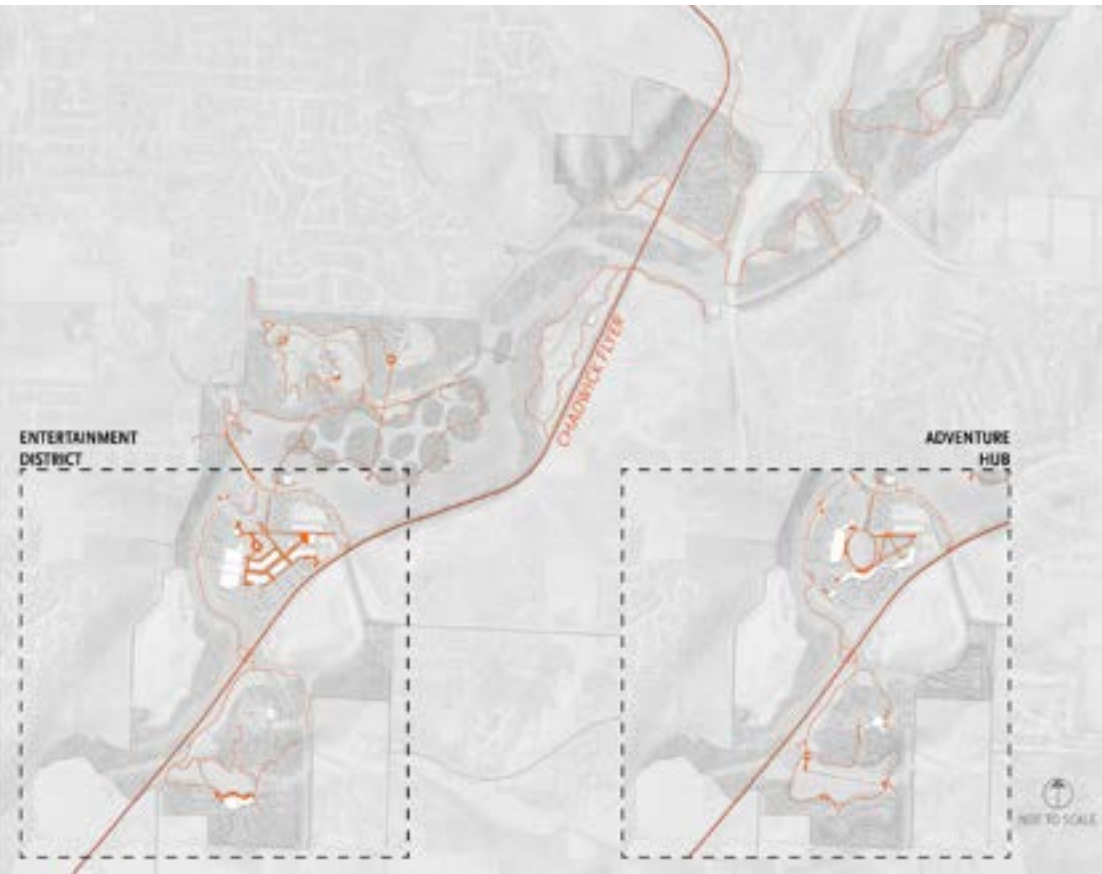
FINAL CONCEPTS

The final concepts developed for Lake Springfield explore a variety of options for outdoor experiences, recreation activity, and entertainment options that span the 1,000 acres of opportunities. The site plans presented below show the entire project area, which remains the same in the Park, Lake, and North Activity areas. The Power Station and South Activity areas reflect two different concepts: The Entertainment District and The Adventure Hub. The following sections describe overall proposed site conditions, followed by detailed zone site plans and concepts. Additional information regarding transportation, building/area sizes, and economic projects can be found in other chapters of this report.



TRAILS & CONNECTIVITY

The existing trails, including the Chadwick Flyer which is planned to bisect the project area, are strong foundations for site wide networks of trails and connectivity. The Lake Springfield project will contain approximately 14 miles of paved trails to connect visitors to different areas. Nearly half of this will be in the North Activity areas, where visitors will meander through varieties of ecosystems, guided by interpretive signage. In addition, many meadow`s and forests will have mowed trails or dirt paths offering even more opportunities to those seeking nature hikes.



Zones	Miles
North Activity	6.1
Park & Lake	3.1
Lake Boardwalks	1.4
Entertainment District	3.7
Adventure Hub	3.0
Total (Approximate)	14

PRESERVED NATURE AREAS

To ensure protection of the invaluable natural resources, the Lake Springfield plan identifies key areas to maintain or restore as natural areas and ecological zones. The North Activity area remains entirely low-development, and the majority of high-development activity revolves around the James River Power Station, an already disturbed site. Development occurring in the South Activity area prioritizes development opportunities ready to blend with the existing site.

In addition to protecting the successes of the current environment, new wetland islands constructed in the lake will create habitat and invite wildlife and people to the water.

RESTRICTED AREAS

Several key sites within the project area require long term consideration and on-going coordination. Some components of the James River Power Station need to remain in operation and readily accessible, including the substation, turbines, and landfill.





NORTH ACTIVITY AREA

In both concepts the North Activity area prioritizes preservation of natural resources with the addition of trail networks to connect people to the outdoors. Several points along the James River are ideal for new river access and trailhead locations. With access to the Chadwick Flyer Trail, this zone would offer points of departure or scenic detours for users of this regional trail. Additional or improved access points to neighborhoods and across the James River keep the site connected.

Enhanced habitat areas such as bird meadows or riverside wetlands would enrich wildlife and environmental health. Hikers would have nearly 7 miles of trails to explore, go birding, or appreciate nature.

There is opportunity to celebrate the contributions of Native Americans and their stewardship of this land long before the City of Springfield existed. The land east of Lake Springfield, connected by a new bridge, will host a Cultural Center, dedicated to education, enrichment, and appreciation of Springfield Native Americans.

Zone Amenities

- Wetland Preservation
- Nature Amenity Area
- Meadows
- Trails / Trailheads
- River Access
- Culture Education / Event Lawn
- Nature Center Access



LAKE SPRINGFIELD PARK

The park provides an opportunity to reimagine the land to host options for light development to enhance recreation and gathering activities.

A new bridge will connect Lake Springfield Park to the North Activity area, engaging with the Cultural Center upon arrival. To the south, an iconic pedestrian bridge will encourage visitors to explore new areas of Lake Springfield.

The jewel of the park is an iconic expanded and redeveloped boathouse and marina, providing a gateway to connecting people to the water. Visitors could rent kayaks, begin a boardwalk trail journey, host events, and engage with interpretive resources, expanding upon the beautiful surrounding landscapes.

High points and iconic overlooks in the park are accentuated with spaces to bring people together. A destination playground would showcase nature play elements while a retreat center offers unique stays and experiences.

Zone Amenities

- Boathouse / Ecology Center
- Marina / Wetland Boardwalk
- Retreat Center
- Destination Play
- River Crossings / Overlooks
- Disc Golf
- Neighborhood Trail Connection
- Renovated Park Entry



ENTERTAINMENT DISTRICT - POWER STATION

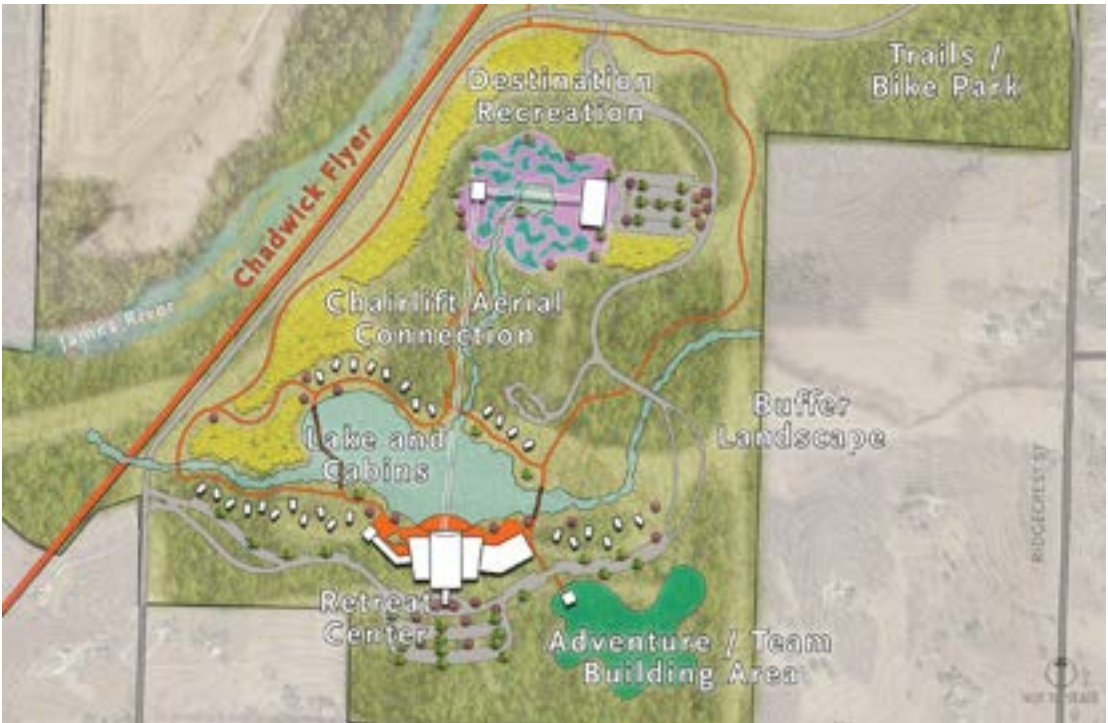
As a destination entertainment district, this concept reimagines the James River Power Station as an anchor for a unique regional attraction. With several points of entry, visitors will find access and parking simple for many modes of transportation.

The main building would be a multi-use event venue, with a 270,000 square foot capacity. Supporting buildings arranged along a pedestrian promenade would house mixed use retail/commercial/office/residential spaces.

A channel bypass would allow river trail users to bypass the dam and continue along the James River without portaging. New recreation opportunities, such as white water courses and adventure courses keep water experiences present throughout the site. Event spaces such as concert venues, amphitheaters, and gathering spaces can host crowds, while businesses such as food and beverage halls, yard and game activities, and entertainment options will keep people returning.

Zone Amenities

- Power Station Entertainment
- Multi-use Event Venue
- Retail / Residential / Office
- Restaurant / Overlook
- Riverfront Recreation
- Event Lawn/ Pavilion
- Bypass Channel
- Whitewater Adventure
- Chadwick Flyer Trailhead



ECO-RETREAT - SOUTH ACTIVITY AREA

To the south of the bustling Entertainment District lies a quieter, but no less active, recreation and retreat area. Programming elements here focus on blending with the natural resources of the South Activity area while curating new experiences. A destination recreation area with room for activities such as putting courses, rope and aerial obstacle courses, outfitters and other retail offerings and more.

A new retreat center surrounded by lakefront cabins will provide stay options with a focus on quiet time in natural settings. The retreat center can host rooms, amenities and gathering spaces, while an adventure/team building area nearby can enhance family reunions or corporate retreats. Additional space to the northeast could become a bike park with trails to provide further recreational benefits.

New trails continue to weave in and around the Eco-Retreat areas fostering connections to other zones. A scenic chairlift ride connects the destination recreation area to the retreat center bringing visitors up and over the forest and lake.

Zone Amenities

- Retreat Center
- Retreat Cabins/Yurts
- Adventure Course
- Destination Recreation
- Lake / Amenities
- Bike Park



ADVENTURE HUB - POWER STATION

The second concept for the revitalizing the Power Station area focuses on adventure recreation and conference center programming. A large community green complements the anchoring power station and provides open flexible space for gathering or farmer’s markets and festivals.

The conference center expands upon Springfield’s existing offerings with 155,000 sqft of new space, supported by mixed use buildings and smaller entertainment venues. Hospitality and restaurants scattered throughout the site will further time spent in Lake Springfield.

A new opportunity for visitors to engage with water is showcased through the kayak basin. The integrated bypass channel allows James River Water Trail users to continue pass the dam without portaging. Areas adjacent to the kayak basin are ideal for unique gathering and programming opportunities.

Zone Amenities

- Power Station Reuse
- Conference Center
- Hospitality
- Restaurants
- Integrated Bypass Channel
- Kayak Basin
- Community Green
- Water Adventure



ADVENTURE PARK - SOUTH ACTIVITY AREA

To complement activity near the power station, this concept continues the adventure programming with unique and thrilling outdoor activities.

A 10 acre bike park and RC track weaves through courses for all skill levels to bring adventure-enthusiasts to Lake Springfield. Supporting amenities such as bike shops, other retail, or food and beverage help generate visits and spending. A amphitheater and open lawn can host concerts or other events, or be used regularly for picnics or gatherings. A large ropes course brings thrills to the treetops and promises exciting experiences.

A new adventure activity lake developed on the south end could bring people to the water with floating obstacle courses and cable wakeboard parks. Surrounding RV Camping makes extending stays convenient for those ready to continue the adventure. With plenty of unique attractions that are not provided in the region, Lake Springfield’s potential to bring people in and create unforgettable memories promises to foster lasting benefit for generations to come.

Zone Amenities

- Canopy Ropes / Zipline
- Lake / Water Adventure
- Bike Park / Archery
- Trails
- RV Camping
- Amphitheater
- Retail / Food & Beverage

CONCEPTS & GOAL ALIGNMENT

To remain consistent with the Vision and goals of the Lake Springfield Project, each project zone and it’s related programing were evaluated against a series of environmental, economic, and social goals. Potential social and economic impacts are also compared to foster a balance of revenue-generating and community centric assets. Program items such as hotels, retail/ dining, commercial and residential spaces contribute to economic growth. Other amenities like playgrounds, trails, parkland, and community spaces are critical to providing social benefits. New adventure parks, entertainment venues, and recreational offerings can attract regional visitors with unique experiences only found at Lake Springfield.

See pages 96-119 for a detailed view of the goal alignment diagrams.

ECONOMIC	ENVIRONMENT	SOCIAL
E1 Innovative Economic Opportunities	N1 New/Green Infrastructure	S1 Innovative Recreation Opportunities
E2 New Funding Allocations	N2 Sustainable Water Quality	S2 Access & Equitable Transportation
E3 New Business Development	N3 Appealing Outdoor Amenities	S3 Water Access for Recreation
E4 Attract Private Investment	N4 Identity - Gateway to the Ozarks	S4 Elevating Quality of Life
E5 Resilient Job Creation	N5 Unique Adaptive Reuse	S5 Regional Draw

ECONOMIC DEVELOPMENT

With a feature component of the Lake Springfield Plan being the adaptive re-use of the James River Power Station and the economic opportunities, understanding the existing market potential and impacts of proposed activities is important to the implementation of this plan. This technical chapter on Economic Development provides an overview of the outcome of economic development analysis conducted for this project. This part of the study includes a market assessment, real estate analysis, case studies, strategic recommendations, and a fiscal and economic impact analysis.

MARKET ASSESSMENT

INTRODUCTION

To analyze the future opportunities for Lake Springfield, Johnson Consulting undertook a detailed analysis of market conditions in Springfield and its surrounding area, relative to state and national averages. While characteristics such as population, employment, and income are not strict predictors of performance for potential developments, these variables provide insight into the capacity and ability of a market to provide ongoing support for such facilities and activities. In addition, the size and role of a marketplace, its civic leadership, corporate presence, proximity to other metropolitan areas, transportation concentrations, and the location of competing or complementary attractions directly influence the success of facilities.

The objective of this analysis is to assess the strength of the Springfield and Greene County market and its ability to support Lake Springfield as an economic driver for the community.

MARKET OVERVIEW

Springfield is a southwestern city in Missouri known as the Queen City of the Ozarks. The city sits on the Springfield Plateau of the Ozarks and is known for its outdoor recreational activities, such as Lake Springfield. The many parks, trails, and other recreational amenities are key drivers for local economic activity and tourism.

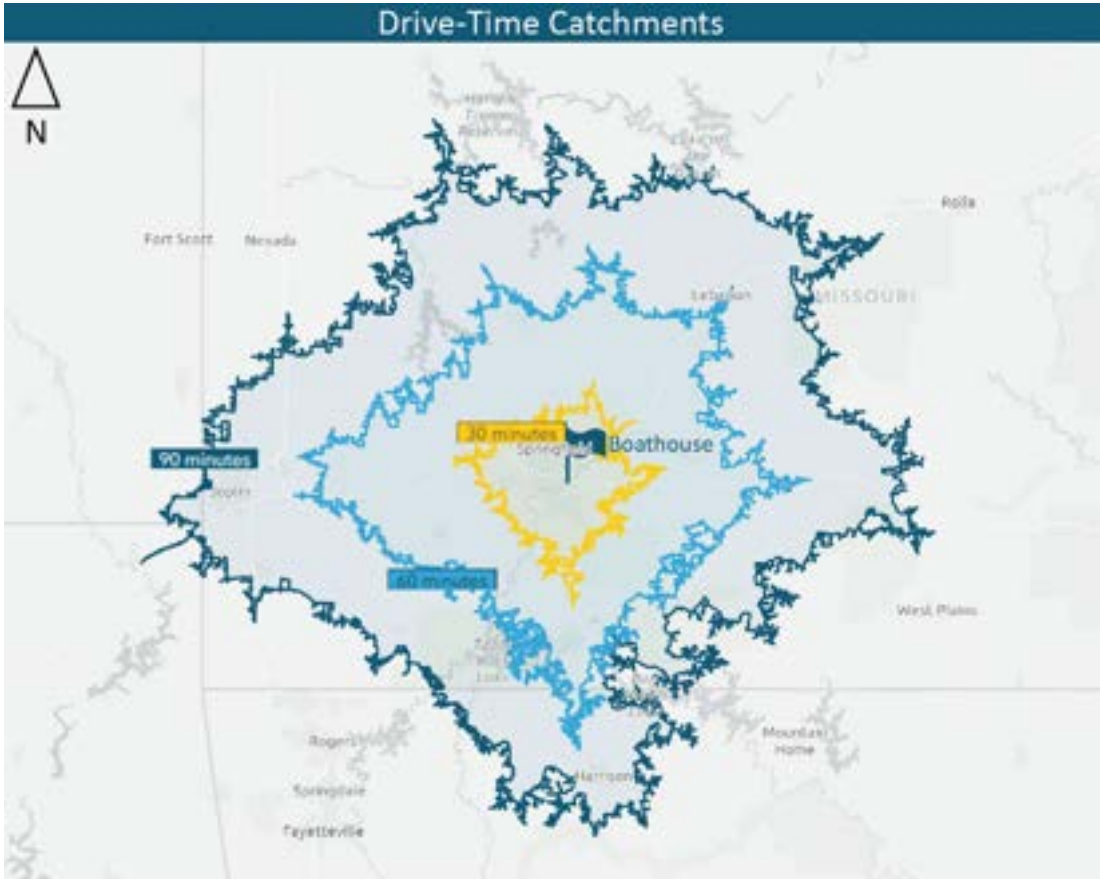
Accessibility

Springfield’s Location is advantageous from an accessibility standpoint. This applies to various transportation modes:

- **Road:** Springfield is easily accessible by U.S. Route 66, 65, and 160 and connects through Kansas City to the north, St. Louis to the northeast, and Oklahoma City to the southwest. Ozark, 8 miles south, and Branson, 34 miles south are both Missouri cities within a short drive of Lake Springfield.

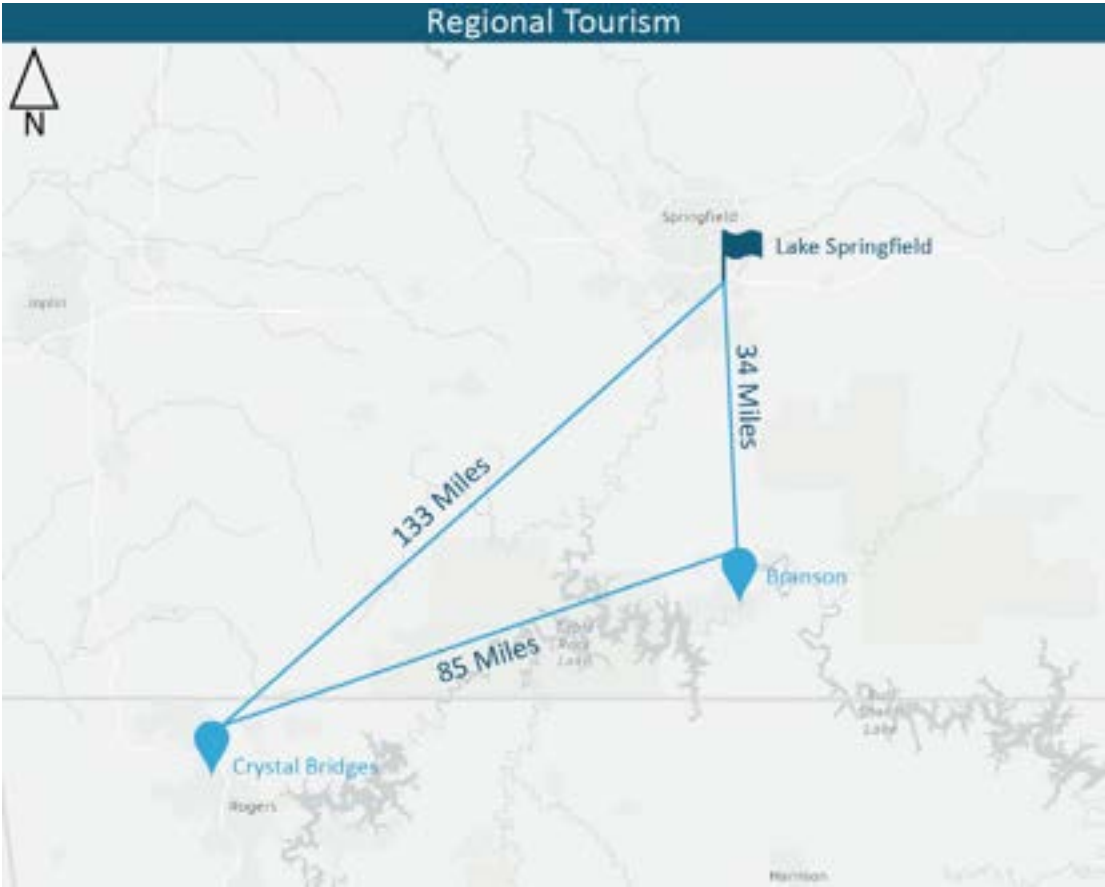
- **Bus:** Springfield is served by The Bus, a public transit agency run by City Utilities. Unfortunately, the bus lines do not currently reach Lake Springfield. For out-of-town visitors, there is a Greyhound bus station in downtown Springfield.
- **Air:** The Springfield-Branson National Airport (SGF) is located in northwest Springfield and serves American Airlines, Allegiant, Delta, and United. In 2019, the annual airlift at SGF was 1.19 passengers. Kansas City, St. Louis, and Tulsa are all nearby major cities with an international airport. Tulsa International Airport would be the closest at 177 miles southwest of Springfield.
- **Rail:** Passenger rail service is not available to or from Springfield.

Lake Springfield serves a key role in contributing to this unique identity of Springfield, while also tapping into the regional draw that this geographic proximity provides. The map below shows 30, 60, and 90-minute drive time radii from Lake Springfield, representing the typical primary catchment areas for a project of this type. It is the business, retail, medical, and cultural hub of a very large catchment area. As shown, the 90-minute drive time radius extends throughout southwestern Missouri, crossing over the state borders of Arkansas, Oklahoma, and Kansas. Springfield is located in Greene County and is the most populous city within the county.



Tourism

As shown below, Lake Springfield is north of two regional tourist destinations, Crystal Bridges and Branson, MO. Crystal Bridges was founded by a philanthropist and is a public non-profit that opened in 2011. The art museum, a series of pavilions nestled around two spring-fed ponds house galleries, a glass-enclosed gathering hall, and other meeting spaces, offers free admission. The site also recognizes the indigenous heritage associated with the land. Branson is an Ozark town known for family vacations. The city is home to various theatres, attractions, museums, amusement parks, and other entertainment venues and attractions. Creating a third destination at Lake Springfield will create a tourism hub in the region.



Population

Population forecasts indicate continued population growth across all subject areas. In 2000, Greene County had a population of 240,391, while the 60-minute drive time catchment had 286,559 residents. The 90-minute drive time catchment area had 871,264 residents in 2000. The county has had an overall population increase of 1.0% from 2000 to 2022. The 30-, 60-, and 90-minute drive time catchment areas have all experienced a higher positive population change compared to the state and national averages as well.

The table below presents the historical population trends for Greene County and the relevant comparative jurisdictions.

Population					
	2000	2010	2022	2027	CAGR
United States	281,421,906	308,745,538	335,707,897	339,902,796	0.8%
Missouri	5,595,211	5,988,927	6,186,582	6,219,856	0.4%
Greene County, MO	240,391	275,174	304,262	310,566	1.0%
30-Minute Drive Time*	286,559	345,103	388,537	399,263	1.3%
60-Minute Drive Time*	498,516	587,953	637,139	649,556	1.1%
90-Minute Drive Time*	871,264	998,419	1,048,860	1,063,101	0.8%
*Drive time from Lake Springfield					
Sources: Esri, Johnson Consulting					

Income

Income is another important indicator to consider when evaluating the potential to support new programming. Higher incomes are often correlated with higher participation in activities that generate demand and can present opportunities for philanthropic initiatives that can be beneficial in boosting revenues.

In 2022, Greene County reported a median household income of \$48,501, which was lower than that of all other comparative geographies. The drive-time catchment areas had an average median household income of about \$51,500 and the state and national averages were substantially higher. Additionally, while median household incomes are projected to grow for the county, the growth rate is lower than the state and national growth rates. In 2027, the median household income in Greene County is projected to be nearly \$30,000 less than the national median household income.

The table below outlines the median household incomes for Greene County and the comparative geographic areas.

Median Household Income			
	2022	2027	CAGR
United States	\$72,414	\$84,445	3.1%
Missouri	\$61,811	\$73,496	3.5%
Greene County, MO	48,501	55,873	2.9%
30-Minute Drive Time*	51,553	59,563	2.9%
60-Minute Drive Time*	51,626	58,633	2.6%
90-Minute Drive Time*	51,365	57,823	2.4%
*Drive time from Lake Springfield			
Sources: Esri, Johnson Consulting			

Age

Age is an important indicator to consider for new event facilities. Higher proportions of older residents can present opportunities to capture attendance from individuals who have more time to participate in activities. Higher proportions of children and families could be indicative of a successful market for children’s activities or educational programs. A larger presence of young adults could emphasize the importance of investing in the latest technologies and design trends for the facility. Age should also be considered in marketing efforts.

Greene County, Missouri, and the United States all have similar median ages. In 2022, Greene County’s median age was 38.0, while that of the drive-time catchment areas was between 37.9 and 40. All comparative geographies are also projected to grow at a rate of about 0.5% over the next 5 years, increasing all median ages by about 1 year.

The table below shows the median ages over time for Greene County and its surrounding areas.

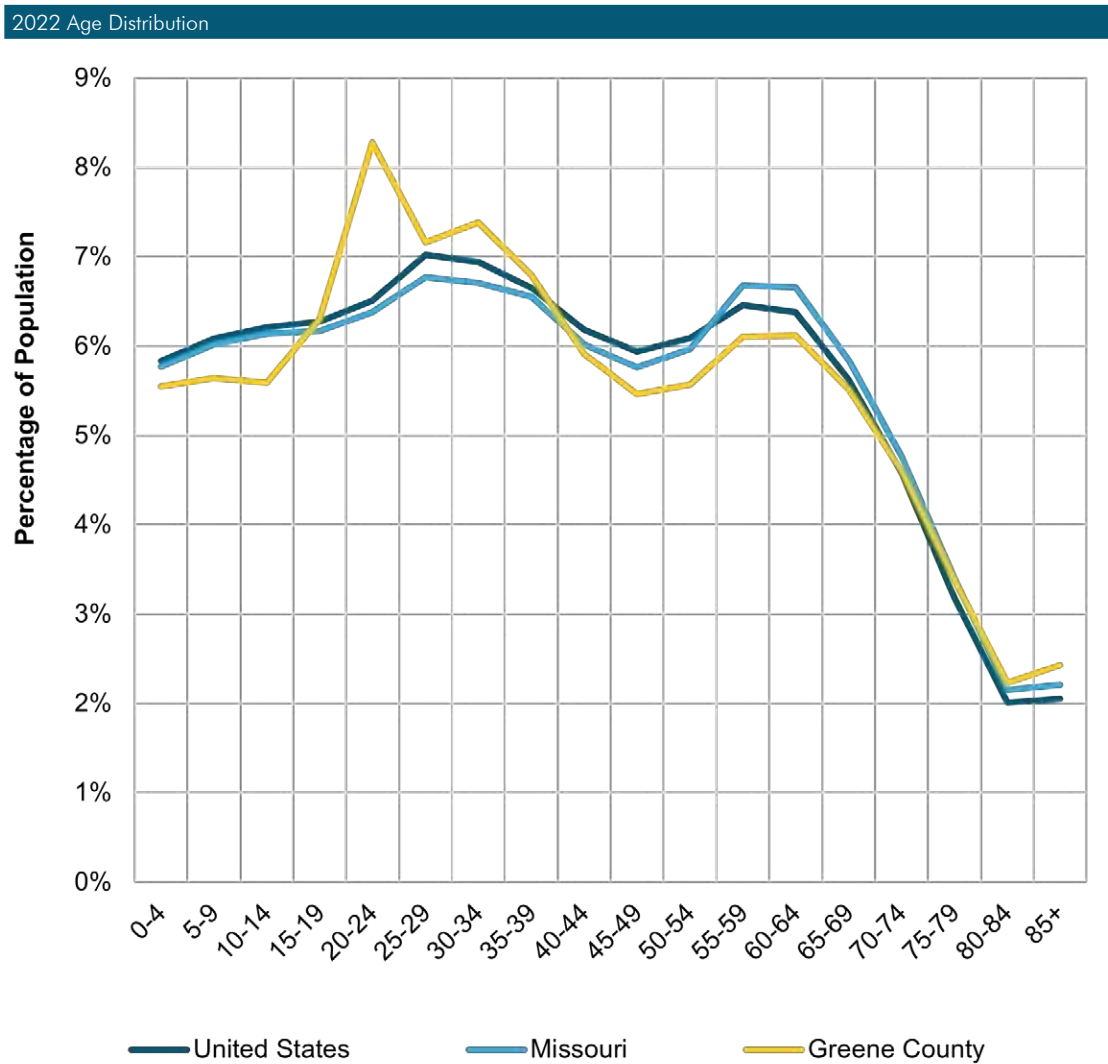
Median Age			
	2022	2027	CAGR
United States	38.9	39.6	0.4%
Missouri	39.6	40.5	0.5%
Greene County, MO	38.0	39.0	0.5%
30-Minute Drive Time*	37.9	38.8	0.5%
60-Minute Drive Time*	39.5	40.3	0.4%
90-Minute Drive Time*	40.0	40.9	0.4%
*Drive time from Lake Springfield			
Sources: Esri, Johnson Consulting			

Age Distribution

Another important indicator to consider is age distribution, as it can be indicative of trends that may not have been captured by the more generalized median age figures.

There are a few noteworthy observations from this assessment. The age distribution in Greene County seems to split from the state and national distribution for younger age ranges. A significant outlier would be the increase in 20–39-year-olds in Greene County compared to Missouri and the United States. This increase is primarily due to the portion, over 8%, of 20–24-year-olds in the County, compared to the state and nation.

The graph below reflects these age distribution trends.

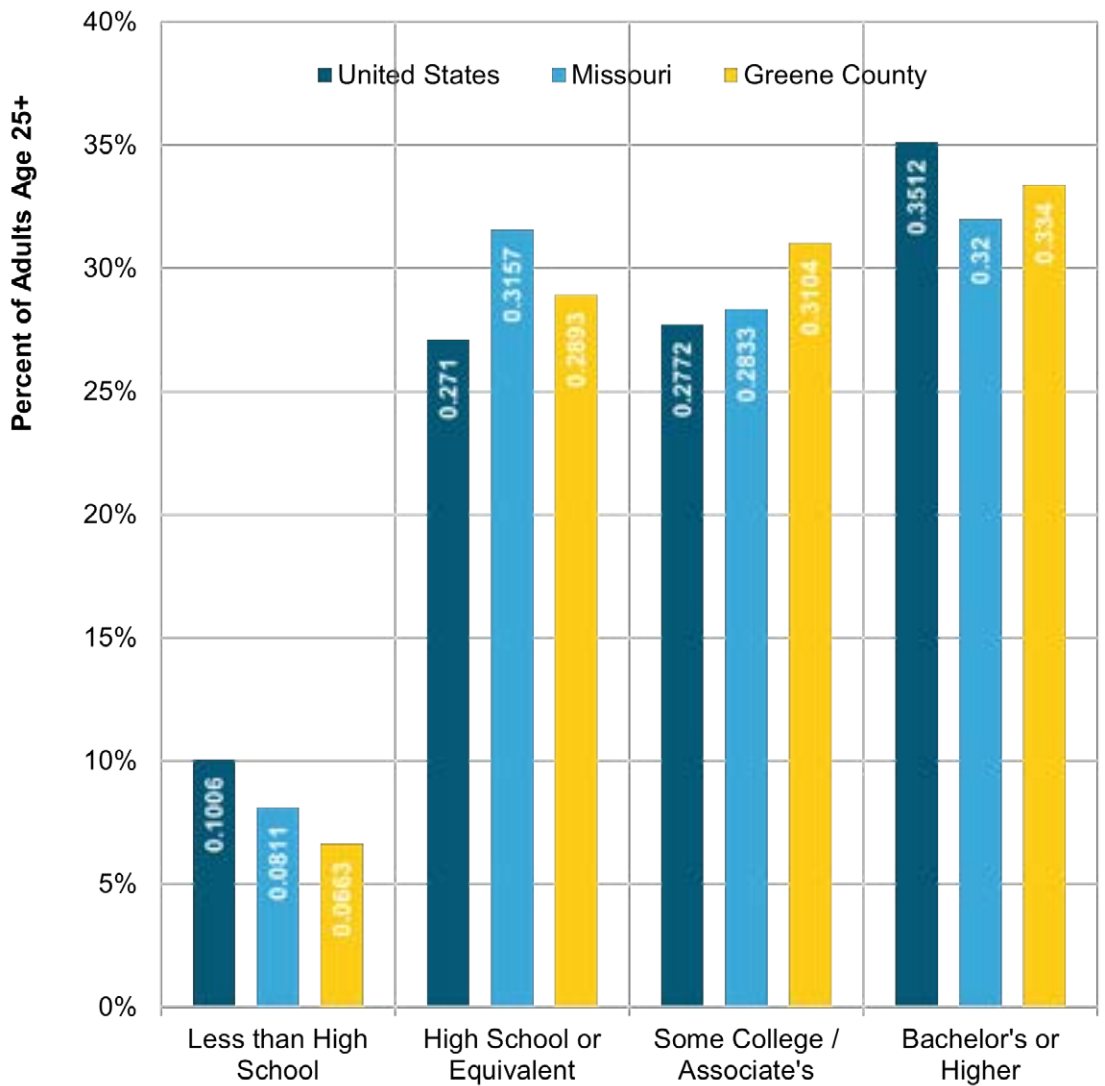


Education

Educational attainment is another indicator that tends to be correlated with higher engagement with activities. For illustrative purposes, these numbers focus primarily on the primary geographic areas.

This analysis paints a favorable picture of educational attainment in Greene County. Again, the trends between the county, state, and nation are similar. Noteworthy observations are that the County and State have a similar proportion of residents with bachelor's degrees or higher as compared to the nation.

The chart below presents a detailed breakdown of educational attainment in Greene County, relative to state and national averages.



Springfield also has several higher education institutions as well as regional branch campuses for other large Universities. The table below details the most recent enrollment numbers for the primary intuitions in the city, which adds over 20,000 students to the area. Although these students may be transient residents, it is helpful to note when thinking about programming and event types to draw in the student audience.

Ozark College in Branson does not charge tuition. Instead, the students work on the farm and in other areas to compensate for tuition. A similar model could be considered for local area schools, using Lake Springfield as one of their tuition-earning options.

Higher Education Institutions in Springfield, MO	
Institution	Enrollment
Two-Year Colleges & Technical Schools	
Southwest Baptist University - Springfield	363
Baptist Bible College	250
Cox College	
Four-Year Colleges & Universities	
Missouri State University	15343
Columbia College - Springfield	200
Evangel Univsersity	1,480
Drury University	2,412
Total	20,048
Source: Relevant Facilities, Johnson Consulting	

Economy

Economic analysis provides key insights into the employment and business distributions in the area and can help identify potential resources that Lake Springfield could tap into, such as corporate sponsorships or partnerships. It can also be an important consideration for industries to target as users of the proposed programming, as well as taking into account the unique programmatic needs of each target industry sector.

The table below identifies the total number of employees by the NAICS industry sector in Greene County, as well as the proportion of employees relative to employment throughout the United States. This method involves using a calculation called a location quotient. A location quotient of less than 1 indicates a lower concentration of that industry in Greene County, while a location quotient higher than 1 indicates a higher concentration of that industry within Greene County.

Employment Location Quotient by Industry Sector			
Sector	Greene County	United States	Location Quotient
Health Care/Social Assistance	26,833	23,506,215	1.2
Retail Trade	19,513	17,507,961	1.2
Educational Services	14,955	14,659,591	1.1
Manufacturing	12,321	15,599,649	0.8
Accommodation/Food Services	11,773	10,606,059	1.2
Construction	9,324	11,547,929	0.8
Professional/Scientific/Tech Services	9,203	13,016,951	0.7
Transportation/Warehousing	8,697	8,951,781	1.0
Finance/Insurance	8,310	7,841,079	1.1
Other Services (excl Public Administration)	7,920	7,599,446	1.1
Admin/Support/Waste Management Services	6,539	6,232,378	1.1
Public Administration	5,151	7,945,677	0.7
Wholesale Trade	5,022	4,005,424	1.3
Information	3,161	3,018,469	1.1
Real Estate/Rental/Leasing	2,852	3,251,996	0.9
Arts/Entertainment/Recreation	2,124	2,872,227	0.8
Utilities	1,254	1,362,753	1.0
Agriculture/Forestry/Fishing/Hunting	722	1,885,414	0.4
Management of Companies/Enterprises	222	97,694	2.4
Mining/Quarrying/Oil & Gas Extraction	48	581,692	0.1
Total Employees	155,944	162,090,385	
Source: Esri, Johnson Consulting			

As shown, the industries that account for the largest number of employees in Greene County are Health Care/Social Assistance, Retail Trade, and Educational Services. As of 2022, total employment in Greene County was 155,944. Industries that are concentrated in Greene County relative to national average Management of Companies/Enterprises and Wholesale Trade. These top industries reflect the strong healthcare and educational services sectors in the area. Tourism is also a positive force, with the market already penetrating the retail and hospitality sectors.

Employers

The table below identifies the largest employers in Springfield, according to the Springfield Area Chamber of Commerce. As shown, there is only one company that employs over 10,000 people and two entities that employ more than 5,000 people. The large presence of the Health Care, Education, and Retail sectors is further evidenced in this analysis. This information can be useful to target potential users of Lake Springfield, as well as for prospecting corporate partnerships and sponsorships.

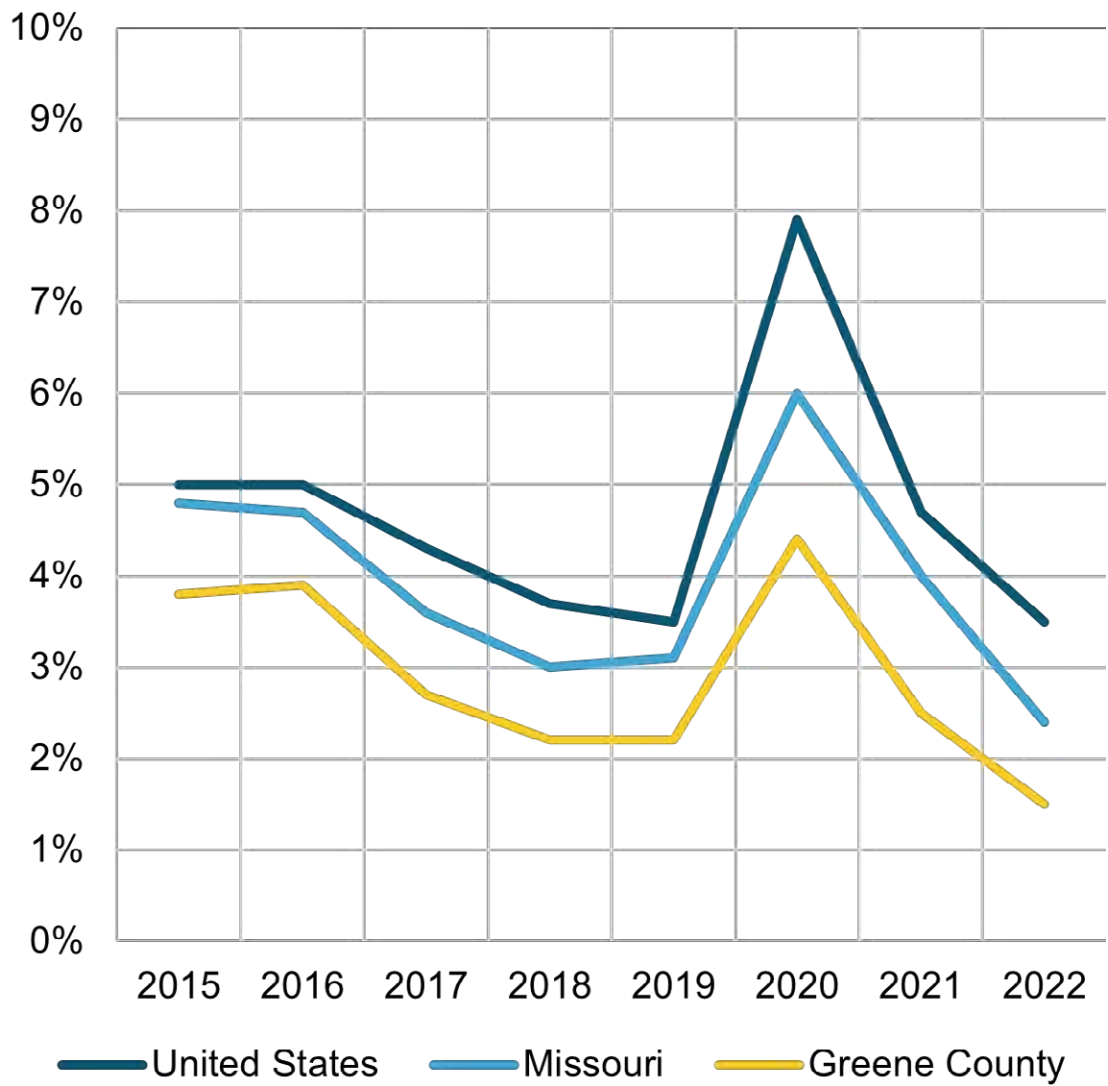
Major Employers (1,000+ Employees)		
Employer	Industry	Employment
CoxHealth	Healthcare	12,164
Mercy Hospital Springfield	Healthcare	8,202
Walmart Inc.	Retail	5,381
Springfield Public Schools	Education	3,694
Bass Pro Shops Tracker Marine	Retail/Manufacturing	3,127
State of Missouri	Government	3,018
United States Government	Government	2,919
Missouri State University	Education	2,760
O'Reilly Auto Parts (HQ)	Retail/Manufacturing	2,307
City of Springfield	Government	2,028
Citizens Memorial Healthcare	Healthcare	2,025
Jack Henry & Associates, Inc.	Software Development	1,853
SRC Holdings (HQ)	Manufacturing	1,500
Prime, Inc. (HQ)	Transportation	1,301
Burrell Behavioral Health (affiliate of CoxHealth)	Healthcare	1,218
Ozarks Technical Community College	Education	1,191
EFCO (HQ)	Manufacturing	1,170
Chase Card Services	Financial	1,120
Lowe's	Retail	1,010

Sources: Springfield Area Chamber of Commerce, Johnson Consulting

Unemployment

The unemployment rate is a standard indicator used to evaluate the economic strength of an area and can be insightful for considering the ability of an area to support certain facilities proposed at Lake Springfield.

The graph below shows the average annual unemployment rates for Greene County relative to state and national averages. As shown, Greene County had nearly identical trends compared to the state and nation, but the rates for Greene County are consistently lower. Most recently, Greene County reported a very low unemployment rate of 1.5%, which must be putting undue pressure on the regional employers.



Market Tapestry

This demographic analysis featured earlier provides an accurate overview of each population profiled, but it fails to determine what type of consumer resides in these areas. By using Tapestry breakdowns, that classify certain consumers based on the demographic and socioeconomic factors, we can better understand what type of consumer would be engaging in economic activity at the proposed development. When examining the drivetime catchment areas, several tapestry consumers are most prevalent:

■ Genxurban

Gen X in middle age; families with fewer kids and a mortgage, live and work in the same county, have a shorter commute, 1/5 are 65 or older, 1/4 have retirement income, own older single-family homes, invest wisely, well-insured, news junkies, enjoy going to museums and rock concerts, dining out, walking for exercise, renting movies.

■ Affluent Estates

Established, well-educated, well-traveled married couples with children ranging from grade school to college; mostly homeowners with mortgages; expect quality products and invest in time-saving products; active participants in their communities; enjoy sports and traveling.

■ Middle Ground

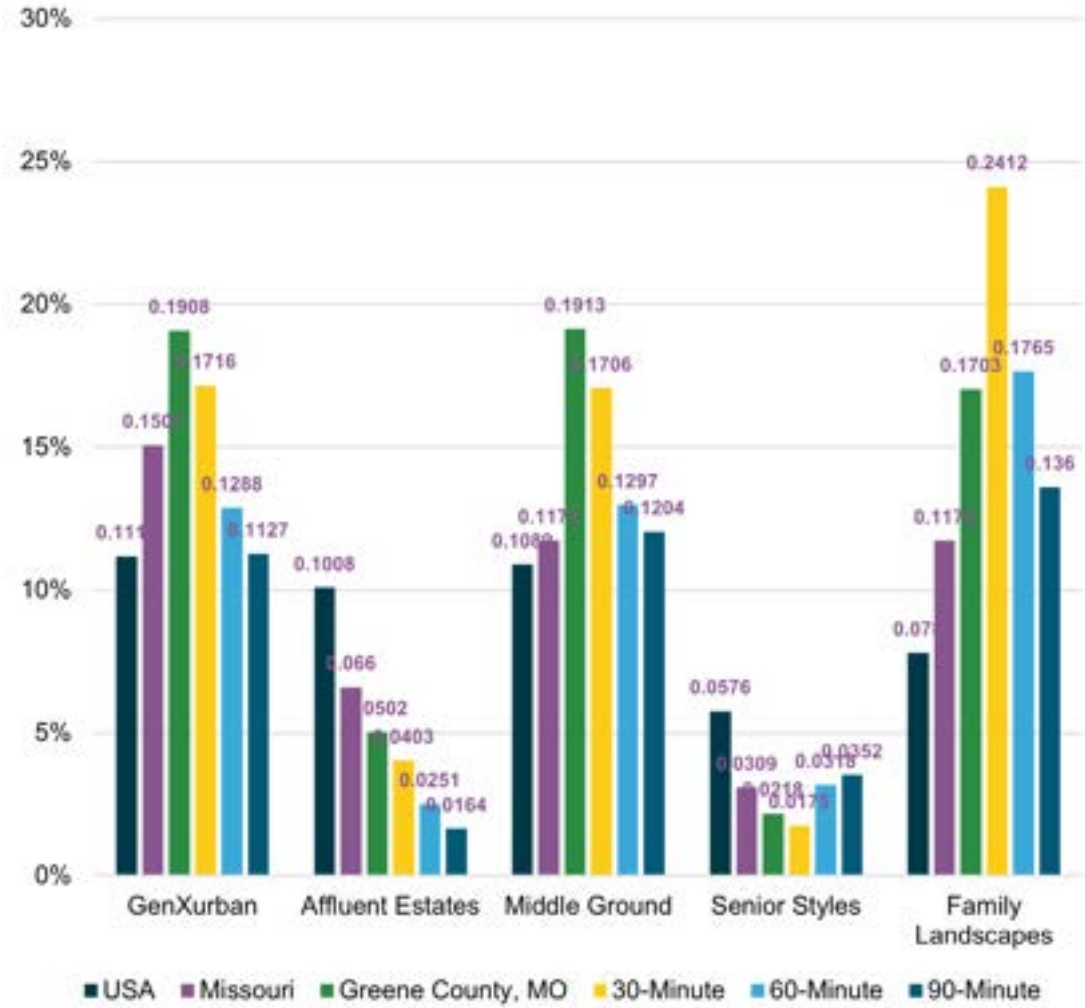
Millennials in the middle: single/married, renters/homeowners, middle class/working class; majority attended college, householders have cellphones which they use for music, news, and sports, online all the time: entertainment, social media, utility; enjoy nightlife, movies, beaches, traveling.

■ Senior Styles

Reveal the effects of saving for retirement; commonly married empty nesters or singles living alone; single-family homes, retirement communities, or high-rise apartments; affluent seniors looking to retire and perhaps relocate to a warmer climate; many prefer print to digital media, but may subscribe to cable TV; committed to lifestyles that promote longevity.

■ Family Landscapes

This market segment shares demographic traits such as low unemployment, and young families living in newer, single-family homes with median home values slightly higher than the U.S. average. This is a family-oriented population.



The highest concentrated tapestry segment in the 30-minute drive time catchment area is the Family Landscapes at 24.1% followed by GenXurban at 17.2%. These two groups are most closely aligned with younger to middle-aged residents with families, which is also reflected in the age distribution graphic. These populations are generally more likely to use and support new programming at Lake Springfield. It is significant to note the proportion of families in Springfield and should be considered for any new programming, such as ensuring there is an educational component for children.

FACILITY INVENTORY

This section of analysis inventories the existing infrastructure in Springfield. An inventory will provide insight into what the market is currently supporting, as well as highlight any gaps in supply where there is potential demand not being met.

Local Attractions

Below is a list of local Springfield attractions including museums, outdoor activities, and other entertainment venues. As shown, there are a larger number of indoor entertainment options in Springfield, demonstrating that additional outdoor attractions would likely be viable at Lake Springfield.

Springfield, MO Attractions	
Museums	Other Indoor Attractions
Air & Military Museum of the Ozarks	1984 Arcade
Archery Hall of Fame	Abou Ben Adhem Shrine Mosque
History Museum on the Square	Alamo Drafthouse Cinema
Missouri Institute of Natural Science	Bass Pro Shops Outdoor World
Missouri Sports Hall of Fame	Battlefield Mall
NRA National Sporting Arms Museum	BigShots Golf
Railroad Historical Museum	Craft Axe Throwing
Route 66 Car Museum	Discovery Center of Springfield
Springfield Art Museum	Fun Acre Miniature Golf
Springfield Softball Hall of Fame Museum	Getaway Golf
Wonders of Wildlife National Museum & Aquarium	Great Southern Bank Arena
Outdoor Attractions	
37 North Expeditions	Itty Bitty City
Crystal Cave	Pythian Castle
Dickerson Park Zoo	Swing Right Mini Golf & Driving Range
Fantastic Caverns	The Library Center
Mizumoto Japanese Stroll Garden	Zenith Climbing Center
Ozark Empire Fairgrounds & Event Center	Performing Arts
Ozarks Kayak Fishing	Gillioz Theatre
Sequoiota Park	Juanita K. Hammons Hall for the Performing Arts
Springfield Botanical Gardens	Springfield Contemporary Theatre
Springfield Cardinals	Springfield Little Theatre
Springfield Conservation Nature Center	Founders Park Amphitheatre
	Springfield Ballet
	Ozarks Lyric Opera
	Blue Room Comedy Club
	Springfield Symphony

With the mild, year-round weather that Springfield benefits from, there is room for more outdoor attractions in the city. For example, there is an amphitheater at Founders Park, but it is landlocked and has a limited capacity. The attractions in this list are potential local competitors for any proposed programming at Lake Springfield, any proposed development at Lake Springfield should aim to complement the existing amenities in Springfield, as opposed to cannibalizing them.

Further, facilities that can host small and large events including corporate meetings, weddings, and other social and community events are identified in the table below. Excluding the total indoor and outdoor capacity at the Ozark Empire Fairgrounds & Event Center, the next largest venue in Springfield is the Great Southern Bank Arena with an 11,000-person capacity. There are also a substantial number of smaller venues in Springfield. That said, there is potentially a gap in the market for an event facility with a capacity between 10,000 and 30,000 guests.

Springfield Event Facilities			
Facility	Capacity	Facility	Capacity
Ozark Empire Fairgrounds & Event Center	37,000	Midnight Rodeo	700
Great Southern Bank Arena	11,000	White River Conference Center	650
Hammons Student Center	8,846	Springfield Little Theatre	500
O'Reilly Family Event Center	4,000	Regalo Orchard & Event Center	385
Shrine Mosque	3,289	The Outland Ballroom	350
University Plaza Hotel & Convention Center	3,120	Diamond Room	330
Springfield Expo Center	3,000	The Barley House	310
Remington's	2,426	Veridiane Events	300
Juanita K. Hammons Hall for the Performing Arts	2,278	Savoy Ballroom	250
Oasis Convention Center	1,500	The Gallery	250
Gillioz Theatre	1,130	425 Downtown Events & Catering	250
Glendalough Conference Center	800	RC Events & Conference Center	170
		Springfield Contemporary Theatre	80
Sources: Springfield Area Chamber of Commerce, Relevant Facilities, Johnson Consulting			

TOURISM & HOSPITALITY

In any market looking to promote event facilities, hotel room supply is of the utmost importance. For meetings and events, patrons typically require a full-service hotel or similar within walking distance of the venue. This section will present an inventory of the hotel rooms in Greene County.

Hotel Inventory

The table below lists the current hotel inventory in the Springfield market, as defined by CoStar, including the name of the hotel, hotel class, the year the hotel was built, the year it was renovated, the number of guest rooms, and the total meeting space.

Springfield, MO Market - Hotel Inventory*				
Hotel	Hotel Class	Year Built (Renovated)	# of Rooms	Meeting Space
University Plaza Hotel	Midscale	1983	267	46,818
Campus Inn	Economy	1964	222	
DoubleTree by Hilton Hotel Springfield	Upscale	1985	201	21,588
Holiday Inn & Suites Springfield - I-44	Upper Midscale	1987	188	8,309
Ascend Collection Oasis Hotel & Convention Center	Upscale	1974	173	25,000
Welcome Inn	Economy	1986	171	
Fairview Studios	Economy	1999 (2009)	143	
Courtyard Springfield Airport	Upscale	2000 (2006)	142	1,953
Residence Inn Springfield	Upscale	2001 (2004)	136	2,400
Lamplighter Inn & Suites	Economy	1975	129	8,500
Best Western Coach House	Midscale	1960	126	315
Hilton Garden Inn Springfield	Upscale	2011	125	3,671
Lamplighter Inn & Suites South	Midscale	1964	122	3,400
Homewood Suites by Hilton Springfield Medical District	Upscale	2022	122	
Extended Stay America Select Suites Springfield South Battlefield	Economy	2006	121	
Q Hotel & Suites	Midscale	2005	120	1,352
Econo Lodge Springfield I-44	Economy	1991	119	
Holiday Inn Express & Suites Springfield North	Upper Midscale	2016	111	1,400
Drury Inn & Suites Springfield MO	Upper Midscale	1997	110	814
Extended Stay America Springfield - South	Midscale	1997	110	
TownePlace Suites Springfield	Upper Midscale	2014	110	1,296
Greenstay Hotel & Suites Courtview	Economy	1991	107	1,653
Motel 6 Springfield - North	Economy	1987	106	
Hampton by Hilton Inn Springfield-Southeast	Upper Midscale	2015	106	575
Comfort Inn South Springfield	Upper Midscale	1998	105	80
Sleep Inn Springfield South I-60 Near Medical District	Midscale	1997	103	600
Fairfield Inn & Suites Springfield North	Upper Midscale	2018	103	
Quality Inn & Suites North Springfield	Midscale	1978	102	375
Total			3,800	130,099

*Hotels with 100 rooms or more only

As shown, there are 28 hotels with more than 100 rooms and only 6 hotels with more than 150 rooms. The largest hotel is the University Plaza Hotel with 267 rooms, supported by the meeting space at the convention center and expo hall. The Hilton Garden Inn, 5 miles north of Lake Springfield, is the closest hotel to the project site currently. To include all hotels in the market in this inventory would amount to over 6,900 hotel rooms, but many of these hotels are small-scale and lower quality, which will not support room blocks or tourist groups. To plan for a greater regional and national draw, the addition of proximate hotel rooms may be necessary as attendees prefer to be able to walk between their hotel and event venue, if it is not already under the same roof. Boutique products have entered the market close to the downtown core and have proven successful in Springfield.

The map below shows the hotels closest to the project site. As shown, there is not a single hotel within a 1-mile radius of Lake Springfield. There are 1,267 rooms between 1 and 5 miles away from Lake Springfield and 2,271 rooms between 5 and 10 miles of Lake Springfield. If this becomes a regional and national draw, more hotel rooms on-site and nearby should be developed.



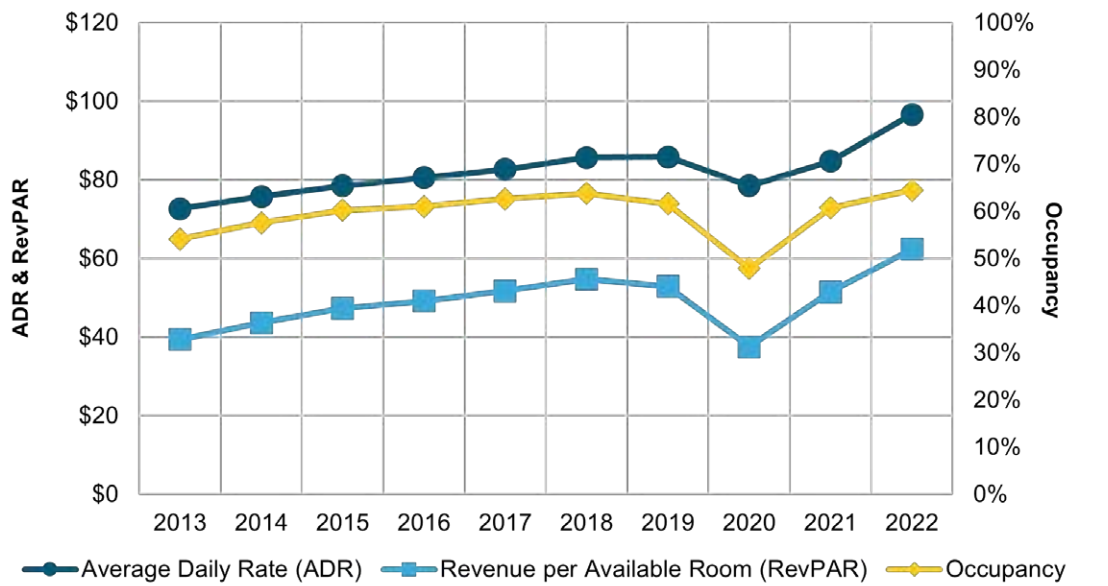
Hotel Pipeline

The hotel market also has 3 hotels in the pipeline that will add 299 rooms over the next two years. The Staybridge Suites Springfield hotel will be located 4 miles northwest of Lake Springfield. The Springfield market hotel pipeline is shown below.

Springfield, MO Market - Hotel Pipeline				
Hotel	Class	Phase	Opening	Number of Rooms
Element Springfield South	Upscale	Under Construction	2024	115
Staybirdge Suites Springfield	Upscale	Final Planning	2024	86
MOXY Springfield Downtwon	Upper Midscale	Under Construction	2023	98
Total				299
Sources: CoStar, Johnson Consulting				

Hotel Performance

The graph below shows hotel performance in the Springfield market over the last 10 years. From 2013 to 2018, hotel performance gradually increased each year. As with most markets, COVID-19 had a negative impact on hotel demand, but the market is already on the road to recovery, exceeding pre-pandemic numbers in 2022. Most recently, occupancy rates were reported to be at 64.5%, Average Daily Rates (ADR) were at \$96.66, and Revenue per Available Room (RevPAR) was at \$62.38, all of which are historically higher than numbers reported since 2013.



OBSERVATIONS

Given the location, site attributes, and features, the proposed development at Lake Springfield has the potential to become a strategic transformational project for Springfield. Springfield has some key demographic and socioeconomic conditions necessary to support various land uses within the 1,000-acre Lake Springfield project site. There is growth in numbers in median incomes and population, which skews on the younger side and is highly educated. There is a robust economic base with many higher education institutions, large employers, low unemployment rates, and tourism and hospitality is a growing sector that will be supported by growing the list of local attractors. The market tapestry illustrates the concentration of family-oriented residents in the region, which is a key indicator of the type of programming that should be targeted for development in Springfield. When coupled with broader demographic influences, and the right mix of high-quality and unique amenities and activities, Lake Springfield can become an enhanced destination and can serve as an attractive recreational hub for local, regional, and national visitors to gather.

REAL ESTATE ANALYSIS

REAL ESTATE MARKET TRENDS

The following analysis considers market fundamentals related to various potential land uses that could be developed within the Lake Springfield project site. The analysis is based upon the most current sources of published data available at the time of this study (primarily CoStar, which maintains a database of commercial real estate information that is widely regarded in the industry, LoopNet, which is a sales database also maintained by CoStar, and Smith Travel Research, which is an independent hotel research firm whose statistics are widely used within the industry).

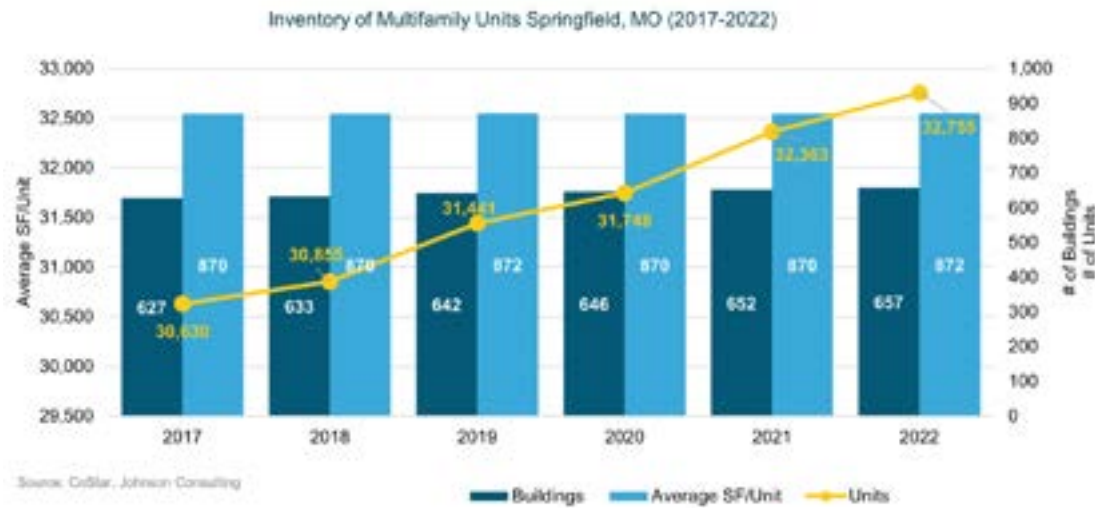
POTENTIAL LAND USES

Our analysis considers the market potential for the following:

- Multi-Family Housing
- Retail
- Office
- Hotel
- Event/ Conference Space
- Cultural/ Entertainment/ Recreation Uses

Multi-Family Housing

CoStar defines multi-family housing as structure(s) typically containing 5 or more dwelling units that may also include common areas and facilities (e.g. entrances, lobby, elevators or stairs, mechanical space, walks, grounds, recreational facilities, and parking, both covered and open).



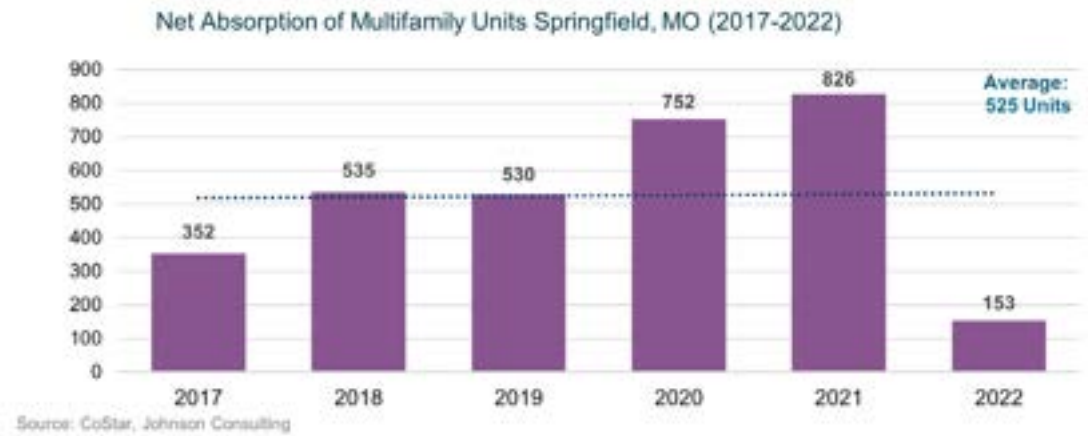
Inventory

As of 2022, there are 657 multi-family housing buildings, totaling 32,755 units, throughout Springfield. The average size of each unit is 872 SF. The chart below shows the total inventory of multi-family housing buildings (as classified by CoStar) in Springfield.

Absorption

In 2022, Springfield reported 153 multi-family housing units (whereby net absorption is defined as occupied space less vacated space).

This was lower than the positive net absorption reported in the 5 years prior. Overall, between 2017 and 2022, Springfield reported an average positive net absorption of 525 multi-family housing units per annum, as shown in the chart below.



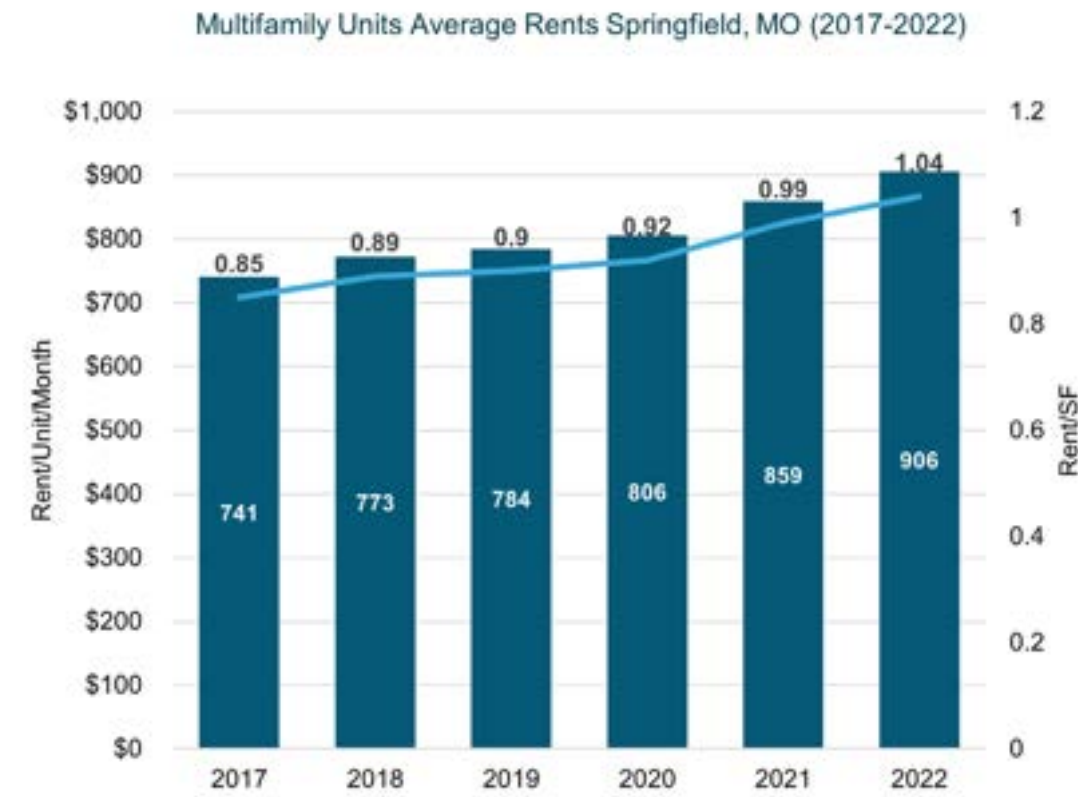
Vacancy

In 2022, Springfield reported a vacancy rate of 4.2 percent (or 1,367 units), up from 3.5 percent in 2021, but equal to or lower than years prior, as shown in the graph below.



Rental Rates

In 2022, the average rent was \$906 per month, or \$1.04 per SF per month, for multi-family units in Springfield. This represented an increase over 2021 when Springfield reported an average rent of \$859 per month or \$0.99 per SF per month. Overall, between 2017 and 2022, monthly rents have increased at an average annual rate of 3.4 percent in Springfield, as shown in the graph below.



Source: CoStar, Johnson Consulting

New Inventory And Pipeline Development

Based on data from CoStar and LoopNet, there are currently 0 additional multi-family housing developments planned within Springfield. However, as shown in the inventory chart, 5 new multifamily buildings were added to the market in 2022.

Located in south Springfield, The Ridge at Ward Branch is a new 100-acre mixed-use development that is proposed to include 150 luxury apartment units.

Market Assessment

Springfield has a relatively large inventory of multi-family housing units with sound fundamentals including steady growth in inventory, positive net absorption, low vacancies, and growth in rents. While the inventory of multi-family housing is healthy, there is room for growth, especially with the proposed development at Lake Springfield.

Multi-Family Housing: Assessment of Market Potential Springfield, MO 2022						
	Existing Inventory*	Vacancy Rate*	6 Year Avg. Annual Absorption*	Demand Potential (see Note 1)	Other New Supply	Market-Supportable
Multi-Family Housing	32,755 units	4.2%	525 units	1,184 units	0 units	✓

Retail

CoStar defines retail property as a property intended to promote, distribute, and sell products and services to the general public such as stand-alone buildings, storefronts, strip centers, malls, outlets, and other specialty centers.

Inventory

There are 2,911 retail spaces within Springfield, totaling 32.8M SF. Of this total inventory, 193 premises are classified as restaurants, totaling 1.07M SF. The chart below shows the inventory of retail spaces in Springfield.

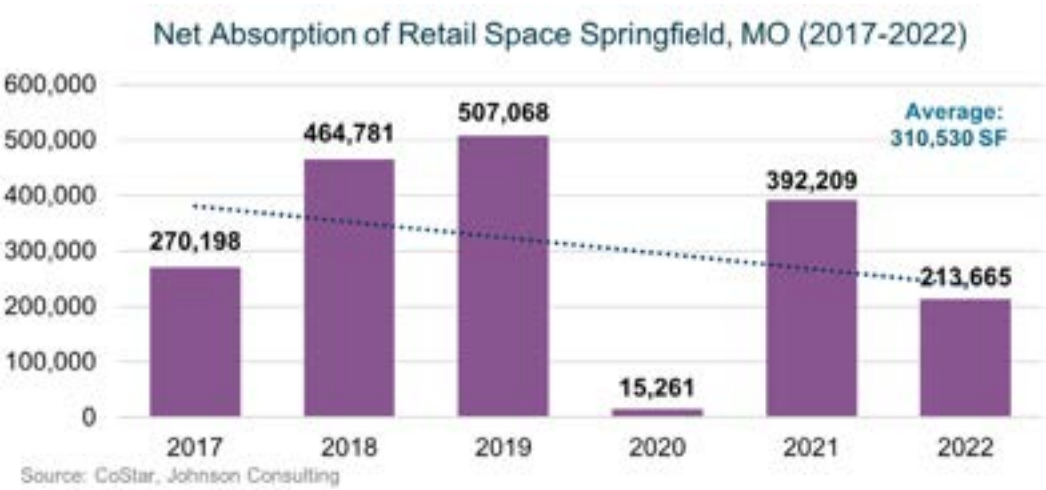
As shown, there have been gradual increases in retail space over the last 6 years. The chart below shows an average of 0.8 percent growth in retail buildings on an annual basis.



Source: CoStar, Johnson Consulting

■ Absorption

In 2022, Springfield reported a positive net absorption of 213,665 SF of retail and restaurant space. This was in line with the previous 5 years also reflecting positive absorption rates, with an overall 6-year average absorption rate of 310,530 SF.



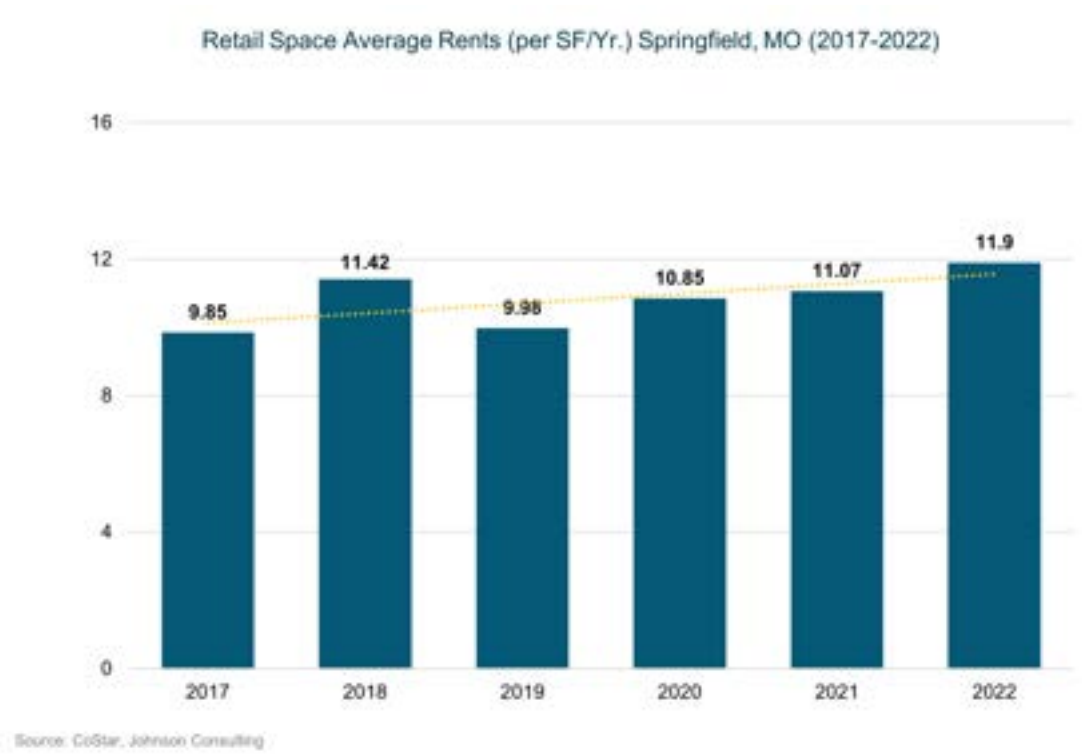
■ Vacancy

In 2022, Springfield reported a retail and restaurant vacancy rate of 2.7 percent, up slightly from 2.6 percent in 2021 but remaining below the most recent peak of 3.5 percent in 2019. Specifically, as it relates to restaurant space, a vacancy rate of 5.7 was reported at the end of 2022. Figure XX shows the annual vacancy rate for retail space in Springfield between 2017 and 2022.



■ Rental Rates

CoStar publishes metrics for All Service Type rent and Triple Net (NNN) rent for retail properties. Typically, NNN rents are the best indicator of market performance as property taxes, insurance premiums, and maintenance and repairs, which can vary significantly from building to building and between lease agreements, are excluded from the tenant payments.



In 2022, Springfield reported an average price of \$11.90/SF annually for retail space, which is a record high since 2017, the last peak at \$11.42 in 2018. For restaurants specifically, it was most recently reported for 2022 that rental rates per SF per year were significantly higher, at \$17.81.

■ New Inventory And Pipeline Development

As of July 2023, CoStar has not identified any new retail spaces that are planned or under construction. However, the new development, The Ridge at Ward Branch, is proposed to include retail and restaurant space, specific square footage has not been released.

Market Assessment

In recent years, retail and restaurant space in Springfield has been characterized by low vacancies, in part reflecting the fact that there has been minimal growth for retail or restaurant space in the market. That said, paired with the demand potential for retail space, there is a demonstrated gap in the market for additional retail. The demand potential, the result of potential demand versus actual sales within the market, demonstrates a surplus of demand of almost 1M SF. Further, development at Lake Springfield will likely call for additional retail and restaurant space as supportive infrastructure for other venues and programming.

Retail: Assessment of Market Potential Springfield, MO 2022

	Inventory*	Vacancy Rate*	6 Year Avg. Annual Absorption*	Demand Potential (see Note 1)	Other New Supply	Market-Supportable
Retail	32.8M SF	2.7%	310,530 SF	975,831 SF	-	✓

Office

CoStar defines office space as a building that houses employees of companies that produce a product or service. Office buildings are characterized by work-efficient floor plans, work areas, and other conveniences that allow people to conduct business.

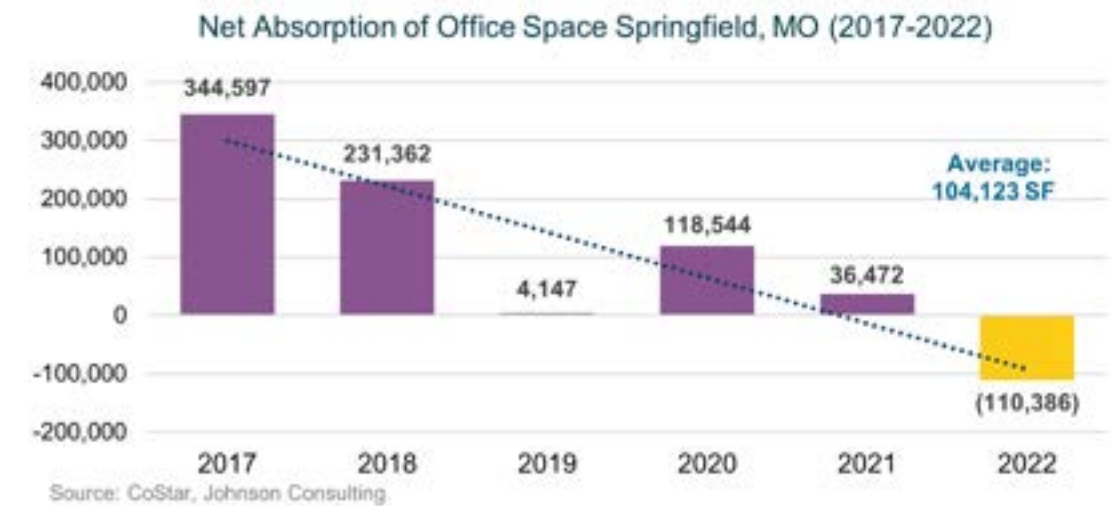
Inventory

There are 1,115 office buildings within Springfield, totaling 14.5M SF. As shown in the chart below, the most recent addition to the office inventory in Springfield occurred in 2022, with the addition of a single office building. There have only been 9 new office buildings introduced to the market since 2018, increasing office space by 0.3 percent per annum.



Absorption

In 2022, Springfield reported a negative net absorption of 110,386 SF of office space. This is not surprising due to the downward trend in preceding years. Overall, since 2017, Springfield has reported an average positive net absorption rate of 104,123 SF annually, as shown below.



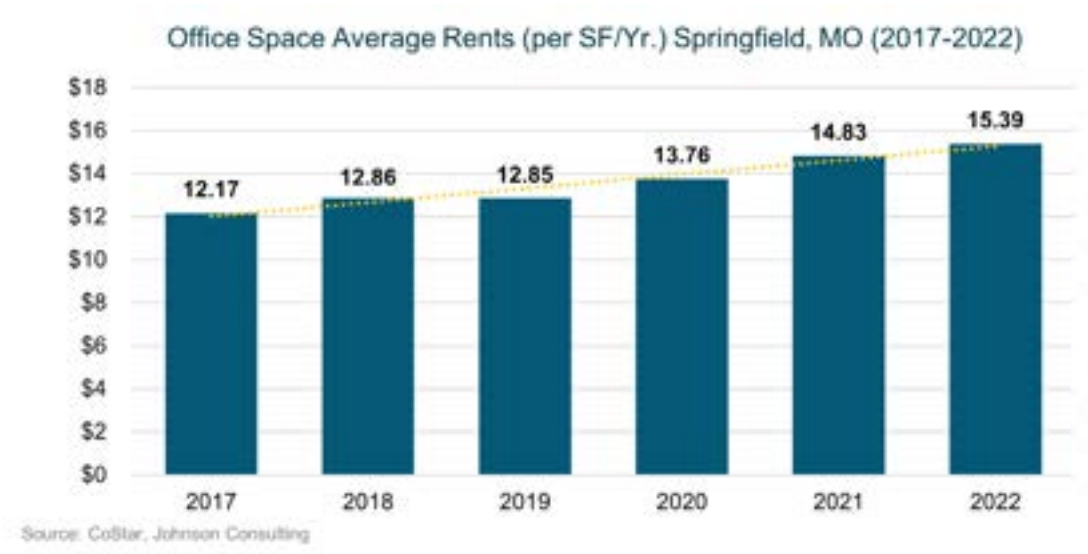
Vacancy

In 2022, Springfield reported an office vacancy rate of 3.8 percent, continuing the upward trend since 2018. The graph below shows the annual vacancy rate for office space in Springfield between 2017 and 2022.



Rental Rates

Springfield reported a 2022 base rent of \$15.39 per SF per annum for office space, up slightly from \$14.83 per SF per annum in 2021. Overall, between 2017 and 2022, office rents in Springfield increased at an average annual rate of 4.0 percent. The graph below shows the annual base rental rates for office space per SF per year in Springfield between 2017 and 2022.



New Inventory And Pipeline Development

Based on data from CoStar and LoopNet, there are no office or medical office spaces under construction or proposed within Springfield. However, the proposed development, The Ridge at Ward Branch, is proposed to include some office space, though specific square footage has not been released.

Market Assessment

In recent years, office space in Springfield has been characterized by increasing vacancies, overall positive, yet declining, net absorption, and steady growth in rents. As a national trend, office space has generally become increasingly vacant and less desired as companies have transitioned into remote and hybrid work models as a result of the COVID-19 pandemic.

Office: Assessment of Market Potential Springfield, MO 2022						
	Inventory*	Vacancy Rate*	6 Year Avg. Annual Absorption*	Demand Potential (see Note 1)	Other New Supply	Market-Supportable
Office	15M SF	3.8%	104,123	602,327 SF	0 SF	✓
Note 1: Demand Potential						
Daytime Employees (Est.) 2023	167,537	workers				
Projected Annual Population Growth (Submarket) 2023-2028	1.4%					
2015-2020	1.2	percent				
SF per Office Worker	250	SF				
Demand Potential (2028)**	602,327	SF				

An increase in residents and employees is projected for the Springfield market over the next 5 years, resulting in a need for more office space. However, many of these new employees may work remotely, as Springfield was voted the #1 place to live in the U.S. for remote workers by the Wall Street Journal in February of 2023.

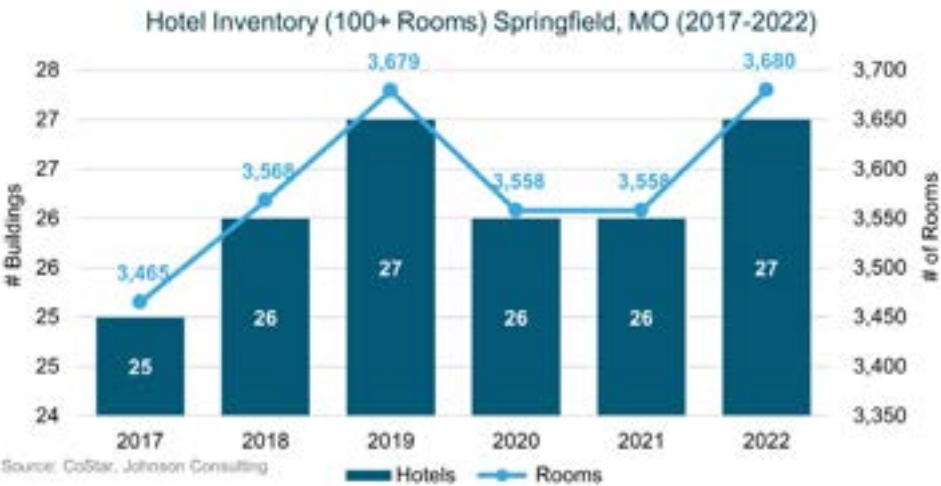
On the other hand, it should be noted that there is a desire for office space by several stakeholders and other interested parties that have been involved throughout the planning process for the Lake Springfield project.

Hotel

This section analyzes the hotel inventory in Springfield, MO with a focus on hotels with at least 100 rooms. CoStar defines hospitality properties as all types of lodging facilities, including hotels and motels. Hotels are facilities that offer lodging accommodations and a wide range of other services such as restaurants, casinos, meeting rooms, recreational facilities, and commercial shops. Motels are primarily designed to serve those traveling by car.

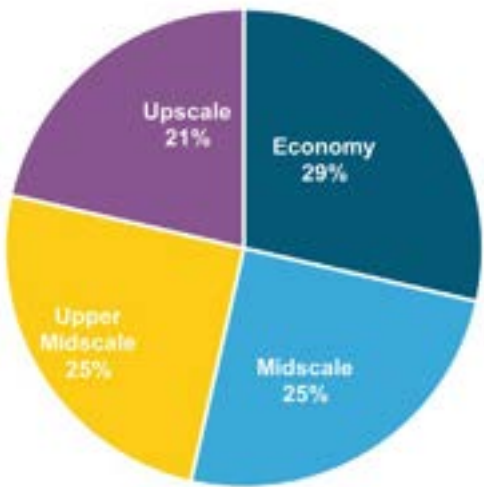
■ Inventory

Data from CoStar indicates that there are 27 hotels located throughout Springfield, ranging from economy to upscale, totaling 3,860 hotel rooms and 130,099 SF of meeting space. The largest hotel in the market is the 267-room University Plaza Hotel with 46,818 SF of meeting space.



Further, the pie chart below shows the breakdown of hotel class across the largest hotel properties in Springfield. The majority of hotel rooms are Economy class, while Upper Upscale and Luxury hotel rooms are absent from the market. This demonstrates a need for more high-quality hotel rooms in Springfield.

Springfield, MO Hotel Class Breakdown (100+ Rooms)

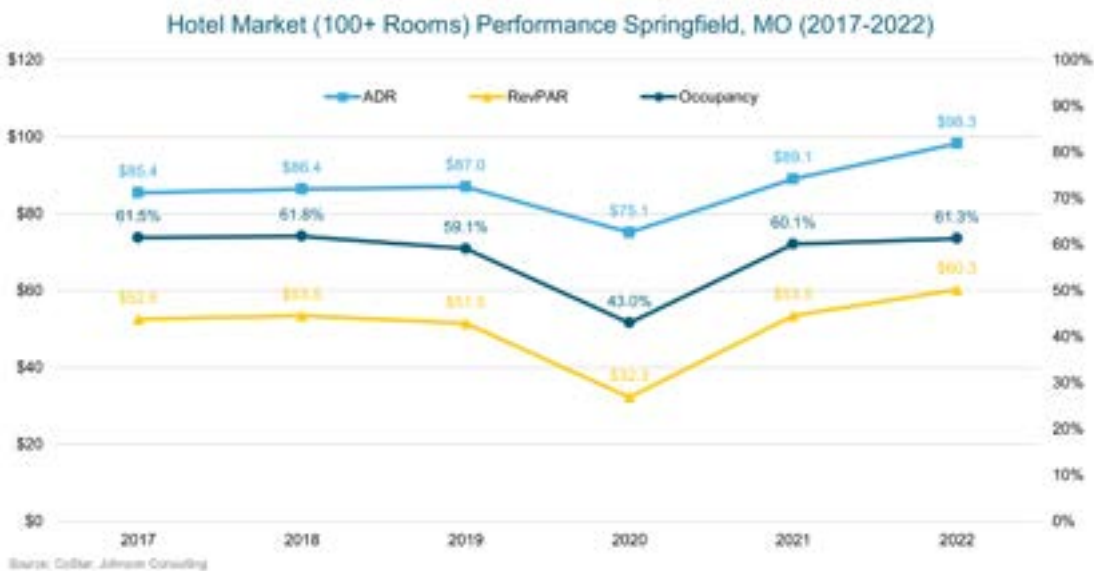


■ Market Trends

The graph below shows key supply and demand statistics for hotel properties within Springfield, indicating that supply totaled 1,336,002 room nights in 2022, while demand totaled 819,228 room nights. Overall, between 2017 and 2022, room night supply and room night demand grew at 0.9 percent and 1.0 percent per annum, respectively.



In 2022, Springfield reported an Average Daily Rate (ADR) of \$98.30 and a Revenue per Available Room (RevPAR) of \$60.30, both of which were the highest reported in Springfield over the past 6 years, as shown in the graph below. Overall, between 2017 and 2022, ADR increased at an average annual rate of 2.4 percent and RevPAR grew at a rate of 2.3 percent per annum. The 12-month Occupancy rate for 2022 was 61.3%. 70% is the optimal occupancy rate for a standard hotel, insinuating room for improvement and a need for additional demand drivers to bring overnight visitors into Springfield.



■ New Inventory And Pipeline Development

Based on data from CoStar, there is currently one hotel property under construction, the element Springfield South. The hotel property is proposed to be completed in 2024 and will add 121 Upscale rooms to the market.

■ Market Assessment

By 2022, hotel properties in Springfield have exceeded performance metrics indicators from 2019, or before the COVID-19 pandemic. While occupancy rates are increasing at a slower rate than ADR and RevPAR, this demonstrates the health and resilience of the hotel market in Springfield. While there is a planned Upscale hotel entering the market next year, it will be located 6 miles north of the project site, near Battlefield Mall, and will likely be consumed by alternate business. That said, there will be a need for hotels within or in close proximity to the Lake Springfield project area, specifically of high quality, and that can support group business.

Hotel: Assessment of Market Potential Springfield, MO 2022						
	Existing Inventory*	ADR	RevPAR	Occupancy Rate*	Other New Supply in the Market**	Market-Supportable
Hotel	3,558 rooms	\$98.25	\$60.25	61.3%	121 rooms	✓

Real Estate Market Summary

The chart below shows the overall real estate market summary for Retail, Office, Multifamily, and Hotel land uses.

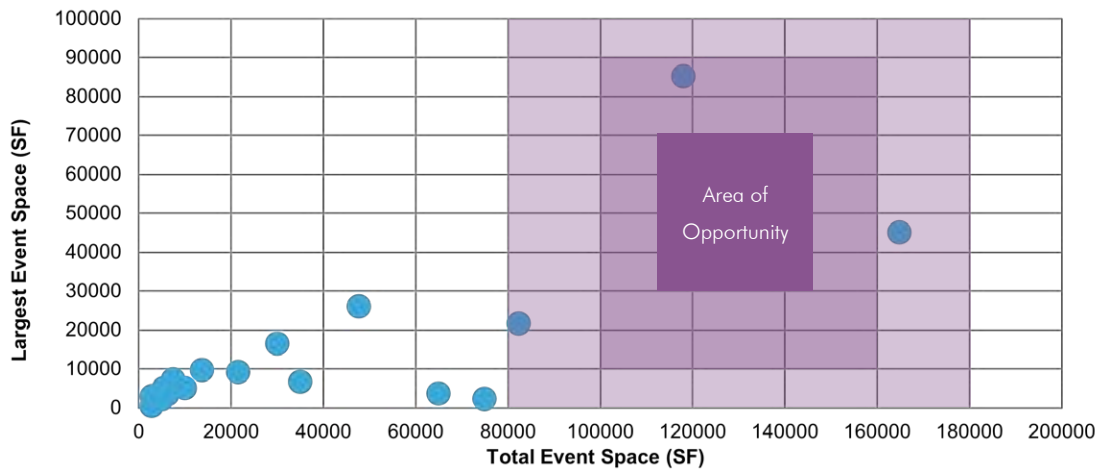
Real Estate Market Analysis				
	Inventory (SF)	Rent*	Vacancy	Absorption (SF)
Retail				
2017	31,280,996	\$9.85	3.3%	270,198
2018	31,684,693	\$11.42	3.0%	464,781
2019	32,306,136	\$9.98	3.5%	507,068
2020	32,356,314	\$10.85	3.3%	15,261
2021	32,540,160	\$11.07	2.6%	392,209
2022	32,752,418	\$11.90	2.7%	213,665
Average	32,153,453	\$10.85	3.1%	310,530
% Change (2018-2022)	0.8%	3.2%	-3.3%	-3.8%
Office				
2017	14,167,053	\$12.17	3.8%	344,597
2018	14,257,616	\$12.86	2.7%	231,362
2019	14,298,616	\$12.85	2.9%	4,147
2020	14,405,976	\$13.76	2.9%	118,544
2021	14,481,882	\$14.83	3.1%	36,472
2022	14,501,882	\$15.39	3.8%	(110,386)
Average	14,352,171	\$13.64	3.2%	104,123
% Change (2018-2022)	0.4%	4.0%	0.0%	-17.3%
Multifamily Housing				
2017	30,630	\$0.85	6.7%	352
2018	30,855	\$0.89	5.6%	535
2019	31,441	\$0.90	5.7%	530
2020	31,748	\$0.92	4.2%	752
2021	32,363	\$0.99	3.5%	826
2022	32,755	\$1.04	4.2%	153
Average	31,632	\$0.93	5.0%	525
% Change (2018-2022)	1.1%	3.4%	-7.5%	-13.0%
Hotel**				
2017	3,465	61.5%	\$85.44	\$52.55
2018	3,568	61.8%	\$86.41	\$53.45
2019	3,679	59.1%	\$87.03	\$51.47
2020	3,558	43.0%	\$75.10	\$32.30
2021	3,558	60.1%	\$89.05	\$53.49
2022	3,680	61.3%	\$98.25	\$60.25
Average	3,585	57.8%	\$86.88	\$50.59
% Change (2018-2022)	1.0%	-0.1%	2.4%	2.3%

*Rent per SF per Year **Hotels with 100+ rooms only Sources: CoStar, Johnson Consulting

Event/ Conference Space

Inventory

The Springfield region is home to numerous meeting and event facilities, including both indoor and outdoor venues. As noted in the market analysis, there are 21 primary meeting and event facilities located within Springfield offering over 700,000 SF of space, including 2 of the largest facilities in the market – the Ozark Empire Fairgrounds & Event Center and the Springfield Expo Center.



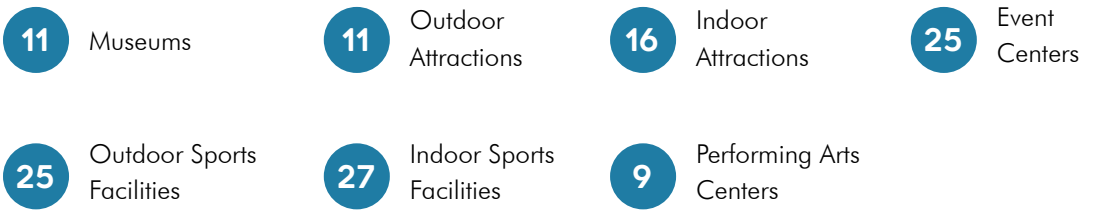
Considering the inventory of meeting and event assets in Springfield, the graph below highlights the area of opportunity in Springfield that is unmet by the current venues in the area. The chart shows a gap in the market for a venue with 100,000-150,000 SF of total space and a high-quality large meeting space of 80,000-100,000 SF.

Market Assessment

Springfield is home to numerous meeting and event facilities, including 2 of the largest and preeminent venues in the Springfield market. These meeting and event venues serve to attract residents and visitors to the Downtown core but are still limited in size and quality. A large meeting and/or event space will be a critical component of the master plan for Lake Springfield.

Cultural/ Entertainment/ Recreation Uses

The rich culture and history of Springfield is reflected in several dedicated museums and historical sites. Additionally, there are numerous other attractions and entertainment options in the market. The graphic below summarizes key cultural, entertainment, and recreation offerings in and around Springfield.



Market Assessment

Springfield is home to numerous cultural and entertainment offerings, including a mix of museums, parks, theatres, sports facilities, and other indoor and outdoor attractions. Downtown Springfield is sufficiently walkable with some dining, retail, and entertainment options. However, there is a lack of a regional and national draw to the market that gives Springfield a unique identity. The proposed development at Lake Springfield should consider meeting that gap in the market.

OBSERVATIONS

Based upon the preceding analysis, our assessment of existing market conditions is summarized in the table below:

Summary of Assessment of Market Potential: Springfield, MO						
	Inventory*	Vacancy Rate*	6 Year Avg. Annual Absorption*	Other New Supply in the Market	Marketwide Demand Potential	Market Supportable
Hotel	3,558 rooms	-	-	121 rooms	+/- 200 rooms	✓
A new hotel within the Lake Springfield project site will increase inventory of hotel rooms in Springfield, will be strategically located, and will support conference space and other programming on site; Performance metrics are forecast to improve prior to any new hotel that would be developed						
Retail	32.8M SF	2.7%	310,530 SF	-	975,831 SF	✓
Significant retail spend leakage from local market area; New types of retailers and restaurants will serve residents, students, workers and visitors; Unique retail offerings will draw from significant catchment area.						
Office	15M SF	3.8%	104,123	0 SF	602,327	✓
Speculative office development is not recommended, however a modest amount of office space that is either pre-leased or will serve a supportive function for existing corporations would be appropriate. There is a possibility for corporate partnerships on site.						
Multi-Family Housing	32,755 units	4.2%	525 units	0 units	1,184	✓

Summary of Assessment of Market Potential: Springfield, MO						
Unmet demand for multi-family housing in the market; Site attributes, including location, park frontage, and proximity to highway, will be very attractive.						
Retreat/ Conference Space	21 Facilities / 700,000+ SF	-	-	0 SF	150,000 SF Total Space / 100,000 SF Largest Space	✓
Market is sufficiently saturated with smaller event venues, but a facility with 100,000-150,000 SF of total space and a high-quality large meeting space of 80,000-100,000 SF does not currently exist within the market; meeting this market need at Lake Springfield can be accomplished through one or more event venues						
Other Educational/ Institutional/ Cultural Uses						✓
There is a healthy mix of educational, institutional, and cultural amenities and offerings in Springfield, but there is a lack of a large draw to drive tourism and provide Springfield with a unique identity.						
Source: Johnson Consulting						

Multi-Family Housing – Market Rate And Affordable

Springfield has a substantial inventory of multi-family housing units with sound fundamentals including steady growth in inventory, positive net absorption, low vacancies, and growth in rents. The development of Lake Springfield will catalyze the need for additional multifamily residential units within or near the Lake Springfield project site as the appeal of the area grows.

Retail/ Restaurants

Retail and restaurant space in Springfield is characterized by low vacancies, in part reflecting the fact that no new retail or restaurant space has been delivered to the market. The demand potential illustrates a demand for additional retail in the market and will be further desired as supplemental development for larger programming elements at Lake Springfield.

Office/ Medical Office

In recent years, office space in Springfield has been characterized by increasing vacancies, overall positive, yet declining, net absorption, and steady growth in rents. As a national trend, office space has generally become increasingly vacant and less desired as companies have transitioned into remote and hybrid work models as a result of the COVID-19 pandemic. However, interested stakeholders in office space at Lake Springfield that align with the programming theme would be encouraged.

Hotel

Hotel properties in Springfield have exceeded performance metrics indicators from 2019 or before the COVID-19 pandemic. There will be a need for hotels within or in close proximity to the Lake Springfield project area, specifically of high quality and that can support group business. A variety of hotel classes and other lodging options should be offered at Lake Springfield as it relates to nearby programming within the project site.

Event/ Conference Space

Springfield is home to numerous meeting and event facilities, two of which are significant in size to support large events. However, development at Lake Springfield will increase event demand, resulting in a need for several meeting and event spaces of varying size to accommodate small social events to larger conferences.

Cultural/ Entertainment/ Recreation Uses

Springfield is home to numerous cultural and entertainment offerings, including a mix of museums and historical sites. Cultural, entertainment, and recreation offerings serve to attract residents and visitors and will be a critical component of the master plan for Lake Springfield. The key use will be entertainment and recreation, especially unique outdoor recreation options.

CASE STUDIES

INTRODUCTION

To understand the market opportunity for the Lake Springfield site, the team reviewed several case study profiles on a variety of different land uses that exist in comparable markets. Full case study reviews are included in a technical appendix at the end of this plan.

The following profiles were analyzed:

Active and Passive Recreational Parks

- Origins Park – Jeffersonville, Indiana
- Forest Park – St. Louis, Missouri

Reclaimed Mills & Power Stations

- Optimist Hall – Charlotte, North Carolina
- Falls Park – Sioux Falls, South Dakota
- Hollywood Sports – Bellflower, California

Outdoor Recreation Resort

- Greylock Glen Resort – Adams, Massachusetts
- Camp Aramoni – Tonica, Illinois

Multi-Purpose Event Centers

- CenterPlace Regional Event Center – Spokane Valley, Washington
- The Gathering Place & River Parks – Tulsa, Oklahoma
- Gumbo Limbo Nature Center – Boca Raton, Florida
- The Grand Experience & RecPlex – West Des Moines, Iowa

Casinos

- Harrah’s Cherokee Casino – Maggie Valley, North Carolina
- Mohegan Sun – Uncasville, Connecticut

The case studies present information about each use, as well as market comparisons to Springfield. The goal of these reviews was to present both visionary options to what might work within the Springfield community, as well as understand realistic impacts to proposed ideas. Additionally, using case studies for the second public meeting gave public participants a chance to see real ideas of what the are could be when fully implemented.

STRATEGIC RECOMMENDATIONS

INTRODUCTION

This section presents an assessment of the opportunity for various market-supportable land uses in the Lake Springfield subarea. The assessment reflects the market demand analysis and input from key stakeholders and community members presented in the preceding sections of the plan. Also presented in this section are discussions regarding development themes, ownership and management models, and funding opportunities for the Lake Springfield subarea.

PRELIMINARY CONCEPTS

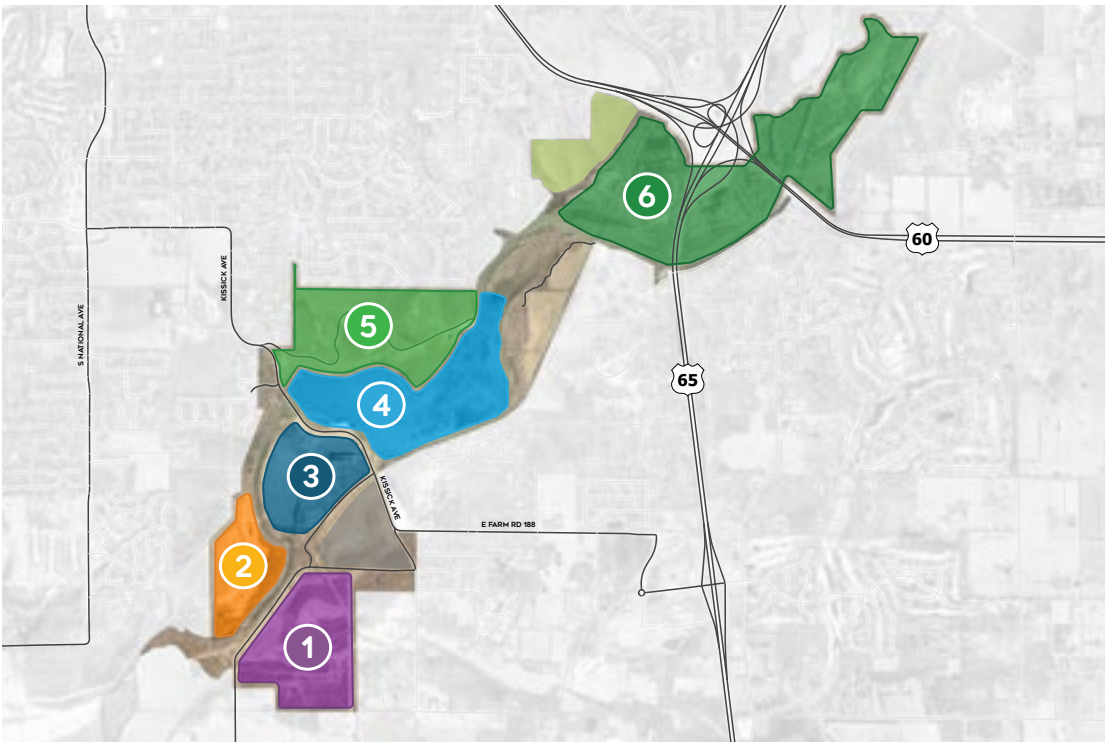
As a result of the demand analysis and stakeholder and community feedback, two primary concepts are included the Lake Springfield subarea. Overall, analysis of the market and public engagement revealed a high level of interest in developing the 1,000 acres and leveraging Lake Springfield as a community and regional and even broader economic asset. A design that is respectful of the current natural environment and location of the project site, while enhancing public access is of critical importance to the community. Mixed opinions emerged regarding large-scale development such as indoor event space, hotels, and other mixed-use development components. However, this type of growth and development would be strategic and necessary as market demand increases. Keeping in mind the desire to preserve the unique attributes of the subject site, two alternative concepts are presented with varying programmatic themes. It should be noted that these options are conceptual and can be modified in the future.

Each concept has a similar program for the North Activity, Park, and Lake Zones, 780 acres of the total 1,000-acre site. Programming elements for the two Zones near the Power Station and south of the Power Station are unique to each concept.

The North Activity area consists of the northernmost portion of Lake Springfield that ends just north of the existing Boathouse. The main components of this area are wetland preservation, trails, meadows, river access, nature amenity areas, a nature center, and an event lawn. There is a significant focus on culture and education within this zone with light development.

The Park and Lake Zone will have a larger development footprint than the North Activity area but will maintain a focus on the natural assets at Lake Springfield. Proposed programming in this zone features an improved and expanded Boathouse and Ecology Center, a marina, a boardwalk, a destination play area, cross country, disc golf, river crossing access, and trail connections.

The Power Station Zone and the South Activity Area Zone will be unique to each concept while maintaining the same programming for the North Activity, Park, and Lake Zones. Concept A is characterized by an Entertainment District development theme, while Concept B is characterized by an Adventure Hub development theme. A key component of both concepts is a large indoor event space, which was proven to be a demand gap in the current market that could be met at the Lake Springfield Subarea. This plan sets forth a market-justifiable project. It is anticipated that changes to the plan will occur, and aspects of each project can cross over, etc.



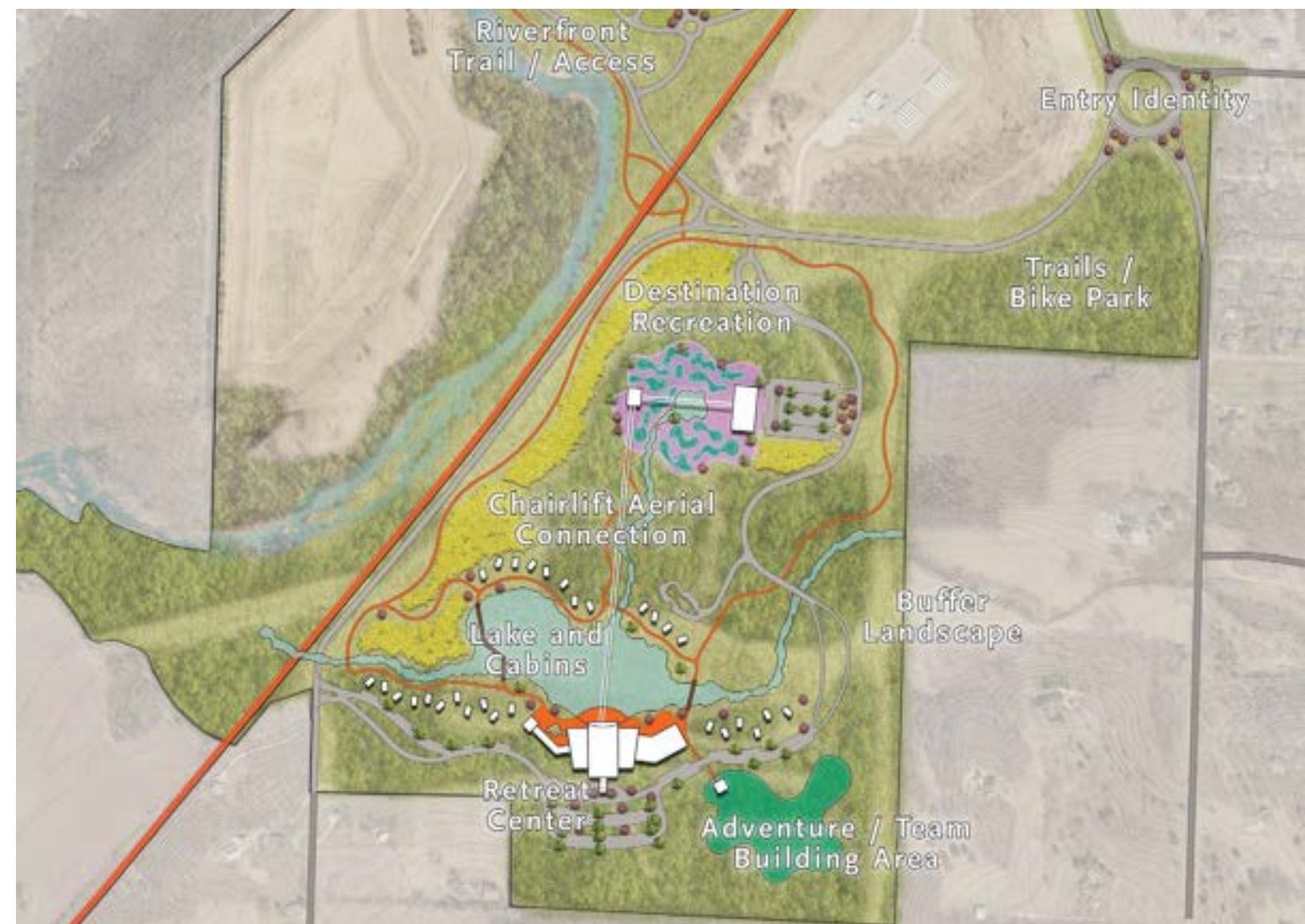
- **ZONE 1** - South Activity Area
- **ZONE 2** - Capped Landfill
- **ZONE 3** - Power Station
- **ZONE 4** - Lake
- **ZONE 5** - Park
- **ZONE 6** - North Activity Area

Concept A – Entertainment District

In Concept A, the main focus of the adaptive reuse of the powerplant will be a large Multi-Purpose Event Center of approximately 270,000 gross square feet with supporting amenities. The Power Station Zone features a large Multi-Purpose Event Center, mixed-use development including entertainment, retail, residential, and office, overlook, riverfront recreation, bypass channel, event lawn, pavilion, whitewater, and the Chadwick Flyer trailhead.



The South Activity Area Zone will feature a retreat center, luxury camping, outdoor adventure course, recreation, bike park, and a man-made lake with supporting amenities.



Concept B – Adventure Hub

In Concept B, conversion of the James River Power Station will focus on a conference center that will serve the activity driven by the south recreation hub. The Power Station Zone features adaptive reuse of the Power Station with a conference center, hospitality services, food and beverage options, accommodations, a bypass channel, a kayak basin, water adventure, and green space.

The South Activity Area Zone will feature RV camping, an amphitheater, a zipline course and/or canopy ropes, a bike park, archery, food and beverage, retail, trails, and a man-made lake with water recreation and amenities.



Each concept was developed based off of public feedback, market demand and potential, paired with meeting the goals of the EDA grant for adaptive reuse of the decommissioned power station, which will serve as the anchor for any development that may occur at Lake Springfield.

OPERATING MODELS

There are a variety of ownership and operating models. Typically, the structure adopted flows directly from the financing strategy used to develop the facility (public, private, or a public/private partnership), and is a reflection of the anticipated strategy for sustaining long-term operation, future capital improvements, surviving governmental administrative changes, and potential expansion. Park ownership is dominated by the public sector, but many are also set up as not-for-profit organizations. The public sector often has and can raise capital. These funds are important in any capital stack developed for the project. These projects often have growing pains as they launch and operations have limited cash flows and often operate a deficit, and the public often provides initial and hopefully less and less investment over time. More importantly, the public sector is the only entity that can capture the macro-level benefits of these projects, which extend well beyond the envelope of the facility and grounds themselves. To manage a project site of this size and scale, a team with extensive multidisciplinary talent will be required. There are three primary levels of administration: ownership, management, and daily operations.

Currently, Lake Springfield is publicly owned, with City Utilities having ownership over the decommissioned Power Station Site. The initial phases of this project will require significant public realm investment in order to attract a private developer. With this in mind, the management model will likely evolve over time as development phases take shape. For example, Lake Springfield will likely maintain public management until development near the Power Station and South Activity areas begins. At that point in time, it is likely that management will move to a private model in which skilled operators can manage the development effectively and successfully.

Overall ownership is suggested to take shape as a non-for-profit that can begin raising funds and applying for grant dollars in the immediate future. This will be an important first step to advance the project.

Ownership

City Utilities, a public entity, is the current owner of the 1,000-acre planning area and project site, and more specifically, the Power Station, including other restricted areas identified. The project could be owned by a governmental agency and be run through a non-profit, including a board that represents a variety of partnerships and skills such as real estate, environment, heritage, education, hospitality, tourism, finance, and fundraising. Further, a smaller, executive committee should be in place for stewardship and decision-making. To serve the board and executive committee, an executive director should be hired and would manage all facets of the project.

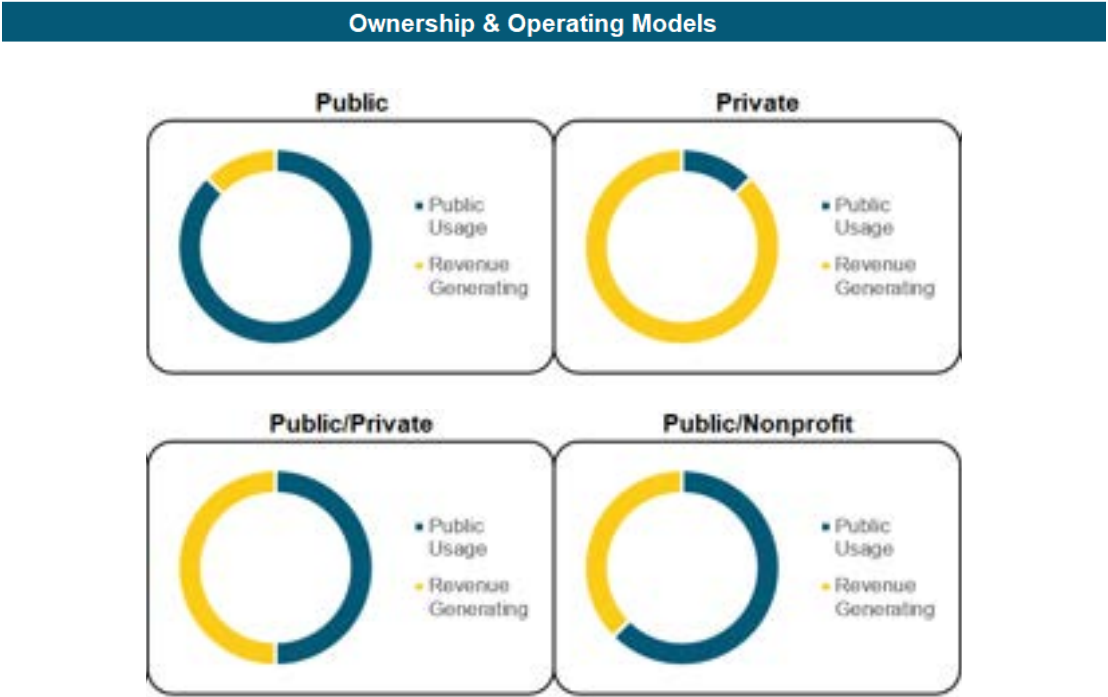
Another model, seen in other similar projects, is an enterprise fund. An enterprise fund is where revenue and expenses are matched or raised and the capital stack, the layers of funds to finance the operation, are comprised of a myriad of elements where the revenue model meets the capital requirements.

Management

The ownership model will in turn impact the management model. The project can be self-operated or privately managed but would handle the overall operations of the project. A self-operated model is management staff hired by the ownership entity. A private management model is where management is provided by a third-party entity. Private management is a relevant consideration for this concepts for the Lake Springfield Subarea, as utilizing an experienced and professional team could bolster the success of this project. It should be noted that management models can evolve as development progresses.

Daily Operations

An organizational hierarchy will evolve once the ownership and management models are finalized. The management entity should continually evaluate the efficacy of services such as in-house services, vendors, and contractors. The proposed programming at the Lake Springfield subarea will require a substantial level of staffing as development phases advance.



To reiterate, it is expected that the ownership and management model will evolve over time as development occurs on site. It is recommended that an operational strategy be studied in a future phase of the project, but ownership is suggested to be in the hands of a non-for-profit in order to raise funds and philanthropic dollars for the project.

FUNDING STRATEGIES OTHER CONSIDERATIONS

Funding and financing this project are key for the momentum to continue. An important first step is to hire an executive director or a consulting project manager to carry on driving the effort. A foundation can be created to accompany the ownership entity. There is a high level of philanthropy and development efforts in relation to parks and recreation, and a non-profit organization can raise philanthropic dollars and apply for grants.

The programming proposed at the site will consequentially transform Lake Springfield into a major regional project and asset and will be a prominent anchor in the State of Missouri. That said, a regional and national approach should be utilized for funding opportunities.

Funding Strategies

There are two categories of investment and annual expense. These are- 1) Public Realm investment and operations; and 2) commercial and concession operations. The overall objective is to devise a perpetual or evergreen funding model. The Ownership entity should be able to receive public and private funds. It should also be able to receive land lease income and assess fees and other charges.

The public sector is generally the front-end investor. Sources of funds used to repay any debt to launch the project are usually tax revenues and may be generated from activities or businesses that are most likely to use, or otherwise benefit from the project. Hotel room occupancy taxes, special taxes on restaurants, sales taxes, car rental fees, parking taxes, airport access fees, and adjacent real estate taxes and profits are most often the revenue sources used to repay debt service. In addition, these tax sources are frequently used to finance the ongoing operating, capital improvements, and marketing needs of the facility.

The mix of revenue sources selected in any given case depends upon the comparative level of existing taxes or fees, as well as what is considered to be both fair and feasible under the unique political and economic circumstances relating to each development. In most communities, a high level of commitment and coordinated community-wide effort, including both state and local governments, is necessary to successfully fund a project.

Taxing Mechanisms

In addition to the financing tools described above, there are a number of taxing mechanisms that can be used to fund public assembly facilities and expansions, including:

■ Sales Taxes

Sales tax provides strong credit structures because they are relatively predictable and tend to track with inflation and economic growth. A general sales tax increase, or expansion of the base, can provide a strong incremental revenue stream. However, these taxes are often difficult to implement because they primarily tax residents and require referendum and/ or State legislative approval. There are examples of municipalities using a general sales tax, over a fixed period, to finance major capital projects. The quick-pay method enables municipalities to generate the necessary revenue over a short period, but a general sales tax is a blunt taxing instrument that does not provide a direct correlation between burden and beneficiary.

■ Hotel Occupancy Tax

Hotel taxes have the major advantage of primarily taxing out-of-town visitors, rather than local residents. A number of facilities throughout the U.S. have had their debt service paid fully, or in part, by dedicated hotel tax revenues.

■ Tax Increment Financing (TIF)

TIFs are based on the incremental tax value of ancillary economic development projects that are triggered by a major new facility. The tax base of a defined TIF district is frozen and any increases in the future tax base are used to repay TIF bonds. This is a logical source of funding for this project if the TIF potential exists. A creative TIF District may have to be formed to engender sufficient revenues to fund this facility, or phases of it.

■ Meals Taxes

Meals taxes have been used throughout the U.S. to support the costs of developing, and renovating, public assembly facilities and to fund related infrastructure, such as parking decks. This is a natural extension of the concept of lodging taxes, as the second highest spend occurs on food service. Meals taxes are directed towards beneficiaries of the project and to some extent, non-residents. Meals taxes can also generate substantial revenue to support the operations of a facility.

■ Development Fees/ Land Lease Income

Fees for the right to develop projects near a public assembly facility can assist in funding. These so-called linkage fees have been imposed in locations where land adjacent to a public assembly facility is at a premium, typically on hotels, parking decks, retail stores, and other uses that can benefit from their proximity to the facility. Such fees generally do not produce significant revenue and are typically not a creditworthy source for debt financing because of their speculative nature.

■ Other Sources

Other common sources of partial funding include general fund support, car rental taxes, taxi airport access fees, parking taxes, and special purpose districts. Special purpose tax districts happen all the time around the country. This model should be pursued and may require state level enabling legislation. Over a 12 month period, one should be able to conclude if this is a possibility and have it structured.

The various financing mechanisms detailed here are being utilized throughout North America. As municipalities and local governments are becoming more aware of the economic and fiscal benefits that public assembly facilities create for a community, they are increasingly issuing public debt over either the short- or long-term, the latter of which incurs significantly minimized risk due to the greater impact the venue produces for the community. The best strategy varies from location to location and is also influenced by the type of public assembly facility involved.

DEMAND AND OPERATING PROJECTIONS

This section discusses projections for the proposed Lake Springfield development according to the proposed Concept A and Concept B programs described in the preceding component of this section of the plan. Critical to the success of the project and attracting the level of visitation and business projected below, will be the operation and organizational structure of the facilities.

ANTICIPATED FINANCIAL PERFORMANCE

It is too premature to develop a full project and loss statement. The information included here develops the scale of operations and portrays capital investment by whom, over time. Johnson Consulting has developed an operating model for the project, for each of the development concepts: Entertainment District (Concept A) and Adventure Hub (Concept B). This model was used to develop the scale of numbers considered in the analysis.

The Public Realm

The capital budget for the Public Realm is \$470.9 million for Concept A, or \$502.0 million for Concept B, and will be spent over the development time horizon. Dedicated tax revenue and grants and gifts will be needed to fund working capital and a small initial operating unit that will drive the project. This entity will be the staff of the Ownership entity. It would operate the park and cause its development and improvements. We estimate that current operations are a \$1-\$2 million operation, depending on how accounted for and how capital is treated.

Over time, it is expected that the operating entity will be a \$10 to \$30 million or more a year business, depending on operating units operated by this entity. This budget includes maintenance, but not necessarily capital investment, depending on the nature of the project. This will be an operating entity and will operate from earned revenue, land lease income, taxes, grants, and gifts. It will be the Board of Directors and the Executive Director’s duty to constantly work on capital sources and uses management.

Private Investment

The long-term capital budget for private sector investment is \$766.4 million for Concept A or \$557.4 million for Concept B. Some of these projects will be blended into the public realm, so there is not a bright line between the operational and capital allocations.

Private investment will be for cultural, hospitality, recreational, and commercial development. There will be financial responsibility for each entity. Some initial incentives may be required, but the Ownership entity should be responsible for structuring deals and organizing incentives, land leases, and ongoing operating relationships.

Depending on the nature of the operation and its evolution, it is reasonable to expect the business to yield \$50 to \$100 per visitor. Restated, if the project attracts 1 million visitors, the business units will be in the range of \$50 to \$100 million in sales.

The following subsections summarize the anticipated level of investment and scale of operations for each of the development concepts.

CONCEPT A - ENTERTAINMENT DISTRICT

Estimated Development Program and Cost

	Est. Development Cost (\$M)*	Est. Square Footage
Entertainment District (Power Station)		
Private Investment		
Multi-Family Housing		135,600
Retail and Restaurants		76,500
Office		33,900
Event/ Conference Space		270,000
Cultural/ Entertainment/ Recreation Uses		290,000
Subtotal	\$567.4	806,000
Public Realm: Public Facilities, Trails, Parks, etc	\$227.8	465,000
Subtotal	\$795.2	1,271,000
Conference / Supporting Adventure (South Activity Area)		
Private Investment		
Hotel/ Lodging Facilities		142,600
Cultural/ Entertainment/ Recreation Uses		230,000
Subtotal	\$130.7	372,600
Public Realm: Public Facilities, Trails, Parks, etc	\$30.6	3,860,000
Subtotal	\$161.3	4,232,600
North Activity-Park-Lake		
Private Investment		
Retail and Restaurants		33,000
Cultural/ Entertainment/ Recreation Uses		341,000
Marina		25,000
Subtotal	\$68.4	399,000
Public Realm: Public Facilities, Trails, Parks, etc	\$212.4	17,431,800
Subtotal	\$280.8	17,830,800
Total	\$1,237.3	23,334,400

↓ ↓

Distribution by Private Investment vs. Public Realm

Private Investment	\$766.4	1,577,600
Public Realm: Public Facilities, Trails, Parks, etc	\$470.9	21,756,800
Total	\$1,237.3	23,334,400

*Including MP contingency, site infrastructure, and professional and contractor services

Source: SWT, Johnson Consulting

The following figure summarizes the proposed development program and cost of the proposed Lake Springfield Entertainment District (Concept A). Consistent with the discussions in this plan, the various uses within both concepts are grouped into land uses under Private Investment and Public Realm.

As shown, Concept A calls for approximately 23.3 million square feet of development, estimated at a cost of \$1.2 billion. Public Realm development totals 21.8 million square feet at an estimated cost of \$470.9 million. Approximately 1.6 million square feet will be land to be developed through private investment, for a total cost of approximately \$766.4 million.

CONCEPT B - ADVENTURE HUB

Estimated Development Program and Cost

The following figure summarizes the proposed development program and cost of the proposed Lake Springfield Adventure Hub (Concept B). Consistent with the discussions in this plan, the various uses within Concept B are grouped into land uses under Public Realm and Private Investment.

	Est. Development Cost (\$M)*	Est. Square Footage
Private Investment		
Multi-Family Housing		97,200
Retail and Restaurants		60,500
Office		24,300
Event/ Conference Space		155,000
Cultural/ Entertainment/ Recreation Uses		187,200
Subtotal	\$466.4	524,200
Public Realm: Public Facilities, Trails, Parks, etc	\$240.0	1,155,000
Subtotal	\$706.4	1,679,200
Conference / Supporting Adventure (South Activity Area)		
Private Investment		
Hotel/ Lodging Facilities		1,830,000
Event/ Conference Space		165,000
Cultural/ Entertainment/ Recreation Uses		387,000
Subtotal	\$22.7	2,382,000
Public Realm: Public Facilities, Trails, Parks, etc	\$51.4	3,453,500
Subtotal	\$74.0	5,835,500
North Activity-Park-Lake		
Private Investment		
Retail and Restaurants		33,000
Cultural/ Entertainment/ Recreation Uses		341,000
Marina		25,000
Subtotal	\$68.4	399,000
Public Realm: Public Facilities, Trails, Parks, etc	\$210.6	17,431,800
Subtotal	\$279.0	17,830,800
Total	\$1,059.4	25,345,500
	↓	↓
Distribution by Private Investment vs. Public Realm		
Private Investment	\$557.4	3,305,200
Public Realm: Public Facilities, Trails, Parks, etc	\$502.0	22,040,300
Total	\$1,059.4	25,345,500

*Including MP contingency, site infrastructure, and professional and contractor services

Source: SWT, Johnson Consulting

As shown, Concept B calls for approximately 25.3 million square feet of development, estimated at a cost of \$1.06 billion. Public Realm development totals 22 million square feet at an estimated cost of \$502 million. Approximately 3.3 million square feet will be land to be developed through private investment, for a total cost of approximately \$557.4 million.

SCALE OF OPERATIONS

The following summarizes the estimated scale of operations of the proposed development at Lake Springfield. The projections are based on market research, especially with regard to the potential vacancy rates, rents, and operational structure of each of the land uses, as outlined in the case studies appendix. The scale of operations will range based on the variety of land uses that can be programmed for the 1,000-acre site and are based on Johnson Consulting’s preliminary financial projections for both Concept A and Concept B, which are delineated by each land use type. Utilizing market rates for average sales per square foot of each land use, the projected scale of operations for these new businesses at Lake Springfield falls between \$72 million and \$85 million in Year 10, when the preponderance of development should be completed. The scale of operations for both scenarios were based off of the conceptual programming options laid out in this section. Either concept will likely be developed in phases and will be contingent on the ownership model and the scale of commitment from the public realm and private sector. As mentioned, the ownership model is expected to evolve as the project advances, but it is suggested that a shift towards a private ownership model aligns with the development of the decommissioned power station and the south end of Lake Springfield. The following table summarizes the proposed development schedule for the projections for Concept B.

Proposed Development Phases	
	Opening Year
North Activity-Park-Lake	Year 1
South Activity Area	Year 5
Power Station	Year 10
Source: Johnson Consulting	

FISCAL AND ECONOMIC IMPACT ANALYSIS

This section analyzes the total economic and fiscal benefit that is being generated by the proposed development for the Lake Springfield subarea. All types of economic, social, economic development, image, and social benefits can happen as a result of the proposed development and operation of the development. This analysis quantifies the effect of spending of visitors to this development, which also represents lost benefits if the development is not built. Additionally, Johnson Consulting’s prior development of economic analyses for other mixed-use developments and specific knowledge of the marketplace of Greene County, and the State of Missouri contributed to the analysis.

A key component of the grant that funded this planning process requires this analysis. This project is much more than about numbers. It takes an aging asset and repurposes it into an attractive amenity for the region, but also aspires to be nationally prominent and be a new attraction for the region and state. The following figures reflect this new vision and economic development role. This analysis is discreet in its assumptions when development happens. This development is still subject to much input and structuring, so projections may occur at a different rate of speed than shown in the analysis.

DEFINITION

ECONOMIC IMPACT

Economic impact is defined as incremental new spending in an economy that is the direct result of certain activities, facilities, or events. For the purpose of this analysis, impact totals are discussed in terms of the Lake Springfield and Greene County economies. The levels of impacts are described as follows:

- **Direct Spending** is an expression of the spending that occurs as a direct result of the events that occur in the facility. For example, an event attendee’s expenditures on hotel rooms, shopping, and meals are direct spending.
- **Indirect Spending** consists of re-spending of the initial or direct expenditures, or, the supply of goods and services resulting from the initial direct spending in the performing arts center. For example, an event attendee’s direct expenditure on a restaurant meal causes the restaurant to purchase food and other items from suppliers. The portion of these restaurant purchases that are within the local, regional, or state economies is counted as an indirect spending.
- **Induced Spending** represents changes in local consumption due to the personal spending by employees whose incomes are affected by direct and indirect spending. For example, a waiter at the restaurant may have more personal income as a result of the attendee’s visit. The amount of the increased income the waiter spends in the local economy is called an induced spending.
- **Increased Earnings** measure increased employee and worker compensation related to the project being analyzed. This figure represents increased payroll expenditures, including benefits paid to workers locally. It also expressed how the employees of local businesses share in the increased outputs.
- **Employment** measures the number of jobs supported in the study area related to the spending generated as a result of the events occurring in the event center. Employment impact is stated in a number of full-time equivalent jobs.

Indirect spending, induced spending, increased earnings, and employment are estimated using a set of multiplier rates that are applied to the amount of direct spending, as shown in the Economic Impact Multipliers table. These figures are derived from prior studies for the State of Florida. Such multiplier factors are commonly used to estimate economic impacts. Utilizing the multipliers, an input-output model analyzes the commodities and income that normally flow through various sectors of the economy.

Economic Impact Multipliers		
Impact	Multiplier	Base
Indirect and Induced Spending	0.796	per \$1 of direct spending
Increased Earnings	0.586	per \$1 of direct spending
Increased Employment (FTE jobs)	12.95	per \$1 million of direct spending
Source: Implan, Johnson Consulting		

Fiscal Impact

Fiscal impact reflects tax revenues that result from the spending and income related to the activities associated with the proposed development at Lake Springfield. This analysis estimates fiscal impacts for the governmental units that levy taxes in the jurisdiction.

80_TaxRates

The fiscal impact is the public sector’s return on investment and an incentive to develop and operate the various uses within the Lake Springfield development Concept A and Concept B. The overall impacts, including the fiscal impacts, provide a rationale for public participation in a project such as the Lake Springfield development. Based on the spending estimates, Johnson Consulting projected the fiscal impacts from major categories of tax revenues that are directly affected by a visitor’s activity: sales tax at 8.1 percent and hotel/motel tax at 5 percent.

The fiscal impact represents only a fraction of the overall impact on the economy, as they are only the public sector’s increase in tax revenue resulting from the overall increased spending in the economy. The presence of the proposed Multi-Purpose Event Center would increase the value of commercial establishments in areas surrounding the new facility and beyond, which result in increased property tax supported by the project.

IMPACT OF CONCEPT A - ENTERTAINMENT DISTRICT DEVELOPMENT

This subsection discusses the estimated impact of the development when built as an Entertainment District (Concept A). Serving as the basis for the economic and fiscal impact estimates are the development’s projected visitation volume and room nights. They are developed from the event demand and attendance as described in the previous section. It should be noted that there is no phasing assumption utilized in the Concept A development.

Visitor-Days

Visitation volume is measured in the number of visitor-days. The table below shows the projected visitor-days at the proposed Lake Springfield Entertainment District. As shown, they are projected to total approximately 437,000 visitor-days in Year 1; approximately 551,900 visitor-days in Year 5, and approximately 783,500 visitor-days in Year 10. Today, Lake Springfield attracts approximately 50,000 annually. It is expected that Lake Springfield can attract over 1 million visitors in the future. This assumes a good product at the scale analyzed herein and also assumes that an aggressive operating team is in place.

Estimated Visitation Concept A - Entertainment District								
	Assumptions	Year 1	Year 3	Year 5	Year 7	Year 9	Year 10	Year 20
Entertainment District (Power Station)		172,500	179,469	217,839	259,017	269,482	309,230	418,833
Conference Center Lodge		24,000	24,970	30,308	36,037	37,493	43,023	58,272
South Adventure Area		99,000	103,000	125,021	148,653	154,659	177,471	240,374
North Activity Area		126,000	131,090	159,118	189,195	196,839	225,872	305,930
Park		106,800	111,115	134,871	160,366	166,844	191,454	259,312
Lake		18,000	18,727	22,731	27,028	28,120	32,267	43,704
Total		546,300	568,371	689,888	820,297	853,437	979,319	1,326,427
Possible Visitation Overlap	20%	(109,260)	(113,674)	(137,978)	(164,059)	(170,687)	(195,864)	(265,285)
Net Total		437,040	454,696	551,911	656,237	682,749	783,455	1,061,141

Source: Johnson Consulting

Room Nights

The following table shows the projected room-nights generated by the attendance to the proposed Lake Springfield Entertainment District. They are derived from the number of visitor-days, assuming that certain percentages of them would be out-of-town visitors and stay overnight at hotels/motels. As shown, the attendees to the proposed development are projected to generate approximately 31,500 room nights in Year 1; approximately 39,700 room nights in Year 5, and approximately 56,400 room nights in Year 10.

Estimated Room Nights Concept A - Entertainment District								
	Assumptions	Year 1	Year 3	Year 5	Year 7	Year 9	Year 10	Year 20
Room Nights								
Entertainment District (Power Station)	7%	12,075	12,563	15,249	18,131	18,864	21,646	29,318
Conference Center Lodge	40%	9,600	9,988	12,123	14,415	14,997	17,209	23,309
South Adventure Area	5%	4,950	5,150	6,251	7,433	7,733	8,874	12,019
North Activity Area	2%	2,520	2,622	3,182	3,784	3,937	4,517	6,119
Park	2%	2,136	2,222	2,697	3,207	3,337	3,829	5,186
Lake	1%	180	187	227	270	281	323	437
Total		31,461	32,732	39,730	47,240	49,149	56,398	76,388

Source: Johnson Consulting

Direct Spending, Economic Impact, Fiscal Impact

Based on the visitation volume and room nights shown in the previous two tables, the following table shows the estimated direct spending, economic impact, and fiscal impact of the proposed Lake Springfield Entertainment District.

Estimated Direct Spending, Economic Impact, and Fiscal Impact Concept A - Entertainment District								
Assumptions	Year 1	Year 3	Year 5	Year 7	Year 9	Year 10	Year 20	
Direct Spending (\$ Million)								
Visitors Spending								
On Lodging	\$151.66	\$5.2	\$5.8	\$7.4	\$9.3	\$10.3	\$12.2	\$22.2
On Food and Beverage	50.91	30.4	33.5	43.2	54.5	60.1	71.1	129.4
On Transportation Expense	49.01	1.7	1.9	2.4	3.0	3.3	3.9	7.2
On Retail	15.00	9.0	9.9	12.7	16.1	17.7	20.9	38.1
Total Visitors Spending	\$266.58	\$46.2	\$51.0	\$65.7	\$82.9	\$91.5	\$108.2	\$196.9
Facilities Operational Spending		\$36.9	\$39.4	\$43.2	\$47.5	\$50.9	\$54.1	\$79.1
Total Direct Spending		\$83.2	\$90.5	\$109.0	\$130.4	\$142.4	\$162.3	\$276.0
Economic Impact (\$ Million)								
Direct Spending		\$83.2	\$90.5	\$109.0	\$130.4	\$142.4	\$162.3	\$276.0
Indirect and Induced Spending	0.796	66.2	72.0	86.7	103.8	113.3	129.1	219.6
Total Spending		\$149.3	\$162.4	\$195.7	\$234.2	\$255.6	\$291.4	\$495.6
Increased Earnings	0.586	\$48.7	\$53.0	\$63.8	\$76.4	\$83.4	\$95.1	\$161.7
Employment (Estimated Supported # of Jobs)	12.946	985	1,010	1,147	1,294	1,331	1,473	1,865
Fiscal Impact (\$ Million)								
Sales Tax	8.10%	\$3.7	\$4.1	\$5.3	\$6.7	\$7.4	\$8.8	\$15.9
Hotel/Motel Tax	5.00%	0.3	0.3	0.4	0.5	0.5	0.6	1.1
Total		\$4.0	\$4.4	\$5.7	\$7.2	\$7.9	\$9.4	\$17.1

Source: Johnson Consulting

As shown, in Year 1, the economic and fiscal impact of the proposed Lake Springfield Entertainment District development is estimated to include \$149.3 million in total spending, \$48.7 million in increased earnings, 985 jobs supported, and \$4 million in sales tax and hotel/motel tax revenues. In Year 5, the economic and fiscal impact of the proposed development is estimated to include \$195.7 million in total spending, \$63.8 million in increased earnings, over 1,100 jobs supported, and \$5.7 million in sales tax and hotel/motel tax revenues. In Year 10, the economic and fiscal impact of the proposed development is estimated to include \$291.4 million in total spending, \$95.1 million in increased earnings, close to 1,500 jobs supported, and \$9.4 million in sales tax and hotel/motel tax revenues.

IMPACT OF CONCEPT B - ADVENTURE HUB DEVELOPMENT

This subsection discusses the estimated impact of the development when built as an Adventure Hub (Concept B) at). Again, serving as the basis for the economic and fiscal impact estimates are the development's projected visitation volume and room nights. They are developed from the event demand and attendance as described in the previous section. Further, the estimated impact reflects the proposed phasing of the development, with the development assumed to be fully built out in ten years.

Visitor-Days

Visitation volume is measured in the number of visitor-days. The table below shows the projected visitor-days at the proposed Lake Springfield Adventure Hub development. As shown, they are projected to total approximately 200,640 visitor-days in Year 1; approximately 337,900 visitor-days in Year 5, and approximately 645,300 visitor-days in Year 10, when the proposed Adventure Hub development is fully built.

Estimated Visitation Concept B - Adventure Hub									
		Year 1	Year 2	Year 3	Year 5	Year 7	Year 9	Year 10	Year 20
Visitation	Opening Year								
North Activity Area	Year 1	126,000	128,520	131,090	159,118	189,195	196,839	225,872	305,930
Park	Year 1	106,800	108,936	111,115	134,871	160,366	166,844	191,454	259,312
Lake	Year 1	18,000	18,360	18,727	22,731	27,028	28,120	32,267	43,704
Amphitheater/Bike Park (South Activity Area)	Year 5	-	-	-	105,700	125,680	130,758	150,045	203,226
Recreation (Power Station)	Year 10	-	-	-	-	-	-	171,000	231,609
Conference Center	Year 10	-	-	-	-	-	-	36,000	48,760
Total		250,800	255,816	260,932	422,420	502,269	522,561	806,638	1,092,542
Possible Visitation Overlap	20%	(50,160)	(51,163)	(52,186)	(84,484)	(100,454)	(104,512)	(161,328)	(218,508)
Net Total		200,640	204,653	208,746	337,936	401,815	418,049	645,311	874,034

Source: Johnson Consulting

Room Nights

The following table shows the projected room-nights generated by the attendance to the proposed Lake Springfield Adventure Hub development. They are derived from the number of visitor-days, assuming that certain percentages of them would be out-of-town visitors and stay overnight at hotels/motels. As shown, the attendees to the proposed development are projected to generate approximately 2,500 room nights in Year 1; approximately 7,400 room nights in Year 5, and approximately 26,400 room nights in Year 10, when the proposed Adventure Hub development is fully built.

Estimated Room Nights Concept B - Adventure Hub									
	Assumptions	Year 1	Year 2	Year 3	Year 5	Year 7	Year 9	Year 10	Year 20
Room Nights									
North Activity Area	1%	1,260	1,285	1,311	1,591	1,892	1,968	2,259	3,059
Park	1%	1,068	1,089	1,111	1,349	1,604	1,668	1,915	2,593
Lake	1%	180	184	187	227	270	281	323	437
Amphitheater/Bike Park (South Activity Area)	4%	-	-	-	4,228	5,027	5,230	6,002	8,129
Recreation (Power Station)	3%	-	-	-	-	-	-	5,130	6,948
Conference Center	30%	-	-	-	-	-	-	10,800	14,628
Total		2,508	2,558	2,609	7,395	8,793	9,148	26,428	35,795

Source: Johnson Consulting

Direct Spending, Economic Impact, Fiscal Impact

Based on the visitation volume and room nights shown in the previous two tables, the following table shows the estimated direct spending, economic impact, and fiscal impact of the proposed Lake Springfield Adventure Hub development.

Estimated Direct Spending, Economic Impact, and Fiscal Impact Concept B - Adventure Hub									
	Assumptions	Year 1	Year 2	Year 3	Year 5	Year 7	Year 9	Year 10	Year 20
Direct Spending (\$ Million)									
Visitors Spending									
On Lodging	\$151.66	\$0.4	\$0.4	\$0.5	\$1.4	\$1.7	\$1.9	\$5.7	\$10.4
On Food and Beverage	50.91	14.0	14.7	15.4	26.4	33.4	36.8	58.5	106.6
On Transportation Expense	49.01	0.1	0.1	0.1	0.4	0.6	0.6	1.8	3.4
On Retail	15.00	4.1	4.3	4.5	7.8	9.8	10.9	17.3	31.4
Total Visitors Spending	\$251.58	\$18.6	\$19.6	\$20.5	\$36.1	\$45.5	\$50.2	\$83.4	\$151.7
Facilities Operational Spending									
Total Direct Spending		\$33.8	\$35.3	\$36.8	\$59.2	\$70.8	\$77.2	\$127.1	\$215.1
Economic Impact (\$ Million)									
Direct Spending		\$33.8	\$35.3	\$36.8	\$59.2	\$70.8	\$77.2	\$127.1	\$215.1
Indirect and Induced Spending	0.796	26.9	28.1	29.3	47.1	56.3	61.4	101.1	171.2
Total Spending		\$60.8	\$63.4	\$66.1	\$106.4	\$127.1	\$138.6	\$228.1	\$386.3
Increased Earnings	0.586	\$19.8	\$20.7	\$21.6	\$34.7	\$41.5	\$45.2	\$74.4	\$126.0
Employment (Estimated Supported # of Jobs)	12.946	401	406	411	624	702	722	1,154	1,454
Fiscal Impact (\$ Million)									
Sales Tax	8.10%	\$1.5	\$1.6	\$1.7	\$2.9	\$3.7	\$4.1	\$6.8	\$12.3
Hotel/Motel Tax	5.00%	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.5
Total		\$1.5	\$1.6	\$1.7	\$3.0	\$3.8	\$4.2	\$7.0	\$12.8

Source: Johnson Consulting

As shown, in Year 1, the economic and fiscal impact of the proposed Lake Springfield Adventure Hub development is estimated to include \$60.8 million in total spending, \$19.8 million in increased earnings, 400 jobs supported, and \$1.5 million in sales tax and hotel/motel tax revenues. In Year 5, the economic and fiscal impact of the proposed development is estimated to include \$106.4 million in total spending, \$34.7 million in increased earnings, 624 jobs supported, and \$3.0 million in sales tax and hotel/motel tax revenues. In Year 10, the economic and fiscal impact of the proposed development is estimated to include \$228.1 million in total spending, \$74.4 million in increased earnings, 1,150 jobs supported, and \$7 million in sales tax and hotel/motel tax revenues.

COMPARISON OF CONCEPT A AND CONCEPT B DEVELOPMENT IMPACT

The following table compares key measures of the economic and fiscal impact of the two development options for Lake Springfield, as an Entertainment District and an Adventure Hub. The year to compare is in Year 10 when the Adventure Hub development is assumed to be fully built.

Comparison of Year 10 Economic and Fiscal Impact			
		Concept A - Entertainment District	Concept B - Adventure Hub
Development Costs (\$Million)		\$1,237.3	\$1,059.4
Activity Volume			
Net Visitation		783,455	645,311
Room Nights		56,398	26,428
Direct Spending (\$ Million)			
Visitor Spending		\$108.2	\$83.4
Facilities Operational Spending		54.1	43.7
Total Direct Spending		\$162.3	\$127.1
Economic Impact (\$ Million)			
Direct Spending		\$162.3	\$127.1
Indirect and Induced Spending	0.796	129.1	101.1
Total Spending		\$291.4	\$228.1
Increased Earnings	0.586	\$95.1	\$74.4
Employment (Estimated Supported # of Jobs)	12.946	1,473	1,154
Fiscal Impact (\$ Million)			
Sales Tax	8.10%	\$8.8	\$6.8
Hotel/Motel Tax	5.00%	0.6	0.3
Total		\$9.4	\$7.0

Source: Johnson Consulting

As shown either alternative makes a very substantial economic contribution. They are similar in general but distinguish themselves on the activities that drive the venues. They are generally very close in terms of economic contribution, and both match the needs within the community.

ONE-TIME CONSTRUCTION IMPACT

The construction budget will also cause substantial economic and fiscal impact analysis. We have used the total budgets as prepared by the SWT. The following two tables summarize the estimated one-time construction impact of Concept A and Concept B development.

Estimated Construction Cost and One-Time Construction Impact Concept A - Entertainment District			
	Assumptions	Constr. Yr. 1	Constr. Yr. 2
Construction Costs	Opening Year		
North Activity Area	Year 1	\$16.7	\$16.7
Park & Lake	Year 1	123.7	123.7
South Activity Area	Year 1	80.7	80.7
Power Station	Year 1	397.6	397.6
Total		\$618.6	\$618.6
Impact on Construction Jobs			
Labor Costs	55%	\$340.3	\$340.3
# of On-Site Construction Jobs	\$35,000	9,440	9,160
Economic Impact			
Material Costs	45%	\$278.4	\$278.4
% Spent Locally	80%		
Direct Construction Spending		\$222.7	\$222.7
Indirect and Induced Spending	0.796	177.2	177.2
Total Spending		\$399.9	\$399.9
Increased Earnings	0.586	\$130.5	\$130.5
Employment (Estimated Supported # of Jobs)	12.946	2,799	2,718
Fiscal Impact (\$ Million)			
Sales Tax	8.10%	\$32.4	\$32.4
Total		\$32.4	\$32.4

Source: Johnson Consulting

The following figure summarizes the estimated one-time construction impact of Concept B development, reflecting the proposed phases: North Activity Area, Park, and Lake opening in Year 1, South Activity area opening in Year 5, and Power Station zone opening in Year 10.

Estimated Construction Cost and One-Time Construction Impact Concept B - Adventure Hub					
	Assumptions	Constr. Yr. 1	Constr. Yr. 2	Year 1	Year 2
Construction Costs					
	<i>Opening Year</i>				
North Activity Area	Year 1	\$16.3	\$16.3	\$0.0	\$0.0
Park & Lake	Year 1	123.2	123.2	0.0	0.0
Amphitheater/Bike Park (South Activity Area)	Year 5	0.0	0.0	0.0	0.0
Recreation (Power Station)	Year 10	0.0	0.0	0.0	0.0
Total		\$139.5	\$139.5	\$0.0	\$0.0
Impact on Construction Jobs					
Labor Costs	55%	\$76.7	\$76.7	\$0.0	\$0.0
# of On-Site Construction Jobs	\$35,000	2,130	2,070	0	0
Economic Impact					
Material Costs	45%	\$62.8	\$62.8	\$0.0	\$0.0
% Spent Locally	80%				
Direct Construction Spending		\$50.2	\$50.2	\$0.0	\$0.0
Indirect and Induced Spending	0.796	40.0	40.0	0.0	0.0
Total Spending		\$90.2	\$90.2	\$0.0	\$0.0
Increased Earnings	0.586	\$29.4	\$29.4	\$0.0	\$0.0
Employment (Estimated Supported # of Jobs)	12.946	631	613	0	0
Fiscal Impact (\$ Million)					
Sales Tax	8.10%	\$7.3	\$7.3	\$0.0	\$0.0
Total		\$7.3	\$7.3	\$0.0	\$0.0

Source: Johnson Consulting



Estimated Construction Cost and One-Time Construction Impact Concept B - Adventure Hub							
	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
Construction Costs							
North Activity Area	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Park & Lake	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphitheater/Bike Park (South Activity Area)	41.7	41.7	0.0	0.0	0.0	0.0	0.0
Recreation (Power Station)	0.0	0.0	0.0	0.0	0.0	460.8	460.8
Total	\$41.7	\$41.7	\$0.0	\$0.0	\$0.0	\$460.8	\$460.8
Impact on Construction Jobs							
Labor Costs	\$22.9	\$22.9	\$0.0	\$0.0	\$0.0	\$253.5	\$253.5
# of On-Site Construction Jobs	560	550	0	0	0	5,390	5,230
Economic Impact							
Material Costs	\$18.7	\$18.7	\$0.0	\$0.0	\$0.0	\$207.4	\$207.4
% Spent Locally							
Direct Construction Spending	\$15.0	\$15.0	\$0.0	\$0.0	\$0.0	\$165.9	\$165.9
Indirect and Induced Spending	11.9	11.9	0.0	0.0	0.0	132.0	132.0
Total Spending	\$26.9	\$26.9	\$0.0	\$0.0	\$0.0	\$297.9	\$297.9
Increased Earnings	\$8.8	\$8.8	\$0.0	\$0.0	\$0.0	\$97.2	\$97.2
Employment (Estimated Supported # of Jobs)	167	163	0	0	0	1,598	1,552
Fiscal Impact (\$ Million)							
Sales Tax	\$2.2	\$2.2	\$0.0	\$0.0	\$0.0	\$24.1	\$24.1
Total	\$2.2	\$2.2	\$0.0	\$0.0	\$0.0	\$24.1	\$24.1

Source: Johnson Consulting

IMPLEMENTATION PLAN

REALIZING THE VISION

To change the future of Lake Springfield, it is important to take an active role in identifying next steps and actions to shape the final vision for the planning area. The momentum and support garnered for this plan during this process, set the project up for success in the implementation phase. Developing this vision in a collaborative way, with a focus on diversity of lived experiences, results in the vision of a Lake Springfield for all. New adventure awaits, and everyone is welcome at Lake Springfield.

This implementation chapter is structured around the goals of the planning process, with specific projects and timeline for consideration identified under these goals. The purpose of this structure is to provide the community with measurable outcomes. While there may be many necessary outcomes to achieve the overall goal, the city, and important implementation partners, can track progress and success along the way. Measuring success on a regular basis will ensure the project maintains momentum moving from plan, to concept, to construction.

HOW TO READ THE IMPLEMENTATION CHAPTER

The momentum built around the Lake Springfield plan demonstrates true collaboration and consensus building around the site. The love for this area became quickly apparent as the plan started, and the final site concepts recommended here are the result of intentionally designing with nature to develop the area as an asset to the larger Springfield community. Implementation actions are already starting, and this chapter outlines specific projects to continue implementation momentum.

The projects in this chapter are separated by project goals, the six defined goals of the EDA grant that funding the Lake Springfield Plan. Within each goal are specific projects identified for next steps. The projects are further segmented by public realm investment and private realm investment. Each project includes the identification of what the project is, the timeline for project completion, and responsible party to move that project forward. Total program phasing is identified by 1-, 5- and 10-year milestones. At each of these milestones various elements of site design are to be in progress for project completion.

The timeline for each project is indicated by the 📅 icon and is followed by a visual timeline. For example, the following depicts a project that should be completed between years 2-3.



The responsible party for each project is indicated by the 👤 icon.



■ GOAL #1

ECONOMIC DEVELOPMENT & RESILIENT JOB CREATION

PUBLIC

Define an Onwership Model

The first step is to define an ownership model for the site plan development. As City Utilities is the landowner, that agency is charged with this task. The ownership model may change throughout the project life cycle, but a strong foundation is critical to project success. Also included in this step is to hire a project manager.

Recommended: A non-profit leads the ownership effort to catalyze fundraising efforts and receive grant dollars. This should start immediately.

📅 Within 12 Months (By April 2025)



👤 City Utilities

Implement a Fundraising Entity

A critical path item is to establish a non-profit organization or fundraising entity to raise philanthropic dollars and apply for grants that will help catalyze public realm investment. This should happen immediately so the non-profit can be set up to raise funds within the next 12-months.

📅 Immediate (Fundraising Should Start By April 2025)



👤 City Utilities

Tourism District Formation

Recognizing the area as a tourism district is a component to further public realm investment that will help catalyze private development interest. The Tourism District designation comes with strategies and funding resources that will help advance public realm needs and spur private interest. Additional components of this a comprehensive wayfinding and signage study to be implemented as plan components take shape. Wayfinding and signage should be scalable to different users and contexts, and support people with disabilities.

📅 2 – 3 Years



👤 City Utilities & City of Springfield

PRIVATE

Market Feasibility of Site Programming Proposals

The first three steps in this category should generate some private development interest in the site. Initial forecasts have been completed at the concept level, but to ensure development will achieve the goals of the area, more refined analysis is necessary.

After Initial Project Steps Completed (2 – 3 Years)

- 1
- 2
- 3
- 4
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- 6
- 7
- 8
- 9
- 10
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City Utilities

Marketing & Branding Of The Site

The project executive, and the foundation charged with leading the project implementation, will need to develop a marketing and branding campaign for the Lake Springfield area. This marketing and branding campaign should build off the collaborative approach to the area plan that garnered significant interest and support. This campaign should be developed in conjunction with the tourism district designation to promote a cohesive look, feel and brand of the entire area.

Initial Path Item after Foundation Formation and Project Executive Appointment (1 – 2 Years)

- 1
- 2
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Project Owner

Formation of a Special Purpose Corporation

The formation of a special purpose corporation, in association with City Utilities will allow development work to commence. This formation will require a partnership with legal counsel to finalize this agreement. This will serve as a foundational item to align the mission and vision of the project, and help build the bones of the final development.

Initial Path Item After Foundation Formation And Project Executive Appointment (2 - 3 Years)

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Project Owner & City Utilities

PUBLIC PRIVATE

Develop a Process to Receive Developer Inquiries

This process of developing an RFQ or an RFP to solicit interest from potential developers or benefactor partners should be overseen by the project executive. This developer agreement would begin as a standard agreement and can evolve with legal complexities over time and bey supported by legal counsel. The development of this process is a good place to consider the role of a public-private partnership in site buildout.

TBD Depending on Developer Interest, but Will Be an Integral Part of Site Redevelopment

Project Executive



GOAL #2

SUSTAINABLE WATER QUALITY & GREEN INFRASTRUCTURE

PUBLIC

Meet the Lake’s Current Use Water Quality Criteria to Protect Warmwater Aquatic Habitat

Conduct continuous monitoring of the Lake for algal toxins with robust sampling frequency to provide greater insight into climate conditions and temporal variations and nutrient concentrations and trends, throughout the recreational season. Upon completion of satisfactory data collection, implement a nutrient reduction plan/strategy for the Lake to achieve the level of protection needed for “warmwater aquatic habitat”.

1 – 3 Years

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City Utilities

Preserve the Lake’s Current Use Numeric Water Quality Criteria for Whole Body Contact-B.

Begin conducting continuous monitoring of the Lake for bacteria (Escherichia Coliform or E. Coli) in the recreational seasonal to understand baseline concentrations of E. Coli in the Lake. Upon completion of satisfactory data collection, implement a water quality treatment strategy to reduce E. Coli to less than 206 colony-forming units (CFU) per 100 milliliters, in order to maintain the “Whole body Contact -B” use.

1 – 3 Years

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City Utilities

Restore Human Health Criteria Set in Place to Limit Fish Consumption on a Long-Term Basis and Protect Recreators from Harmful Water Quality Conditions.

Begin conducting continuous monitoring of the Lake for bacteria (Escherichia Coliform or E. Coli) in the recreational seasonal to understand baseline concentrations of E. Coli in the Lake. Upon completion of satisfactory data collection, implement a water quality treatment strategy to reduce E. Coli to less than 206 colony-forming units (CFU) per 100 milliliters, in order to maintain the “Whole body Contact -B” use. Conduct a detailed sediment investigation to collect samples from deeper sediment horizons and analyze for polychlorinated biphenyl (PCB) and other contaminants to obtain insight into the bioaccumulation of PCBs in fish tissues. Upon completion of satisfactory data collection, implement a sediment management strategy to clean contaminated sediments and restore the lake bottom.

 1 – 3 Years

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 City Utilities

Provide for and Enhance Continuity of the James River to Improve Sediment Supply/Transport and Regulate Temperature for the Benefit of the Aquatic Habitat Ecosystem.

Conduct a detailed sediment investigation to collect samples from deeper sediment horizons and analyze for polychlorinated biphenyl (PCB) and other contaminants to obtain insight into the bioaccumulation of PCBs in fish tissues. Upon completion of satisfactory data collection, implement a sediment management strategy to clean contaminated sediments and restore the lake bottom.

 2 – 4 Years

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 City Utilities

Provide for Kayak Passage and Fish Ladder

Conduct a detailed sediment investigation to collect samples from deeper sediment horizons and analyze for polychlorinated biphenyl (PCB) and other contaminants to obtain insight into the bioaccumulation of PCBs in fish tissues. Upon completion of satisfactory data collection, implement a sediment management strategy to clean contaminated sediments and restore the lake bottom. Modify the Dam components and restore and stabilize the downstream reaches of the James River.

 2 – 4 Years

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 City Utilities

FUNDING

Seek External Funding to Augment City Efforts

A combination of any of the above actions may be implemented based on the community’s priorities in and available local, state, and federal government funding opportunities. Few relevant funding programs and their eligible uses through the Inflation Reduction Act are listed below for consideration:

- **Watershed and Flood Prevention Operations.** Flood Prevention, Watershed Protection, Public Recreation, Public Fish and Wildlife, Agricultural Water Management, Municipal and Industrial Water Supply, or Water Quality Management.
- **Clean Water State Revolving Fund.** This program is a Federal-State partnership that provides communities low-cost financing for a wide range of water quality infrastructure projects. Under the Bipartisan Infrastructure Law, 49 percent of Clean Water State Revolving Fund funds shall be eligible to be grants or 100 percent principal forgiveness loans. The Clean Water State Revolving Fund program provides capitalization grants to States, which will provide a long-term source of State financing for construction of wastewater treatment facilities and implementation of other water quality management activities.
- **Fish Passage:** Restoring fish passage by removing in-stream barriers and providing technical assistance pursuant to section 117 of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (16 U.S.C. 1891a).
- **Landscape Scale Restoration Water Quality and Fish Passage.** This program improves fish and wildlife habitat connectivity and helps to recover Endangered Species Act-listed or Endangered Species Act candidate species that depend on National Forest System lands.
- **Rehabilitation of High Hazard Potential Dams:** Eligible activities include repair, removal, or any other structural or nonstructural measures to rehabilitate an eligible high hazard potential dam. The Federal Emergency Management Agency Rehabilitation of High Hazard Potential Dams grant program provides technical, planning, design, and construction assistance for eligible rehabilitation activities that reduce dam risk and increase community preparedness.



■ GOAL #3

ADAPTIVE REUSE STRATEGY

PUBLIC

Update Site Zoning

Specialized zoning will need to be considered for this project, and specifically the sites where new uses are considered with the existing concept. Necessary zoning code changes should be completed to align with the Lake Springfield Plan vision that is adopted as a part of this plan. Updating any zoning changes, or the use of a potential overlay district, is important to ensuring development proposals are in line with the intended uses to match the overall vision of the site.

 Immediately Following Plan Adoption (Zoning Updates Completed by May 2025)

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 City of Springfield Planning Department

PRIVATE

Develop Official Process to Receive Developer Inquiries

An RFP or RFQ should be developed to accept official inquiries from private developers and generate interest from potential partners. This process should begin with a standard development agreement and evolve with complexities that should be supported by legal counsel. In developing this official process, a strategy for a public-private partnership may also be considered.

 Immediately Following Plan Adoption (Zoning Updates Completed by May 2025)

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 Project Executive



■ GOAL #4

TRANSPORTATION ENHANCEMENTS

PUBLIC

Briar Roadway Improvements

For traffic to the lake and park, Briar is an important connection from National Ave. While the lake and park are not the focus of trip generation, enhanced amenities, including a marina, expanded boathouse, and destination nature play, will increase existing trips to the park. Briar updates will need to be completed to ensure safe access for everyone. The City of Springfield is the project owner, and the next phase is to complete a concept plan to identify preferred design, as well as an estimate of costs.

 2 – 5 Years

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 City of Springfield

Lake and Park Roundabout Entrance

Improvements to Briar will necessitate the improvement of the entrance at the Lake and Park. A roundabout here is a priority project to increase wayfinding and park entry, while at the same time updating a skewed intersection with poor site distance for exiting traffic. The City of Springfield will be the primary owner, but coordination with City Utilities the The Park Board will be important as the improvement will have an impact on the site. Additionally, the private residential drive will need to be accounted for and early discussions with that property owner are important. The next phase is a concept study to determine design feasibility as well as an estimate of costs.

 3 – 5 Years

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 City of Springfield

Kissick Linear Park

Once vehicular improvements have been made on new access roads, the closure of Kissick across the Lake to vehicular traffic becomes a possibility. Re-imaging the current vehicular bridge as a space for people will be an important component of better connecting the power station site and south activity area to the Lake. The City of Springfield is the primary owner as the responsible party for the vehicular bridge. Next steps in this process include neighbor coordinate to build buy-in and support for the idea, as well as concepts around how to incorporate park style or placemaking elements on the bridge.

 8 – 10 Years

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 City of Springfield

Republic Road Trail Connection

Because this project does not focus on moving heavy trips associated with the new plan, the priority falls lower in terms of the overall site. However, the scale of the project may cost less for more pedestrian trips, and can be completed in a quicker timeline if funding is available. With several dedicated sources to pedestrian funding, including a significant increase in Transportation Alternative Program funding under the current IIJA, this project may be an easier to achieve project. The City of Springfield will be responsible for this project but should partner with City Utilities (public transit) and Ozark Greenways. These partners are critical to a cohesive look and feel of active transportation facilities across the region. The next phase is to make a conceptual plan to finalize trail alignment, identify design challenges/needs, and estimate the costs to get the project complete.

📅 5+ Years



👥 City of Springfield & Other Trail Partners

North Activity Area Trail System

Increasing trail connectivity within the planning area is a priority, and thus the full buildout of this internal trail system, including a bridge connecting to the boathouse, is important to project success. While future trail buildout can come in phases, an immediate priority is a site trail study, to finalize trail alignments and phase design and construction.

📅 2 – 4 Years



👥 City of Springfield & Other Trail Partners

PRIVATE

Lake Springfield Drive

Another vehicular access priority is Lake Springfield Drive. This eastern portion of the East West arterial is already listed in the Long-Range Transportation plan, but will need to be regionally elevated as a priority, which can spur economic growth. The City of Springfield will be the primary owner of this project and will need to coordinate with both the Missouri Department of Transportation, as well as Greene County, who both have adjacent roadways that will tie into Lake Springfield Drive. The next phase of this project is to extend the ROW preservation ordinance and move into a conceptual planning study building off the previous alignment. Federal funding will be required to build a roadway of this magnitude.

📅 6 – 8 Years



👥 City of Springfield & Necessary Implementation Partners

Southwest Gateway

The southwest Gateway is the primary connection to the new mixed-use district and is an important priority to ensure development success. This project will include partnership with the City of Springfield. The next phase in the development of the Southwest Gateway will be a conceptual planning study to determine final alignment and magnitude of costs. Coordination with OTO will be necessary to put the project on an updated project list for the Long-Range Transportation Plan. The scale of the project will require federal funding, and thus the placement on the Long-Range Transportation Plan is important.

📅 6 – 8 Years



👥 City of Springfield & Necessary Implementation Partners

Kissick Improvements to Farm Road 188 & Roundabout at Farm Road 188

Kissick is an important north/south route that will move traffic from Lake Springfield Drive to the South Activity Area, and the power station site. New improvements will be required to connect traffic via Lake Springfield Drive on Kissick to the South Activity Area. The City of Springfield will be the primary owner of this project. The next phase in this effort is to complete a concept plan for the final design and identify an estimate of costs for implementation for implementation. The roadway improvements and the roundabout with site entry should be completed as one project.

📅 4 - 6 Years



👥 City of Springfield

■ GOAL #5

ACTIVE & PASSIVE RECREATIONAL OPPORTUNITIES

The success of the future of Lake Springfield relies on the understanding that a path to implementation needs to provide additional and sufficient support to the existing parks and recreation system. Previous planning documents and system-wide assessments have indicated a need to enhance financial, operational, and staffing support to continue to provide vital community assets. Recognizing that a robust public sector commitment can serve as a catalyst for private investment, both within the public realm and as an economic driver, is key for implementation

PUBLIC

Develop Lake Springfield Park Site Plan

Public realm investments are going to be critical to success of the private investments identified for the Power Station site and South Activity Area. A final site plan, with concepts and cost estimates should be completed for the Lake Springfield Park area. Developing the park to this level of detail will better identify associated costs with park upgrades and added amenities. This level of detail will be required to move to final site design, as well as identify any funding opportunities.

📅 Within 12 Months



👥 Springfield Greene-County Park Board

Trail Feasibility Study

While this plan identifies potential trail connections internal to the Lake Springfield site, further investigating potential alignments, costs associated with these alignments, and end of trip facilities is important for further demonstrating public investment and support of this project. The trail feasibility study should be a partnership of the City Utilities as the landowner, the Ozark Greenways, the Springfield Greene-County Park Board, and include the Missouri Department of Conservation as a key stakeholder to connect to the Nature Center Trail System. While other public realm investments and more critical path items to ensure private development are important up front, this element is an initial item, but not a critical path.

📅 Within 24 Months



👥 Collaborative Study with Multiple Partner Agencies

Further Investigate Public-Private Models to Park Enhancements that Accompany Private Development

An active pursuit and showcase of successful public-private partnerships in the parks sector could help leverage the interest of private developers. When private entities collaborate with the public sector, to improve park facilities, organize events, sponsor amenities and more, they are not only enhancing the sense of community, but demonstrating feasibility and benefits to potential private investors. Collaboration with local businesses, event organizers, and cultural institutions provide further community enrichment, but also provides opportunities for private entities to invest in and advertise their products or services. Public-private partnerships can help ease some of the financial burden of managing parks and other public amenities. Incentives to encourage private sector investments, such as tax incentives, naming rights opportunities, or streamlined permitting processes, can foster robust partnerships between parks and private entities.

📅 Immediate – Develop Public Private Partnership Plan Within 18-Months



👥 Springfield – Greene County Park Board

■ GOAL #6

DIVERSE & INCLUSIVE ENGAGEMENT

PUBLIC

Develop a Community Relations Plan Phased by Site Development Phases

The proposed total project phase is over to occur over 10 years, and be specific by zone, as identified in the next section. To ensure the high level of collaboration and inclusive engagement that occurred during the planning process is achieved during the implementation process, the project executive should work with a team of community relations professionals to develop a strategic community relations plan to last over the timeline of implementation. The plan should be updated and monitored regularly. Goals should be clearly identified in the plan that set forward clear objectives for inclusive representation and wide-reaching participation both in the Springfield community, and in the greater Springfield region. The community relations plan should be developed within the project branding, so that regular updates can be published publicly, creating a high level of transparency around site development.

📅 Develop In 1 – 2 Years, Regular Update, Monitor and Report

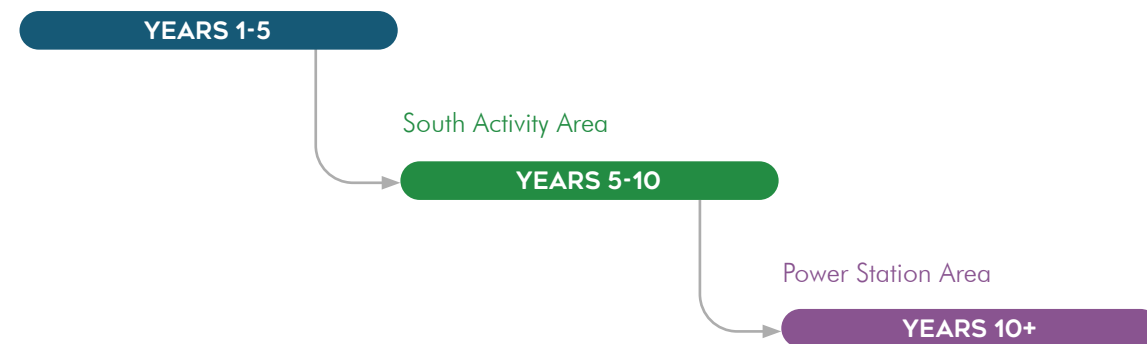


👥 Project Executive

PROJECT PHASING

The project is expected to take 10 years to build and will come in phases. Public realm investment will largely draw private interest in the site. The projected phasing is as follows:

North Activity, Lake and Park Area

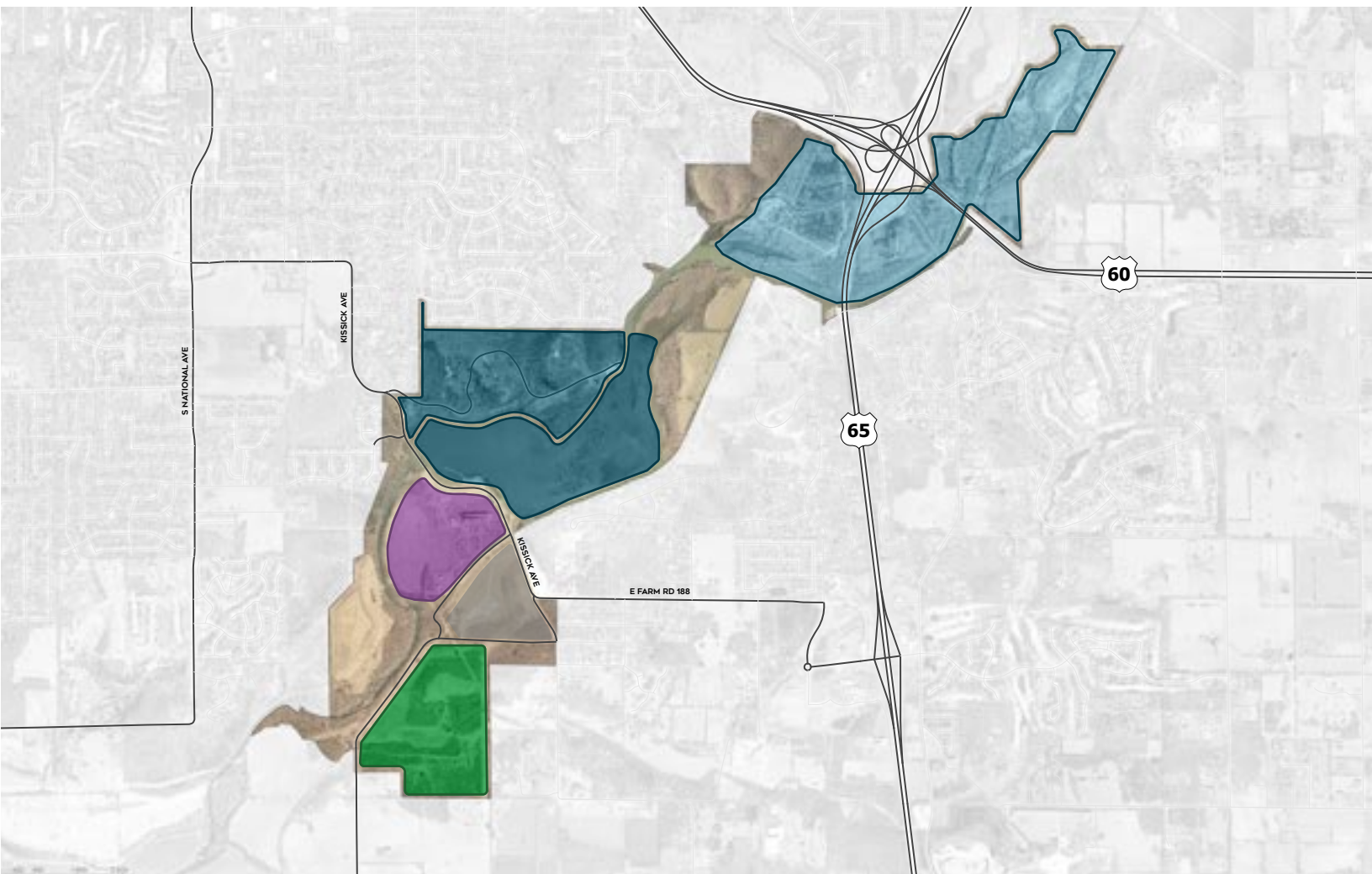


MAGNITUDE OF COSTS

The magnitude of cost for this project is roughly 2-billion dollars for full build and for all 10 years of phasing. Significant strategies should be considered for funding resources, private development partners, and project prioritization as outlined here. It should be noted these are high level magnitude of cost estimates, that will be further refined during the next phases of projects such as feasibility studies, conceptual and preliminary plans, and refined site development concepts. See **pages 225-227** for detailed cost estimates.

The success of Lake Springfield is an important project for a community that is focused on enhancing quality of life for all residents. Parks and outdoor spaces play a pivotal role in the health and well-being of a place, while at the same time offering spaces for opportunities to engage with other community members, building civic pride and place attachment. Additionally, these free spaces, that are designed for everyone, represent the type of social infrastructure that seeks to strengthen community bonds and enhance social capital.

Parks play an important role in economic development and improved infrastructure. Well-designed parks contribute to increased property values, stimulate local businesses, and attract tourism. Investments in park infrastructure not only enhance the quality of life for residents but also foster economic growth and encourage private investment. Public realm investment is a critical path item to advance the totality of the Lake Springfield project, and create a local, regional, and even national tourism destination. Recognizing Lake Springfield as a vital community asset with significant economic development potential, will not only improve the quality of life for residents and visitors but position the Springfield community as an attractive destination for private investors, creating a sustainable and vibrant ecosystem for years to come.





APPENDICES

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Engagement



A001



Resident Meeting & Project Kickoff Engagement Summary November 2, 2022

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Key Themes

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- Neighborhood comment cards
- Retreat kickoff notes
- Retreat kickoff boards

EXECUTIVE SUMMARY

The Lake Springfield area is a key natural asset to Springfield and the surrounding region. Lake Springfield was identified in the Forward SGF as a distinct area within the community that exhibits the potential for significant change. While the subarea framework in the Comprehensive Plan highlighted key concepts and potential strategies, the plan is a more holistic vision for the area. This process will thoroughly define the objectives and strategies to achieve the goals of the area as identified in the EDA grant application. The outcome of this process will be a plan that has a clear path to implementation and built with the community needs at the center of the work.

The engagement framework around the Lake Springfield plan is critical. The project is truly a once in a lifetime opportunity to re-invest in a beloved natural asset within the community, while at the same time becoming a more accessible and inclusive space for everyone to enjoy. Additionally, the significant opportunity for economic development and job creation are key. Understanding this, the engagement process will be collaborative across multiple city

departments and regional agencies, as well as inclusive and transparent for the public.

The Lake Springfield Park Plan is funded by an \$800,000 grant from the U.S. Department of Commerce’s Economic Development Administration, with a \$200,000 local match from the Hatch Foundation, City Utilities, and the City of Springfield’s Environmental Services Department. The goal of the plan is to serve as a catalyst for new economic development and recreational opportunities for the Lake Springfield area.

The Lake Springfield Plan kickoff happened on October 12 and 13 at the Lake Springfield Park Boathouse. Local neighbors and residents were invited to attend an informational kickoff meeting on October 12. It was important to immediately engage the adjacent neighbors at the very start of the process because the lake is an important natural asset to the region. Over 3,000 invitations were sent to residents within a 2-mile radius of the lake, and over 100 participants attended the meeting in person or virtually watched via Zoom.

The consultant team kicked off the project on October 13, with a full day retreat that consisted of site tours, interactive visioning exercises, goal setting and risk assessments. The day retreat culminated in next steps and action items as the planning process gets underway. Each team member from the consultant team attended the retreat, as well as representatives from several city departments, local planning partners, peer planning agencies and other regional stakeholders. In total, 30 partner organizations participated in the retreat as the planning process kickoff.

This engagement summary outlines input received from the neighbor open house, as well as reports on the retreat. Activities are outlined with key themes. The conclusion of this report is key takeaways that will be important to understand during the planning process. Presentations, imagery from the retreat, detailed notes, and a full risk analysis are included as an appendix to this document.



100+ neighbors



30 partner organizations



Site tours, visioning exercises &
risk assessment



Lake Springfield Plan
Vision

Project Kickoff – ABOUT

The Lake Springfield area is an important space within the Springfield area and presents a once-in-a-lifetime opportunity to focus on innovative economic development and resilient job creation. Due to the important scope of the work to be done in the plan, a robust kick-off to the project was necessary. The project kickoff was structured in two parts.

PART 1: Resident Meeting

For residents immediately surrounding Lake Springfield, there is sensitivity to change in the area that has existed a certain way for so long. Economic development can conjure many differing emotions among different people, and thus we knew it was important to connect with the adjacent community at the very start of our planning process. Plans are meant to embrace the community's vision. The goal of the resident meeting was to demonstrate that our team was starting with a blank slate. The resident meeting was held on Wednesday, October 12 from 4:30 – 6:30pm at the Lake Springfield Park Boathouse. Formal remarks were at 5:30pm.

The meeting intentionally did not show any drawings or ideas. Maps of the project area were displayed, along with some historical pictures. Residents were free to give input to the project team. City staff and elected officials welcomed the residents and gave background on the Plan Project, as well as the funding. The consultant team was introduced as being there to listen and hear ideas. Approximately 100 people attended the meeting in person and virtually.

PART 2: Project Team Retreat

The team retreat took place mostly on October 13, 2022. Due to scheduling needs, two project tours took place on October 12, 2022 (Economic Development Team & Watershed Team). Attendees at the team kickoff retreat included representatives from all the consulting firms on the project team, as well as representatives from several agencies within the City of Springfield and other local and regional peer planning agencies.



Lake Springfield Park – Planning Area

Goals of LakeSGF Plan



Economic Development

Attract innovative development & resilient job creation that is in line with regional vision and priorities

Sustainability

Develop a strategy for sustainable water quality & green infrastructure improvements

Adaptive Reuse

Establish an adaptive reuse strategy for the James River Power Station

Transportation Upgrades

Focus on transportation enhancements that are accessible and equitable to Lake Springfield and the surrounding communities

Recreation

Embrace active and passive recreational opportunities as a regional economic development catalyst

Community Consensus

Build community consensus that is inclusive of diverse and multi-cultural perspective

The goal of the project team retreat was to first understand input received from the neighbors at the local public meeting. Next, the vision for the project was re-introduced, including the inception of the Lake Springfield Subarea from the Forward SGF plan, as well as information and goals included in the EDA grant. The kickoff retreat included additional site tours (Transportation, Parks & Recreation, and Dam & Utility infrastructure). Information on observations from the tours was shared with the entire group.

Following initial observations about the project needs and opportunities, the second half of the day was spent completing interactive visioning exercises. These exercises included goal setting and discussing what a successful plan looks like when finalized. Small groups spent time thinking about the vision for the project within the community, and how to deliver a plan that had community buy-in and was feasible. Following the goal setting and visioning, teams stayed in small groups to examine risks associated with the project. Risks are defined as things that may potentially go wrong during the planning process and are critical to identify early on so the risks may be assessed during each project phase.

The retreat concluded with team members sharing their immediate next steps for work, including rough timelines. The day ended with a presentation from the City of Springfield Public Information Officer on key talking points for the project moving forward.

An initial public meeting is scheduled for November 17, and city officials estimate attendance of nearly 300 people.



RESIDENT MEETING – INPUT

ABOUT

The resident meeting was held on Wednesday 10 October 12 from 4:30 – 6:30pm at the Springfield Lake Park Boat House. The meeting was an open house style set up to garner input from the residents in the adjacent neighborhoods. An intentional decision was made to show only the map of the study area, and not any renderings or imagery about what the area could look like in the future. It was important for neighbors to know their voice is important in the planning process and that our team was starting with a blank slate.

As people signed in, consultant team members were available around the room to get input and hear about concerns, needs and opportunities within the planning area. Formal remarks about the project were made at 5pm. Olivia Hough with the economic vitality department kicked off the meeting with information about the project, including funding components of the work being done. Olivia reiterated the importance of the local voice within the planning process as the reason for having a separate meeting for neighbors before the planning process started. Other individuals from the City of Springfield gave remarks following Olivia, including:

- Brian Ash, neighborhood representative
- Ken McClure, Mayor of Springfield
- Steve Stodden, City Utilities

The final presentation of the evening was given by the consultant team. Steve Prange introduced the planning team and their



respective disciplines. He went through a brief presentation about the project and the planning process. Included in this presentation were key components of the planning process, as well as past performance of the team. Reviewing past projects was intended to demonstrate the expertise of the team, as well as set the stage for some visioning to take place at the next public meeting in November.

Key elements of the Lake SGF Plan include:

- Recreational expansion opportunities
- Adaptive reuse planning for the decommissioned power station
- Hydrological studies
- Water quality and ecological preservation planning
- Economic development and workforce development opportunities
- Transportation, access and wayfinding
- Land use recommendations

KEY TAKEAWAYS

For the most part, people who attended the public meeting for neighbors seemed cautiously excited about the project. Several participants at the meeting indicated they were excited to see change, but wanted a better understanding of how that change will impact their quality of life, or their day to day happenings as residents adjacent to the planning area. Several participants discussed the need for enhanced access, including safe routes to access the lake and the park on bike or foot. We heard that because the park only feels accessible by driving, people who are already taking a trip in their car choose to go to other parks within the

area, such as Nathaniel Greene Park. Residents also discussed a need for better pedestrian connectivity across Kissick and to the neighborhoods directly north of the lake.

Other key discussion items at the neighborhood meeting included concern over the future of the dam, the desire to be able to travel around the entire lake, by foot or bike; as well as the need for a better east/west connection to the hospital south of the lake as many residents see people using Kissick for that connection. People indicated the playground is an important amenity for children, and we also heard several times how much people love the frisbee golf course.

The final component of the resident meeting was a survey geared specifically to the residents in the local neighborhoods. Comment cards were also distributed and these

items were accepted at the meeting. The project website was provided to participants to encourage participation in the process. The project website is lakesgfplan.com/engagement. Key takeaways are included in this report, with summarized survey and comment inputs included next.



COMMENT CARDS



Access & connectivity – already need to drive so go elsewhere



Frisbee golf course is a major asset



Water quality of the lake and concern over vegetation as well as future of the dam



Cautiously optimistic, interested in development but at what cost?



Would like to be able to bike or walk around the entire lake



Design with nature – preserve the natural environment

To gauge specific input from residents at the neighbor meeting, comment cards and surveys were provided. Comment cards were picked up at the meeting that evening. Over 100 people participated in the neighbor meeting, with several neighbors leaving comments about their concerns and priorities for the Lake Springfield Area. Comments were categorized into seven categories, with one category for more general comments. These categories are included below with some bulleted items about themes heard from residents at the neighbor meeting.

Neighbor Comment Card Feedback

1. Recreation & Other Amenities

- Like frisbee golf
- Want to see more investment in water activities
- Family activities (walking, biking)
- More space in general for walking and biking
- Add drinking water across the park

2. Trails

- Difficult to get to on bike
- Would like to see mountain bike trails
- Bridge crossing over river
- Explore regional connections with safe trails
- Connect Trail of Honor to power plant

3. Access & Safety

- Kissick should be wide enough to have space for walking and biking
- Need improved safety for people walking and biking

- Entrance and exit from Kissick is a hazard
- Need additional entry/exit point
- Better wayfinding to parking areas

4. Lily Pads & Algae

- Would like to see lily pads cleared out
- Dredge lake and add more depth

5. Personal Impact

- Concern over what bringing more people to the area means to them as they live nearby
- Limit cut through traffic on residential streets
- Need to advertise how much space is available at the next meeting location

6. Landscaping/Maintenance/Natural Ambiance

- Dredge lake
- Minimal maintenance species

7. Dam

- Do not want to see removal
- Enhanced bike/ped

8. General

- We love the lake
- Thank you for your work – very glad to see this happening
- Please keep Lake Springfield

LOCAL SURVEY

In addition to the comment cards and the neighbor specific meeting, a survey was given to neighbors, which is open through October 2022. To date 19 surveys have been completed.

The survey asked questions about how people would describe their neighborhood, why they chose to live where they live, what is special about their neighborhood, and several other questions to gauge the feelings of the audience about the general project area.

Most respondents described their neighborhood in the Lake Springfield area as peaceful, ideal, beautiful and great. People like living there because of the natural beauty, the great location, and the country feel. People chose to stay in their current location because they truly love it and feel like they have good connections to what they need with local access to other amenities via US 65.

When asked what they would like to be able to walk or bike to, several residents responded with the boathouse, the park, the Nature Center, and the lake. The most popular desire to have close to their neighborhood was more dining (31%).

When asked what they would like to see included in the plan many people answered with enhanced biking connectivity, more dining options, and water recreation. Results are compiled and included as an appendix to this document.

PROJECT TEAM KICKOFF RETREAT

ABOUT

Insert general information here about the format of the kickoff meeting and list who was invited to attend.

GENERAL INFORMATION SESSION

The kickoff retreat started with introductions to all of the participants, as well as background

information on the project. Several City departments participated in the kickoff retreat, as well as local partner planning agencies and others with a vested interest in the Lake Springfield Planning Area. Key components of the general information session of the retreat included:

- Background information on the Lake Springfield Plan.

- Information on the Lake Springfield subarea for ForwardSGF
- Information from the EDA grant secured to fund the planning effort.
- General opinions from the neighbor meeting held the night before.

Following the general information session, teams separated by planning focus for site tours.

RETREAT PARTICIPANTS



- Economic Vitality Department
- Quality of Place
- Springfield-Greene County Park Board
- Special Facilities
- General Services
- Outdoor Initiatives
- Director of Diversity, Equity & Inclusion
- Director of Workforce Development
- Public Information & Civic Engagement
- Environmental Services
- Stormwater management
- Planning department
- Public Works



Native American Tribes and the American Indian Center at Fairbanks



RETREAT TOURS

Site investigations were planned for the project area during the kickoff retreat. These tours were separated by various key disciplines engaged in the planning effort. The purpose of structuring tours by key disciplines was to allow for more focused discussions around needs and opportunities associated with that discipline within the planning process. These tours were organized by:

- Economic Development
- Watershed Team
- Parks & Recreation
- Dam & Utility Infrastructure
- Transportation

Key themes from each tour are included below:

✓ Economic Development

The economic development team toured the site from the lens of where new development or redevelopment may occur. The power station presents a large opportunity for re-use, but several other areas adjacent to the Lake also present opportunities for redevelopment. A significant issue related to any new or re-

development within the study area includes access to the site for all modes of transportation. This team also viewed the area from a lens of culture to make sure voices were from cultures that may have used the area previously and stopped as well as accessibility for individuals with disabilities. After initial investigation, as well as the public meeting, a workshop on product ideas received should take place so ideas are vetted thoroughly for feasibility on the site. Additionally, any adjacent land use plans should be incorporated in the final review of what development or redevelopment opportunities are available.

Watershed Team

The watershed team consisted of experts on the team completing the hydrology study. The lens of this tour focused on water quality and impacts of uses surrounding the lake and within the lake on water quality. The tour stopped at six locations along the James River starting at the tailwater access below the dam and extending 9 miles upstream to the Old State Highway D bridge. Stops along the way included the boat access ramp south of US Highway 65, the Galloway Creek Greenway bridge south of US 60, the Crighton Beach Access, and the Blackman Water Intake Structure. The watershed to the lake is approximately 270 square miles and consists of rural land east of US Highway 65 which contains large sections of pastureland and cattle farms. James River water appeared clear and deeper upstream of US 60 where City Utilities pumps water from the James River to the Blackman Treatment plant which is approximately 1 mile to the west. Approximately 30% of CU's water

during an average year comes from the James River. With the water being deeper upstream of the lake people find floating easier however, it was noted that many boaters still like to float from the base of the dam to Campbell Ave. approximately 3 miles downstream of the dam. There's a low water crossing at the CU landfill approximately 0.5 miles downstream of the dam which requires kayakers to get out the water and maneuver around the structure. Another item observed which has been an ongoing struggle is the invasive vegetation within the lake. Lotus plant has consumed large sections of the lake. In the past, agencies have tried to kill the plants to keep them from consuming all of the lake however the plants have persisted.



Parks & Recreation

The lens of the parks and recreation team focused on the park element of the planning area, as well as park space. The team considered a variety of issues related to park usage and potential recreation opportunities that exist. The main takeaway from this tour

was the park area lacked a narrative and visual identity. There are very few places within the study area where one can just sit with nature and enjoy. The access points to water are limited, and it was mentioned the lake gives off a 'look but don't touch vibe'.

Another key observation from this group was the very vehicular centric nature of the park and access to the Lake Springfield area. Very few safe connections currently exist for people on foot or bike, and significant ADA challenges exist due to the terrain of the area. In addition to better connections to the park, there needs to be better bike and connectivity within the Lake Springfield area. A strong desire exists to be able to traverse around the entire lake (a bike/ped loop), and no safe crossing of Kissick currently exists from the power plant to the lake, which will be important for any future redevelopment on the site.

Additional discussion surrounding the recreation opportunities within the study area focused on the regional draw of the Lake Springfield area, and how well the community is situated with respect to sports tourism for tournaments, etc. Springfield is very well positioned to be a regional draw for these types of events, if the facilities exist. The frisbee golf course has received several positive reviews and it is a very welcome and popular addition to the park.

Ultimately any recommendations for park programming and recreation opportunities must consider the long-term funding and maintenance strategy. The parks board is

November 2, 2022

already stretching resources to provide Springfield residents the recreation opportunities they need. Additionally, there is a park deficit in the east side of town, which will need to be considered with any proposed changes to the park area.

A final comment from this tour group pointed to the fact that the lake was designed to cool the power plant. For this reason, some of the amenities added previously such as boat ramps were not maintained and little attention has been given to the future of the area, or how to harness the natural resources that exist. This plan has an immense opportunity to change that moving forward.

☑ Dam & Utility Infrastructure

The dam and utility infrastructure team explored various areas of the site thinking toward utility needs in the area as well as the future of the dam. Discussion was framed around the functionality of certain parts of the site and areas of opportunity that exist within the context of functionality.



There were several key observations the team reported. First, there is Native American Cultural Resources site within the vicinity of the site, and this is important context when thinking about preserving history. With respect to the power plant, the team indicated the beautiful viewsheds of the area from the roof are nice, as well as the fact that there is no potable water within the power plant.

There is a low water crossing of the river near the dam, as well as a landfill within the area. City Utilities has an important perspective that their services need to remain affordable for all City residents. Development in any of these areas should be considered an amenity for everyone with a range of accessible options to all Springfield residents.

☑ Transportation

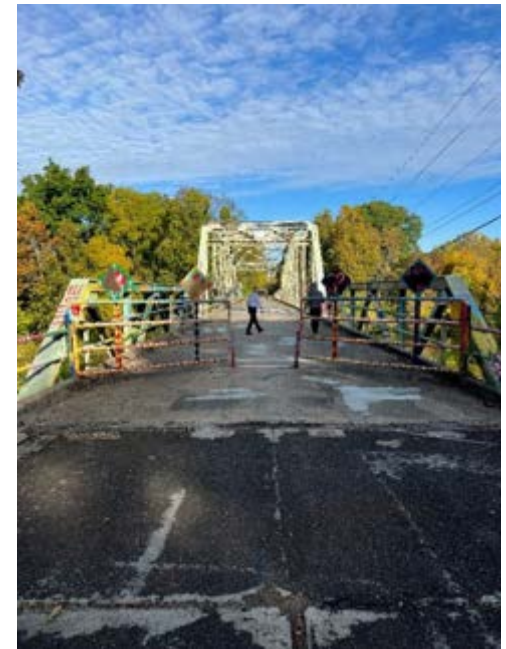
Many transportation challenges exist both within and connecting to the Lake Springfield Area. The focus of this tour group was to look at access and connectivity of the transportation system both within the study area, as well as just outside the study limits to better understand how people get to the lake and the park. Before the neighborhood meeting, a team member on this tour heard from a family that lives in Springfield, they had not visited the Lake Springfield area in some time because 'it was just too hard to get to,' which was a central theme of this tour.

The transportation group separated observations into three categories. These categories are (1) safety, (2) accessibility &

connectivity, and (3) infrastructure needs associated with future development.

Safety

The entrance to Lake Springfield Park off of Kissick is a skewed intersection that presents difficult sight challenges for those trying to access the park. A driver approaches the turn very quickly when entering. For those exiting, it is challenging to see oncoming traffic. Kissick presents several safety challenges. There is no facility for people to walk or bike along Kissick, or even cross Kissick from the Power Plant and adjacent neighborhoods on the west side of Kissick.



Another main safety concern is along Timbercrest near the bike/ped bridge. While this is a lower volume street, no space for walking or biking exists and local neighbors

would like to be able to walk from their house to the Trail of Honor or to access the water near the Trail of Honor Trailhead.

Accessibility and Connectivity

Many observations were made about the accessibility and connectivity within the planning area. Significant ADA challenges exist due to the topography of the site. These ADA considerations are important when designing an inclusive space that is built for everyone in Springfield.

Access to the Nature Center is challenging, as there is only one access point direction off the US-60. Bikes are not allowed within the Nature Center, which essentially turns that area of the park into a vehicular destination. We understand that it is a Missouri Department of Conservation policy to not allow bikes within MDC properties. This statewide policy will need addressed if bike access to the Nature Center is a priority.

The entire area will benefit from enhanced wayfinding and branding. When a person enters Lake Springfield Park, there is one sign indicating the person has arrived at the park. However, once in the park it is very difficult for a person to find their way around and understand where they are within the park. As mentioned in the parks section, there is no way to connect by foot or bike all around the lake or cross the lake. When a person is standing just north of the boat house they can see the opposite side of the lake and the Trail of Honor, but it is very challenging to access. There are no bike and pedestrian connections for the

houses just north of the lake, which deters a lot of visitors from that neighborhood.

Vehicular access is minimal too and is located at one main point off Kissick. There is a need for an additional east/west (E/W) connection from US-65 and there is a planned E/W arterial near River Bluff roundabout. However, there is a very steep drop-off which presents several design challenges and funding needs for such a complex problem.

Infrastructure needs for development

There are several areas for new development within and adjacent to the study area. Infrastructure needs associated with these developments are important. The land just south of Briar is one key development opportunity. The re-use of the power plant and site surrounding the lake present another development opportunity. Just south of the lake near Mercy hospital is 100+ acres of land available for development.

We know the development potential for the area is significant. Lake Springfield is the geographic center of Springfield, Ozark and Nixa, which is important for infrastructure planning associated with transportation needs.

BIG QUESTIONS BY TOPIC

After the group reports on the site visits, a segment of the retreat focused on big questions by topic. These questions were posed to look at significant challenges that may exist, as well as ways to overcome those challenges. To allow for maximum visioning potential, participants were encouraged to think of the best-case scenario if money was no object. This framework is helpful for focusing on outcomes and goals as well as limitations up front.

The four topics discussed included:

1. Power Station & utilities needs
2. Parks needs
3. Transportation needs & E/W arterial planning
4. History and culture of the place?

If money is not a factor, what is your vision for Lake Springfield?



Power Station & Utilities

The landfill presents challenges for development opportunities as it is not at the end of its 30-year lifecycle yet. Even if the landfill is capped, options for the top of it are limited and include no structural building. However, there may be the potential for a golf course or soccer field. The substation could be moved and there is nothing about the location that it needs to remain intact there.

Parks

The potential for relocating the park within the study area has limited challenges, such as the City being in a deficit for park space and thus the entire space would need to be relocated. Waterfront and access are key as well as the need to be an inclusive space for everyone. The frisbee golf course is important to Springfield, but not necessarily the lake area.

Transportation

The main goal of the E/W arterial is that it must serve an E/W route within the transportation network. Access to 65 is important, and ideally legal battles over land should be avoided.

History and culture

The vision should talk about the history and culture of the place, while creating new jobs and economic opportunity. New opportunities should be designed in a context sensitive manner that celebrates the rich history of the area.

THE VISION – PLANNING GOALS & SUCCESS

The next part of the retreat focused on goal setting and defining success of the planning process. For this exercise, four distinct groups were formed by expertise or agency representative. These groups were located around the room and had a focused discussion on the goals of the project. Groups were asked to identify goals from their agency perspective (for example, goals of the CVB, or City Utilities), as well as overall community goals of the planning process.



Following the small group discussions, each group was asked to report to the wider retreat audience on their goals. First from the agency perspective, and then from the community perspective. These goals are identified here.

Agency Specific Goals:

- Self-sustaining
- Matches the regional vision
- Water quality enhancement (not just meeting compliance)
- Maintain power station use and security
- Successful to everyone
- Environmental Compliance
- Create Quality & Resilience
- Shape regional transportation plans
- Embrace change, but understand what that means
- Open & active blueway
- History preservation
- Use as tool to educate the public
- Vegetative management plan
- Branding the area
- Attracting outside funding

Community Goals:

- Self-sustaining
- Regional context
- Inclusive
- Improve connectivity
- Job creation
- Changing mindset of water quality initiative
- Economic development for tourists
- Embrace housing options
- Development of property
- Nearby economic development activity

Key themes of goals for the project emerged from this session. For the larger community, goals several emerge as priorities. First, it is important that the future Lake Springfield is one that is self-sustaining. New development should support the community and associated infrastructure needs with the project, and not drain local budgets or stretch departments thin. Additionally, there is also a vision for creating a place that is inclusive for everyone. This is seen from the focus accessibility, job creation, and embracing diverse housing options. Finally, the location of Lake Springfield within the region is important for promoting a regional destination and tourism to the Springfield community.

From a more focused agency perspective, goals were in line with key aspects of the planning process. First, the need to provide more recreational opportunities within the area is apparent. There is also the need for enhanced water quality and focus on the management of vegetation. In terms of identifying the place there is a need for enhanced branding and wayfinding, as well as more access that is in line with existing transportation plans. From a utility perspective there is a need to ensure remaining utility uses within the site are secure and safe.

Retreat participants are excited at the opportunity associated with the project, but at the same time understand the importance of the need for a maintainable place that gives back to the local community.

RISK ASSESSMENT

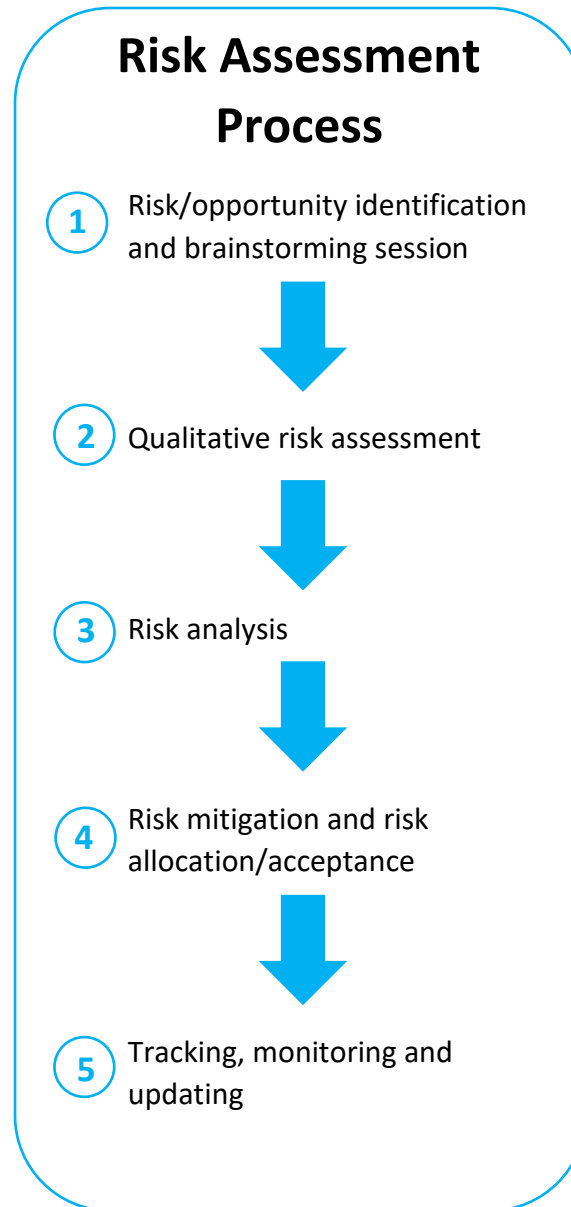
A risk assessment process is vital to the success of any project. The owners open review of risk, risk assignment, and risk probability particularly as viewed by the project proposers is crucial.

Outcomes of a risk assessment process are:

- Establish risk categories that are critical to the project
- Include individuals with knowledge of Lake Springfield along with experts in various disciplines and people with experience on similar projects to identify risks and determine the level of risk
- Include stakeholders with area knowledge and a desire to have their concerns be a part of the risk assessment process
- Achieve a better understanding of risks and opportunities for the Lake Springfield Area
- Understand which risks are of higher concern to prioritize mitigation strategies
- Consider cost and schedule contingency to assist in Development Inquiries
- Organize allocation, mitigation and acceptance strategies for high-level risks to prioritize mitigation strategies
- Help identify the Development Community Perspective to risk and how it will impact the submittals/cost

The risk assessment process is broken down into 5 steps. These 5 steps are included here, but the retreat participated in the first of the

five steps, risk/opportunity identification and brainstorming.



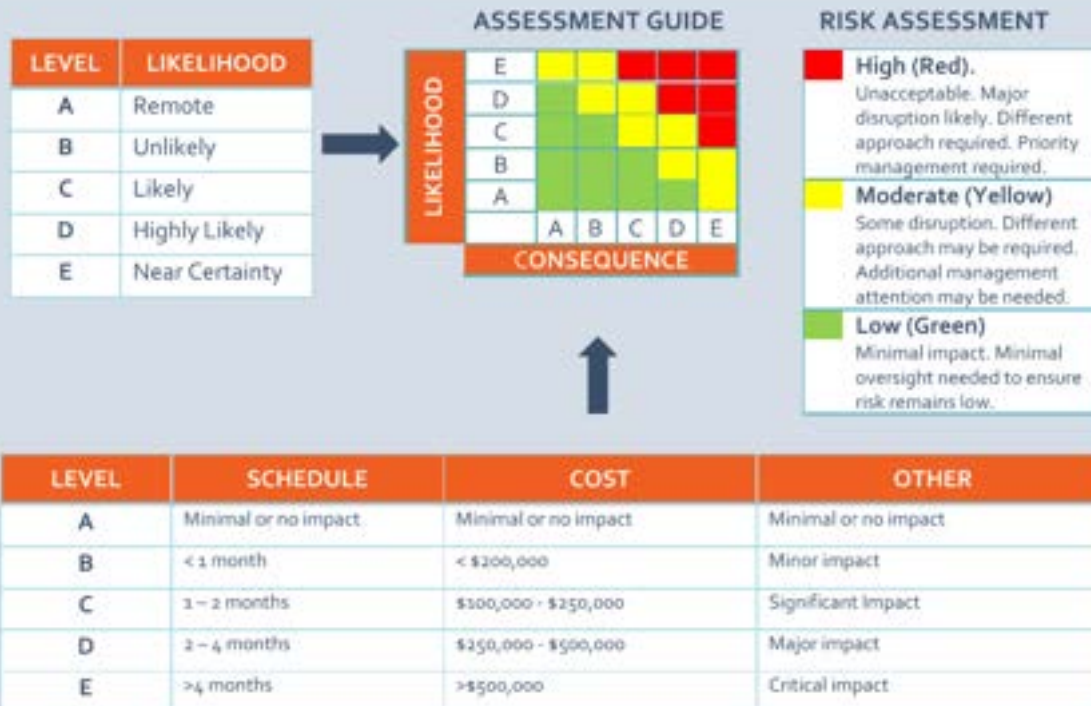
After learning about the risk assessment process, retreat participants met in small groups to brainstorm risks of the project. These risks are included in this report, and the matrix of risk assessment is included as an attachment to this summary.

Retreat participants did not have the chance to complete the qualitative risk assessment or analyze the risks. For purposes of understanding the next steps in the risk assessment brief information on that topic is included next.

The qualitative risk assessment determines the likelihood of the risk of occurring (risk frequency) as well as the impact of the risk if it should occur (consequences severity). The output is a risk matrix that outlines the likelihood and consequence occurrence of each risk.

Information on this is detailed on the next page.

RISK MATRIX



Low-level risks



- Accept risk because impact to project is low
- Move to step 4 to develop mitigation strategy

Moderate-level risks



- High likelihood/low consequence risk – review to see what combinations pose high risks
- What trigger events exist to make high level risk?
- Other moderate risks – move to step 4

High-level risks



- Carry forward to step 3 to determine cost and schedule contingency values and quantify individual impacts
- Move to step 4 to develop mitigation strategies

Risks brainstormed by groups are included below. Note that these were only developed in the brainstorming portion of the risk assessment and the teams have not reviewed thoroughly for the next steps.

● Parks & Recreation

1. Support for vision without support for operational maintenance and upkeep fund
2. Liability and safety issues with water activities
3. Unrealistic and unreliable plan that we cannot achieve
4. Development where you lose public opportunity for recreation
5. Fiscal negative
6. Destroy the natural sanctuary of the lake and park
7. Plan fails to attract buy-in
8. Citizen mistrust
9. City colleagues lose interest
10. City leaders are uninspired
11. Chance in elected positions
12. Inaction leads to losing opportunities
13. Sub surface conditions that prevent implementation
14. No funding to maintain
15. Risk of nonsupport from Greene County commissioners
16. Dangerous situations for pedestrians
17. Lack of public support
18. Losing native habitat
19. Making water quality worse
20. What is determined as the best use does not align with the public
21. Sensitivity to adjacent neighborhoods
22. Unrealistic expectations
23. Reduced water access

24. Plan fails to attract funding partners
25. Limited engagement from partners for programming (SPS, nonprofits, higher ed. Etc.)
26. Bike and ped connectivity reduced
27. Citizens become angry over changes to the natural environment
28. Mother nature – natural flooding that can occur
29. Programming input not representative of all community (intersectional)
30. Over programming
31. More park amenities to an already affluent area of town

● Economic Development

32. Doing nothing
33. Unfundable plans – inconsistent plans for market
34. Financial sustainability – operational + capital
35. Sufficient revenue streams
36. Build too much for capacity to maintain
37. Human health & safety
 - a. Still a power plant
38. Unable to use power plant and need to demo instead of reuse
39. Duplicate nearby efforts
40. Working with private development community
41. Complete failed development
42. Trying to one up something that already exists in region
43. Narrow scope of development potential
44. Not phasing enough or phasing too much
45. Poor communication
46. Not preparing for administrative hurdles

47. Not having a strong framework in place
 - Operationally
 - Ex. Draft development agreement attached to RFP

● Transportation & Engagement

48. Stranding infrastructure
49. Lack of structured implementation plan
50. Constituent unrest
51. Leading to distrust
52. Negative rumors/stigma
53. Loss of a once in a lifetime opportunity
54. City staff and elected official turnover
55. Loss of momentum
56. Development interrupting the transportation network
57. Change in federal funding requirements
58. Future transportation trends
59. Cultural resources impact
60. Finding something sensitive we don't know about
61. E/W Arterial
62. ADA accessibility
63. Questioning the process
64. Taxpayer \$ should be spent elsewhere
65. Public transit access (lack of) and how inclusive does that make this plan and area
66. Lack of users if good, safe connections are not sequentially made
67. Bringing more people to the area increases the chances of crime
68. Infrastructure terrorism associated with the dam
69. Climate change
70. Trail user conflicts
71. Inflation
72. Unanticipated roadway needs

☑ Utilities

- 73. Loss of service
- 74. Security of assets
- 75. Increased cost of service
- 76. Affordability to customers
- 77. Chance of regulations
- 78. Nitro limits down
- 79. Time
- 80. Bigger safety buffers
- 81. Remediation surprises
- 82. Lake sediment (compliance)
- 83. Public comments/nuisance
- 84. Park land without utilities

☑ Dam

- 85. Maintenance costs
- 86. Integrity
- 87. Natural disaster
- 88. Modification affecting hydrology
- 89. Climate change (flood/drought)
- 90. Increase in flood frequency and magnitude
- 91. Upstream development impact water quality
- 92. Public safety
- 93. Sedimentation
- 94. Biological or endangered species impact
- 95. Potential archaeological find
- 96. Impact to downstream development and water quality
- 97. Ownership of the dam
- 98. Cost and supply chain

☑ Environmental

- 99. Must address upstream to avoid
 - Algae bloom
 - Sedimentation
 - Impaired waterway
 - Public health

- Drinking water quality
- 100. Upstream land use changes
- 101. Risk of doing nothing
- 102. Could lose our control
- 103. If the economic development on the lake prop not done sensitively
- 104. Losing James River as a regional amenity
- 105. Permitting issues
- 106. Invasive species
- 107. Eagle habitat
- 108. Human interaction = pollution

☑ Utilities

- 109. Timeline
- 110. Inflation
- 111. Workforce
- 112. Recession

In total, 112 risks were identified with the project.

DISCIPLINE WORK PLAN & SCHEDULE

Following the interactive exercises, the larger group gathered for formal presentations by subconsultants on the CMT team to talk about next steps for the plan. Representatives from three of the consulting firms gave brief presentations about the next steps and the schedule of events.

- Geosyntec – is responsible for the hydrology study of the lake. Their team plans to collect water samples in November with some early results in February. A lot of this up-front water quality work will determine uses and recreational opportunities around the lake.
- SWT Design – gave an update to what their team will be looking at from a parks and recreation lens, and how that will fit into the entire process.
- Johnson Consulting – is responsible for the market analysis and planning for potential development opportunities around the lake. Much of their work will be done in an iterative process as ideas are formed and tested about what is feasible within the planning area.

The first public meeting is scheduled for November 17 at the Springfield Art Museum. This public meeting will introduce the project to the public as well as start gauging interest in potential opportunities within the planning area.



PUBLIC TALKING POINTS

ABOUT

The final presentation of the retreat was given by the City of Springfield Public Information Office, Cora Scott.

As an engaged participant of the retreat process, Cora kept her planning lens focused on messaging to the community to ensure a successful planning process. As she listened and participated in the process, Cora developed a list of talking points to be used when speaking with the public about the process.

As identified in the risk assessment, several risks exist around rumors, the spread of misinformation, and constituents that are upset. These talking points are developed so that these risks are minimal the messaging around the Lake Springfield Plan is clear.

PUBLIC TALKING POINTS

1. The James River Power Plant has served the Springfield community well for 65 years! It is exciting to think about the reuse of this important component of our community.
2. The study is being completed by experts within the boundaries of the study area and the vision of the EDA grant.
3. Understanding the water quality is a key component to the planning process.
4. No funding has been identified for implementation of the plan.
5. This plan will serve as a great resource for this area of the City, as well as for the entire Springfield community.
6. The concept for this plan was brought forward as a subarea plan in the ForwardSGF comprehensive plan.
7. Desire to preserve the natural amenities of the lake while fostering economic development.
8. Significant opportunity to open the waterfront up for more access.
9. The process is transparent. We want your input, and it is critical to the process.
10. Lake Springfield has the unique opportunity to be developed as more of a destination.

KEY THEMES

ABOUT

During the two-day kickoff process, 10 key takeaways emerged as critical to the planning process. These takeaways will work in conjunction with the project goals as the planning team develops strategies and objectives for an implementable plan that enhances the Lake Springfield Area. These 10 key themes are:

1. **Protect the natural environment while embracing change (must develop with a sensitivity to nature).**
People love the natural beauty of the lake, as they should. During identification of programming and development opportunities, consideration for the natural environment must remain a key priority.
2. **Access and connectivity (how do people get here & it has to be inclusive).**
The lake and surrounding park area are hard to access. Vehicular access is not direct, and no facilities exist in the way of walking and biking. Focusing on a plan that includes several access points for all modes of transportation is important. We heard several times this is considered a park you have to drive to access it.

In addition to general access to the Lake and surrounding park areas, access to the waterfront is important. It is a very much look but don't touch area, and those experiences need to change.

3. **Identify plan for maintenance and funding.**
The final product must be self-sustaining and contribute to the local economy, and as an inclusive asset for the community.
4. **Boost area as a regional destination.**
The location is the geographic center of Springfield, Nixa and Ozark. The plan must focus on the area as a destination with a sensitivity to nearby neighbors and the natural environment. Additionally, is there opportunity to create a stronger axis here as a relationship with Branson and Crystal Bridges (nature, activities, arts & culture)?
5. **Job creation important.**
The plan should focus on resilient jobs that provide economic opportunity to the residents of Springfield.
6. **Inclusive place for everyone.**
Springfield Lake and the Park are beautiful, and free natural amenity that everyone should be able to enjoy. The plan should focus on inclusive access for everyone regardless of age, ability, socioeconomic status, etc.
7. **Foster a sense of pride and ownership.**
The lake is beautiful and the natural amenities abundant, but lack of ownership is problematic. The plan should assist in identifying ownership of the area for increased sense of pride.

8. **Develop an identity.**
The current area needs a visual identity. With a more focused vision, this identity should be clear and present branding opportunities at the lake.
9. **Consider how utility needs play a part in the future vision.**
The plan should respect the mission of City Utilities and incorporate the mission of their work within the programming framework.
10. **Big, but implementable Vision.**
Plan should be developed in a way that is visionary, yet at the same time provide a clear path to implementation. Economic development and job creation are pillars of the work, and a clear path towards those goals should be included.

The Lake Springfield Plan Kickoff retreat was a successful and collaborative process. Several times throughout the effort representatives from various agencies indicated how nice it was to be in person and collaborate. The site visits sparked conversations and imagination that is key to the final plan. This information is developed as a summary of a snapshot of the takeaways from the kickoff process and is incorporated into the materials to be used at the first public meeting on November 17th.



November 2, 2022

Lake Springfield Plan Community Engagement Update

February 28, 2023

Overview

Three major events took place last year focused on community engagement and project educational outreach. All events received similar baseline information with the same Power Point presentation for consistency in information sharing. Below, are the results of the three events:

October 12, 2022

This event was a forum exclusive for residents in the Lake Springfield area to hear their concerns and share information with them about the project. Meeting attendees were able to complete a comment card or respond to an online survey. This event had 88 attendees with several couples (**over 100 attendees**).

November 15, 2022

The Community Advisory Team held their first meeting with **32 attendees**. The attendees reviewed similar materials presented at the October 12 event and their comment cards. The CAT represented various Springfield (and surrounding areas) intersectional groups and populations. The CAT provided input on materials and concepts for the official public kick off on November 17.

November 17, 2022

The City of Springfield conducted the public kick-off of the project at the Springfield Art Museum and provided an online survey. The survey was accessible with a QR Code and for community members who could not attend in person, they could participate online for two weeks after the event. Below, please find the self-reporting results of the online survey:

- **264 Total Responses with 727 Total Views**
- 148 Survey Completions (116 Incomplete Surveys)

Race/Ethnicity	Gender	With a Disability	Ages
129 – White 2 – Hispanic/Latinx 2 – Other Race 1 – Asian 1 – Native Hawaiian or Other Pacific Islander	79 – Men 58 – Women 2 – Another Identity	11	36 – Ages 31 to 40 29 – Ages 49 -to 50 29 – Ages 61+ 22 – Ages 22 to 30 21 – Ages 51 to 60

A couple of responses from the online survey:

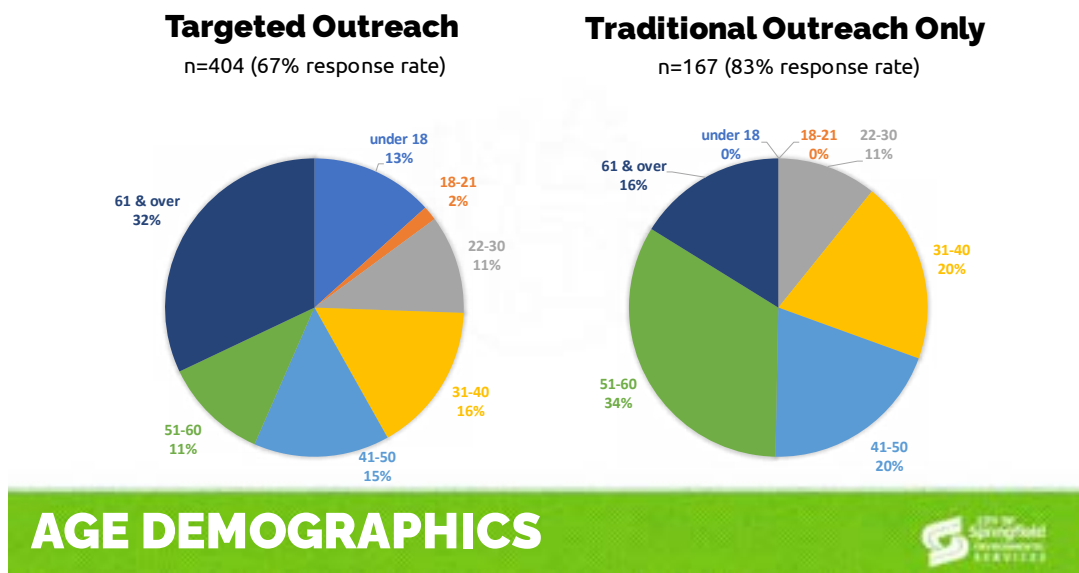


January 2023

The City of Springfield's Department of Environmental Services, Saki Urushidani finalized a survey started August 2022 for a project to improve and protect the area air, water and land resources. The survey was conducted by Saki Urushidani, a professional engineer with the City of Springfield, with oversight of the water resource use project. She met with several community leaders for input on the survey questions and identification of various focused groups.

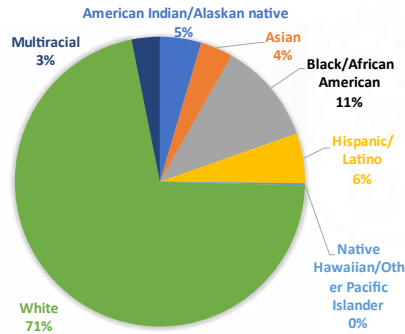
The survey included three questions about how local water resources are used in Springfield or reasons why the resources may not be used. She used traditional outreach (e.g., social media posts, emailed surveys to groups and organizations, news release and articles) and focused outreach (e.g., paper surveys at various events, door hangers in specific communities, group discussions at schools and with specific organizations, emailed surveys to specific organizations and advertisements with focused newspapers).

She received 200 survey responses through traditional outreach and 602 responses through focused outreach. The responses to this survey provide additional community input for consideration in the Lake Springfield project. The demographics for the final survey with the traditional and focused outreach responses is available from Saki Urushidani. Some key results from her survey are below:



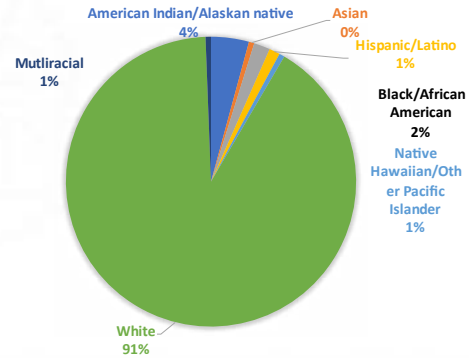
Targeted Outreach

n=413 (69% response rate)



Traditional Outreach Only

n=166 (83% response rate)

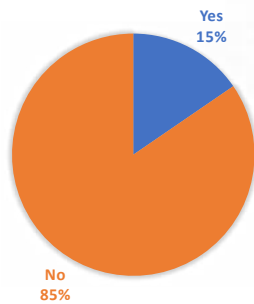


RACE/ETHNICITY



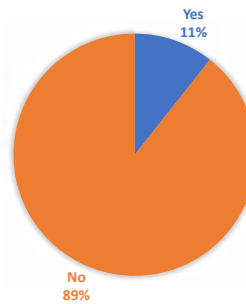
Targeted Outreach

n=324 (54% response rate)



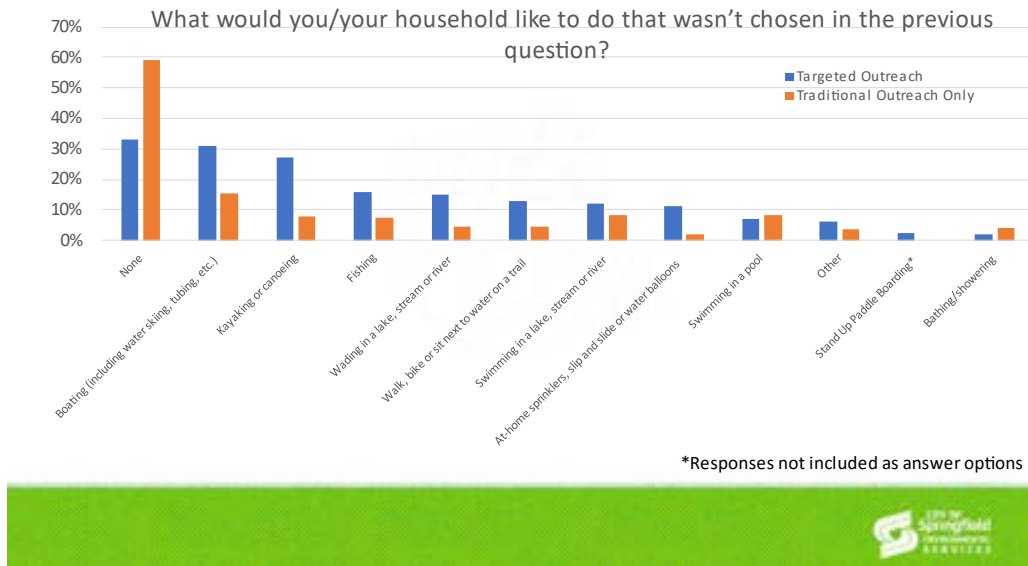
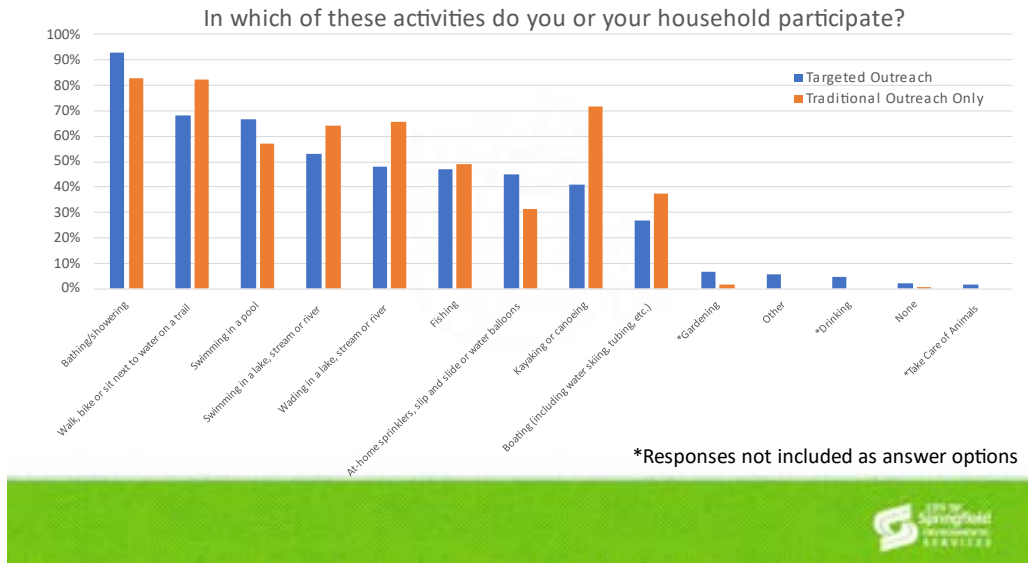
Traditional Outreach Only

n=169 (85% response rate)



DISABILITY STATUS





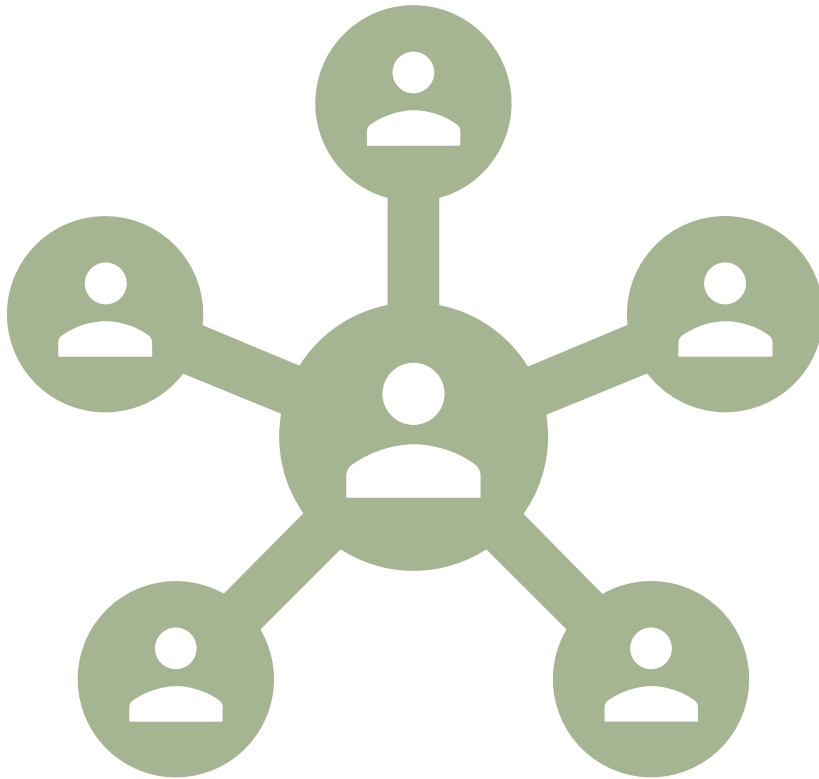
Lake Springfield Plan Community Engagement Update

Cora Scott & Francine Pratt

March 31, 2023



Overview



6 Major Events in 5 Months!

- Events focused on community engagement and project educational outreach.
- All events provided similar information for consistency in information sharing.

Oct 12, 2022 – Neighborhood Forum

This forum was just for residents in the Lake Springfield area to hear their concerns and share information about the project. Participants completed comment cards and/or respond to an online survey.

88 attendees with several couples (**over 100 attendees**)!

Nov 15, 2022 – CAT Meeting No. 1

Community Advisory Team held their first meeting with **32 attendees.**

Attendees reviewed similar materials presented at the October 12 event and the comment cards.

The CAT represents various Springfield (and surrounding areas) intersectional groups and populations.

The CAT provided input on materials and concepts for the official public kick off on November 17.



Nov 17, 2022 – Public Kick-Off Meeting

- ☐ City of Springfield conducted the public kick-off of the project at the Springfield Art Museum and provided an online survey.
- ☐ Survey was accessible with a QR Code and for community members who could not attend in person, they could participate online for two weeks after the event.

264 Total Responses with 727 Total Views - 148 Survey Completions
(116 Incomplete Surveys)

Public Community Meeting No. 1

Inclusivity – With Self Identification

Race/Ethnicity	Gender	With a Disability	Ages
129 – White 2 – Hispanic/Latinx 2 – Other Race 1 – Asian 1 – Native Hawaiian or Other Pacific Islander	79 – Men 58 – Women 2 – Another Identity	11	36 – Ages 31 to 40 29 – Ages 49 -to 50 29 – Ages 61+ 22 – Ages 22 to 30 21 – Ages 51 to 60

What Excites You About the Lake SGF Plan?

Respond at [PollEv.com/cityofsgf](https://poll-ev.com/cityofsgf)
Text CITYOFSGF to 22333 once to join, then text your message

Use three words to describe what EXCITES you about the Lake Springfield Plan.



A033

Jan 2023 – Local Water Resources Survey

Dept. of Environmental Services shared data from six-month survey project. Their survey responses provided additional community input for this project with **200** traditional and **602** focused outreach responses.

- ☐ Three questions asked related to how local water resources are used in Springfield or reasons why the resources may not be used.
- ☐ Traditional outreach- Social media posts, emailed surveys to groups and organizations, news release and articles.
- ☐ Focused outreach - Paper surveys at various events, door hangers, group discussions at schools, emailed surveys to specific organizations and advertisements with focused newspapers.



**Mar 21, 2023 – CAT
Meeting No. 2
(47 Attendees)**

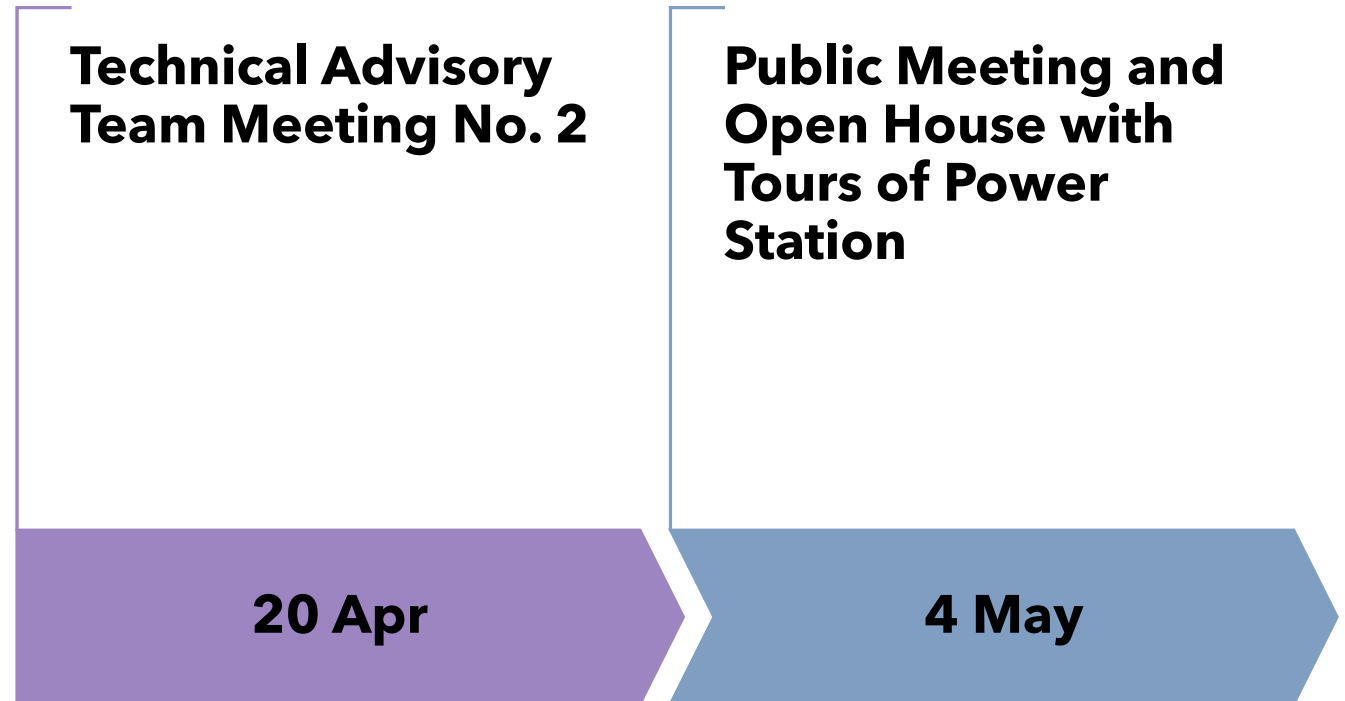


**Mar 23, 2023 – Lake Ridge Estates
Neighborhood Meeting (43 Attendees)**

**Mar 30, 2023 –
City Utilities
(77 Attendees in
Person – 00
Online)**



What's Next?



Lake Springfield Public Meeting No. 2

May 4, 2023

Tent Board Choices and Online Survey Results

Tent Board data provided by Jacque Knight, CMT

Online survey data and graphs prepared by Chris Akins, City of Springfield

Report developed by Francine Pratt, Pratt Consultants, LLC

Updated June 30, 2023

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2	Survey Overview
3	Survey Results
14	Detailed Survey Results with Additional Data and Participant Comments

Survey Results Overview

The survey results are responses from participants who attended the Lake Springfield Public Meeting on May 4, 2023 and/or participated in the online survey. The online survey may include participants who attended the public meeting. The overall results serve as a baseline to hear their thoughts, concerns, likes and dislikes. The survey results should not be considered conclusive because of the complexity of this project. For example, in person participants at the public meeting were able to interact with experts and ask questions before making selections on the “Tent Boards” whereas online survey participants did not have this option. Also, the complexity of some of the suggestions (e.g., dam modifications, how water is used, etc.) require environmental and scientific studies for the team to make recommendations for the final plan.

The survey results are very helpful to the planning process to know the types of amenities and usage of the lake area from the public. The next public meeting will include suggestions for land use based on the feasibility of how the land and water can be used. This will provide an opportunity to conduct additional outreach for increased participation from community members representative of the Springfield area populations and intersectional subgroup populations.

Overall survey response information:

- 779 Individuals reviewed survey.
- 53.49% completion rate of survey – 301 started survey and 161 completed survey.
- 21 minutes was the average time to complete the survey.
- Participants at the public meeting may have shared their thoughts on the “Tent Boards” and through the online survey.

Survey Results

The numbers in front of each theme reflect the number of “votes” in response to the questions.

Q1. Station 4: Board 3:

Please choose 3 investment themes in which you are most interested for Lake Springfield, and rank them in order of interest. If 'OTHER' is in your top 3, please elaborate.

Tent Board Order of Interest - Top 5 of Top 3 Themes	Online Survey Order of Interest – Top 5 of Top 3 Themes
19 - Passive Recreation 17 - Environmental Preservation 10 - Power Plant Reuse 10 - Cultural Hub 10 - Education	164 - Passive Recreation 146 - Environmental Preservation 56 - Power Plant Reuse 50 - Active Recreation 40 - Cultural Hub

Q2. Station 4, Board 6: Please choose 5 program opportunities in which you are most interested for Lake Springfield, and rank them in order of interest. If 'OTHER' is in your top 5, please elaborate.

Tent Board Order of Interest - Top 5	Online Survey Order of Interest - Top 5
24 - Water Recreation 22 - Trails 13 - Commercial Leasing 11 - Community Events 12 - Restaurant/Bar	176 - Trails 156 - Water Recreation 130 - Community Events 106 - Lakefront Event Venue 102 - Park Amenities

TENT BOARD STATION 4 Economic Development Potential Activities - **Not Included in online survey.**

Interested	Neutral	Uninterested
Active Recreation • Bike/skate park (6) • Outdoor sports & fitness (5) • Watercraft rentals (5) • Playground (3) • Adventure/rock climbing/ziplines (3) • Indoor sports (1) Nature/Culture/Education • Environment preservation/restoration (7) • Indoor/outdoor classroom (7) • Endangered species preservation (6) • Native American cultural center (2) • STEAM center (2) • Observation tower (2) • Science/history/art museum (1)	Passive Recreation • Trails (15) • Bird watching/photography (7) • Public art/murals/sculpture garden (5) • Fishing/boardwalks/overlooks (4) • Park amenities (2) • Dog park (2) Entertainment/Hospitality • Hotel (5) • Lakefront event venue (4) • Water feature (fountain, splash pad) (3) • Amphitheater (2) • Rooftop venue (2) • Signage/wayfinding/branding (2) • Camping/glamping/RV (1)	Retail/Commercial • Community events (10) • Restaurants/bars (5) • Cafes/coffee shops (5) Activity Category • Active recreation (6) • Nature/culture education (3) • Entertainment/hospitality (2) • Passive recreation (2)

TENT BOARD STATION 4: Economic Development Case Studies - Not Included in online survey.

Tent Board - Top Options in Order of Preference
4 - Optimist Hall – Charlotte, NC 4 - Origins Park – Jeffersonville, IN 1 - Greylock Glen Resort – Adams, MA 0 - RecPlex – West Des Moines, IA

Q3. Station 5, Board 2: Please share any comments you have about the proposed zone uses - Please see page 17 of this document.

Q4. Station 5, Board 3: Zone 1 - South Activity » Please choose 3 preferred themes in which you are most interested for Zone 1, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
16 - Amenities – Trails 14 - Education Trails and Boardwalks 14 - River Access 13 - Adventure Recreation – Bike Park 4 - Athletic Fields & 4 - Hospitality Event Space	130 - Education Trails & Boardwalks 119 - Amenities – Trails 107 - River Access 70 - Eco Playground 52 - Adventure Recreation – Bike Park

Q5. Station 5, Board 3: Zone 2 - Capped Landfill » Please choose 3 preferred themes in which you are most interested for Zone 2, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
19 - Nature Landscape with Trails (19) 16 - River Overlook (16) 6 - Astronomy Viewing Area 6 - Practice Fields 5 - River Edge Tree Houses 5 - Fitness Trails 5 - Public Art	114 - Native Landscape with Trails 108 - River Overlook 63 - Fitness Trails 62 - Astronomy 61 - Small Pavilions/Picnic Areas

Q6. Station 5, Board 4: Zone 3: Power Station - Please choose 3 preferred themes in which you are most interested for Zone 3-Power Station, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
9 - Iconic Walk / Bridge Overlook 8 - Education and Demonstration Areas 8 - Sky Tram 7 - Amphitheater 7 - Waterfront Amphitheater	88 - Iconic Walk/Bridge Overlook 87 - Education & Demonstration Areas 72 - Waterfront Amphitheater 71 - Amphitheater 63 - District (lodging, dining, retail event, transit, etc.)

Q7. Station 5, Board 4: Zone 3: Dam Modifications - Please choose 3 preferred themes in which you are most interested for Zone 3-Dam Modifications, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
8 - Recreation and Wildlife Ladder – Shallow 8 - Section Removal with Open Flow 8 - Open Channel Bypass 7 - Recreation and Wildlife Ladder – Edge 4 - Section Removal with Overlook & 4 - Natural Vertical Bypass	84 - Nature Vertical Bypass 77 - Open Channel Bypass 75 - Removal with Exposed Structure & Remnants 67 - Section Removal with Overlook 60 - Recreation and Wildlife Ladder – Edge

Q8. Station 5, Board 5: Zone 4 - Lake & Park » Please choose 3 preferred themes in which you are most interested for Zone 4, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
18 - Wetland Boardwalks 10 - Outdoor Education 7 - Destination Playground 6 - Group Camping 6 - Boat Rentals	128 - Wetland Boardwalks 85 - Overlooks/Education 79 - Boat Rentals 74 - Fishing 47 - Destination Playground

Q9. Station 5, Board 5: Zone 5 - North Activity » Please choose 3 preferred themes in which you are most interested for Zone 5, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
18 - River Access 16 - Pedestrian Bridge Crossing 7 - Trailhead Parking 6 - Themed Bridge w/Views 5 - Gathering Space/Pavilions	124 - River Access 113 - Pedestrian Bridge Crossing 72 - Trailhead Parking 56 - Trailhead Play Amenities 54 - Gathering Space/Pavilions

Q10. Station 6, Board 4: Choose your preferred option for modifications to the dam.

Tent Board - Top 5	Online Survey - Top 5
6 - Earthen Dam Modification: A.C 5 - Full Dam Removal: A.1 2 - Partial Dam Removal: A.2 2 - Concrete Dam Modification: A.B 1 - No Modification: A.D	53 - Full Dam Removal: A.1 37 - Partial Dam Removal: A.2 37 - Earthen Dam Modification: A.C 32 - No Modification: A.D 26 - Concrete Dam Modification: A.B

Q11. Station 7, Board 1: Please rank the proposed access & gateway options in order of your preference.

Tent Board – In Order of First Preference	Online Survey – In Order of First Preference
10 - Option 2: Lake Springfield Drive Construction - No cars on Kissick	82 - Option 2: Lake Springfield Drive Construction – No cars on Kissick
7 - Option 3: Kissick Improvements – Cars Remain on Kissick	37 - Option 3: Kissick Improvements – Cars Remain on Kissick
4 - Option 1: JRPS Entry from Kissick – Cars Remain on Kissick	0 - Option 1: JRPS Entry from Kissick – Cars Remain on Kissick

Q12. Station 7, Board 2: Please rank the proposed boat ramp access options in order of your preference.

Tent Board – In Order of First Preference	Online Survey - In Order of First Preference
5 - Option 2: New Boat Ramp from Lake Springfield Park	68 - Option 2: New Boat Ramp from Lake Springfield Park
3 - Option 3: New Boat Ramp Requiring New Facility	52 - Option 1: New Boat Ramp Entry from Kissick
0 - Option 1: New Boat Ramp Entry from Kissick	44 - Option 3: New Boat Ramp Requiring New Facility

Station 7, Transportation & Mobility (Walking and Rolling) priorities in which you are most interested for Lake Springfield, and rank them in order of interest – Not included in online survey.

Tent Board - Walking and Rolling Priorities
8 - Option 2: ○ Kissick over lake becomes ped/bike only ○ 2 new lake crossings 6 - Option 3: ○ Wide sidewalks or SUP along roadway improvements ○ Trail of Honor Connection 1 – Option 1: ○ Kissick road widening ○ Chadwick flyer trail bridge

Station 7, Transportation & Mobility General Needs) priorities in which you are most interested for Lake Springfield, and rank them in order of interest – Not included in online survey.

Tent Board - General Needs
12 - Trails 6 - River/lake Crossings 3 - Boat Ramp Access 1 - Vehicular Access/Entry 1 - Public transit

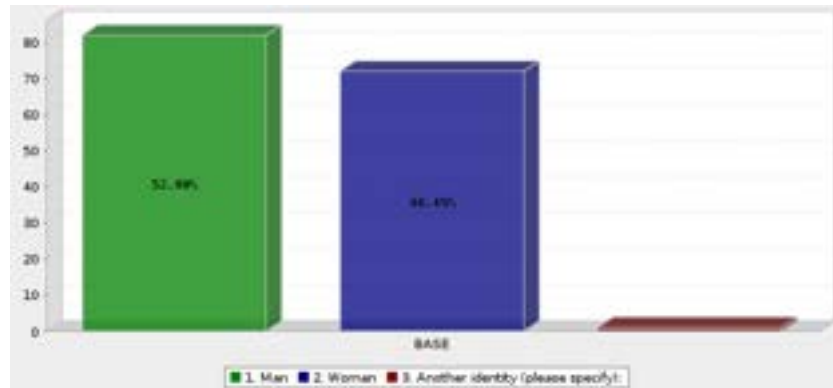
Q14. Station 7, Board 4: Please choose 3 transportation & mobility priorities in which you are most interested for Lake Springfield, and rank them in order of interest. If 'OTHER' is in your top 3, please elaborate (Worded as Walking & Mobility on Tent Board).

Online Survey – Top 5 Priorities
141 - Trails 109 - River/lake Crossings 69 - Boat Ramp Access 54 - Sidewalks & ADA 54 - Parking

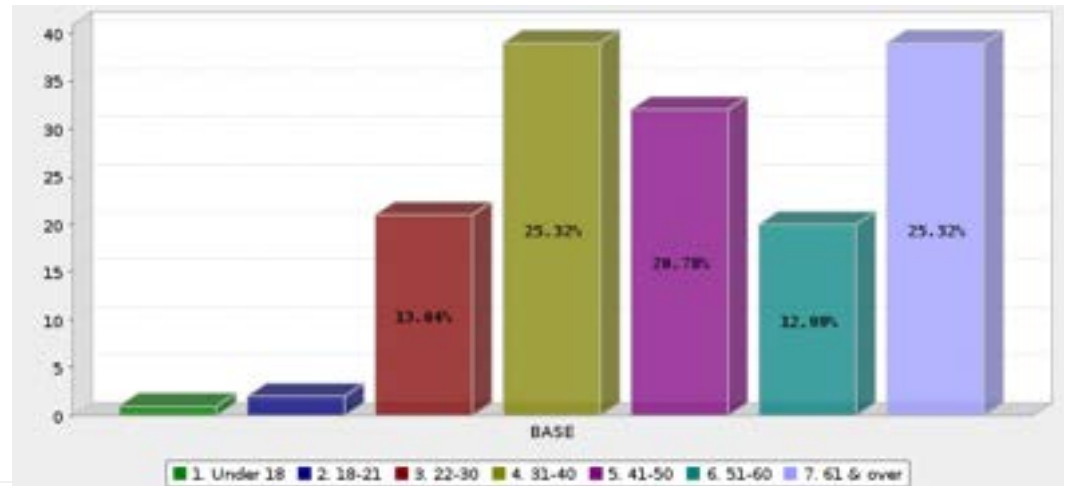
Q15. Station 7, Board 5: Choose your preferred option for Kissick improvements.

Tent Board – Preferred Options	Online Survey – Preferred Options
17 - Bicycle & Pedestrians - No Vehicular Traffic 6 - Roadway Improvements – Accommodate More Car Trips	107 - Bicycle & Pedestrians - No Vehicular Traffic 55 - Roadway Improvements – Accommodate More Car Trips

Q16. Gender (choose all that apply)

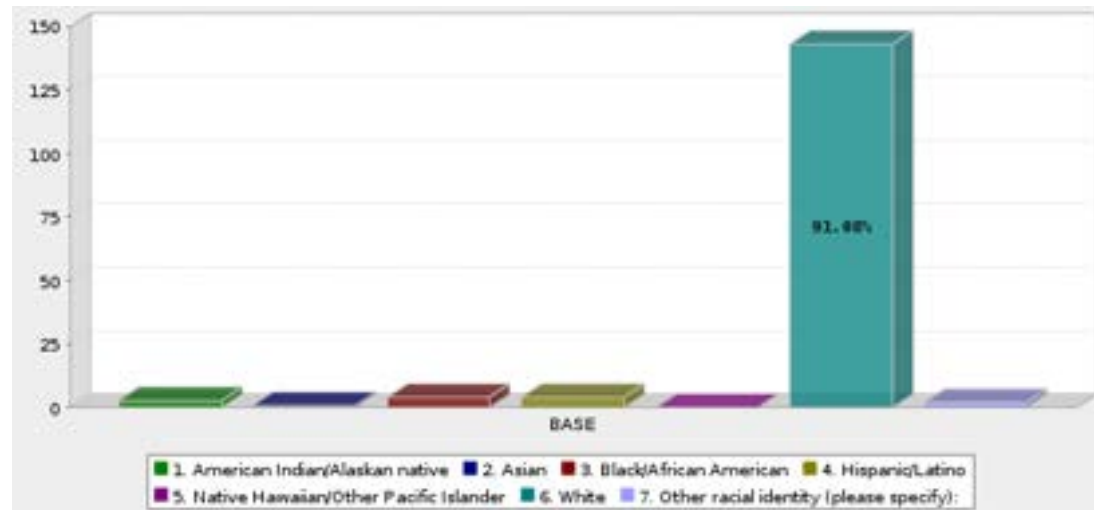


Q17. Age category



	Answer	Count	Percent
1.	Under 18	1	0.65%
2.	18-21	2	1.30%
3.	22-30	21	13.64%
4.	31-40	39	25.32%
5.	41-50	32	20.78%
6.	51-60	20	12.99%
7.	61 & over	39	25.32%
	Total	154	100%
Mean : 5.045		Confidence Interval @ 95% : [4.813 - 5.278]	Standard Deviation : 1.475
		Standard Error : 0.119	

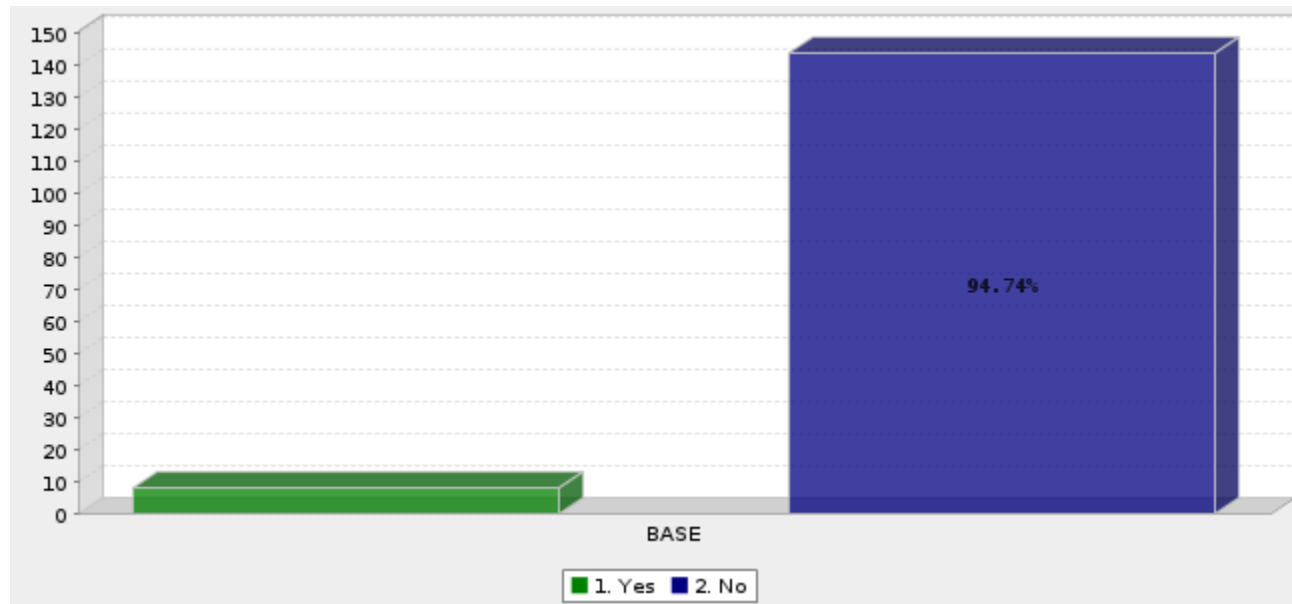
Q18. Please specify your race and/or ethnicity (please check all that apply):



	Answer	Count	Percent
1.	American Indian/Alaskan native	3	1.91%
2.	Asian	1	0.64%
3.	Black/African American	4	2.55%
4.	Hispanic/Latino	4	2.55%
5.	Native Hawaiian/Other Pacific Islander	0	0.00%
6.	White	143	91.08%
7.	Other racial identity (please specify):	2	1.27%
	Total	157	100%
Mean : 5.764		Confidence Interval @ 95% : [5.618 - 5.911]	Standard Deviation : 0.935
		Standard Error : 0.075	

The City of Springfield's population percentages are provided to demonstrate comparable populations who participated in survey: 1. American Indian 0.67%; 2. Asian 1.81%; 3. Black/African American 4.28%; 4. Hispanic/Latino 4.33%; 5. Native Hawaiian/Other Pacific Islander 0.04%; 6. White 87.65%.

Q19. Are you a person with a disability?



	Answer	Count	Percent
1.	Yes	8	5.26%
2.	No	144	94.74%
	Total	152	100%
Mean : 1.947		Confidence Interval @ 95% : [1.912 - 1.983]	
		Standard Deviation : 0.224	
		Standard Error : 0.018	

Over 12% of Springfield's population self identifies with a disability.

All Survey Data with Comments

This section contains additional information related to survey questions for responses with more than the top five ratings and/or additional comments. The question with the ratings is repeated again to make it easier to review the information together with the additional data and comments.

Q1. Station 4: Board 3:

Please choose 3 investment themes in which you are most interested for Lake Springfield, and rank them in order of interest. If 'OTHER' is in your top 3, please elaborate.

Tent Board Order of Interest - Top 5 of Top 3 Themes	Online Survey Order of Interest – Top 5 of Top 3 Themes
19 - Passive Recreation 17 - Environmental Preservation 10 - Power Plant Reuse 10 - Cultural Hub 10 - Education	164 - Passive Recreation 146 - Environmental Preservation 56 - Power Plant Reuse 50 - Active Recreation 40 - Cultural Hub

Tent Board Data with Write-in Comments

1. **Passive recreation (19)**
2. **Environmental preservation (17)**
3. **Power plant reuse (10)** (Wedding Event Venue – Industrial Theme, Indoor Rock Climb, Adventure Center, Zipline Natural History Museum)
4. **Education (10)**
5. **Cultural Hub (10)**
 - Native American heritage (6)
 - Active recreation (6)
 - Entertainment district (6)
 - Camping (6)
 - Upscale lodging (6)
 - Outdoor sports (3)
 - Commercial district (5)
 - Event venue (2)
 - Indoor sports complex (2)

Online Survey Data – Comments about Investment Themes

Natural Preservations

- Leave the area alone, and let it grow natural.
- Let's keep it green! Habitat preservation. This is an important stopover for migratory and nesting birds. Let's choose recreation that isn't at odds with enjoying nature. Kayaking and frisbee golf have been nice additions and those of us who have enjoyed bird watching and photography can still do that with these types of activities. Too much "development" or large activities or venues would be a downer. We need green spaces to enjoy that are not too far from town.
- Please don't make it Airbnb gentrification paradise. The fate of America is at stake. We need nature.

Economic Development

- Indoor market like in Kansas City.
- A trade school/something similar to the SPARC program (3 semesters, for those who don't attend the school. By opening it to the public you can allow for things like Girl Scouts, reenactment group, SPARC, while also offering an education. Artists could display their art, and there's enough space for things like welding, graffiti, or woodworking.

Trails

- Biking trails - gravel or paved.
- Mountain/Hiking Trails

Sports

I would just clarify my opinion on "indoor" sports... I think that as a community we have basketball, soccer, and volleyball somewhat covered for indoor sports. I chose to rank this high to encourage an indoor Olympic size pool to support the community.

Other

Plant a forest.

Q2. Station 4, Board 6: Please choose 5 program opportunities in which you are most interested for Lake Springfield, and rank them in order of interest. If 'OTHER' is in your top 5, please elaborate.

Tent Board Order of Interest - Top 5	Online Survey Order of Interest - Top 5
24 - Water Recreation 22 - Trails 13 - Commercial Leasing 12 - Community Events 12 - Restaurant/Bar	176 - Trails 156 - Water Recreation 130 - Community Events 106 - Lakefront Event Venue 102 - Park Amenities

Tent Board Data and Comments

1. **Water recreation (24)** (White water feature)
2. **Trails (22)**
3. **Commercial leasing (13)**
4. **Community events (12)**
5. **Restaurant/bar (12)**
 - Lakefront event venue (10)
 - Park amenities (9)
 - Education center/museum (8)
 - Indoor entertainment (8)
 - Outdoor sports fields/courts (6) (Pickleball)
 - Playground (6)
 - Solar farm (7)
 - Public art (5)
 - Rooftop feature (4)

Online Survey Data - Program Opportunities Comments

Natural Preservation

- Please leave the area alone to go back to its natural state.
- Leave it alone.
- Managing what we already have. We increasingly are seeing graffiti on rocks. Lack of respect for what we have. Is there a way to patrol or do something that discourages graffiti and cigarette smoking and butts?

Non-Water Opportunities

- Camping areas for homeless population to give them a space that is accessible for them.
- Trails

Water Opportunities

Sailing - Would require dredging and lily removal to deepen the Lake for center board clearance.

Q3. Station 5, Board 2: Please share any comments you have about the proposed zone uses.

Natural Preservation

- I love these innovative, ideas! However... My concern with the activity area is the wildlife that is surrounding the area along with the nature center. Putting in the wrong type of event/activity space could be detrimental to the nature preservation and wildlife.
- Please just allow the area to go back to its natural state. Giant economic projects would destroy the natural environment. What is the point? Money? Shame on you.
- Zone 4 Lake Park area. ELIMINATE the idiotic frisbee golf course! LS used to be my favorite quiet walkabout park, to walk quietly, to view the beautiful lake, to view deer and beautiful lake waterfowl. But ever since the loud clanging groups traipsing through the grounds, you no longer see deer, and other wildlife is minimal as well. What a huge loss! NO destination recreational sports use! Please! We do NOT need another Cooper Complex...traffic is awful as is whenever there are HS cross country events. Please restore and maintain LS as a naturally beautiful park space. Please!
- Not another Branson- no , no. We need natural habitats and spaces
- I used to love going to LS to walkabout the quiet and beautiful trails and see the lake waterfowl. That all changed with the MORONIC IDEA to install a frisbee golf course! Now there are people tromping all over, clanging the chains...and I do NOT see deer anymore! Please restore and emphasize the natural setting and wildlife! NO destination recreational area!

We do NOT need another Cooper Complex...traffic is bad enough when there are HS cross country events! Please do NOT drain the lake...we love the waterfowl!

- Please preserve the existing park.
- I feel very strongly that the beauty of Lake Springfield lies in its peaceful setting within nature. It would be a travesty to upset such a unique and beautiful place in our city with a commercial development! Don't do it!
- If the dam is altered or removed there will be no lake, therefore no Lake Springfield.
- Why do we still have the dam? Why not restore the river?
- Springfield does not have very many preserved natural settings. Springfield Lake is perfect for this.

Economic Development

- Need to collect taxes for use.
- I think Zone 1 is great for some sort of outdoor sports activity complex. We need to get access to these areas and create a connected trail system.
- Money making ventures Prioritize natural space and minimize large footprint development (such as sports fields).
- Prioritize reuse of the power plant for restaurant, brewery, art, office space etc.... The old power plant has the potential to be the economic driver and the hub of activity given the location next to the future Chadwick flier trail. Prioritize the rail to trail completion into Galloway. Developing the ability to walk or ride a bike around the lake would be awesome - would require a bridge by the boathouse and improvements to the dam to make passage safer. The new trails at Fellows lake are a great addition - more of that as the land permits would be great here. A 4-6 mile multiuse course would get a lot of use especially if it could interconnect with the nature center. Zone 3 to me seems be a logical location for a big community attractor to the park (THE WOW, think large indoor facility, or unique outdoor space like gathering in Tulsa), then the other zones can be more passive and build off of the larger attractor in Zone 3.
- Bolted routes for rock climbing on bluff in zone 5.
- Mixed use like Galloway seems to be popular. Needs to accentuate the natural views of the lake with coffee shops and eateries, but a modern playground is desperately needed.

Trail Systems

- More for outdoor recreation like trails to better our local growth. Zone 1: Hiking trails, wildlife viewing, plant natives!!; Zone 2: Reestablish the riparian corridor along the river, remove the low water bridge, keep people away from the coal ash landfill and/or have the landfill be an educational opportunity for future generations (what not to do next to a riverway/floodplain); Zone 3: Remove the dam for aquatic wildlife passage; Zone 4: Reinstall a boat ramp, connect the trail system to the Nature Center; Zone 5: Additional bike/foot trails, river access up stream of US65.

- Springfield lake would be a fantastic site for Mountain bike trails and a progressive/learning bike park (Such as the initial design for Lone Pine). Springfield Metro needs a trail system - look at how much they have benefited Bentonville/NWA.
- Would love to see a bridge from trails in the Boathouse area to a Nature Center trail connection.
- Zone 5 is almost entirely in the floodplain and should remain undeveloped land focused on environmental preservation, trails, and water activities. The park is currently the only place to go on the south side where there are non-paved nature trails besides the Nature Center, which doesn't allow dogs. The experience of these trails as a place to connect with the quiet of nature has already been significantly changed with the addition of frisbee golf. More non-paved nature trails are needed.
- Multi-use pathways that connect to existing trails for walking/biking. Mixed use districts (live, work, play). Water recreation. Walkable community.

Noise and Traffic Impacts

- We recently bought a home in Wildwood Estates. We are now extremely concerned about the traffic impact of each of these plans. We purchased our home because we love the quiet neighborhood and how close it is to Springfield Lake.
- As a resident of the Lake Ridge neighborhood, I have a lot of concerns about increased traffic to the area. Currently, hundreds of cars cut through our subdivision from National to Kissick and they come through the neighborhood at a high rate of speed and without caution.
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town!
- This is our home! Don't bring a bunch of loud, party venue crap to our area. We moved here for quiet and nature, don't mess up our part of town!
- Since it is a natural area, I would be concerned with noise, lights I.e. sports.

Non-Water Activities

- Please not more active recreation. We don't need more courts and fields in this unique feature. Springfield lacks unique geography to be developed but being that we are on a plateau there is plenty of space for fields - build them elsewhere.
- Would love to see access to outdoor rock climbing on bluff beside existing dam.

Water Activities

- Please keep large boats and motors from Lake areas. Prefer quiet sports i.e. kayaking, electric motors, etc.
- River access for fishing as far downstream as possible.

Other Comments:

- No comments, seems logical.
- I mean, is Zone 2 already a landfill? If not, please don't put one there. If it is, then disregard and this looks like a good plan.
- I don't understand what these labels mean.
- N/A
- No RV park please.
- A place where water is stored, filtered and distributed throughout the park.
- Acceptable. I don't like how close Zones 1 and 2 are.

Q4. Station 5, Board 3: Zone 1 - South Activity » Please choose 3 preferred themes in which you are most interested for Zone 1, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
16 - Amenities – Trails 14 - Education Trails and Boardwalks 14 - River Access 13 - Adventure Recreation – Bike Park 4 - Athletic Fields & 4 - Hospitality Event Space	130 - Education Trails & Boardwalks 119 - Amenities – Trails 107 - River Access 70 - Eco Playground 52 - Adventure Recreation – Bike Park

Zone 1 Tent Board Data

- 1. Amenities – Trails (16)**
- 2. Education Trails and Boardwalks (14)**
- 3. River Access (14)**
- 4. Adventure Recreation – Bike Park (13)**
- 5. RV Park (5)**
 - Athletic Fields (4)
 - Hospitality Event Space (4)

- Eco Playground (3)
- Eco Cabin (1)

Q4b. If you have any comments about the Zone 1 - South Activity options, please share them below.

Economic Development

- Also like the bike park and trail idea. Event space is neat too if it could be used for food trucks/brewery and live music?!
- Need more entertainment item for tax revenue
- Entertainment

Noise and Traffic

- Concerned about traffic through the residential areas.
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town!

Water Activities

- River access for kayaks is welcome. I don't want to see people swimming and drinking and leaving trash.
- Clean up and celebrate the area along the river with a outfitter for floating to the south with a old time swimming hole.

Non-Water Activities

I would love in some area to have a park/playground similar to The Gathering Place in Tulsa. It is a tourism driver and wonderful for local families.

Q5. Station 5, Board 3: Zone 2 - Capped Landfill » Please choose 3 preferred themes in which you are most interested for Zone 2, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
19 - Nature Landscape with Trails 16 - River Overlook 6 - Astronomy Viewing Area 6 - Practice Fields 5 - River Edge Tree Houses; 5 - Fitness Trails & 5 - Public Art	114 - Native Landscape with Trails 108 - River Overlook 63 - Fitness Trails 62 - Astronomy 61 - Small Pavilions/Picnic Areas

Zone 2 - Tent Board Data

- 1. Nature Landscape with Trails (19)**
- 2. River Overlook (16)**
- 3. Astronomy Viewing Area (6)**
- 4. Practice Fields (6)**
- 5. River Edge Tree Houses (5)**
 - Fitness Trail (5)
 - Public Art (5)
 - Small Pavilions / Picnic Areas (2)
 - (Write-in) Dark Sky Area and Lighting (1)
 - Open Lawn (1)

Q5b. If you have any comments about the Zone 2 options, please share them below.

Non-Water Activities

- I fear there is too much light pollution for astronomy.
- I do not want to see sports facilities. We have enough of those around town.
- Cycling confidence course in grand prix style.
- Good area also for Dark Sky certified lighting Good location for Solar Farm

Economic Development

- Need more tax revenue.
- Need more entertainment item for tax revenue.
- Entertainment.

Noise and Traffic

- Concerned about increased traffic throughout the residential neighborhoods.
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town!
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town! (not a duplicate).

Water Activities

- The low-water bridge across the James River is a hazard to paddlers and should be rebuilt. If it were removed, then there would be more potential opportunities for paddling from Tailwaters Access to Rivercut Golf Course on the James.
- Clean up and celebrate the area along the river with a outfitter for floating to the south with a old time swimming hole

Natural Preservation

Consider any opportunity to support native plants and animal life.

Q6. Station 5, Board 4: Zone 3: Power Station - Please choose 3 preferred themes in which you are most interested for Zone 3-Power Station, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
9 - Iconic Walk / Bridge Overlook 8 - Education and Demonstration Areas 8 - Sky Tram 7 - Amphitheater 7 - Waterfront Amphitheater	88 - Iconic Walk/Bridge Overlook 87 - Education & Demonstration Areas 72 - Waterfront Amphitheater 71 - Amphitheater 63 - District (lodging, dining, retail event, transit, etc.)

Zone 3 - Tent Board Data

- 1. Iconic Walk / Bridge Overlook (9)**
- 2. Sky Tram (8)**
- 3. Education and Demonstration Areas (8)**
- 4. Amphitheater (7)**
- 5. Waterfront Amphitheater (7)**
 - Outdoor Activities Center (5)
 - Indoor Fields / Courts (4)
 - District (4)
 - (Write-in) Rock Climbing – Bluff line below dam (3)
 - Skate Park / Adventure Activities (2)

Q6b. If you have any comments about the Zone 3 - Power Station options, please share them below.

Noise and Traffic Impacts

- Not crazy about the choices. I don't understand the need for MORE sports facilities in this town. Part of this area is in the county which is why I moved here. I'm kit(not) interested in anything that is going to produce a lot of noise from sports.
- We recently bought a home in Wildwood Estates. We are now extremely concerned about the traffic and noise impact of each of these plans. We purchased our home because we love the quiet neighborhood and how close it is to Springfield Lake for kayaking/canoeing.
- I'm neutral on this. Would want the options to fit within the environment. Doing a big stage/event/commercial use could lead to serious traffic challenges/ road widening/etc. adventure activities could be a zip line or treetop adventure?!
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town!
- None of these options are good! DO NOT put in something that will be loud! No one who frequents Lake Springfield wants that!
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town! (Not a duplicate)

Non-Water Activities

- No skatepark but indoor adventure facility with rock climbing and ropes courses.
- Birdwatching area.
- I would like to see the power station reused similar to the City Museum in St. Louis. I also think a high ropes course would be fun here.
- Go and tour the Dewey Short Visitors Center that has been called the "crown jewel" of Table Rock Lake. That on steroids is what is possible with the conversion to the power plant...
- Turn it back into a power supply source, not a mercenary developer's dream.
- If it could become an interpretive center with the history of the power station and lake preserved. That would be great.

Natural Preservation

- Leave the area to go back to its natural state.
- Natural History of the Ozarks Plateau. Chase Studio designed.
- Let connecting with Nature be the utmost priority in the largest scale possible: our natural world is the attraction, the specific reason people come to enjoy and experience; everything man-made needs to allow an expanse of it and focus on carrying for it.

Economic Development

- For me this is the go big area, that should anchor the rest of the park.
- Indoor market.

Other:

- Mostly horrible Ideas here.
- N/A
- Focus high intensity uses here.

Q7. Station 5, Board 4: Zone 3: Dam Modifications - Please choose 3 preferred themes in which you are most interested for Zone 3-Dam Modifications, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
8 - Recreation and Wildlife Ladder – Shallow 8 - Section Removal with Open Flow 8 - Open Channel Bypass 7 - Recreation and Wildlife Ladder – Edge 4 - Section Removal with Overlook & 4 - Natural Vertical Bypass	84 - Nature Vertical Bypass 77 - Open Channel Bypass 75 - Removal with Exposed Structure & Remnants 67 - Section Removal with Overlook 60 - Recreation and Wildlife Ladder – Edge

Top 5 Tent Board Data

- 1. Recreation and Wildlife Ladder – Shallow (8)**
- 2. Section Removal with Open Flow (8)**
- 3. Open Channel Bypass (8)**
- 4. Recreation and Wildlife Ladder – Edge (7)**
- 5. Section Removal with Overlook (4)**
 - Natural Vertical Bypass (4)
 - Removal with Exposed Structure and Remnants (3)
 - Recreation and Wildlife Ladder – Strap (1)
 - Walled Channel Bypass (1)

Q7b. If you have any comments about the Zone 3 - Dam Modification options, please share them below.

No Modifications

- Alternative D: No modification. Avoid modification to dam, focus on lake body enhancements.
- These options are TERRIBLE! Keep the bridge and repair or replace it, if needed. There is no reason to disrupt the migration of our local wildlife. Is there a “leave it untouched as is” choice?
- Leave the current dam.
- I would have left comment ONLY but had to choose 3 items above. I'm not convinced modifications to the dam is necessary. I support several of the concepts presented to improve access/utility of the Lake. In addition to the concepts presented, more focus is needed on Lake Preservation & water quality improvements. The contractor evaluating dam modifications has not discussed the impact on the James River & footprint should such modifications be undertaken. Lastly, any dam modifications which IMPACT CURRENT resident water view/access will need to be compensated for any losses.
- Do NOT destroy this beautiful lake! Please! Why destroy the dam?!
- Don't remove the dam and close the road unless you're going to build a new bridge.
- Removal of the dam eliminates the lake in Lake Springfield. I feel strongly that the lake should stay with allowances made for alternate access around. If the dam is removed, residents on the water will lose exceptional property value and should be compensated accordingly.

Full Dam Removal

- If we totally get rid of the dam, then we will need to do something about Kissick street, because it goes over the dam.
- While I would prefer to see the dam be removed entirely, and the James River restored, some sort of ladder/bypass is a more realistic proposal, which will allow for more paddling opportunities on the James.
- If you take out the dam won't you need a bridge? Would rather keep a viable lake.
- Just removal.

Natural Water Flow

- I would like to see the river restored to its natural beauty without breaking the bank. I would like to see it safe for families kayaking and canoeing.
- Prioritize safe pedestrian crossing of the lake/river to facilitate access to the old power station from the north. Returning the river to a natural state should be an option.
- Anything that can be done to restore natural flow to the river by way of dam removal followed with some riparian restoration would seem ideal while keeping in mind the importance of human access for recreation purposes.
- Should not have walled sections. Should be open and as natural as possible. An additional white water course should be considered with movable structures to simulate natural white water for training of Water Rescue personnel and to hold competitive events.

Roadways

- What will happen to Kissick Ave?
- The current road over the dam would remain correct?
- Kissick is narrow. Better access desired through National Ave and other streets.

Noise and Traffics Impacts

- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town!
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town! (not duplication)

Partial Dam Removal

I like the idea of partial removal. For me I know my family loves to load up our kayaks and head over to Lake Springfield because its convenient, so the thought of not being able to do that in a lake is concerning. However, I would love a better water connection to the river.

Other:

- Looks good.
- I'm not really sure what these mean.
- Done correctly could make the area a destination spot.
- I have seen man-made rapids in other cities as a tourist destination. They have been a lot of fun.

Q8. Station 5, Board 5: Zone 4 - Lake & Park » Please choose 3 preferred themes in which you are most interested for Zone 4, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
18 - Wetland Boardwalks 10 - Outdoor Education 7 - Destination Playground 6 - Group Camping 6 - Boat Rentals	128 - Wetland Boardwalks 85 - Overlooks/Education 79 - Boat Rentals 74 - Fishing 47 - Destination Playground

Q8b. If you have any comments about the Zone 4 - Lake & Park options, please share them below.

Natural Preservation

- Restore river. Allow kayak access. Do NOT bring in a kayak outfitter/rental- it will just lead to drunks on the river.
- ELIMINATE frisbee golf! It has completely destroyed the natural serenity of this area. Deer are gone, replaced by loud frisbee kids and their clanging when they hit the holes. Please make them go away! The lake, waterfowl and wildlife make this the most critical area to save the natural state of LS.
- Please no dredging/large power boat usage. Natural habitat for flora and fauna.
- We love the park as it is with the trails, boat rentals, and easy access to the lake and trails.
- Restoring river flow would seem most important environmentally. Man made lakes are inviting to invasive species which is becoming a bigger problem year after year all over the world.
- Leave the area alone to go back to its natural state.
- Disc golf has already changed the feel of the park as a nature-based place and should not be expanded if the intent is to have the park theme be connection with natural amenities. Disc golf is something that could go anywhere in the City.
- River channel should be restored and if need be dredged.
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town!
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town! (not duplicated).

Lake and Park Enhancements

- Finally, some peaceful and family-friendly choices! That's what locals love about Lake Springfield park! Give us a few more options, without disturbing the beauty and peacefulness of the park.
- My wife liked the idea of canoe access from the lake down to the river.
- Total beatification of the Lake with trails along the edge (Some are already there) with clean up to the water line along the Chadwick Flyer, Greenway and Trail of Honor.
- Would be nice if there was a "Gathering Place" much like Tulsa's.
- Dredge and keep lake.
- Activate Lake Edge with Access
- Disc golf already exists. Fishing and water sports are already a hit! Group activities and education are additional great things to consider adding!
- To me this is a great location for some outdoor active space that supplements what takes place in the power plant zone. My dream would be to have something similar to the Gathering in Tulsa or Shelby Farms Woodland Discovery park in Memphis.

Q9. Station 5, Board 5: Zone 5 - North Activity » Please choose 3 preferred themes in which you are most interested for Zone 5, and rank them in order of interest.

Tent Board - Top 5 of 3 Preferred Themes	Online Survey - Top 5 of 3 Preferred Themes
18 - River Access 16 - Pedestrian Bridge Crossing 7 - Trailhead Parking 6 - Themed Bridge w/Views 5 - Gathering Space/Pavilions	124 - River Access 113 - Pedestrian Bridge Crossing 72 - Trailhead Parking 56 - Trailhead Play Amenities 54 - Gathering Space/Pavilions

Q9b. If you have any comments about the Zone 5 - North Activity options, please share them below.

Water Options

- Add a kayak docking station. They help keep people out of muddy areas in order to launch their kayaks. In addition they are easier to get in and out of and help prevent damage to kayaks.
- River access for non-motorized boats.
- Access, Access, Access.... As a cyclist I think this area should remain passive, but work to connect to the greater trail network as a whole and the park itself. As a kayaker, access to the water is important as well.
- Keep Southwood River access and re-engineer to deal with future heavy rain incidents.

Non-Water Options

- For outdoor events, pavilions and wide dally grass-covered expanses are necessary Not a huge fan of the bridge over the lake idea. If it's a bridge over Kissick then count me in.
- Take the Jefferson Avenue Footbridge to the Lake with restoration and ADA compliance from the Trail of Honor to the Boathouse NO MORE PARKING LOTS
- Bolted rock-climbing routes along bluff in Zone 5.
- Say NO to big parking lots! This area is close enough for people to bike, bus, or walk. Go greenways!

Natural Preservation

- I'm not convinced modifications to the dam is necessary. I support several of the concepts presented to improve access/utility of the Lake. In addition to the concepts presented, more focus is needed on Lake Preservation & water quality improvements. The contractor evaluating dam modifications has not discussed the impact on the James River & footprint should such modifications be undertaken. Lastly, any dam modifications which IMPACT CURRENT resident water view/access will need to be compensated for any losses.
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town!
- This is our home! Don't bring a bunch of loud, party venues to our area. We moved here for nature and quiet, don't mess up our part of town! (not duplication)

Economic Development

NA... need tax revenue.

Noise and Traffic Impacts

Still concerned about increased traffic through residential areas.

Trails

Ensure trails are multi-use. Walk, Bike etc... Natural surface (unpaved) trails would be good to have as well.

Q14. Station 7, Board 4: Please choose 3 transportation & mobility priorities in which you are most interested for Lake Springfield, and rank them in order of interest. If 'OTHER' is in your top 3, please elaborate (Worded as Walking & Mobility on Tent Board).

Online Survey – Top 5 Priorities	
141 - Trails	
109 - River/lake Crossings	
69 - Boat Ramp Access	
54 - Sidewalks & ADA	
54 - Parking	

Lake Springfield Plan Public Involvement - Summary of Events

August 11, 2023

Overview

Several events have taken place since last year – 10 major events in 8 months! The events are listed in order of the most recent large-scale events. A general slide presentation was completed to use at all events for consistency in information. Meetings also took place with the following entities to discuss possible project impacts: Dept. of Conservation, Morris Family, Bass Pro Shops, Ozarks Greenways, empower: abilities, S. W. Missouri Indian Center, American Indian Center, Springfield Convention and Visitors Bureau, Steampuck, ACEC Midwest, and others. This list does not include individual meetings, text messages, emails and telephone conversations with the public and members of the project team.

Summary of Events

May 10, 2023 - Missouri State University, Practicum Planning Students conducted a Lake Springfield research project this semester.

- 6 Students Presented
- 50 to 60 College Students Participated in Project
- 35 College Students Completed Assessment

May 4, 2023 - Project consultants participated in a tour of the Nature Center Trail to gain a better understanding of how the trails are utilized.

May 4, 2023 - Public Involvement Meeting No. 2 and Open House with tours of the Power Plant.

- 294 – Attendees at the Public Meeting
- 89 – Tour Participants
- 779 – Reviewed Online Survey
- 301 – Started Online Survey
- 161 – Completed Survey

April 20, 2023 - Technical Advisory Team Meeting No. 2 – virtual meeting. Information was shared about the public engagement process, all aspects of the project, and comments from the S. W. Missouri Indian Center and the American Indian Center.

43 Attendees

March 23, 2023 - Meeting at the Boat House with Lake Ridge Estate Community members to discuss their traffic concerns.

- 20 – Attendees in person
- 15 – Virtual attendees
- 10 – Project Team members including Public Works staff

March 21, 2023 - Community Advisory Team Meeting No. 2 at the Boat House.

(and surrounding areas) intersectional groups and populations. The CAT provided input on materials and concepts for Public Involvement Meeting No. 1 on November 17.

32 Attendees

October 12, 2022 - Community engagement forum exclusive for residents in the Lake Springfield area to hear their concerns and share information with them about the project. Meeting attendees were able to complete a comment card or respond to an online survey.

100+ Attendees



PROJECT SUMMERY FALL 2023

By Fall of 2023, more than 1,000 people have participated in visioning sessions about the future of Lake Springfield. This input is vital to the creation of the proposed plan, created by a partnership between the City of Springfield, City Utilities and a consulting team led by Crawford, Murphy & Tilly. The plan is funded by a substantial grant from the federal government's Economic Development Administration.

Nestled on Springfield's southeast side, Lake Springfield a key natural asset to the community and surrounding region. While it currently offers a variety of recreational amenities, there is significant opportunity to enhance the area into a recreational focal point of the region. The decommissioning of the James River Power Station presents a unique opportunity for adaptive reuse of the facility, repurposing part of the larger site for active recreation and making a lasting impact on the James River Basin.

The proposed Plan includes adaptive reuse planning for the decommissioned Power Station and a Plan for the Lake Springfield area encompassing approximately 1,000 acres of publicly owned land.



The as-of yet unfunded plan, projected to be complete by summer 2024, will be a catalyst for new economic development and recreational opportunities. Components will include:

- ▶ recreational expansion opportunities
- ▶ adaptive reuse planning for the decommissioned power station
- ▶ hydrological studies
- ▶ water quality and ecological preservation planning
- ▶ economic development and workforce development opportunities
- ▶ transportation, access and wayfinding
- ▶ land use recommendations.

BACKGROUND

Through an \$800,000 grant from the U.S. Department of Commerce's Economic Development Administration (EDA), and \$200,000 from the Hatch Foundation, City Utilities of Springfield and the City of Springfield's Environmental Services Department is funding the development of a master plan for the area, including and surrounding the former coal-powered plant (James River Power Station). Redevelopment will complement Lake Springfield Park and Boathouse, which are jointly operated by CU and the Springfield-Greene County Park Board.

NEW RENDERING





Presentations

LAKE SPRINGFIELD SUBAREA OVERVIEW



HISTORY

Lake Springfield was originally designed in 1957 by City Utilities to support the James River Power Plant. The lake was created by damming the James River to serve the Power Plant cooling needs. In the early 1990s, the Missouri Department of Conservation partnered with City Utilities to construct a boat ramp, fishing dock, and several fishing platforms at Clay Henshaw Memorial and Southwood Accesses. Lake Springfield Park and Boathouse are part of the Springfield-Greene County Park System due to a long-term lease with City Utilities. Access to water-based activities predominantly takes place from Lake Springfield Park. Today, the lake provides opportunities for boating, fishing, and water sports, in addition to picnicking in Lake Springfield Park, hiking along trails, and enjoying the scenic views.

VISION

The Lake Springfield subarea is a key natural asset to the Springfield community and the surrounding region. While it currently offers a variety of recreational amenities, such as trails, fishing docks, and boat access, there is significant opportunity to enhance the area into a recreational focal point of the region. This includes expanding water sports opportunities through improved water access and drop-off points, connecting the trail system to the regional network, and exploring new creative and cutting-edge recreational activities. The decommissioning of the James River Power Station also presents a unique opportunity for adaptive reuse of the facility and repurposing part of the larger site for active recreation.

ENHANCED PUBLIC SPACE

Over the last 60-years, Lake Springfield has evolved into a local landmark and convenient place to escape the busy city. The popularity of the Nature Center, Galloway Village, trails, and other amenities in the area have sparked the imagination of many who see the Lake as an opportunity to be so much more. During the community input phase of *Forward SGF*, the desire to capitalize on the beauty of the Ozarks and focus planning efforts on placemaking have risen as top initiatives to be championed in the Plan. Lake Springfield and the sizable land reserve adjoining it have become a logical place of focus.

Together with improving the Lake and surrounding amenities, there are great opportunities to make a lasting impact on the overall James River basin. Future planning efforts must be done with utmost care in protecting and preserving the waterway, surrounding tributaries, and more extensive watershed. This includes considering the input of impacted property owners and organizations whose missions support the protection of the river, watershed, and restoration of the riparian zone and urban forest.

NEED FOR A MASTER PLAN

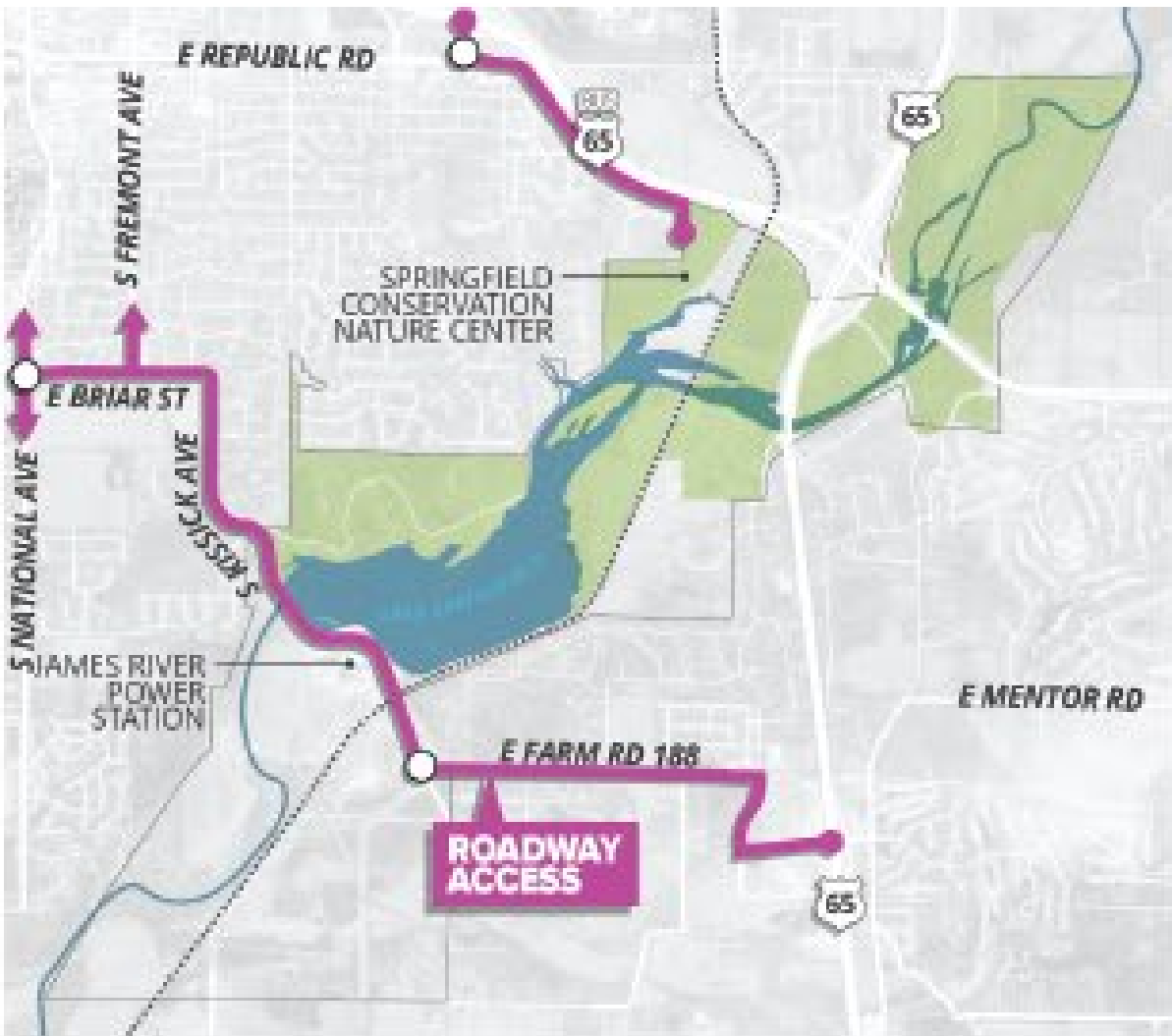
The Lake Springfield subarea covers an expansive amount of property, from north of U.S. Route 60 downstream to south of the James River Power Station. Considering this, the subarea framework provides a high-level overview of existing conditions and highlights important issues and opportunities for improvement. It sets the foundation for undertaking key improvements as well as developing a more detailed study.

In 2022, the City received an \$800,000 grant from the from the U.S. Department of Commerce's Economic Development Administration (EDA) to plan for the redevelopment of the Lake Springfield area. The first to be awarded in the region, the grant will help fund a master plan and development feasibility study to determine appropriate land uses for the area. The master plan should fully assess limitations, environmental constraints, viable improvements, recreational opportunities, and funding sources necessary to implement subarea improvements.

LAKE SPRINGFIELD
EXISTING CONDITIONS



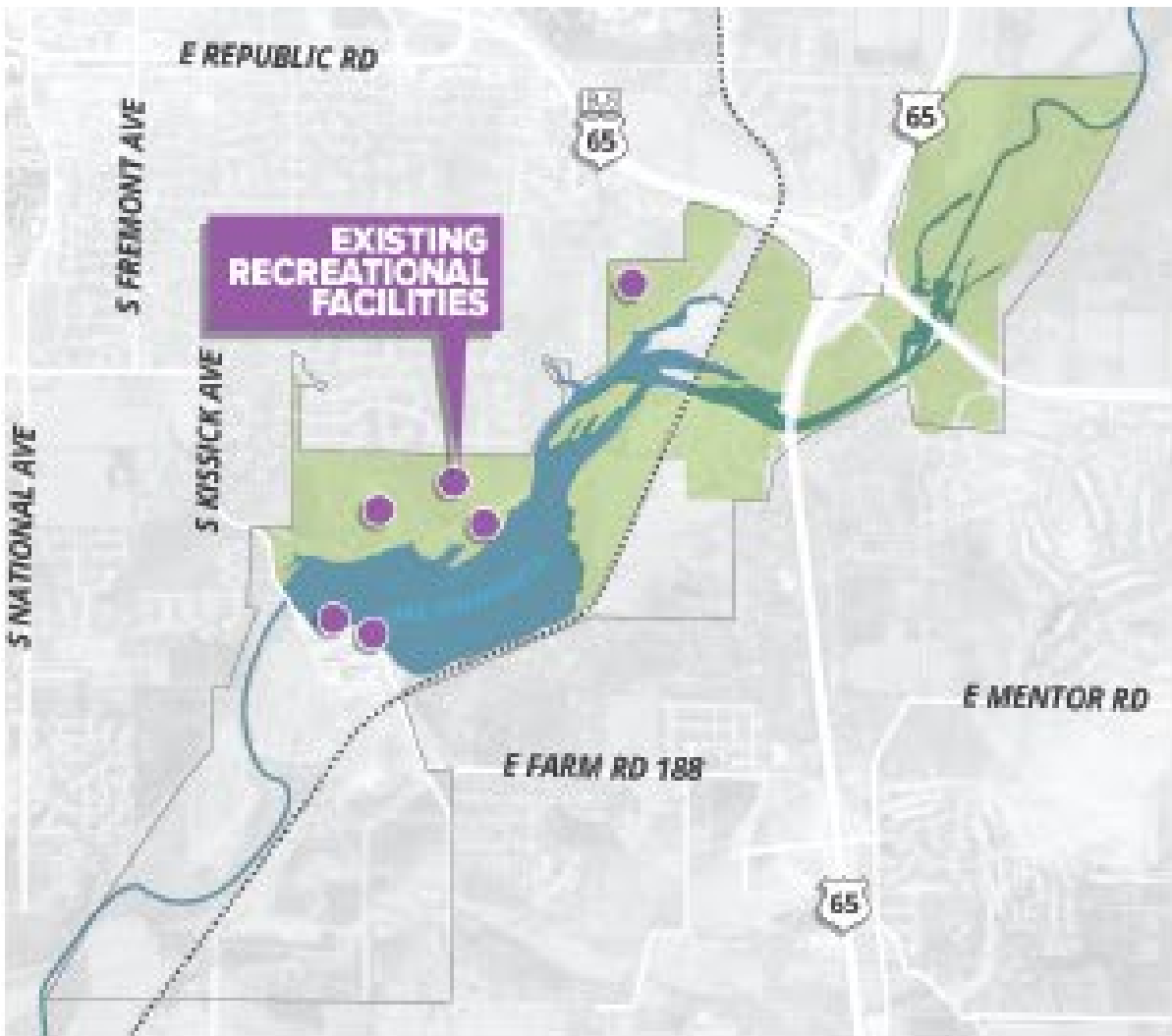
DEVELOPMENT TYPE



ROADWAY ACCESS

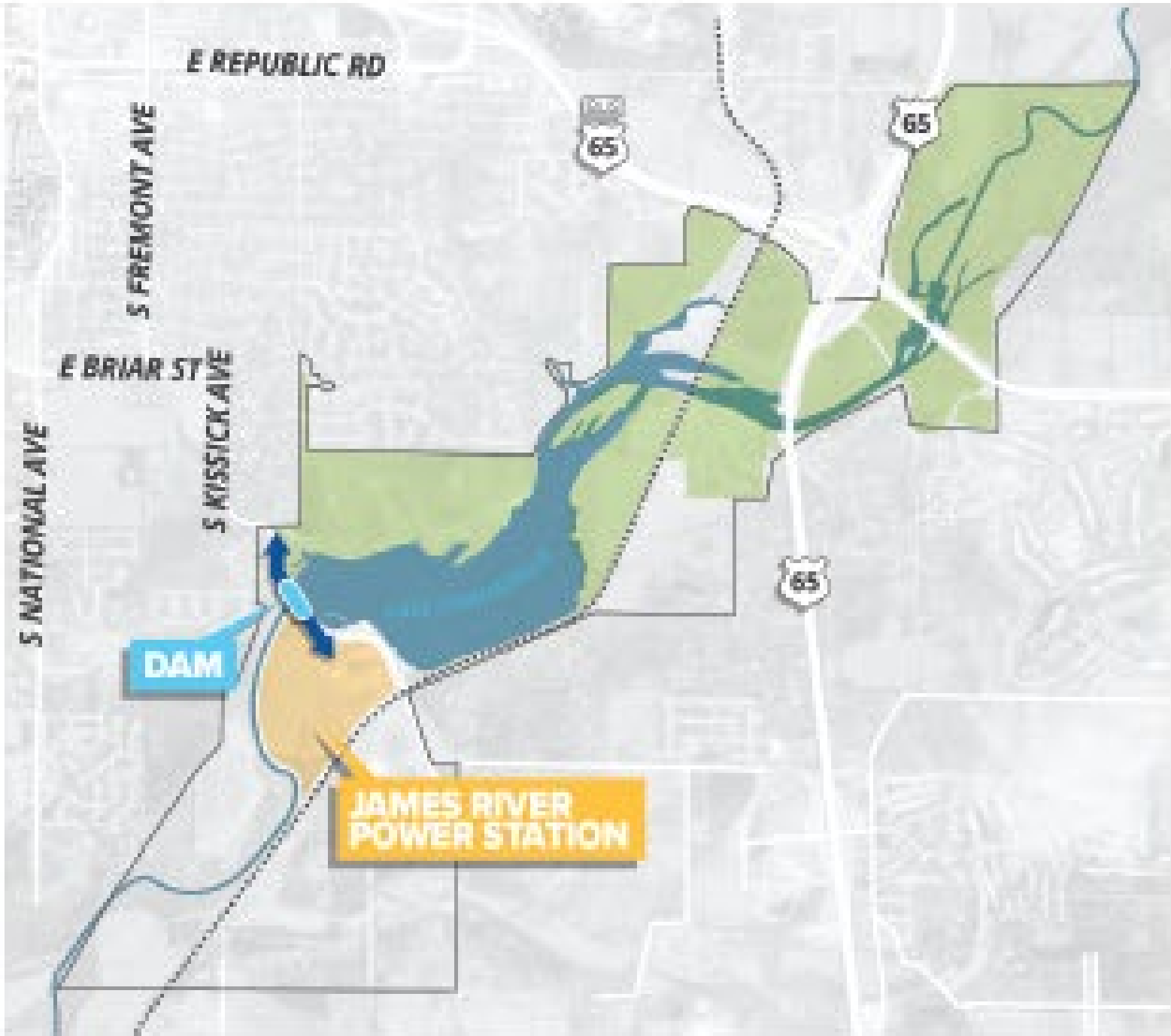


TRAIL SYSTEM



RECREATIONAL FACILITIES

LAKE SPRINGFIELD
SUBAREA FRAMEWORK



DAM



DEVELOPMENT FEASIBILITY STUDY



JAMES RIVER POWER STATION

- Open house @ boathouse and virtual option
- Engagement Opportunities:
 - Focus Groups
 - Tours
 - Online surveys
 - Submit ideas to
 - Reports & Studies

www.LakeSGFMasterPlan.com



GET INVOLVED

A community visioning process for the future of Lake Springfield is planned and will include public engagement events, a presentation tour and a city-wide survey.

The community engagement process will outline what the community sees for this area of Lake Springfield. Residents, neighbors, business owners, developers, schools, parks, non-profit agencies and more will collectively take part in identifying the areas of opportunity and concern in the area. This process will help the team zero in on a list of specific goals for the project to achieve.

WANT MORE INFO OR HAVE AN IDEA/COMMENT? TELL US ABOUT IT!

First Name *

First Name

Email *

Email Address

Address

Street Address *

City *

City

Last Name *

Last Name

Phone *

Apt., etc.

State *

State



REIMAGINE

THE INTERSECTION OF NATURE, RECREATION AND ECONOMIC DEVELOPMENT



Geosyntec[®]
consultants





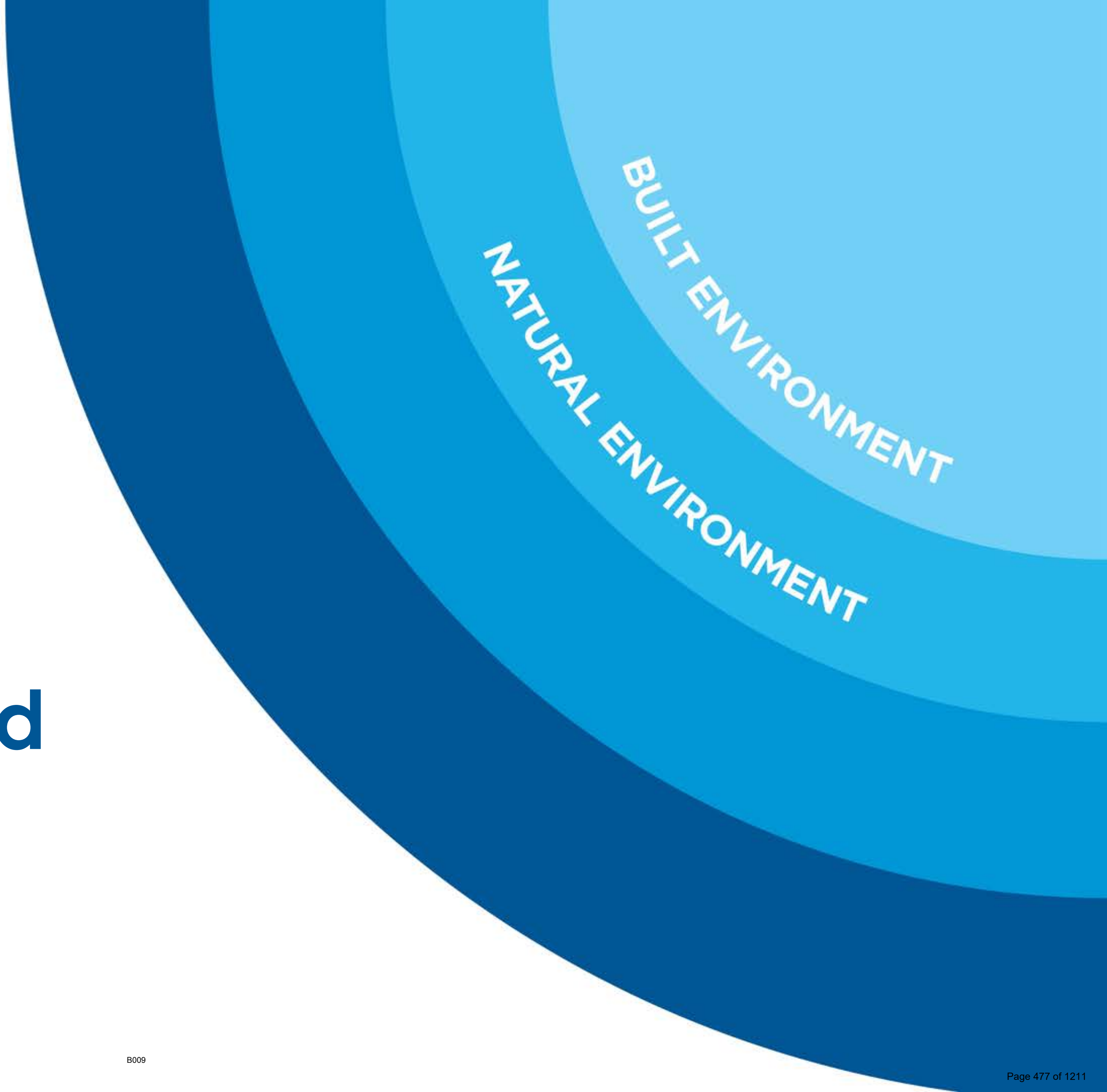
Introducing the Lake Springfield Team Local Leaders with National Expertise

*With the same level of service, expertise, and responsiveness
you've come to expect from us.*

Our **Multi-Disciplined** Approach

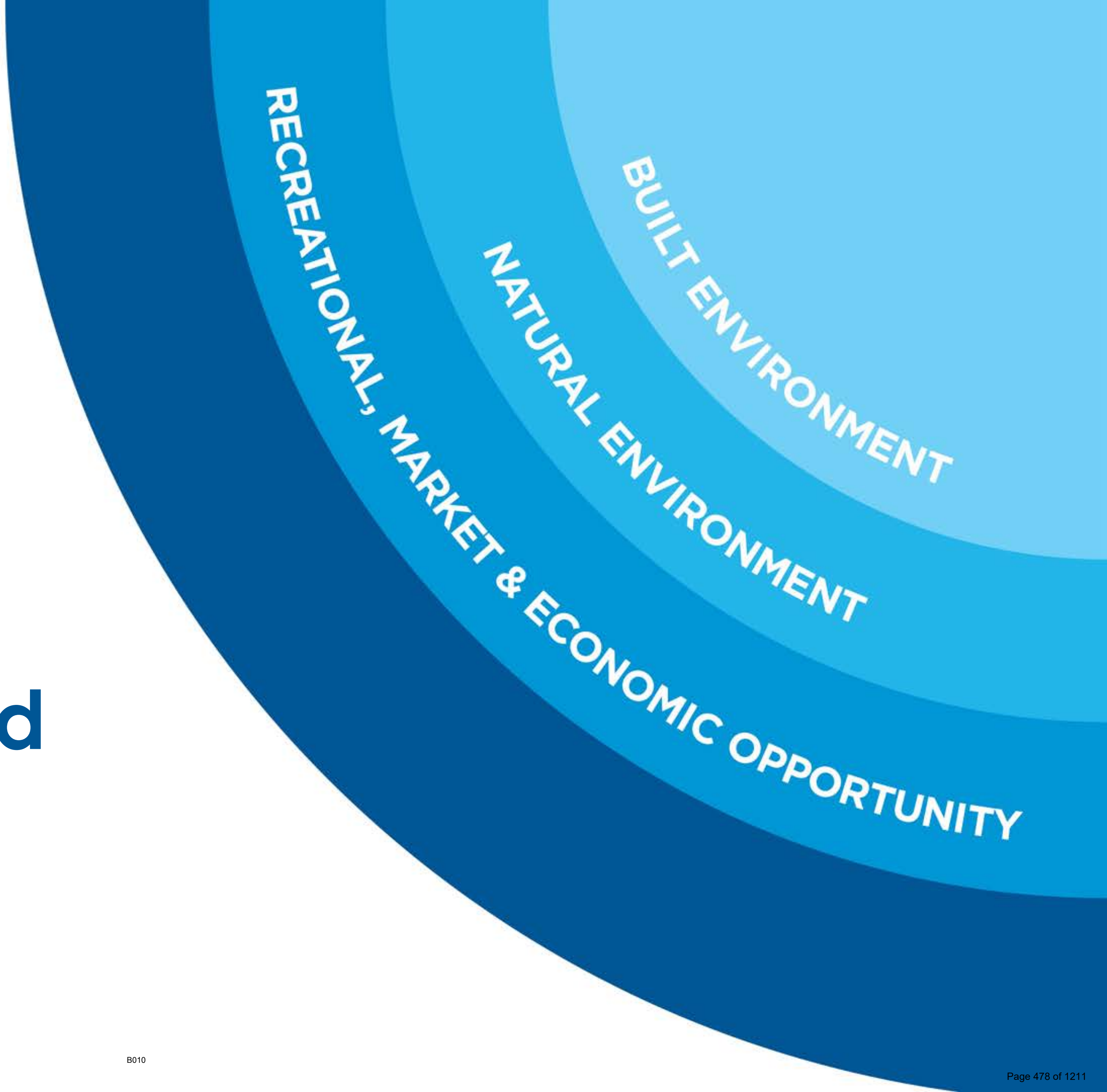
BUILT ENVIRONMENT

Our **Multi-Disciplined** Approach



BUILT ENVIRONMENT
NATURAL ENVIRONMENT

Our **Multi-Disciplined** Approach

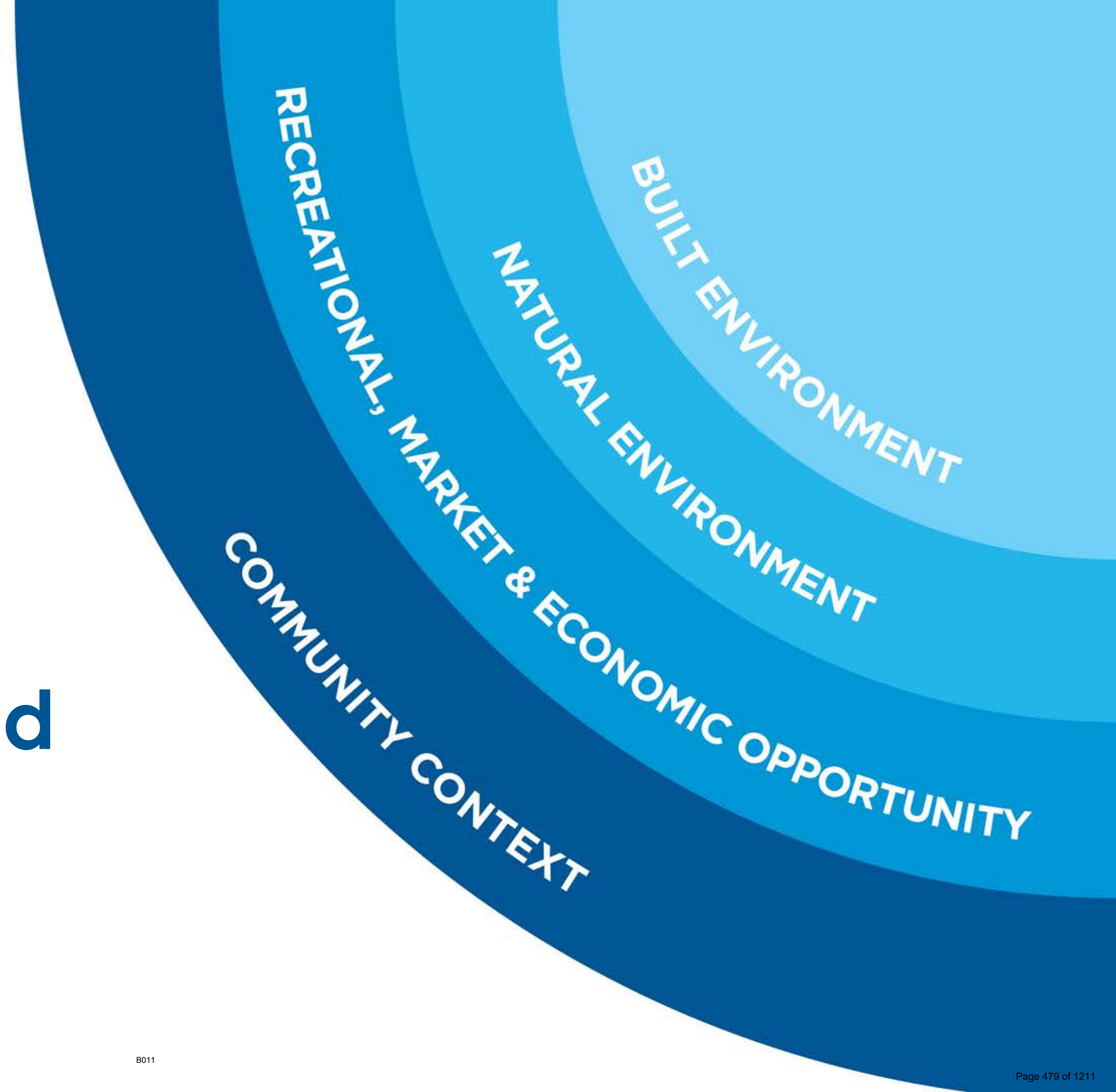


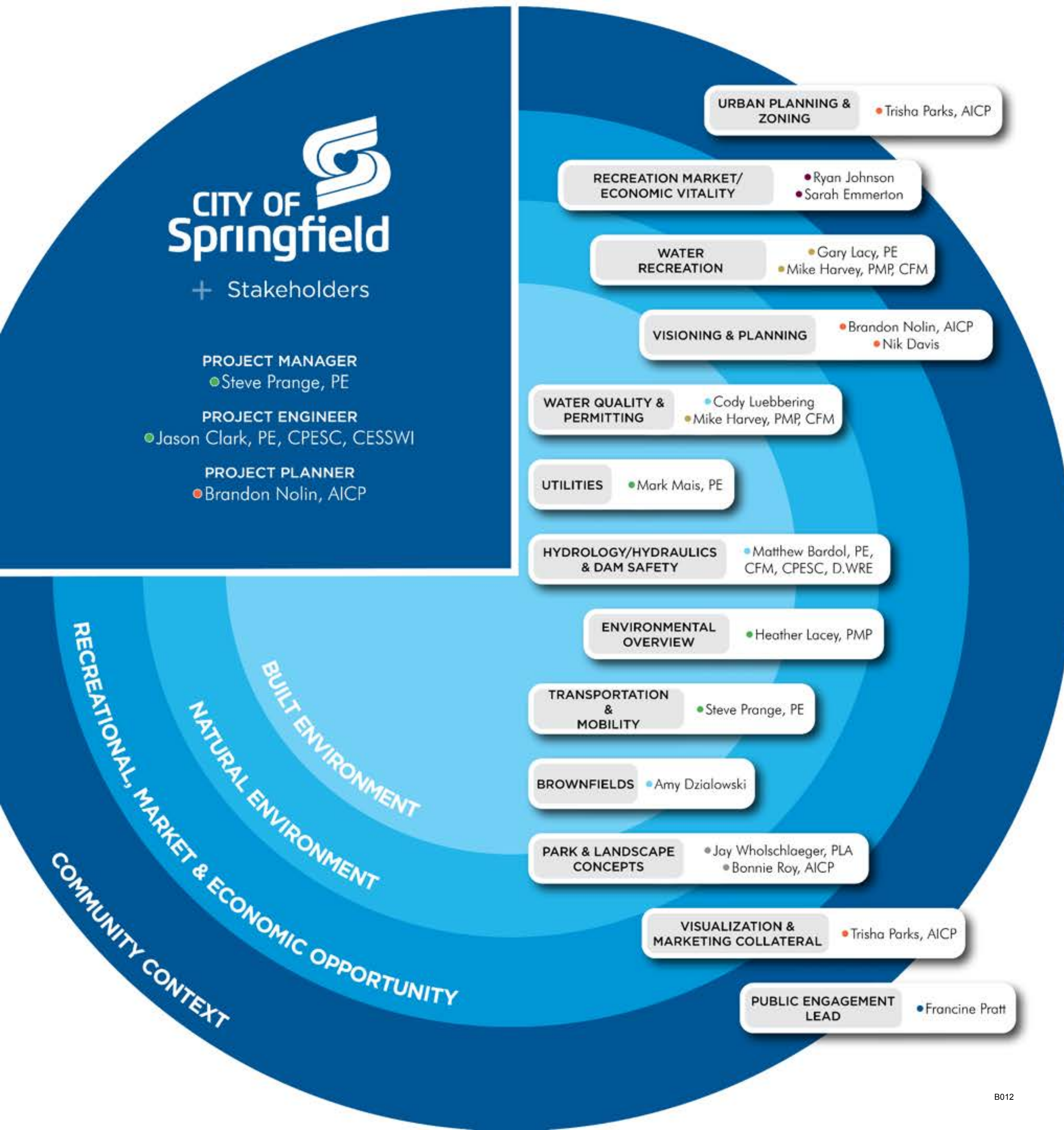
RECREATIONAL, MARKET & ECONOMIC OPPORTUNITY

NATURAL ENVIRONMENT

BUILT ENVIRONMENT

Our **Multi-Disciplined** Approach





Nationally ranked professional company providing planning, engineering and construction services, as well as strong record of delivery for the City of Springfield.



Industry leader in dam modification, water quality and brownfields.



Comprehensive familiarity with Springfield's vision and planning.



Regional leader in innovative park master planning and landscape design.



National leader in natural water recreational planning and design.



Specialists in market-based information to inform decision making.



A proven Springfield leader in community engagement.

CREATING A **COMMUNITY-FOCUSED PLAN**

VISION STATEMENT

The Lake Springfield subarea is a key **natural asset** to the Springfield community and the surrounding region. While it currently offers a variety of recreational amenities, such as trails, fishing docks, and boat access, there is significant opportunity to enhance the area into the **recreational focal point of the region**. This includes **expanding water sports opportunities** through improved water access and drop-off points, **connecting the trail system** to the regional network, and exploring **new creative and cutting-edge recreational activities**. The decommissioning of the James River Power Station also presents a unique **opportunity for adaptive reuse** of the facility and repurposing part of the larger site for active recreation.



Rail-to-Trail Opportunity

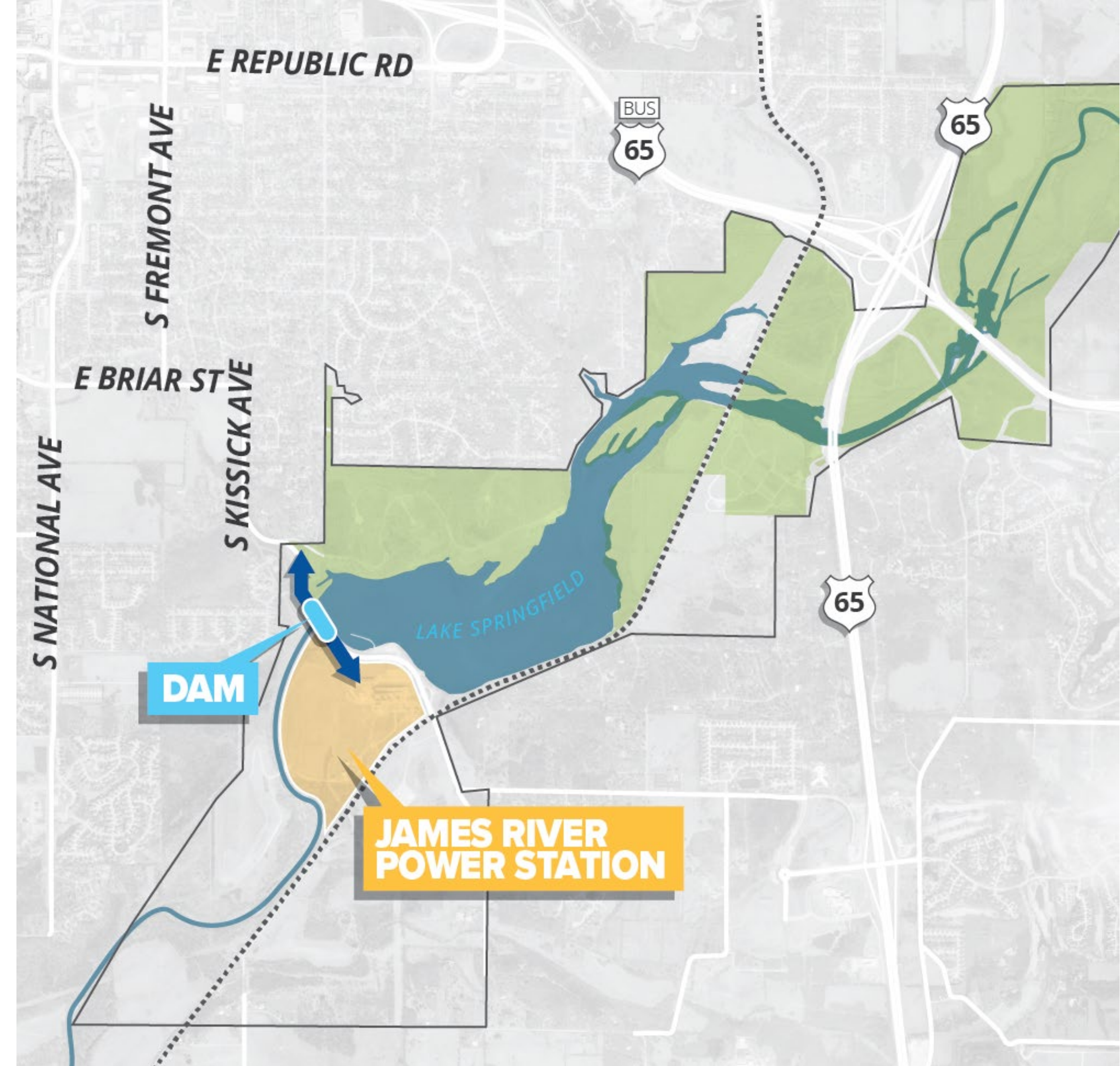
- Extend the James River Water Trail south of dam
- Create solution for watercraft passage as the existing low water bridge connects to the Utility Waste Landfill and acts as a barrier



Dam

The dam is a critical component of the Lake Springfield subarea

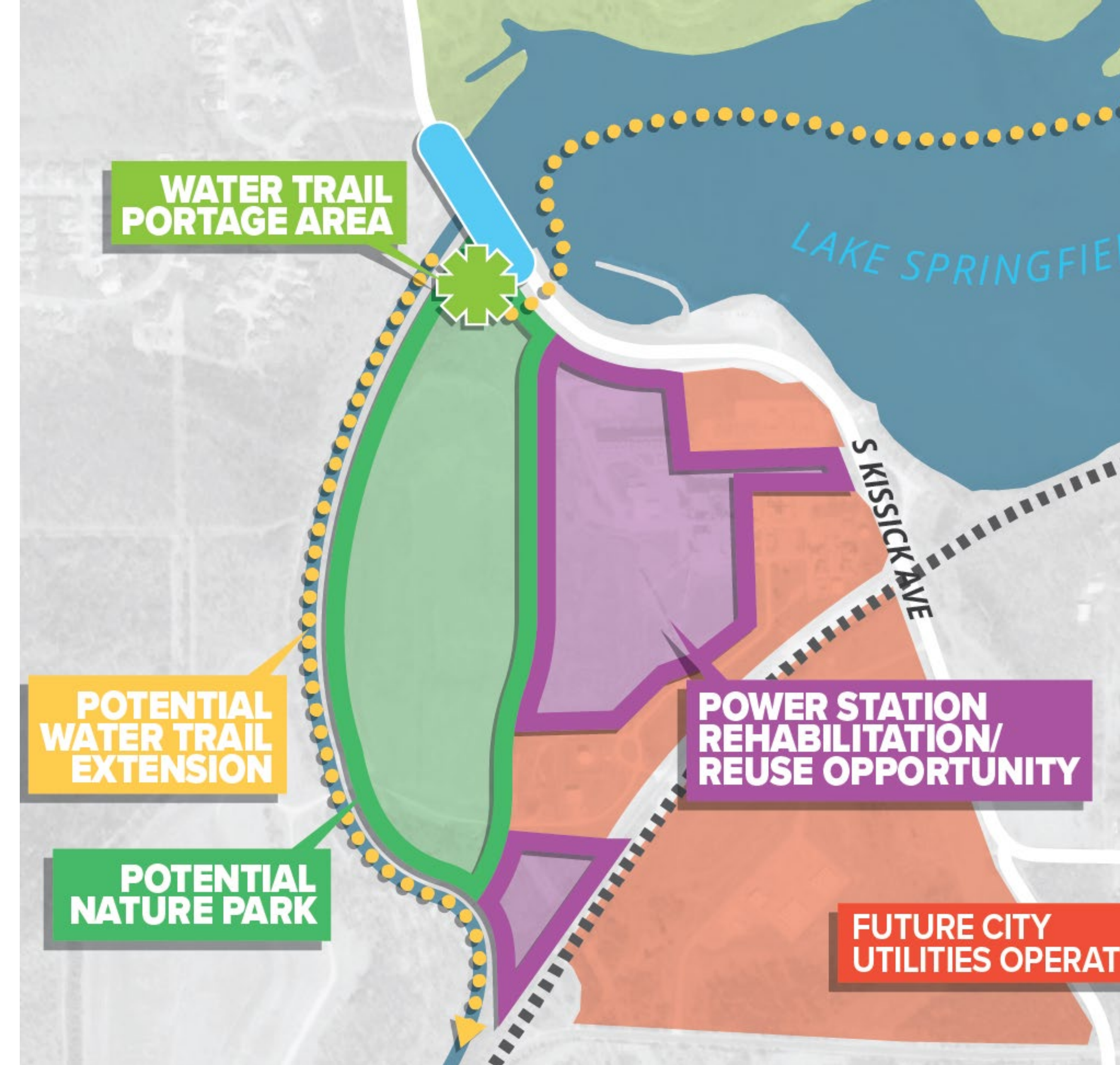
- Need for detailed hydrological study to evaluate dam
- Work with City Utilities to ensure regular maintenance
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James River Power Station

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- Explore new recreation center or museum
- Consider office or meeting area uses
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- Assess feasibility of redeveloping the adjacent detention pond
- Assess need for environmental remediation for public recreational use





The Boathouse

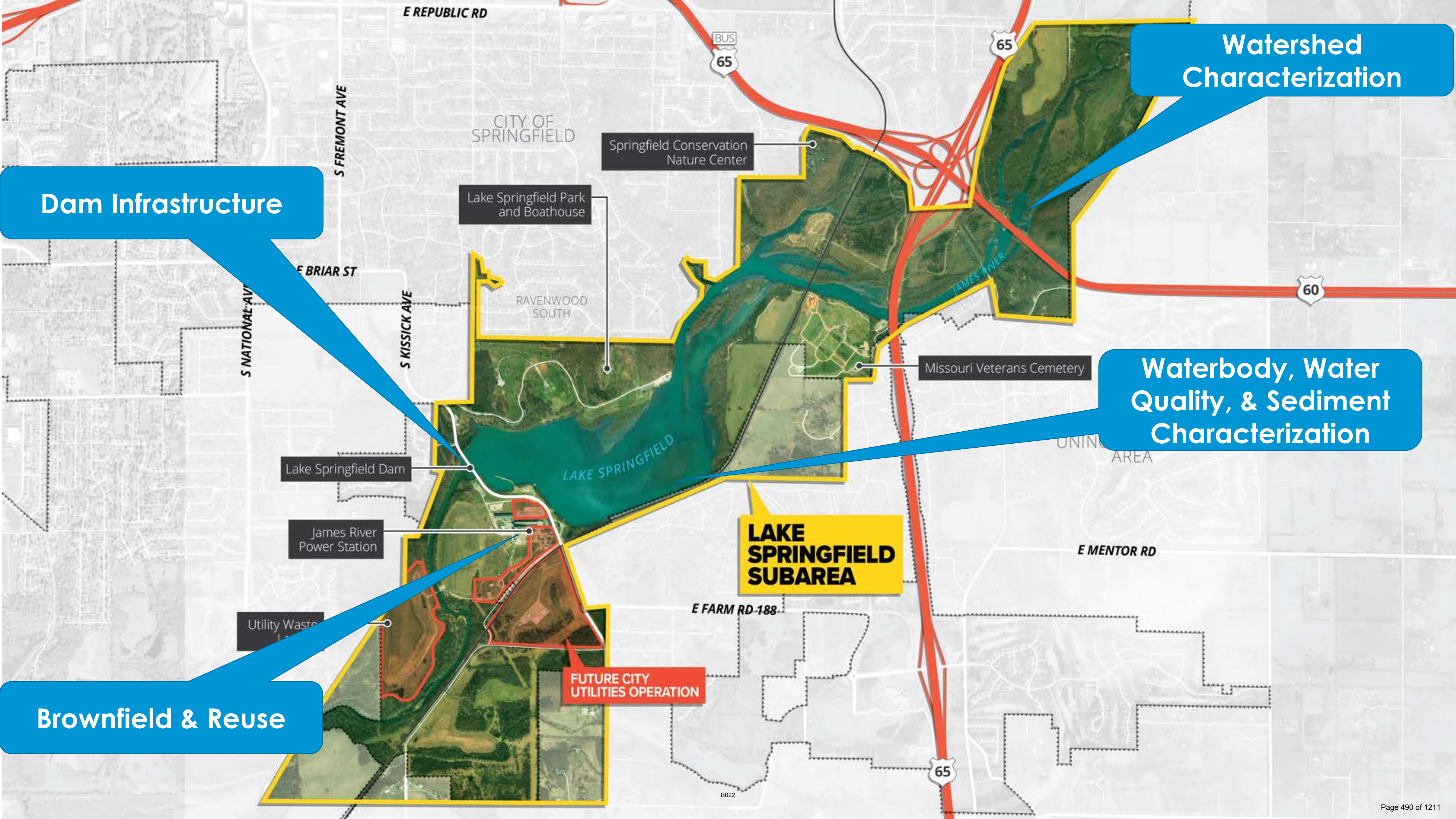
- Enhance the Lake Springfield Park boathouse as a “trailhead” for water-based activities
- Explore opportunities for new recreational activities

Swift Water Rescue Training

- Consider creating a swift water rescue training facilities with a possible river renewal plan
- Engineered white water features could provide a training facility for emergency responders
- Would address the need for swift water and flood rescue during area flood events, which continues to be a priority



THE BUILT AND NATURAL ENVIRONMENTAL ASSESSMENT



Dam Infrastructure

Watershed Characterization

Waterbody, Water Quality, & Sediment Characterization

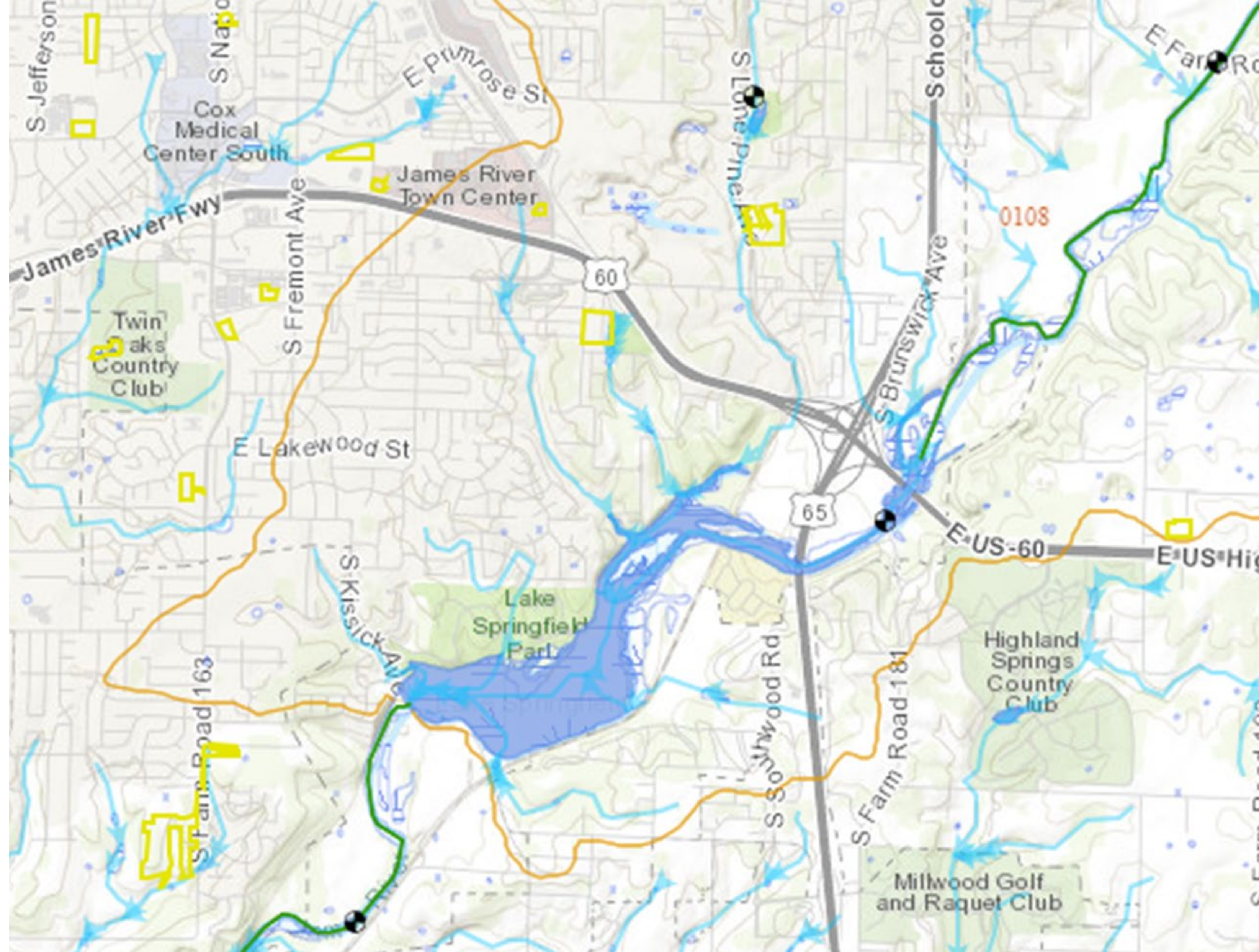
Brownfield & Reuse

**LAKE
SPRINGFIELD
SUBAREA**

**FUTURE CITY
UTILITIES OPERATION**

Watershed Characterization

- Watershed Hydrologic & Hydraulic Study
- Climate Assessment
- Purpose & Foundation



Waterbody Characterization

- Water Quality
- Sediment Quality
- Env. Regulatory Compliance
- Watershed Collaboration



Dam Infrastructure

- Risk & Data Assessment
- Regulatory Compliance
- Safety Considerations
- Modification Alternatives





USEPA Brownfields Grant- Stone
Lock Facility in
West Sacramento, CA



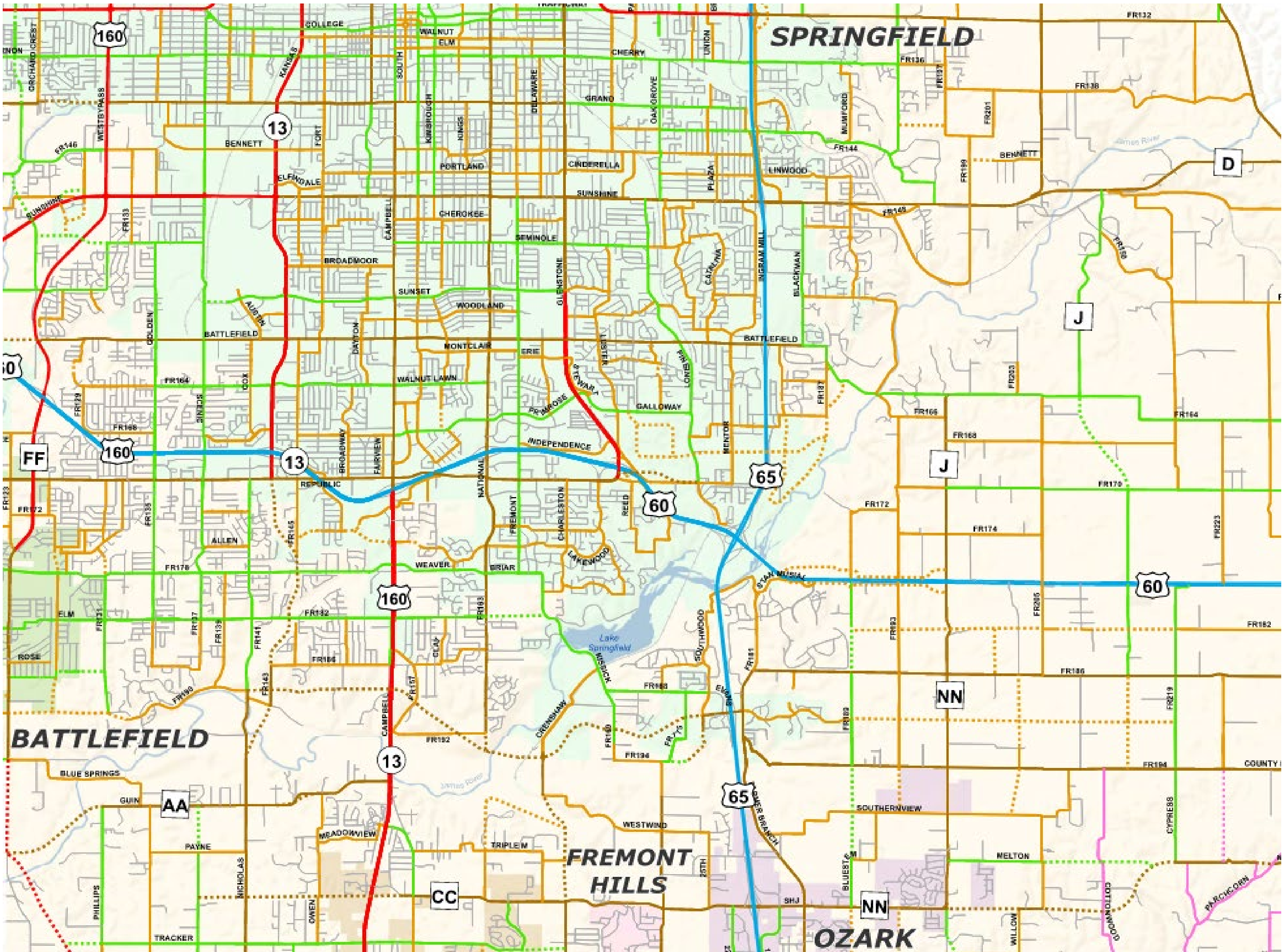
Boomer Lake Station –
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The Lake Springfield Plan
Extends Beyond the Waters
Edge and Impacts the
Regional Road, Trail and
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ACTIVATING RECREATIONAL OPPORTUNITIES

Inject innovative & transformative ideas



create diverse places for people



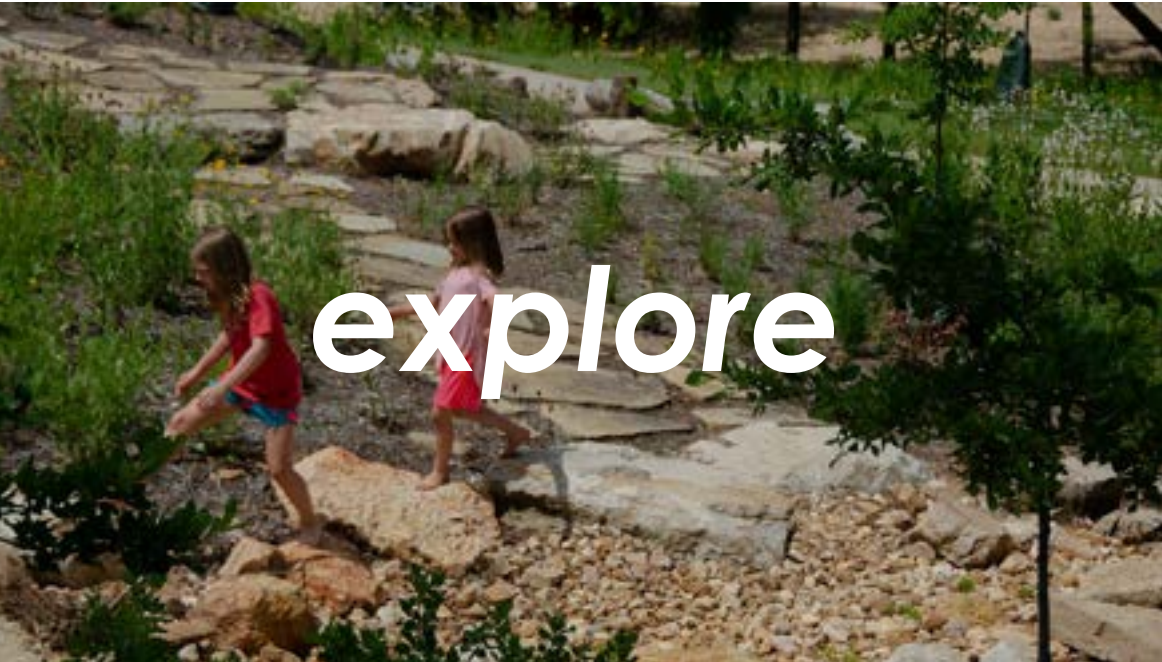
*emphasize & enhance
natural resources*



promote equitable spaces & unique destinations

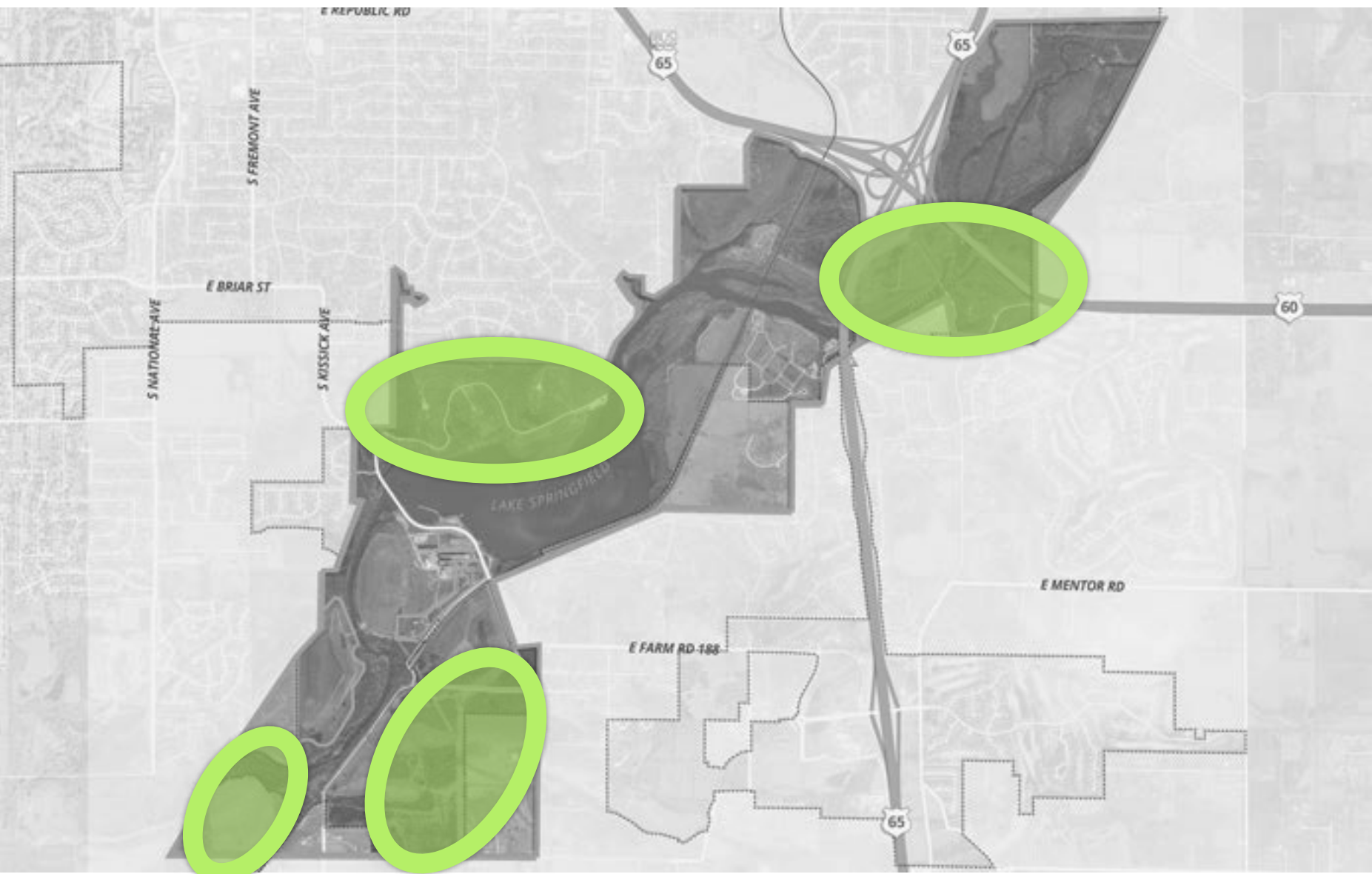


Building a Destination by Creating Experiences

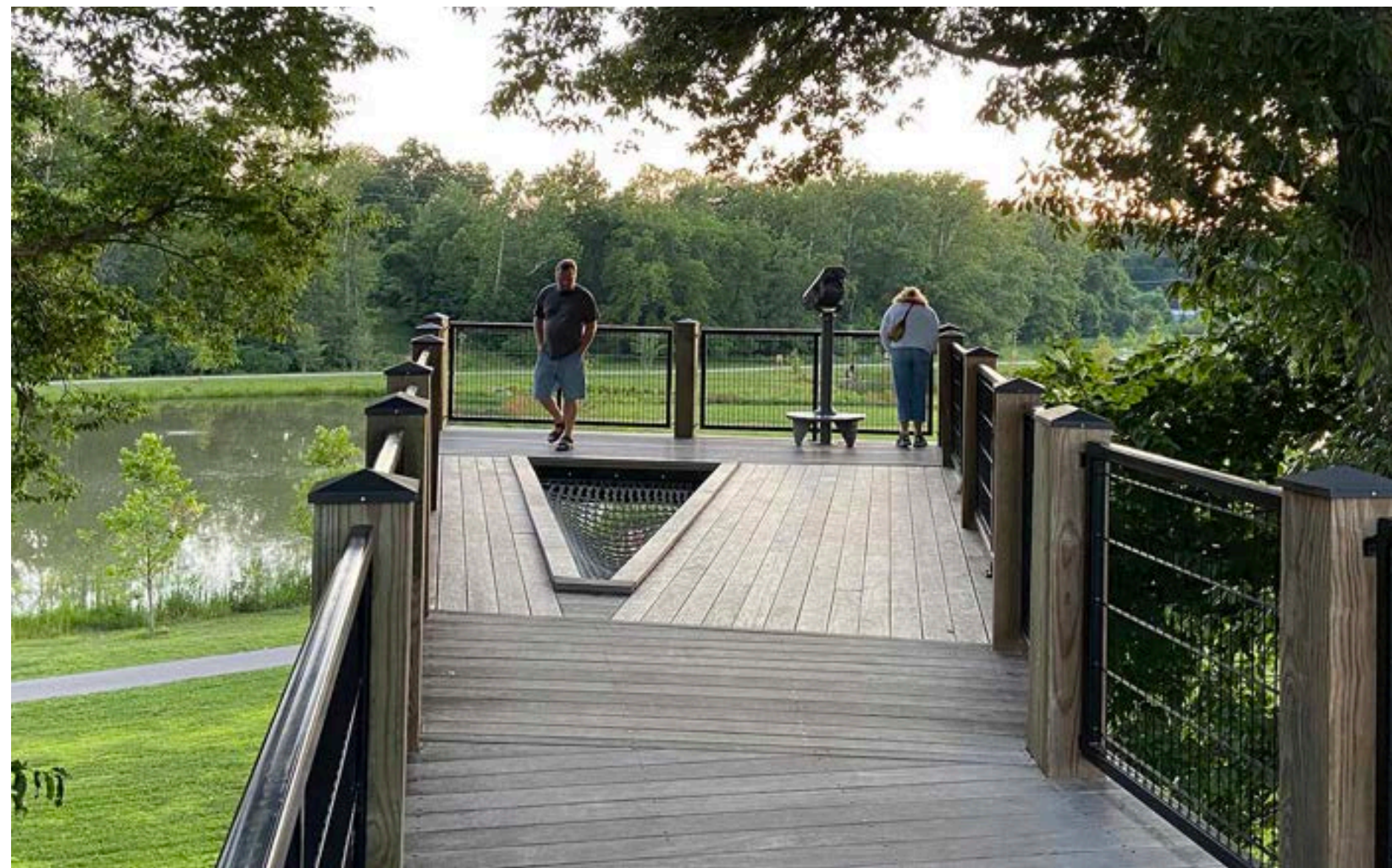
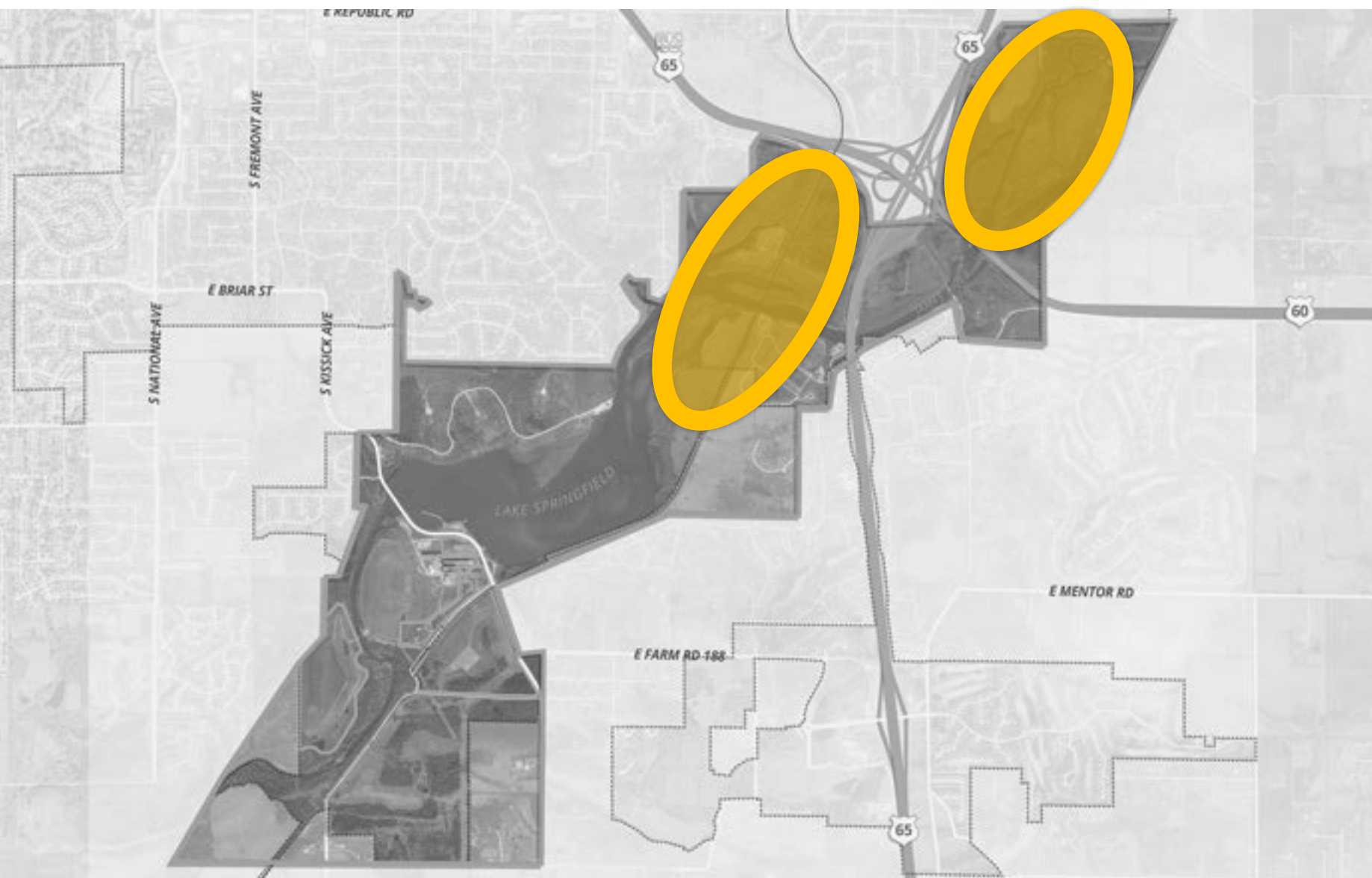




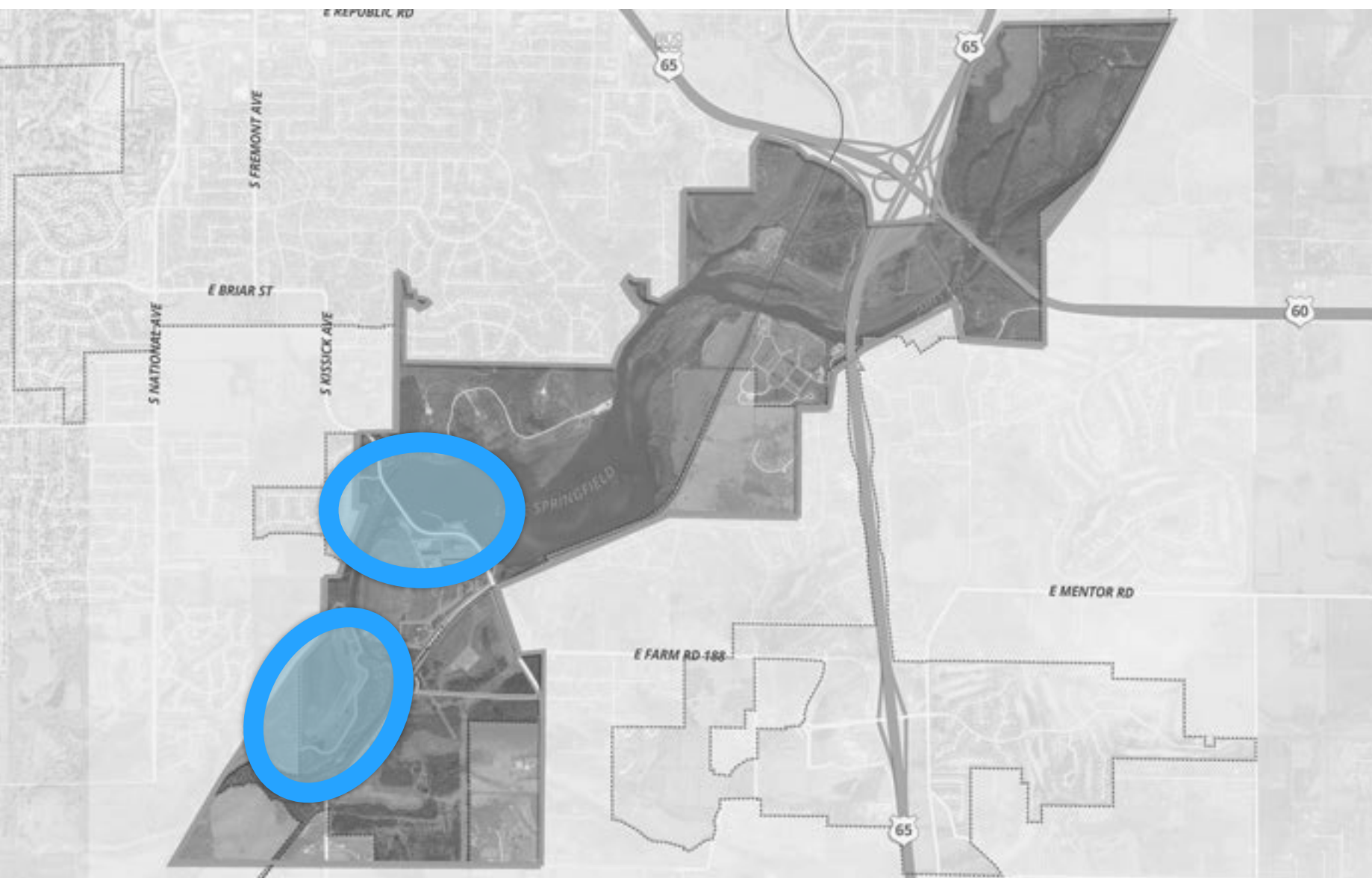
Activate



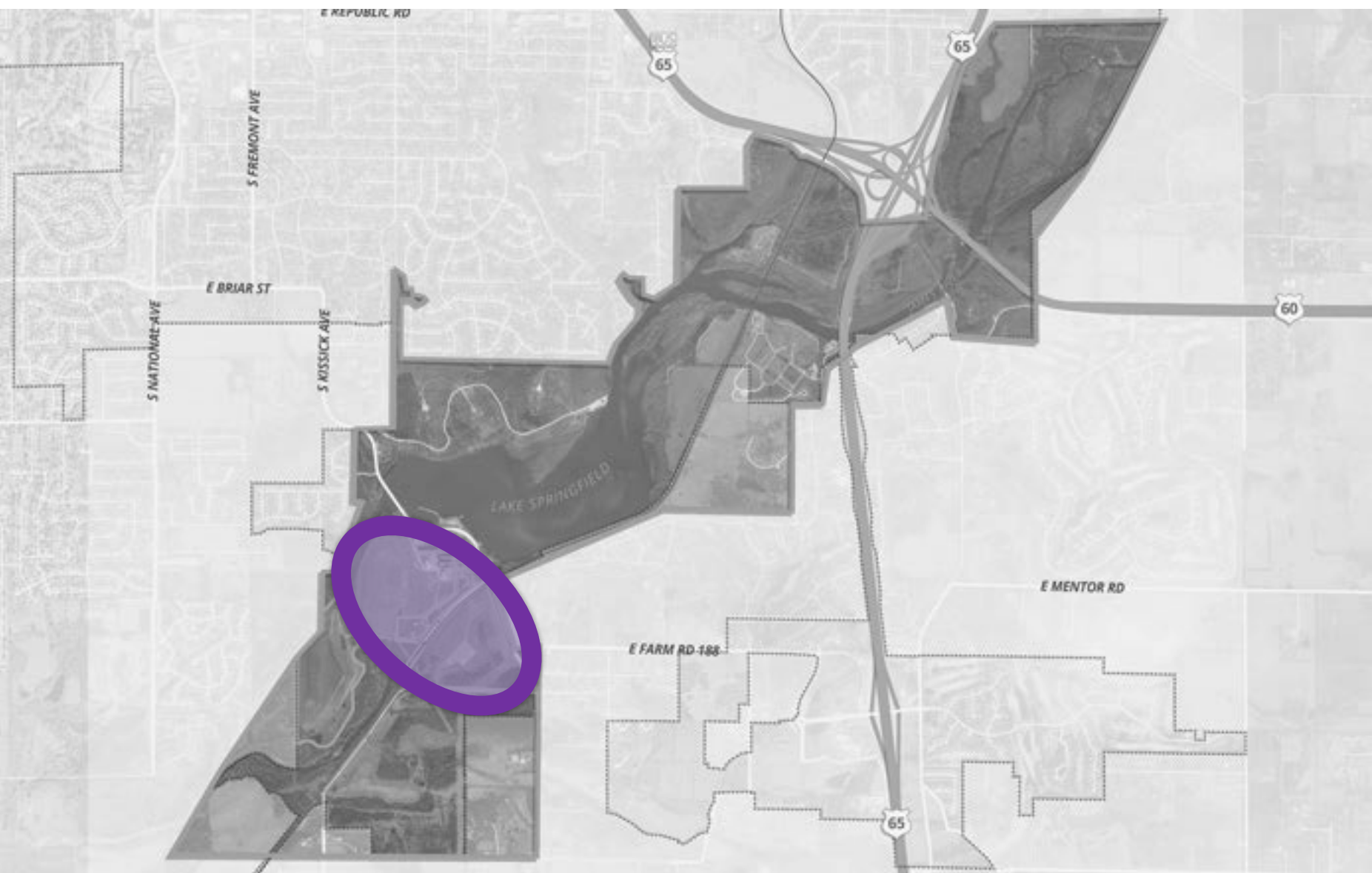
Explore



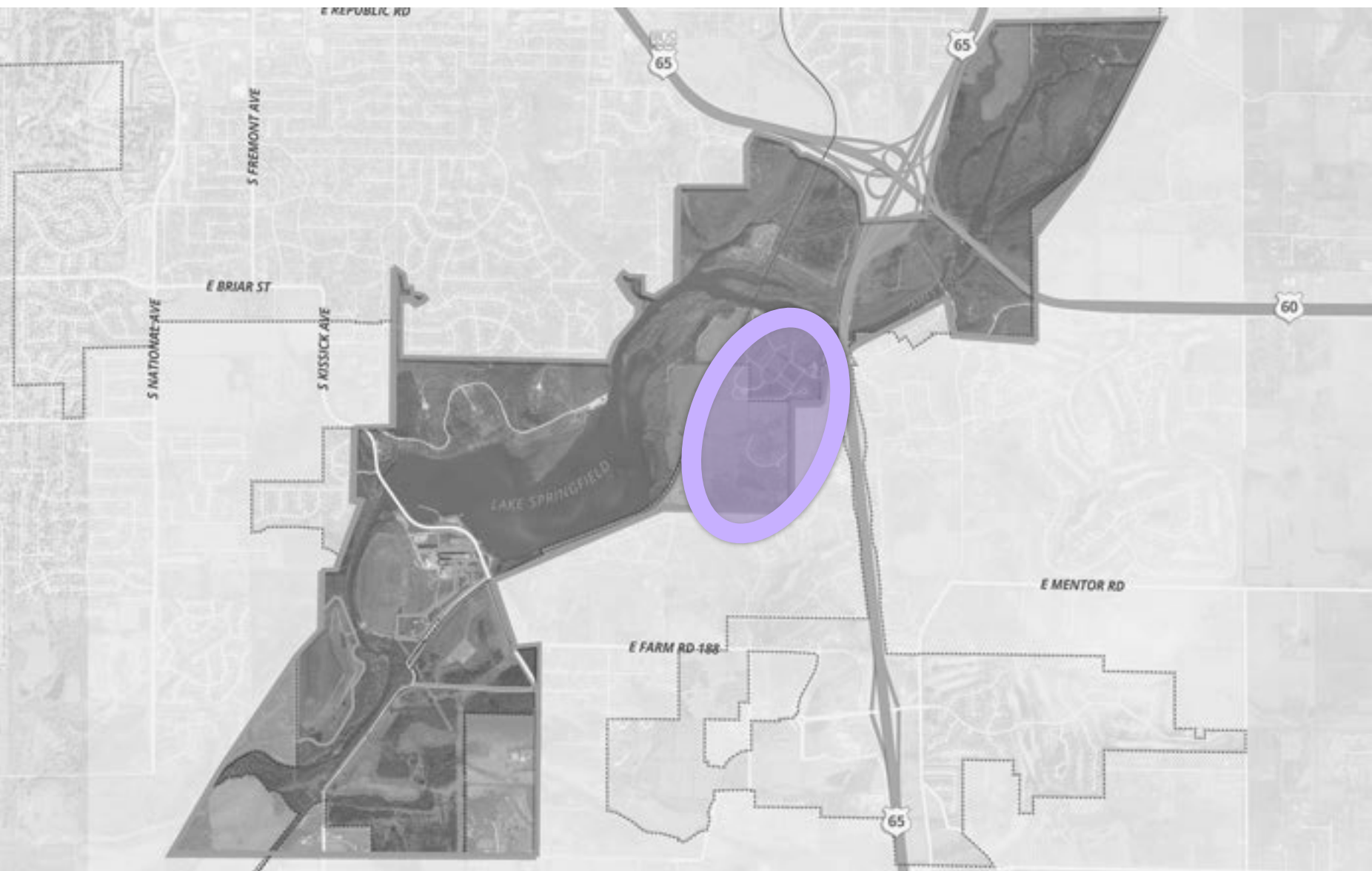
Educate



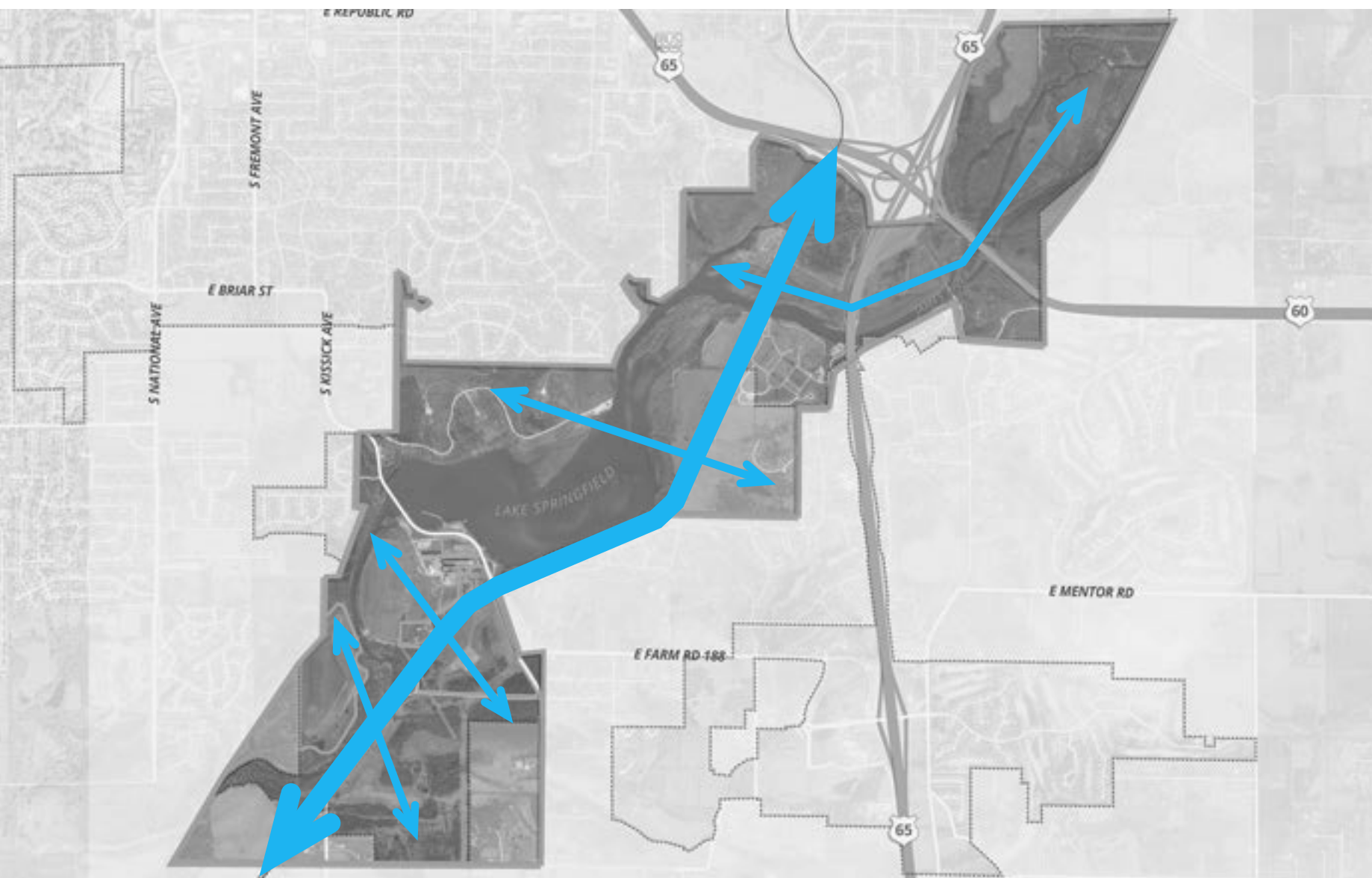
Reimagine



Preserve



Connect





San Marcos, TX - After

Manchester, IA - Before







Ann Arbor, MI



Siloam Springs, AR





Longmont, CO



Lake Springfield



Great Potential for a Unique Amenity



EXPLORING **ECONOMIC DEVELOPMENT** OPPORTUNITIES

ABOUT

Johnson Consulting

Services



MARKET & DEMAND ANALYSIS



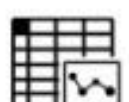
FEASIBILITY STUDIES



SITE ANALYSIS



ECONOMIC AND FISCAL IMPACT STUDIES



PROFORMA/FINANCIAL ANALYSIS



FUNDING STRATEGIES



STRATEGIC MASTER PLANNING



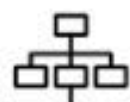
OWNER'S REPRESENTATIONS



PUBLIC/PRIVATE PARTNERSHIP ADVISORY



RFQ/P SOLICITATIONS MANAGEMENT



OPERATIONAL AUDITS & EXECUTIVE SEARCH



FOSTERING CONSENSUS

Community Engagement

- ✓ Engagement Collaboration Beyond the Outreach (Regular PIO Coordination)
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- ✓ Customized Engagement Tools



FRANCINE PRATT
Chair of the Springfield Equity & Prosperity Commission

City's New Principles of Diversity

Mayor's Initiative on Equity & Equality

5 Pillars of Change

1. Dialogue and Understanding
2. Cultural Consciousness
3. Advocacy and Partnerships
4. Structural and Systemic Barriers
5. Personal and Organizational Accountability

Minorities in Business
Insight into Economic Expansion for Minority Owned Businesses

 **Minorities
In Business**
Capacity Building
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SW Missouri Indian Center
*Key Partner in Cultural Resources Study
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American Heritage Elements*

Q&A



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SWT DESIGN

HL
HOUSEAL
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CONSULTING

 Recreation
Engineering & Planning

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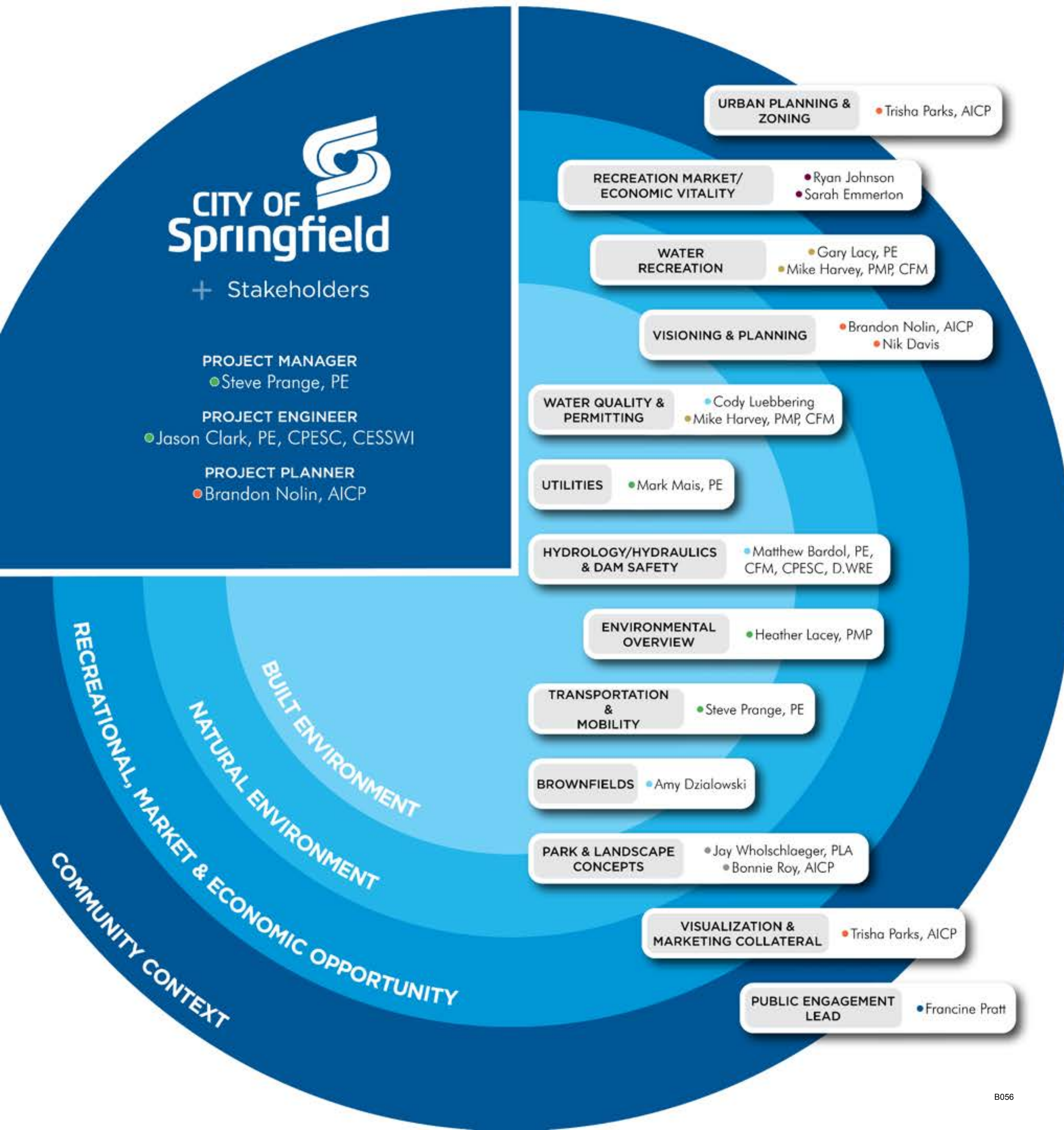
REIMAGINE

THE INTERSECTION OF NATURE, RECREATION AND ECONOMIC DEVELOPMENT



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consultants





Nationally ranked professional company providing planning, engineering and construction services, as well as strong record of delivery for the City of Springfield.



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CREATING A **COMMUNITY-FOCUSED PLAN**

Planning Goals

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Rail-to-Trail Opportunity

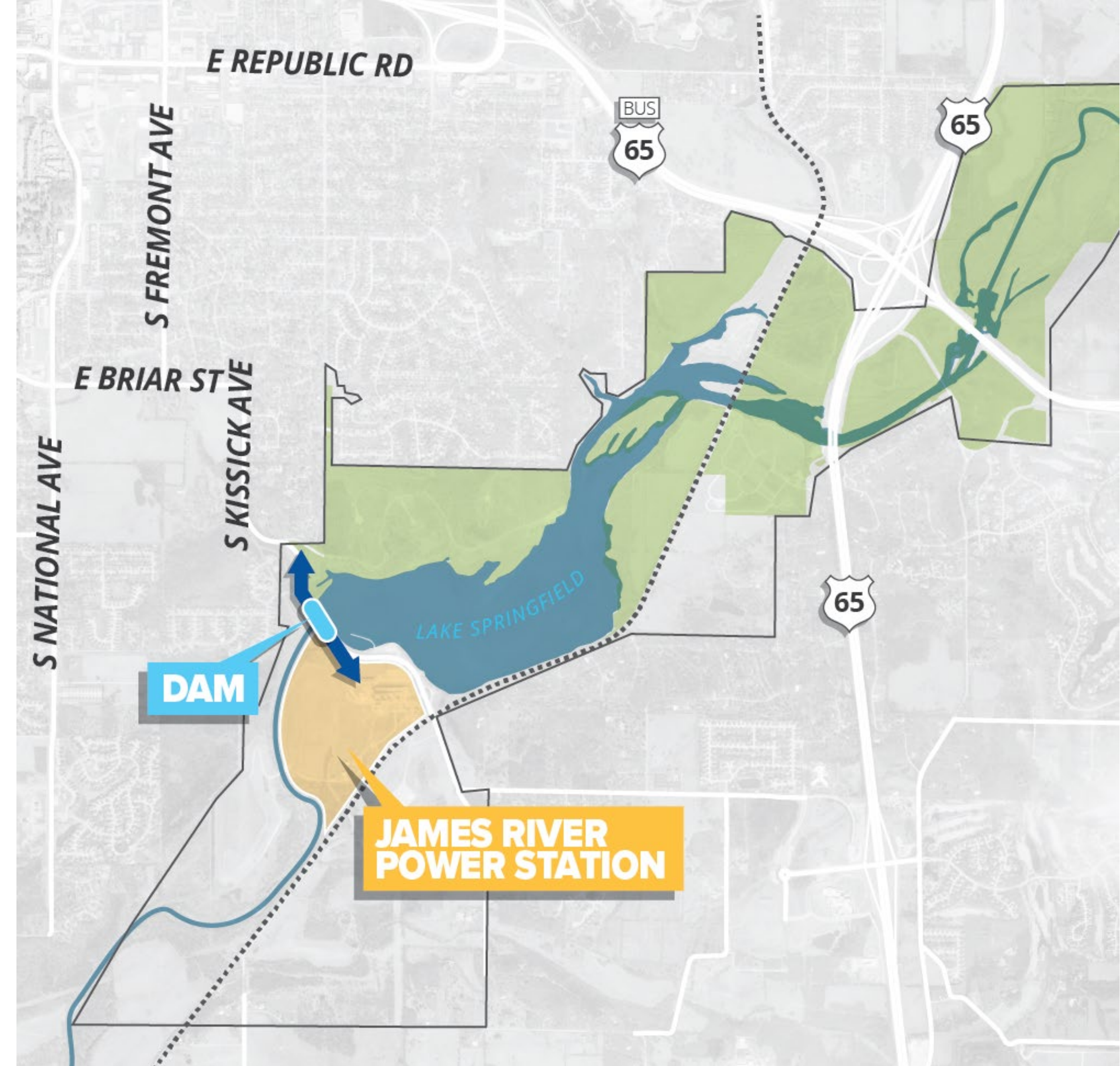
- Extend the James River Water Trail south of dam
- Create solution for watercraft passage as the existing low water bridge connects to the Utility Waste Landfill and acts as a barrier



Dam

The dam is a critical component of the Lake Springfield subarea

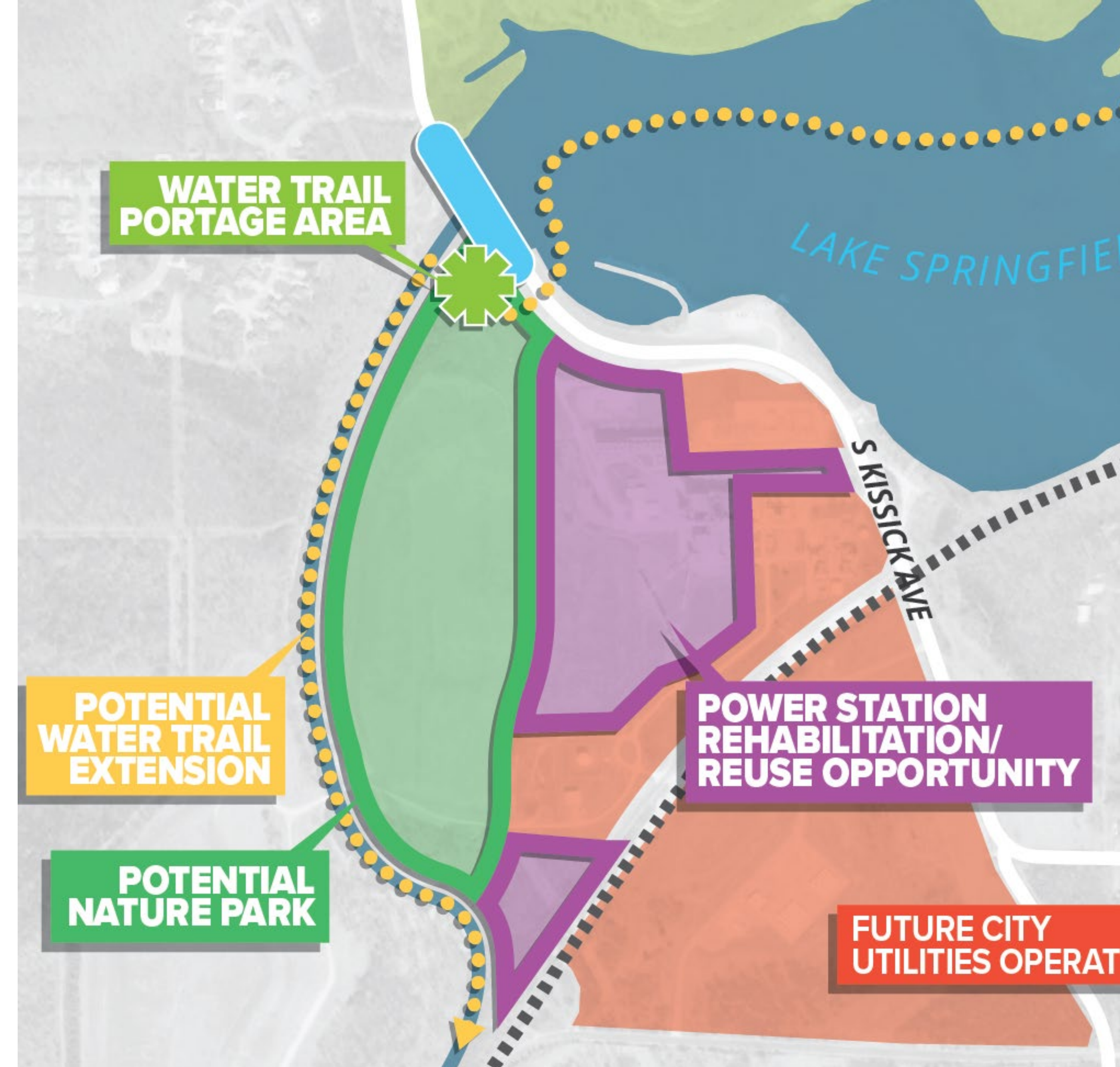
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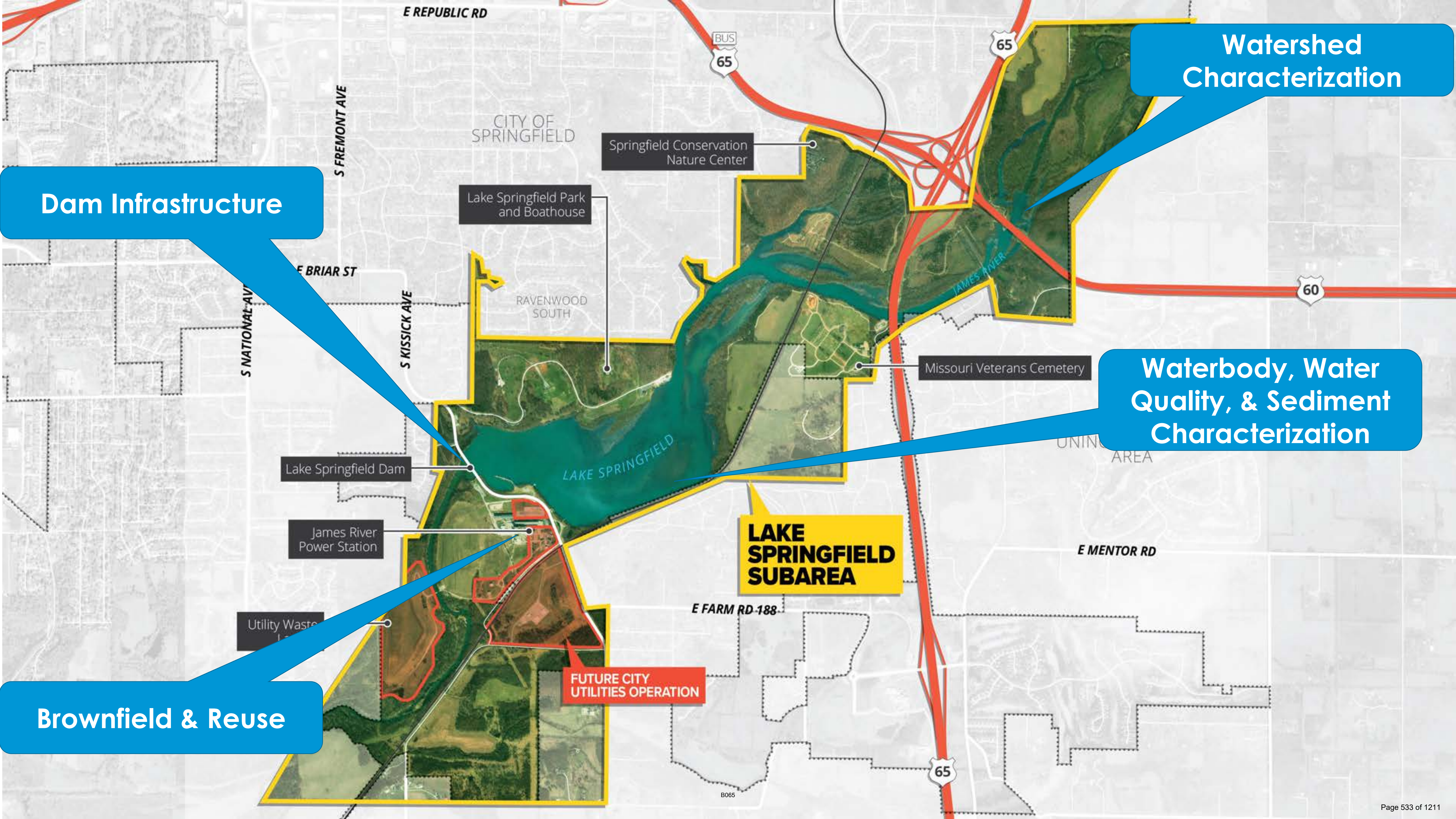




The Boathouse

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THE BUILT AND NATURAL ENVIRONMENTAL ASSESSMENT



Dam Infrastructure

**Watershed
Characterization**

**Waterbody, Water
Quality, & Sediment
Characterization**

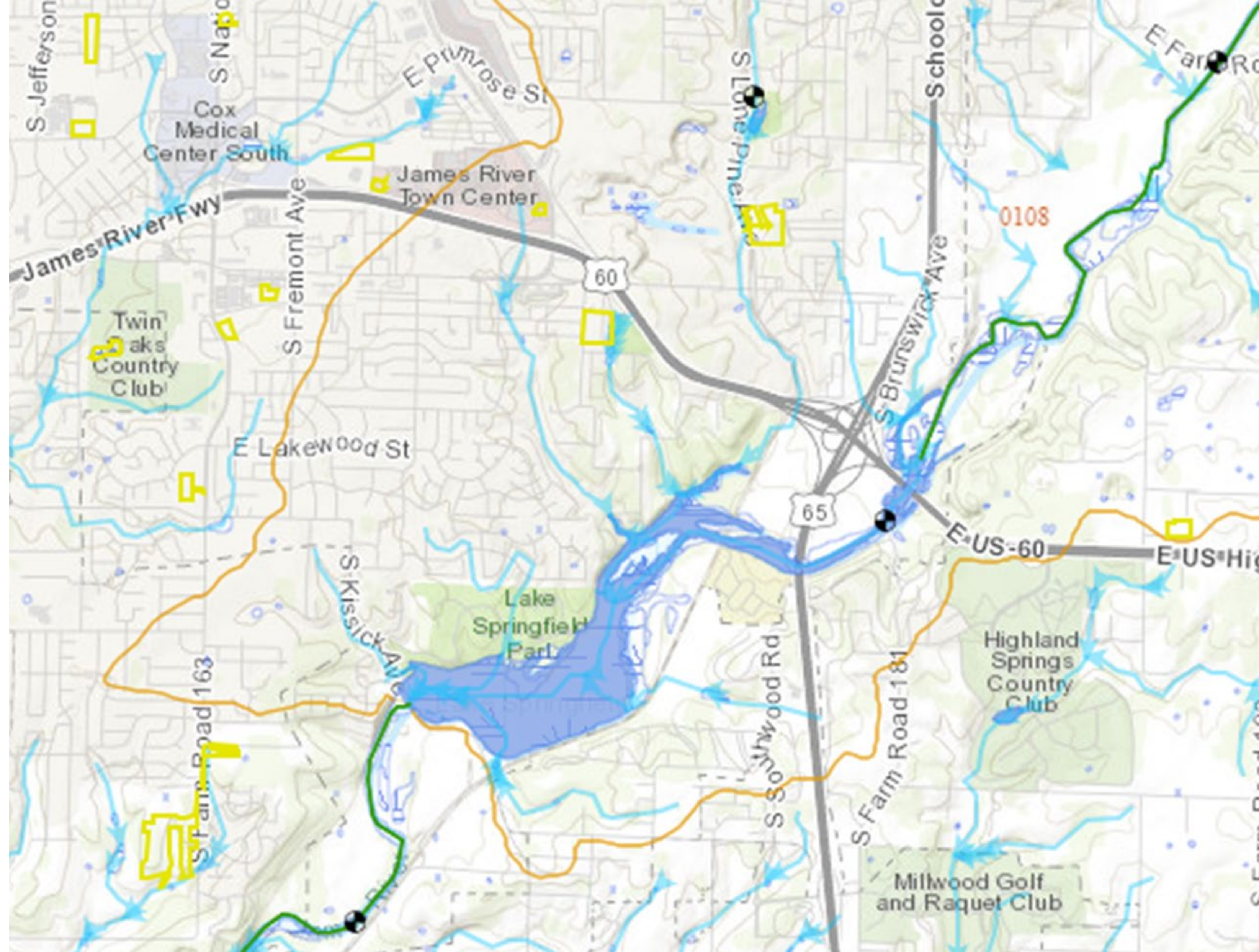
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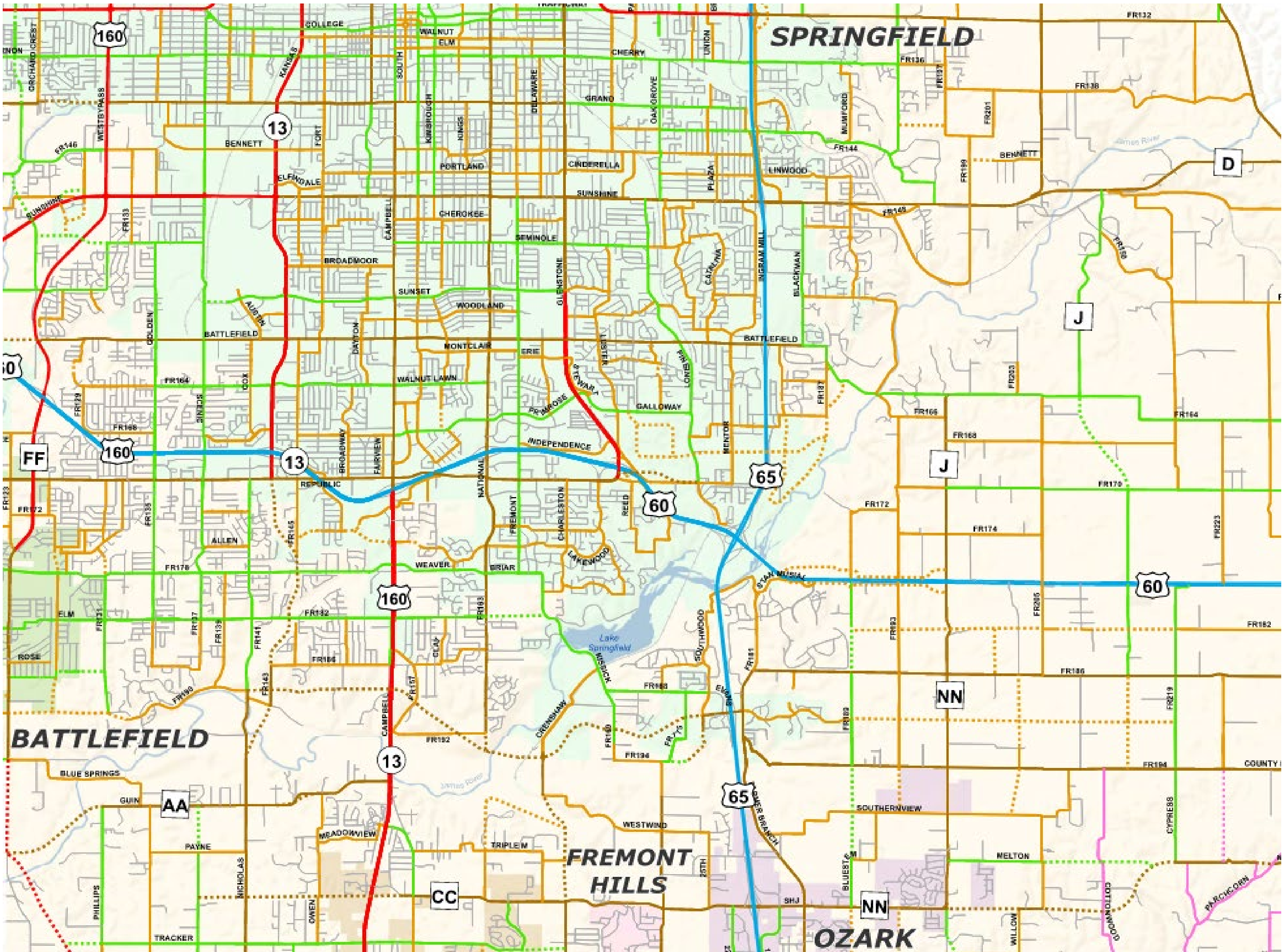
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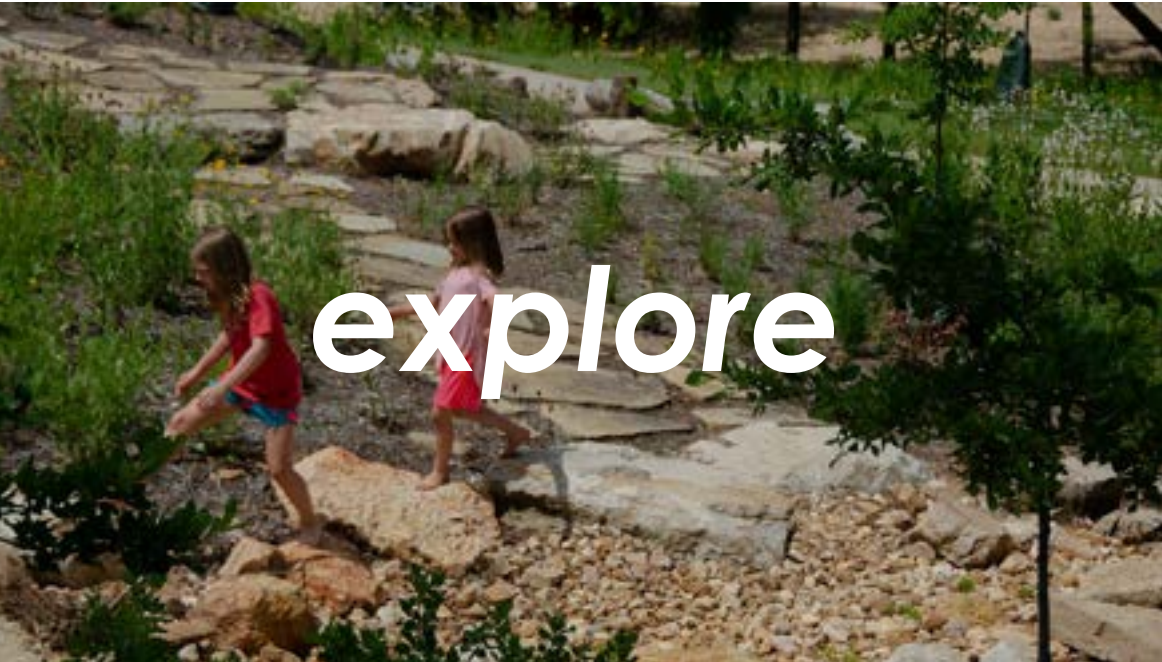
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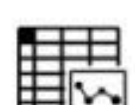
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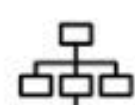
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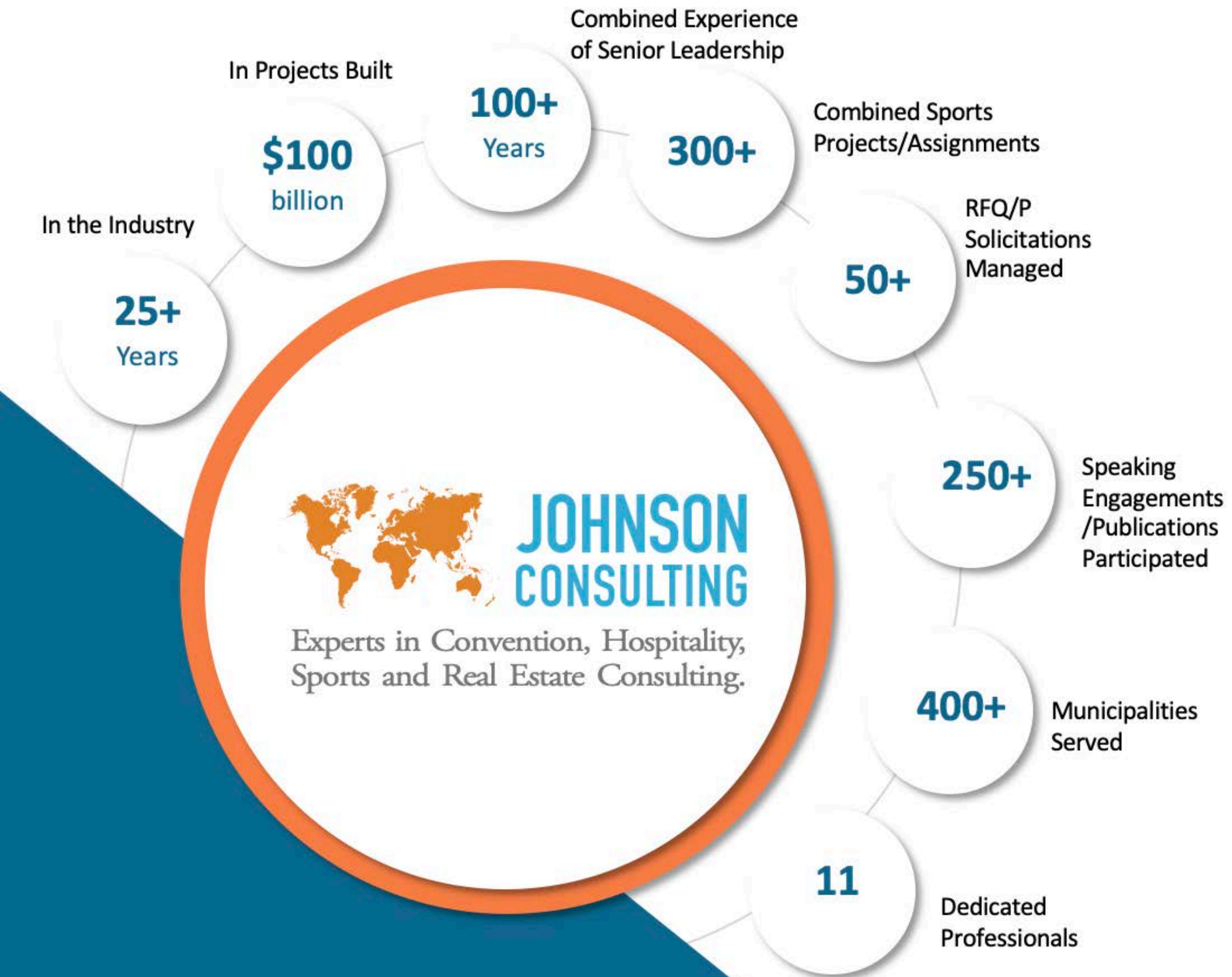
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American Heritage Elements*

Q&A



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LAKE SPRINGFIELD PLAN



Public Meeting No. 2
05.04.2023





COMMUNITY ENGAGEMENT UPDATE

Cora Scott & Francine Pratt



Overview

6 Major Events in 5 Months!

- Events focused on community engagement and project educational outreach.
- All events provided similar information for consistency in information sharing.



Oct. 12, 2022 – Neighborhood Forum

This forum was just for residents in the Lake Springfield area to hear their concerns and share information about the project. Participants completed comment cards and/or respond to an online survey.

88 attendees with several couples (**over 100 attendees**)!

Nov 15, 2022 – CAT Meeting No. 1

- Community Advisory Team held their first meeting with **32 attendees**.
- Attendees reviewed similar materials presented at the October 12 event and the comment cards.
- The CAT represents various Springfield (and surrounding areas) intersectional groups and populations.
- The CAT provided input on materials and concepts for the official public kick off on November 17.

Nov. 17, 2022 – Kick-Off Meeting

- City of Springfield conducted the public kick-off of the project at the Springfield Art Museum and provided an online survey.
- Survey was accessible with a QR Code and for community members who could not attend in person, they could participate online for two weeks after the event.
- **264 Total Responses with 727 Total Views –**
148 Survey Completions (116 Incomplete Surveys)



Public Community Meeting No. 1

Inclusivity – With Self Identification

Race/Ethnicity	Gender	With a Disability	Ages
129 – White 2 – Hispanic/Latinx 2 – Other Race 1 – Asian 1 – Native Hawaiian or Other Pacific Islander	79 – Men 58 – Women 2 – Another Identity	11	36 – Ages 31-40 29 – Ages 49-50 29 – Ages 61+ 22 – Ages 22-30 21 – Ages 51-60

What Excites You About the Lake SGF Plan?



Jan 2023 – Local Water Resources Survey

Department of Environmental Services shared data from six-month survey project. Their survey responses provided additional community input for this project with **200** traditional and **602** focused outreach responses.

- Three questions asked related to how local water resources are used in Springfield or reasons why the resources may not be used.
- Traditional Outreach – Social media posts, emailed surveys to groups and organizations, news release and articles
- Focused Outreach – Paper surveys at various events, door hangers, group discussions at schools, emailed surveys to specific organizations and advertisements with focused newspapers.

March 21, 2023 – CAT Meeting No. 2 (47 Attendees)





March 23, 2023 – Lake Ridge Estates
Neighborhood Meeting (43 Attendees)

March 30, 2023 – City Utilities (77 Attendees in Person – 00 Online)



PLANNING OVERVIEW



REIMAGINE

THE INTERSECTION OF NATURE, RECREATION AND ECONOMIC DEVELOPMENT



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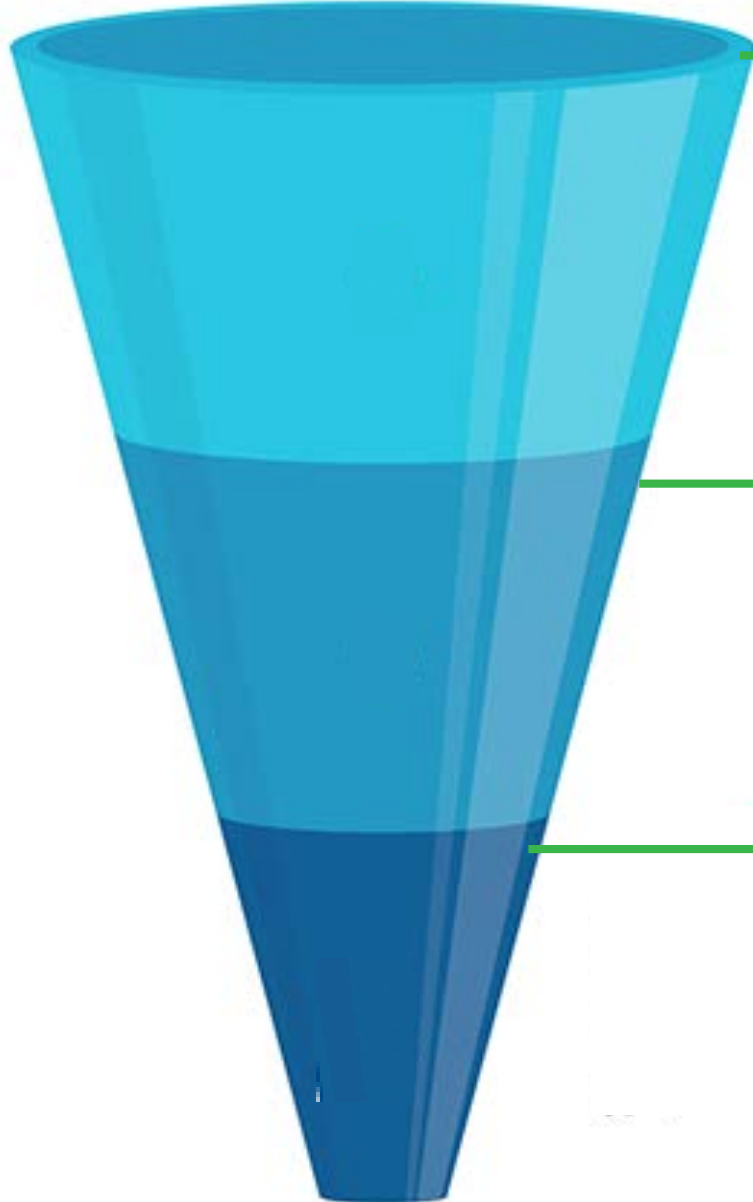
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Planning Process



PUBLIC MEETING 02

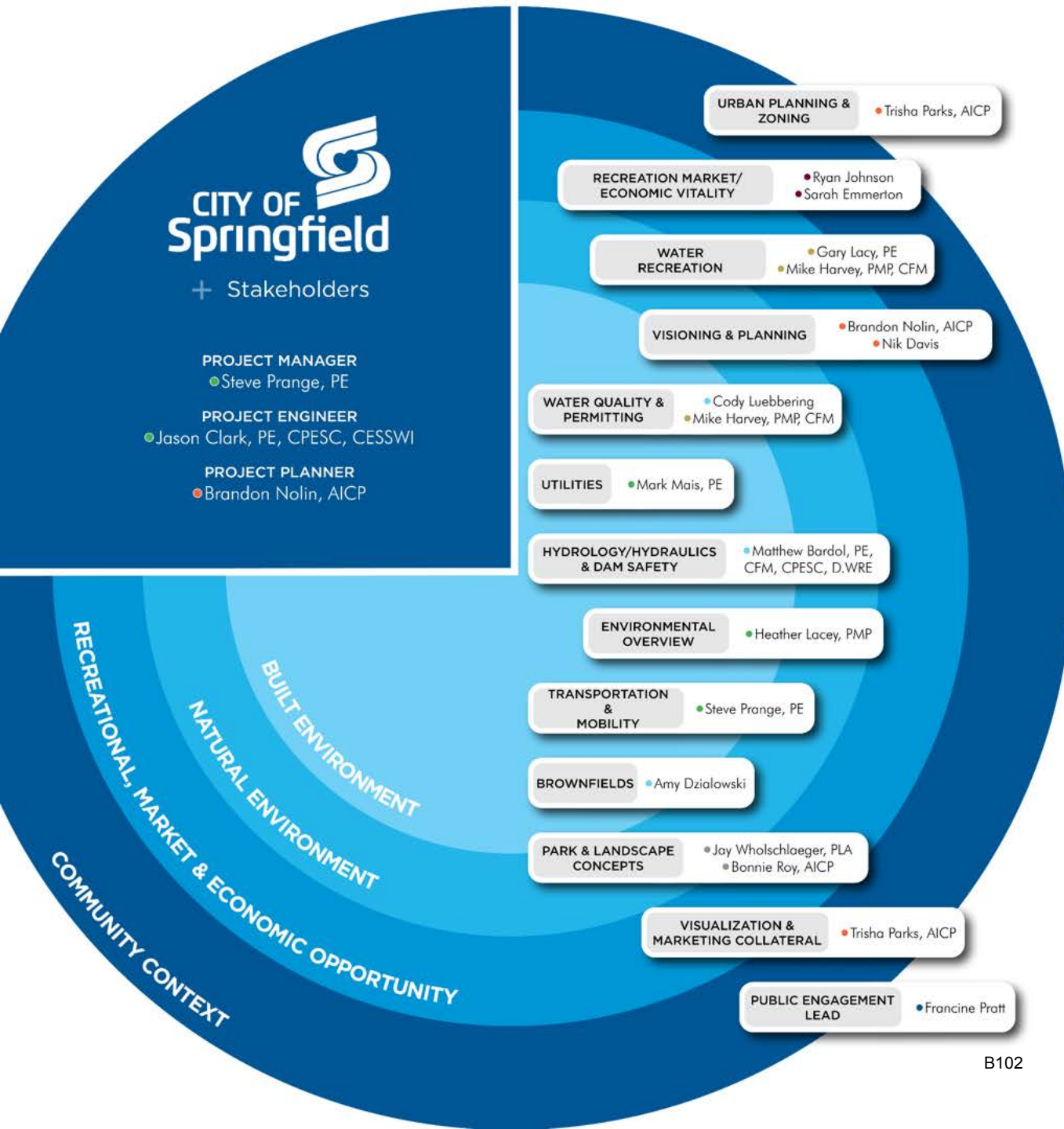
Overview of Lake Springfield 1,000 acres
Dam Modification & Lake / River Preferences (*Geosyntec*)
Community Desired Amenities / Activities (*Johnson*)
Preferred Access / Circulation (*CMT*)
Community Preferred Character / Identity (*SWT Design*)

PUBLIC MEETING 03

Refined list of Amenities / Activities Design Concepts
Preferred Items from Public (*SWT & CMT*)
Impact Evaluation of Amenities / Activities (*Johnson*)
Community Preference Input - Concept Review with Project Criteria

FINAL PLAN PRESENTATION

Final Plan Concept
Final Amenities / Activities Impact Summary (*Johnson & SWT*)



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Tonight's Stations

①

Welcome & Check In
(get the survey link at this station!)

⑤

Site Concepts & Uses/Recreation
(parks & recreation, site layout & theme considerations)

②

Planning Overview
(project background, goals, etc.)

⑥

Hydraulics, Potential Dam
Alternatives & Water Quality

③

What You Said
(engagement summary)

⑦

Transportation & Mobility
(vehicular access & connectivity, trails, parking & regional access, public transportation)

④

Economic Development
(potential lake activities, new uses & concepts, economic drivers)

Don't forget to take our online survey as
you complete the stations. QR code found at
station 1!

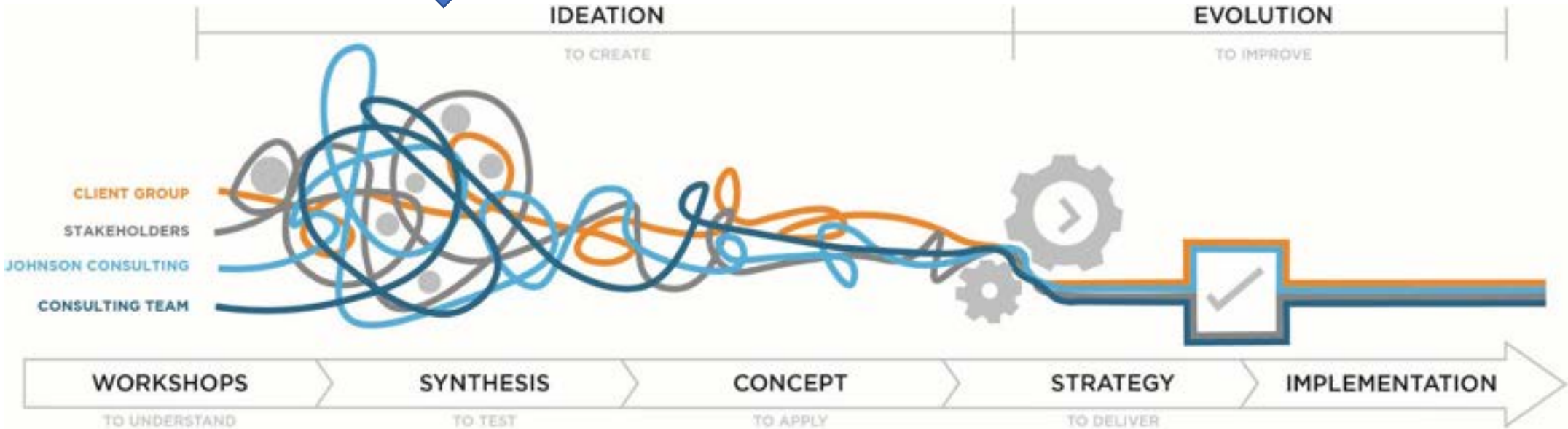
ECONOMIC DEVELOPMENT



ECONOMIC DEVELOPMENT

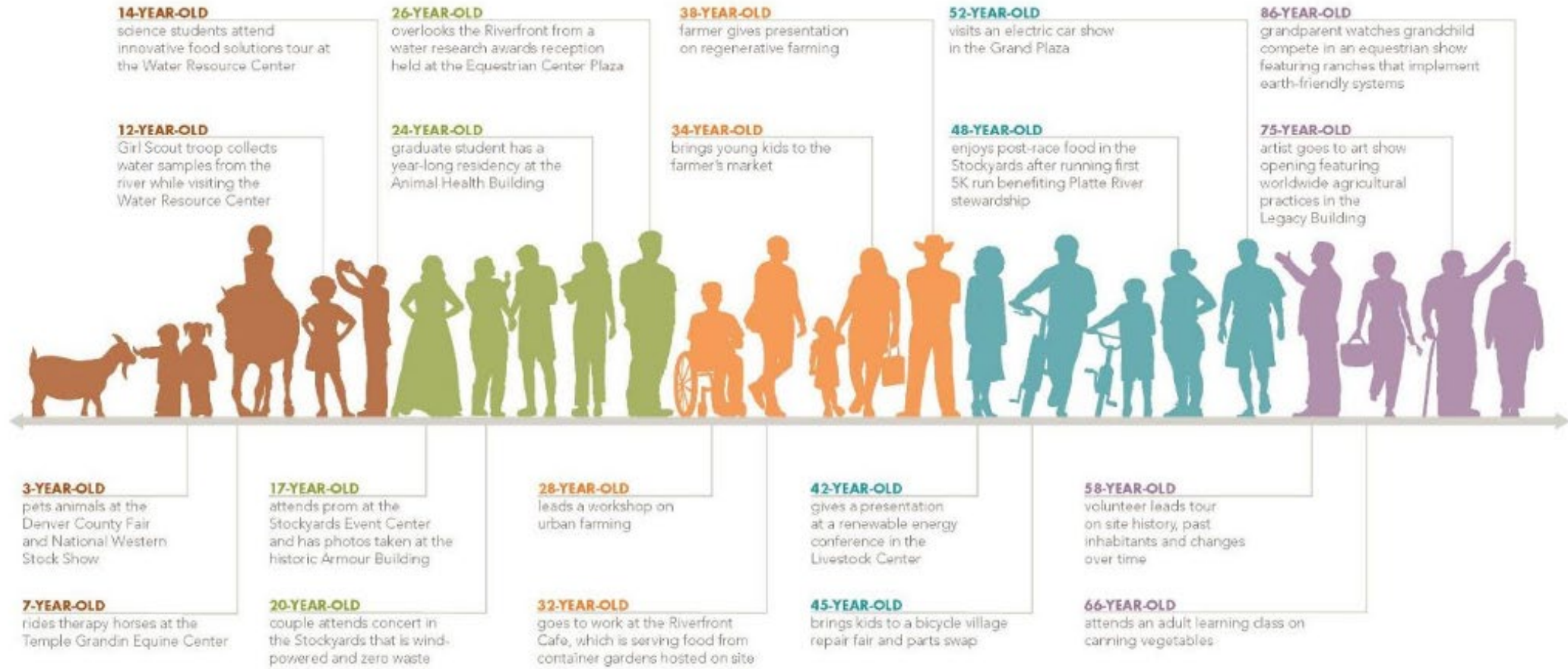
Project Process

We are here



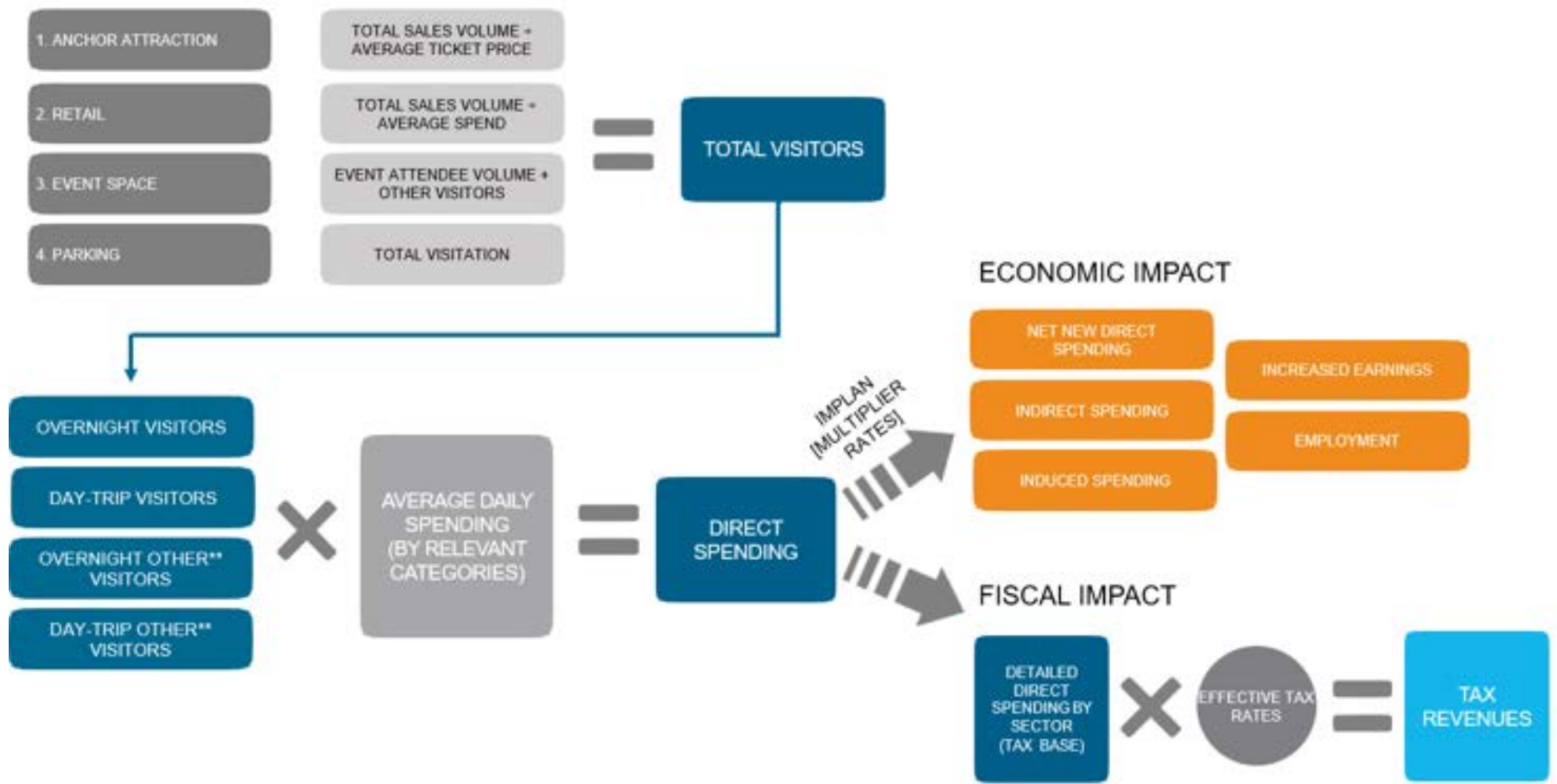
ECONOMIC DEVELOPMENT

Planning for All



ECONOMIC DEVELOPMENT

Economic Impact Methodology



ECONOMIC DEVELOPMENT

Springfield, MO - Market SWOT Analysis



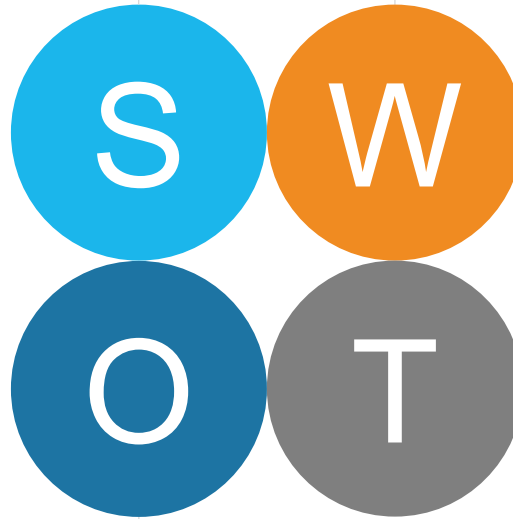
Strengths

- Easily accessible by air and vehicle transit
- Low unemployment rates
- Healthy and growing hotel supply
- Rated # 1 by the Wall Street Journal as work from home location in the nation
- Already seen as an outdoor recreation hub for region- Gateway to the Ozarks



Opportunities

- Improve public transit access
- Large proportion of a well-educated, younger family-oriented
- Fill asset supply gaps
- Provide regional asset at scale to be a meaningful economic engine



Weakness



- Slow population growth
- Low average household income rate
- Competition among priorities- Convention Center, many other initiatives;
- Project implementation plan must follow in overall community economic picture

Threats



- No action at Lake Springfield
- Considering a higher risk scenario
- Inability to organize funding, especially as it relates to other parties- Fed, State and benefactor support

ECONOMIC DEVELOPMENT

Gap Analysis – Area of Opportunity

→ Destination hub between the Gateway to Ozarks (Springfield), Branson and Crystal Bridges

→ Lake can bring Springfield one step closer to a “complete tourism package.”

→ Need to concentrate on create hubs of recreation, outdoor sports, indoor sports

→ Needs critical mass and acclaim/ traditional to move needle; smaller improvement scale is great regionally, but will still be market amenity but not a driver.

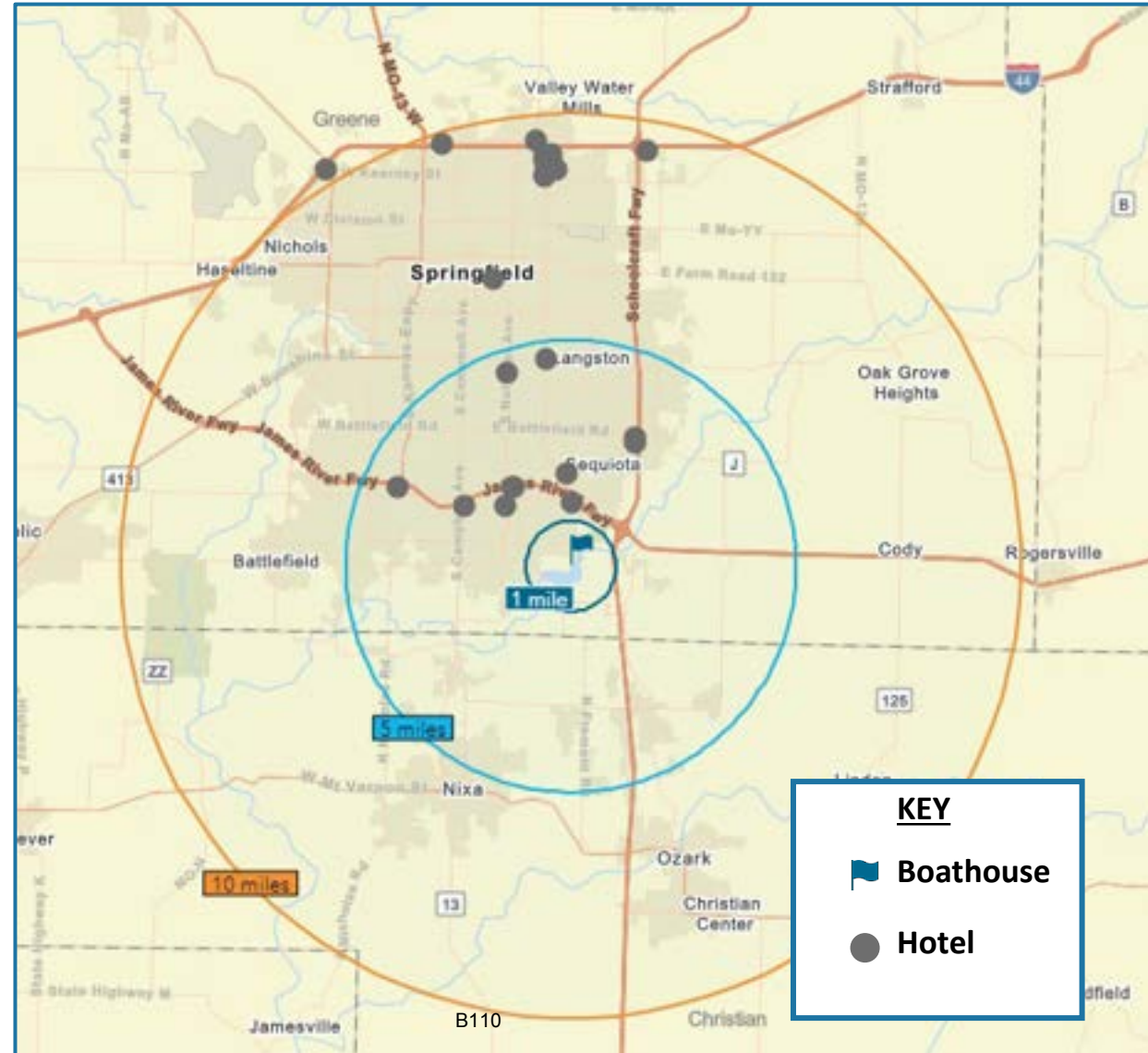


ECONOMIC DEVELOPMENT

Gap Analysis – Hotel Inventory

Hotel Supply

<1 mile = 0
Between 1
and 5 miles =
1,267
Between 5
and 10 miles =
2,271



ECONOMIC DEVELOPMENT

Gap Analysis – Hotel Market- Leading Indicator for Tourism Economic Development- Just one measure

Existing Market Conditions	
Existing Rooms	6,000
Under Construction	300
Total Rooms	6,300
Required Room Nights @ 70% Occupancy	1,609,650
Current Rooms @ 65% Occupancy	1,423,500
Room Nights Needed for Overall Market Health	186,150
Source: CoStar, Johnson Consulting	

Optimal Market Lift Targets		
Sports Toursim	93,075	50%
Leisure	46,538	25%
Business Growth	9,308	5%
Conventions and Conferences	37,230	20%
Total	186,150	100%
Source: Johnson Consulting		

ECONOMIC DEVELOPMENT

Case Studies

- Origins Park - Jeffersonville, IN
 - **Theme:** Scale, history; activity areas and center of large population base access to river that has not existed
- Optimist Hall – Charlotte, NC
 - **Theme:** redeployment of building with character, nature of building (brick loft) and location- immediately next to downtown



Origins Park

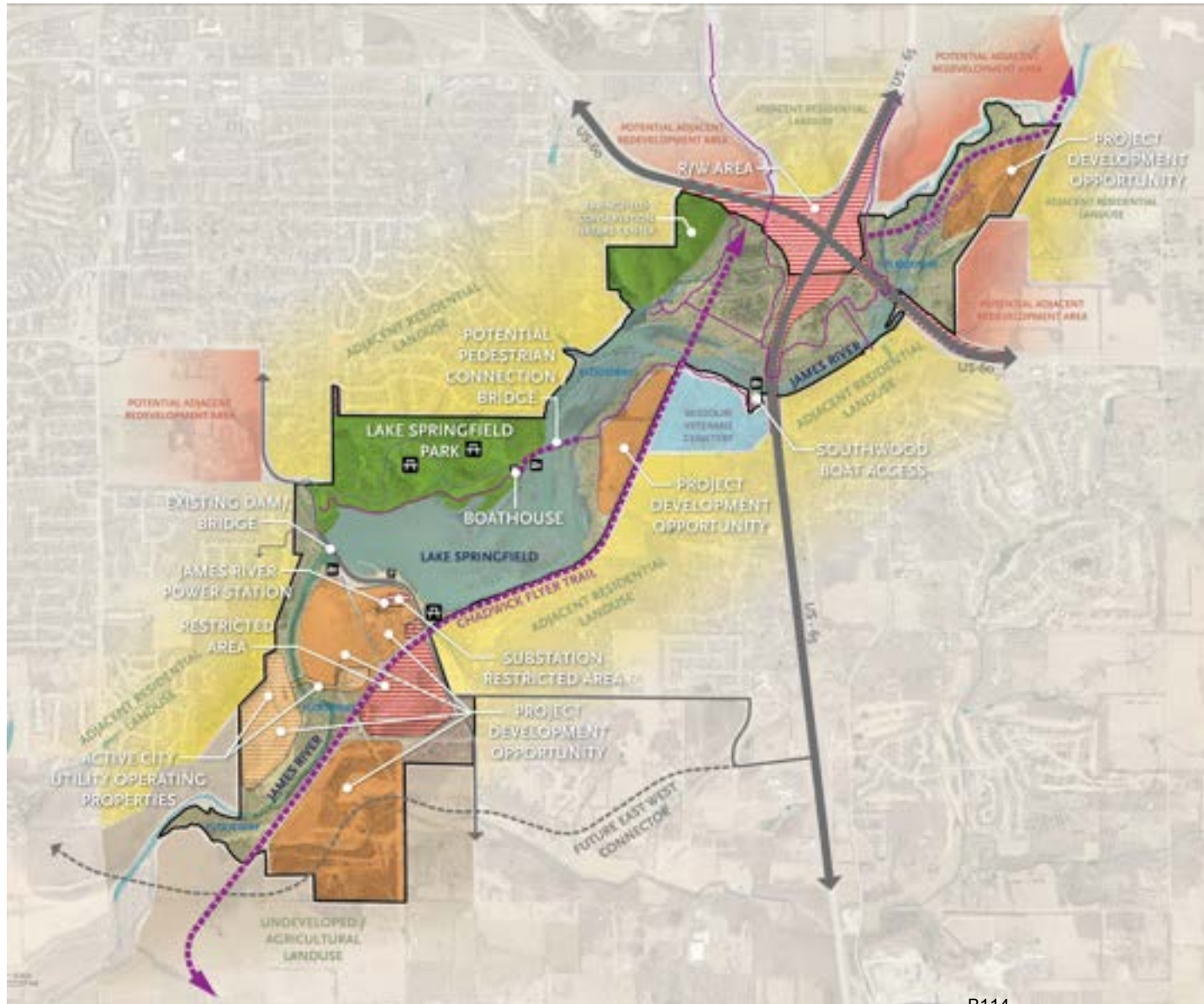


Optimist Hall

SITE CONCEPTS & USES/ RECREATION



Site Concepts & Uses/Recreation



B114

SITE ANALYSIS & THEMES



Site Concepts & Uses/Recreation

ACTIVITY ZONES

ZONE 1 - South Activity Area



ZONE 2 - Capped Landfill Area



ZONE 3 - Power Station/Dam Area



ZONE 4 - Lake/Park Area



ZONE 5 - North Activity Area



Site Concepts & Uses/Recreation



Activity Zone Site Features:

- Approximately 130 acres in size
- Open fields and woodlands covering rolling topography
- Utilities and creek are development considerations
- Adjacent to the Chadwick Flyer Trail and James River
- South access point for Lake Springfield
- Potential for a destination activity

Possible Activities Include:

- Lodging (cabins / camping)
- Lake with Amenities
- Playgrounds
- Trails / Trailhead
- Athletic Field Complex / Unique Sports
- Adventure Recreation (bicycles park, etc., etc.)
- Woodland Restoration
- River Access

ZONE 1 - South Activity

ECOLOGICAL



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE

INCLUDE COMMENTS HERE

RECREATION



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE

ENTERTAINMENT



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE

WE NEED YOUR INPUT

- What character images for each zone excite you? (Place stickers under your top three)
- What are your thoughts on each Zone? (Use sticky notes to provide your thoughts and input)



Activity Zone Site Features:

- Approximately 30 acres in size
- Requires coordination and planning for use
- Flat and open space for use as a passive or light active recreation amenity area
- Access requires crossing the James River
- Access to the Chadwick Flyer Trail, South Amenity Zone, and the James River
- Views of the power station and dam

Possible activities include:

- Native Landscape, Art, & Education (art & ecology)
- Astronomy Viewing Area
- Fitness Course
- Practice / Open Play Turf Fields
- River Edge Tree Houses
- Trails

ZONE 2 - Capped Landfill

ECOLOGICAL



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE

RECREATION



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE

ENTERTAINMENT



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE



PREFERENCE DOTS HERE

INCLUDE COMMENTS HERE

Site Concepts & Uses/Recreation



Activity Zone Site Features:

- Signature space at Lake Springfield
- Several surrounding areas remain in service for CUI
- Redevelopment of the Power Station as a catalyst for economic, employment and recreation opportunities
- Consider the identity, character, and visitor experience

Possible activities include:

- Themed Lodging
- Museum / Skills Training
- Day Trip Outpost
- Trailhead / Transit Station
- Indoor Athletics / Adventure Recreation / Event Space
- Midway / Outdoor Education / Gardens
- River Access / Overlook
- Amphitheater / Demonstration Area

ZONE 3 - Power Station

ECOLOGICAL	 Sky Train	 Education and Demonstration Area	 Amphitheater	INCLUDE COMMENTS HERE
	PREFERENCE DOTS HERE	PREFERENCE DOTS HERE	PREFERENCE DOTS HERE	
	RECREATION	 Indoor Fields / Courts	 Event Space / Community Center	
PREFERENCE DOTS HERE		PREFERENCE DOTS HERE	PREFERENCE DOTS HERE	
ENTERTAINMENT		 Cultural Building (Theater, Ballroom, Event Space, etc.)	 Event Space / Community Center	
	PREFERENCE DOTS HERE	PREFERENCE DOTS HERE	PREFERENCE DOTS HERE	

WE NEED YOUR INPUT

- What character images for each zone excite you? (Place stickers under your top three)
- What are your thoughts on each Zone? (Use sticky notes to provide your thoughts and input)

Activity Zone Site Features:

- Possible dam modifications have been identified by Geosyntec (Station #6)
- Images on this board represent the character and opportunities each of the modification possibilities could provide
- Please identify your preferences for possible dam modification aesthetics
- Following review of these images you will continue to Station #6 and provide input on the dam and lake modification scenarios

ZONE 3 - Dam Modification Options

ECOLOGICAL (PARTIAL REMOVAL)	 Retain and Control Structure and Reservoir	 Section Removal with Gate Rise	 Section Removal with Overflow	INCLUDE COMMENTS HERE
	PREFERENCE DOTS HERE	PREFERENCE DOTS HERE	PREFERENCE DOTS HERE	
	RECREATION (BYPASS CHANNEL)	 Water Channel System	 Water Channel System	
PREFERENCE DOTS HERE		PREFERENCE DOTS HERE	PREFERENCE DOTS HERE	
ENTERTAINMENT (LOWER SPILLWAY)		 Retention and Water Level - High	 Retention and Water Level - Low	
	PREFERENCE DOTS HERE	PREFERENCE DOTS HERE	PREFERENCE DOTS HERE	

B117

Site Concepts & Uses/Recreation



- Activity Zone Site Features:**
- Approximately 330 acres of existing public park and water based amenity area.
 - Located north of the Power Station and dam.
 - Opportunity to expand on its existing offerings or
 - Opportunity to be re-imagined based on the redeveloped Power Station and modified dam.
- Possible activities include:**
- Restore River Channel and Create Wetland
 - Dredge Lake for Deeper Water
 - Activate Lake Edge with Access
 - Group Camping / Nature Based Education
 - Nature Center / Marina
 - Expanded Disc Golf and Day Use Amenities
 - Expand Pedestrian Access to Park
 - New Vehicular Entry and Park Access
 - Cabins / Lodges with Amenities along Lake Edge

ZONE 4 - Lake & Park

ECOLOGICAL	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	INCLUDE COMMENTS HERE
RECREATION	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	
ENTERTAINMENT	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	

WE NEED YOUR INPUT

- What character images for each zone excite you? (Place stickers under your top three)
- What are your thoughts on each Zone? (Use sticky notes to provide your thoughts and input)



- Activity Zone Site Features:**
- Approximately 430 acres in size
 - Along the James River north of Lake Springfield.
 - Uses the Nature Center, Southwood Access, and 45/60 interchange
 - A significant amount of the area is located within the James River floodway and flood plain.
 - Existing trails provide connection over the James River, under the highway, and connect to the Nature Center and Gateway Creek Greenway.
- Possible activities include:**
- Bridge Crossing North of Lake Springfield
 - Loop Trail Development with Chadwick Flyer
 - Branding and Identity at 45/60 Interchange
 - North side trailhead and river access
 - E. Timbercrest Road trail connection

ZONE 5 - North Activity

ECOLOGICAL	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	INCLUDE COMMENTS HERE
RECREATION	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	
ENTERTAINMENT	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	 PREFERENCE DOTS HERE	

TRANSPORTATION & MOBILITY



B119

TRANSPORTATION & MOBILITY

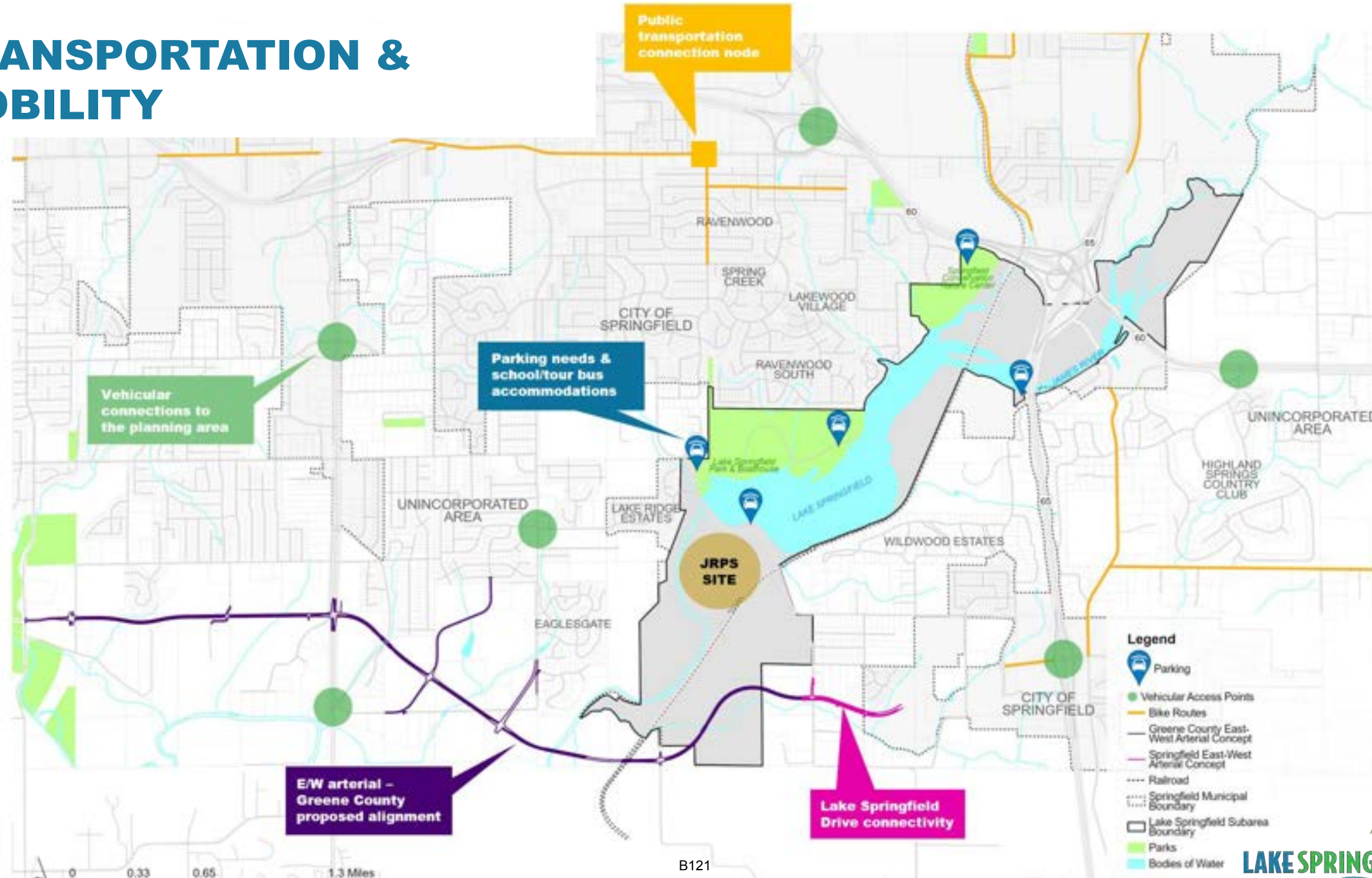
GOAL:

Focus on Transportation Enhancements that are accessible and equitable to Lake Springfield and the Surrounding Communities

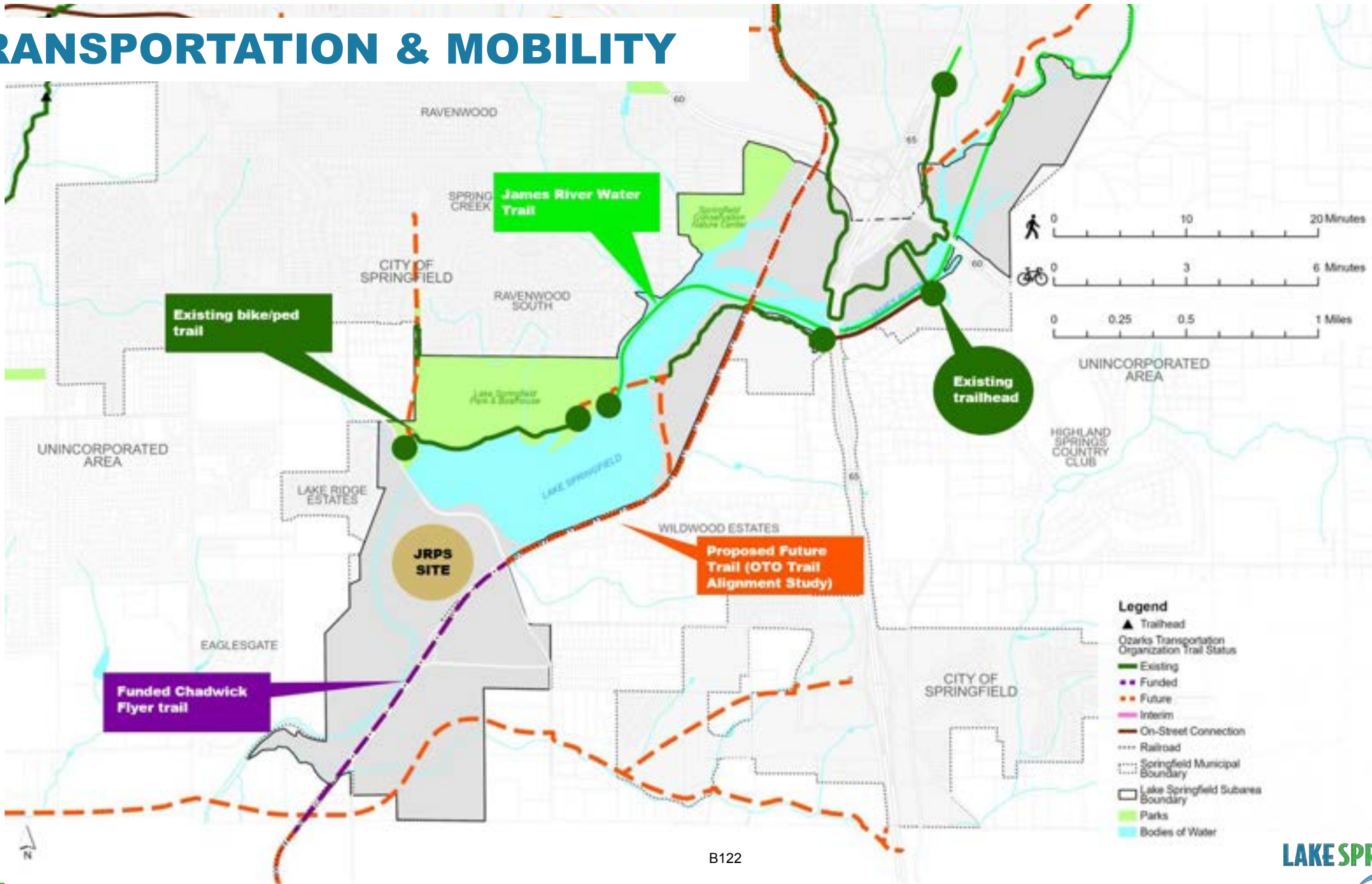
AREAS OF FOCUS:

- **Vehicular connections & access (roadway improvements)**
- **Bike/ped connectivity & safety (trails, sidewalks, etc.)**
- **Boat ramp access**
- **Public transportation**
- **Parking**
- **Cross-lake connectivity**
- **E/W connection (Lake Springfield Drive)**

TRANSPORTATION & MOBILITY



TRANSPORTATION & MOBILITY



TRANSPORTATION & MOBILITY



Rank access & circulation options

- Vehicular & Gateways
- Boat Ramp
- Walking & Rolling



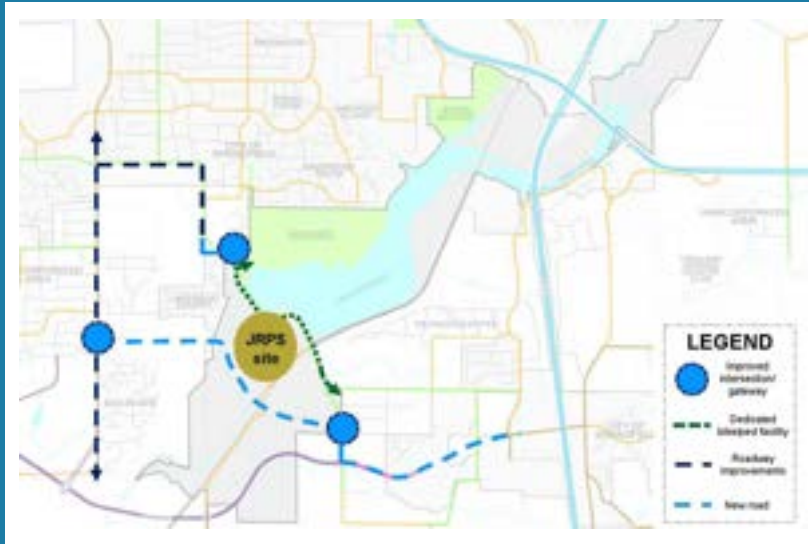
Rank transportation priorities for Lake Springfield Plan



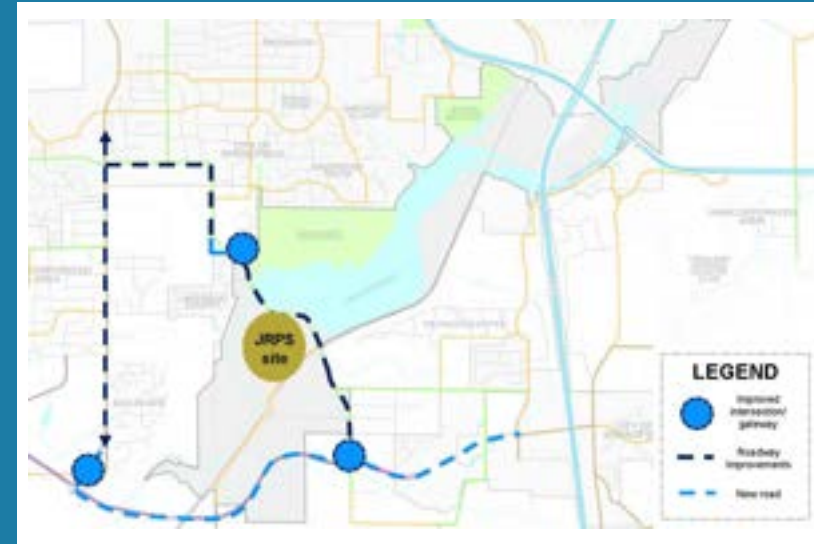
Pick your preferred Kissick alternative

- Take cars off Kissick – open to bikes & peds only
- Keep cars on Kissick – main access to JRPS Site

TRANSPORTATION & MOBILITY



OPTION 1



OPTION 2

TRANSPORTATION & MOBILITY



Parking



Trails



Vehicular Access/Entry



Public Transit



Boat Ramp Access



Sidewalks & ADA



River/lake crossings



OTHER

TRANSPORTATION & MOBILITY

Kissick for bicycles & pedestrians only; no vehicular traffic



Kissick: roadway improvements to accommodate more car trips; main entry to JRPS

Hydraulics & Water Quality

Gravitational End Points & Associated Drivers



Dam Modification

- Remove to eliminate liability
- Re-establish free flowing river
- Provide fish & kayak passage



Sediment Dredging or Management

- Create deeper pools for habitat & water quality
- Address potential legacy contaminants
- Extend life of lake



Water Quality

- Water uses (e.g. swimming vs kayaking)
- Maintain aesthetics

Potential Dam Modification Alternatives

Re-establish River Ecosystem
Remove or reduce liability of
maintaining a Dam

Full Dam
Removal

Partial Dam
Removal

Provide Kayak and Fish Passage

Concrete
Dam
Modification

Earth
Embankment
Modification

Avoid modification
Provide Lake
Enhancements

No
Modification

Tonight's Stations

①

Welcome & Check In
(get the survey link at this station!)

⑤

Site Concepts & Uses/Recreation
(parks & recreation, site layout & theme considerations)

②

Planning Overview
(project background, goals, etc.)

⑥

Hydraulics, Potential Dam
Alternatives & Water Quality

③

What You Said
(engagement summary)

⑦

Transportation & Mobility
(vehicular access & connectivity, trails, parking & regional access, public transportation)

④

Economic Development
(potential lake activities, new uses & concepts, economic drivers)

Don't forget to take our online survey as
you complete the stations. QR code found at
station 1!

Q&A



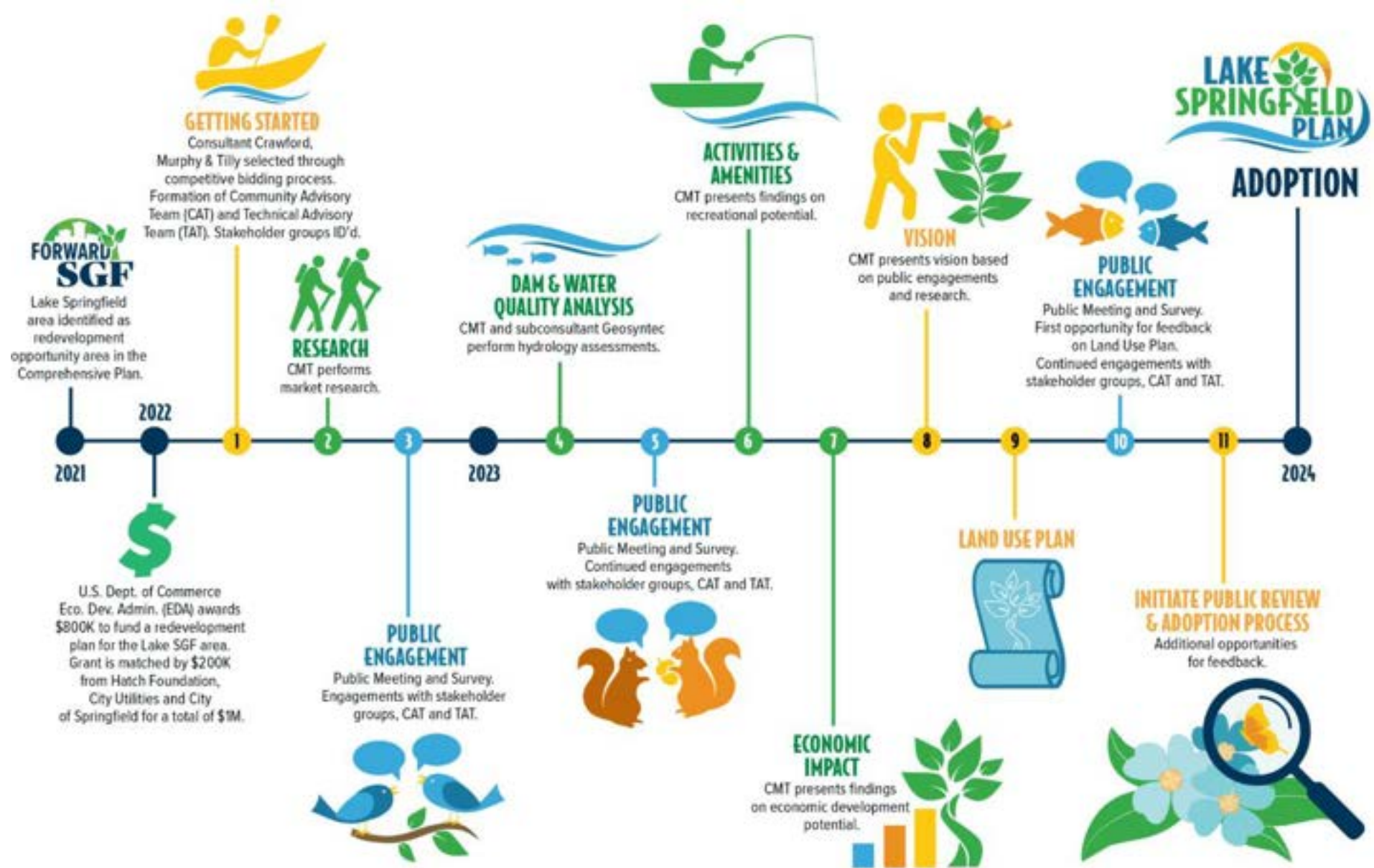
LAKE SPRINGFIELD PLAN



CAT & TAT Meeting No. 3
09.14.2023



Timeline





**LAKE
SPRINGFIELD
SUBAREA**

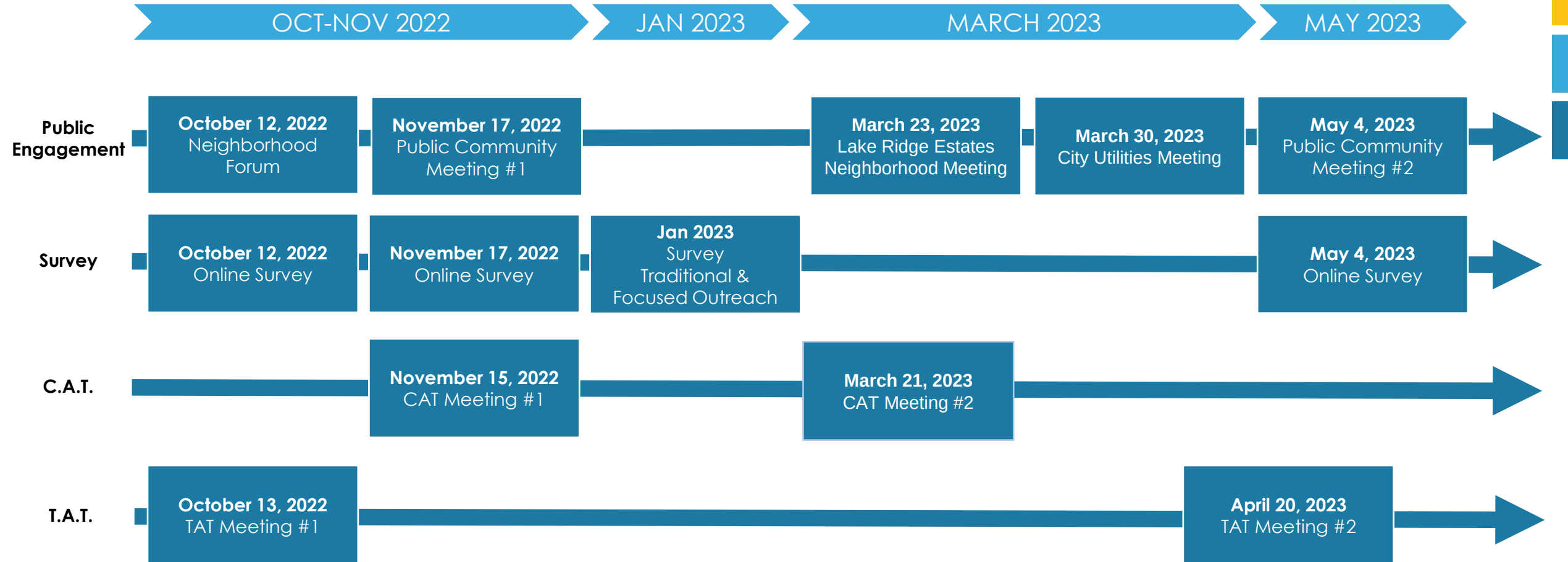
**FUTURE CITY
UTILITIES OPERATION**

Planning Goals

- 1 Attract Innovative **Economic Development & Resilient Job Creation** within the study area that complements Regional Vision and Priorities.
- 2 Develop a Strategy for **Sustainable Water Quality & Green Infrastructure Improvements**.
- 3 Establish an **Adaptive Reuse Strategy** for the James River Power Station.
- 4 Focus on **Transportation enhancements** that are accessible and equitable to Lake Springfield and the Surrounding Communities.
- 5 Embrace **Active and Passive Recreational Opportunities** as a Regional Economic Development Catalyst.
- 6 Engage the Community in a way that is Inclusive of a **Diverse and Multi-Cultural Perspective**.

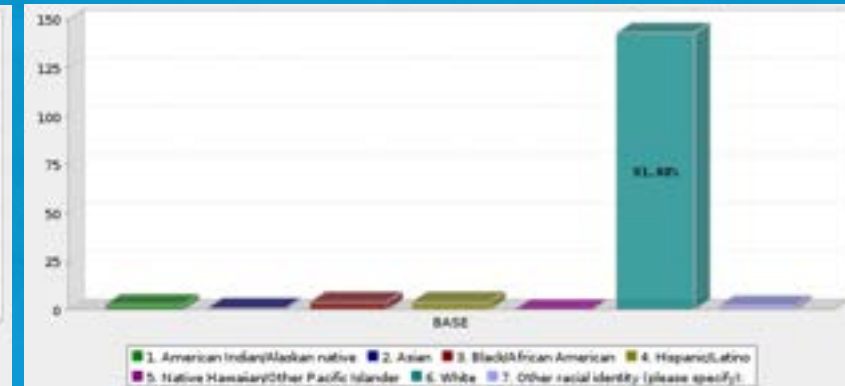
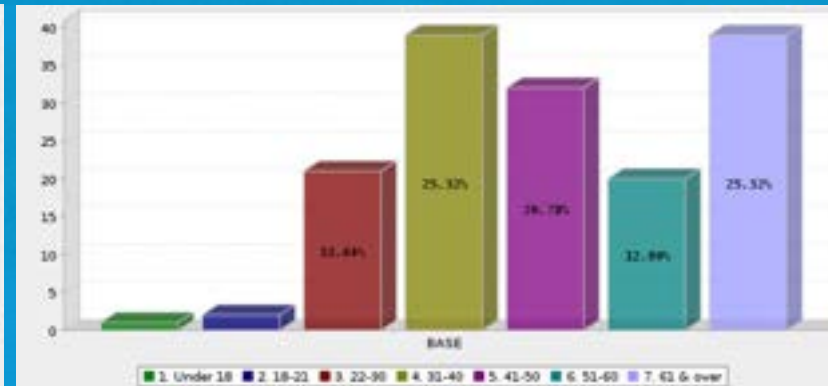
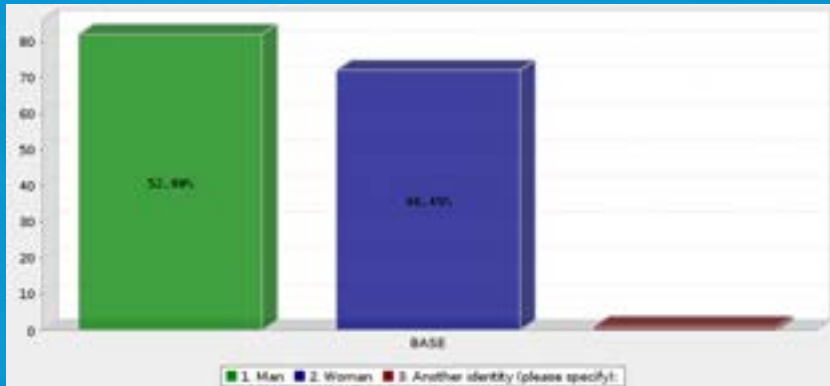


PUBLIC INPUT PROCESS TO DATE



Public Input - Survey Respondent Summary

- **100+ Survey Respondents** – Online Survey
- **264 Survey Respondents + 727 Total Views** (148 Survey Completions, 116 Incomplete) – Online Survey
- **200 Traditional + 602 Focused Respondents** – Local Water Resources Survey
- **462 Survey Respondents + 779 Total Views** (161 Survey Completions, 301 Incomplete) – Online Survey



Data Summary – Economic Development

Tent Board - Order of Interest

Investment Themes (Top 5 of Top 3)

1. Passive Recreation (19)
2. Environmental Preservation (17)
3. Power Plant Reuse (10)
4. Education (10)
5. Cultural Hub (10)

Program Opportunities (Top 5)

1. Water Recreation (24)
2. Trails (22)
3. Commercial Leasing (13)
4. Community Events (11)
5. Restaurant/Bar (12)

Case Studies

1. Optimist Hall Charlotte, NC (4)
2. Origins Park Jeffersonville, IN (4)
3. Greylock Glen Resort Adams, MA (1)
4. RecPlex West Des Moines, IA (0)

Online Survey - Order of Interest

Investment Themes (Top 5 of Top 3)

1. Passive Recreation (164)
2. Environmental Preservation (146)
3. Power Plant Reuse (56)
4. Active Recreation (50)
5. Cultural Hub (40)

Program Opportunities (Top 5)

1. Trails (176)
2. Water Recreation (156)
3. Community Events (130)
4. Lakefront Event Venue (106)
5. Park Amenities (102)

Data Summary – Economic Development

Tent Boards: Potential Activities

INTERESTED

Active Recreation

- Bike/skate park (6)
- Outdoor sports & fitness (5)
- Watercraft rentals (5)
- Playground (3)
- Adventure/rock climbing/ziplines (3)
- Indoor sports (1)

Nature/Culture/Education

- Environment preservation/restoration (7)
- Indoor/outdoor classroom (7)
- Endangered species preservation (6)
- Native American cultural center (2)
- STEAM center (2)
- Observation tower (2)
- Science/history/art museum (1)

NEUTRAL

Passive Recreation

- Trails (15)
- Bird watching/photography (7)
- Public art/murals/sculpture garden (5)
- Fishing/boardwalks/overlooks (4)
- Park amenities (2)
- Dog park (2)

Entertainment/Hospitality

- Hotel (5)
- Lakefront event venue (4)
- Water feature (fountain, splash pad) (3)
- Amphitheater (2)
- Rooftop venue (2)
- Signage/wayfinding/branding (2)
- Camping/glamping/RV (1)

UNINTERESTED

Retail/Commercial

- Community events (10)
- Restaurants/bars (5)
- Cafes/coffee shops (5)

Activity Category

- Active recreation (6)
- Nature/culture education (3)
- Entertainment/hospitality (2)
- Passive recreation (2)

Data Summary – Investment Themes

Tent Boards: Proposed Zones

ZONE 1: South Activity

1. Amenities - Trails (16)
2. Education Trails & Boardwalks (14)
3. River Access (14)
4. Adventure Recreation Bike Park (13)
5. RV Park (5)

ZONE 3: Dam Modifications

1. Recreation & Wildlife Ladder Shallow (8)
2. Section Removal with Open Flow (8)
3. Open Channel Bypass (8)
4. Recreation & Wildlife Ladder Edge (7)
5. Section Removal with Overlook & Natural Vertical Bypass (4)

ZONE 2: Capped Landfill

1. Nature Landscape with Trails (19)
2. River Overlook (16)
3. Astronomy Viewing Area (6)
4. Practice Fields (6)
5. River Edge Tree Houses/Fitness Trails/Public Art (5)

ZONE 4: Lake & Park

1. Wetland Boardwalks (18)
2. Outdoor Education - (10)
3. Destination Playground (7)
4. Group Camping (6)
5. Boat Rentals (6)

ZONE 3: Power Station

1. Iconic Walk/Bridge Overlook (9)
2. Education & Demonstration Areas (8)
3. Sky Tram (8)
4. Amphitheater (7)
5. Waterfront Amphitheater (7)

ZONE 5: North Activity

- River Access (18)
- Full Dam Removal: A.1 (5)
- Partial Dam Removal: A.2 (2)
- Concrete Dam Modification: A.B (2)
- No Modification (1)

Data Summary – Investment Themes

Online Survey: Proposed Zones

ZONE 1: South Activity

1. Education Trails & Boardwalks (130)
2. Amenities (119)
3. River Access (107)
4. Eco Playground (70)
5. Adventure Recreation Bike Park (52)

ZONE 3: Dam Modifications

1. Nature Vertical Bypass (84)
2. Open Channel Bypass (77)
3. Removal with Exposed Structure & Remnants (75)
4. Section Removal with Overlook (67)
5. Recreation & Wildlife Ladder Edge (60)

ZONE 2: Capped Landfill

1. Native Landscape with Trails (114)
2. River Overlook (108)
3. Fitness Trails (63)
4. Astronomy (60)
5. Small Pavilions Bike Park (61)

ZONE 4: Lake & Park

1. Wetland Boardwalks (128)
2. Overlooks/Education (85)
3. Boat Rentals (79)
4. Fishing (74)
5. Destination Playground (47)

ZONE 3: Power Station

1. Iconic Walk/Bridge Overlook (88)
2. Education & Demonstration Areas - (87)
3. Waterfront Amphitheater (72)
4. Amphitheater (71)
5. District (63)

ZONE 5: North Activity

1. River Access (124)
2. Pedestrian Bridge Crossing (113)
3. Trailhead Parking (72)
4. Trailhead Play Amenities (56)
5. Gathering Space/Pavilions (54)

Data Summary – Hydraulics, Potential Dam Alternatives, & Water Quality

Dam Modifications

Tent Board (Top 5)

1. Earthen Dam Modification: A.C (6)
2. Full Dam Removal: A.1 (5)
3. Partial Dam Removal: A.2 (2)
4. Concrete Dam Modification: A.B (2)
5. No Modification: A.D (1)

Online Survey (Top 5)

1. Full Dam Removal: A.1 (53)
2. Partial Dam Removal: A.2 (37)
3. Earthen Dam Modification: A.C (37)
4. No Modification: A.D (32)
5. Concrete Dam Modification: A.B (26)

Data Summary – Transportation & Mobility

Tent Board

Access & Gateway Options

- Option 2: Lake Springfield Drive Construction - No cars on Kissick (10)
- Option 3: Kissick Improvements Cars Remain on Kissick(7)
- Option 1: JRPS Entry from Kissick Cars Remain on Kissick (4)

Boat Access Options

- Option 2: New Boat Ramp from Lake Springfield Park (68)
- Option 1: New Boat Ramp Entry from Kissick (52)
- Option 3: New Boat Ramp Requiring New Facility (44)

General Priorities (Top 5)

1. Trails (14)
2. River/lake Crossings (6)
3. Boat Ramp Access (3)
4. Vehicular Access/Entry (1)
5. Public transit (1)

Kissick Improvements

- Bicycle & Pedestrians - No Vehicular Traffic (17)
- Roadway Improvements Accommodate More Car Trips (6)

Walking & Rolling Priorities

- Option 2: (8) Kissick over lake becomes ped/bike only + New lake crossings
- Option 3: (6) Wide sidewalks or SUP along roadway improvements +Trail of Honor Connection
- Option 1: (1) Kissick road widening + Chadwick flyer trail bridge

Online Survey

Access & Gateway Options

- Option 2: New Boat Ramp from Lake Springfield Park (5)
- Option 3: New Boat Ramp Requiring New Facility (3)
- Option 1: New Boat Ramp Entry from Kissick (0)

Boat Access Options

- Option 2: Lake Springfield Drive Construction No cars on Kissick (82)
- Option 3: Kissick Improvements Cars Remain on Kissick (37)
- Option 1: JRPS Entry from Kissick Cars Remain on Kissick (0)

General Priorities (Top 5)

1. Trails (141)
2. River/lake Crossings (109)
3. Boat Ramp Access (69)
4. Sidewalks & ADA (54)
5. Parking (54)

Kissick Improvements

- Bicycle & Pedestrians - No Vehicular Traffic (107)
- Roadway Improvements Accommodate More Car Trips (55)



Overview of Hydrology Study Phase 1

Chapter 3: Water Quality Assessment

Chapter 4: Watershed Assessment

Chapter 5: Sediment Management

Chapter 6: Dam Assessment and Regulatory Compliance Review

Chapter 7: Dam Modification Alternatives Assessment

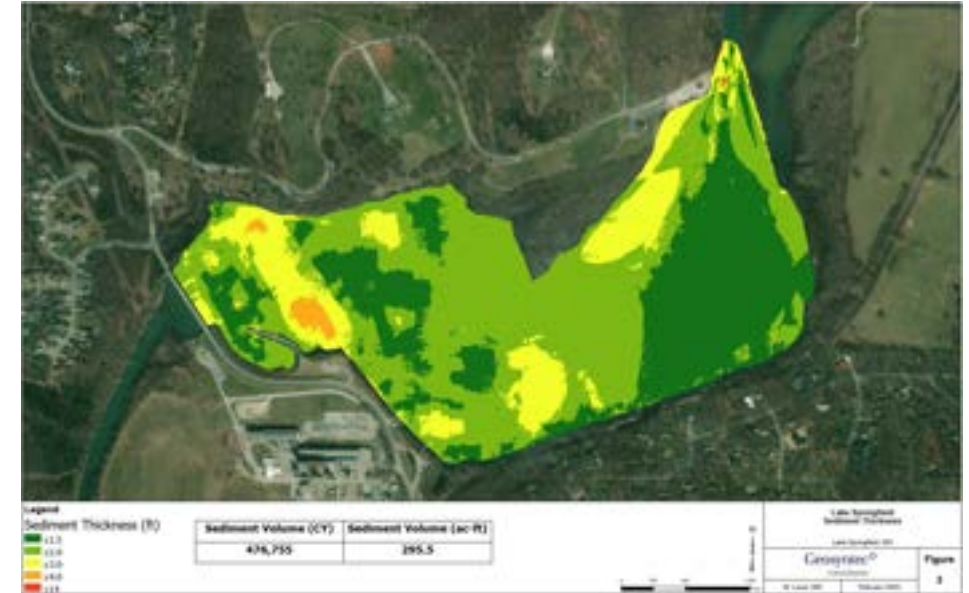
Chapter 8: Envision Sustainability Planning

Appendix A1: Field data Collection Methods Results

Appendix A2: U.S. Fish and Wildlife Service (Information for Planning and Consultation Resource List)

Appendix B: Dam Inspection Photo Log

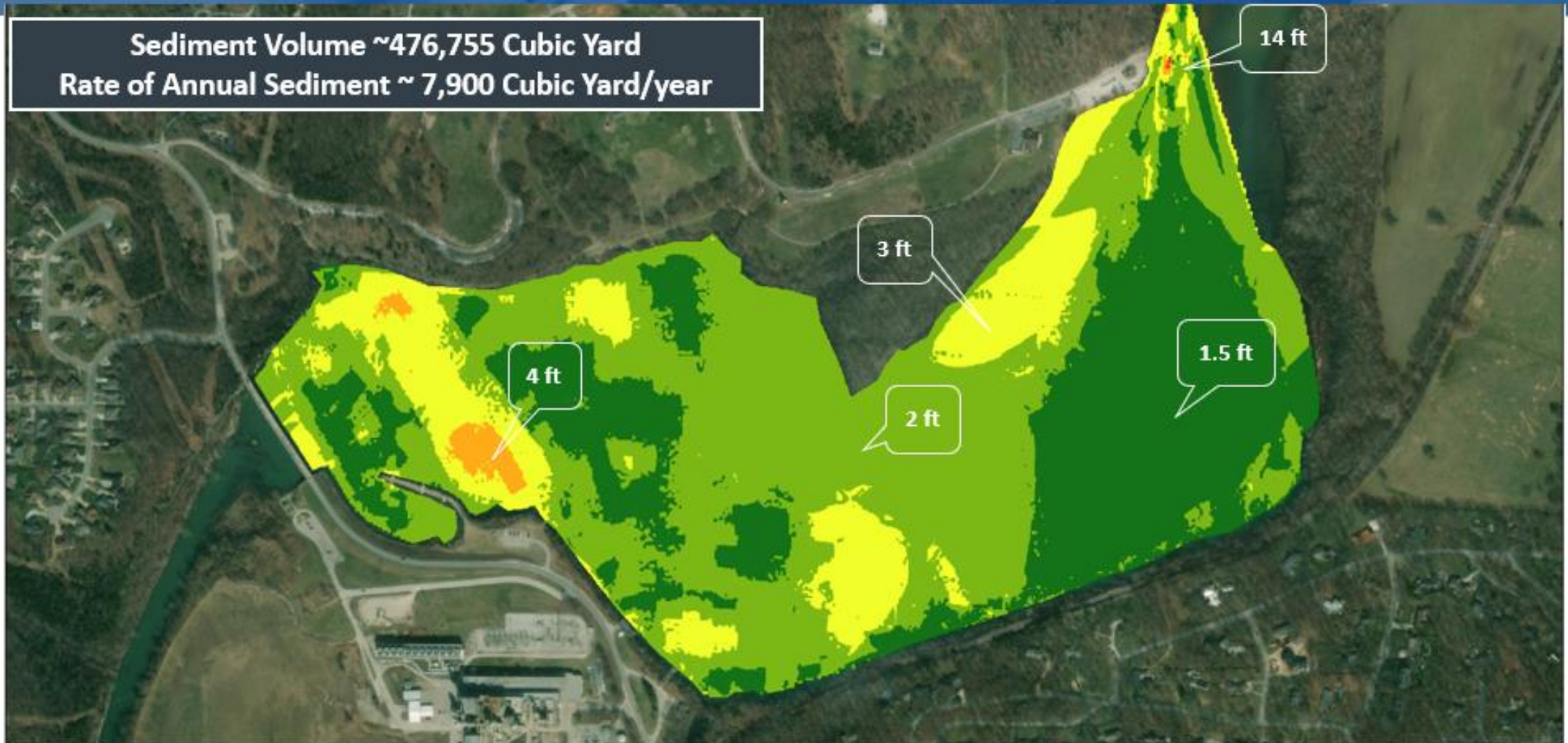
Appendix C: Dam Modification Alternatives Concept Figures



Predicted Annual Rate of Sediment from the watershed ~ 7,900 Cubic Yard

Bathymetry and Sediment sampling

Sediment Volume ~476,755 Cubic Yard
Rate of Annual Sediment ~ 7,900 Cubic Yard/year





←1955 Topo WSE below 1140'

Depth (ft)

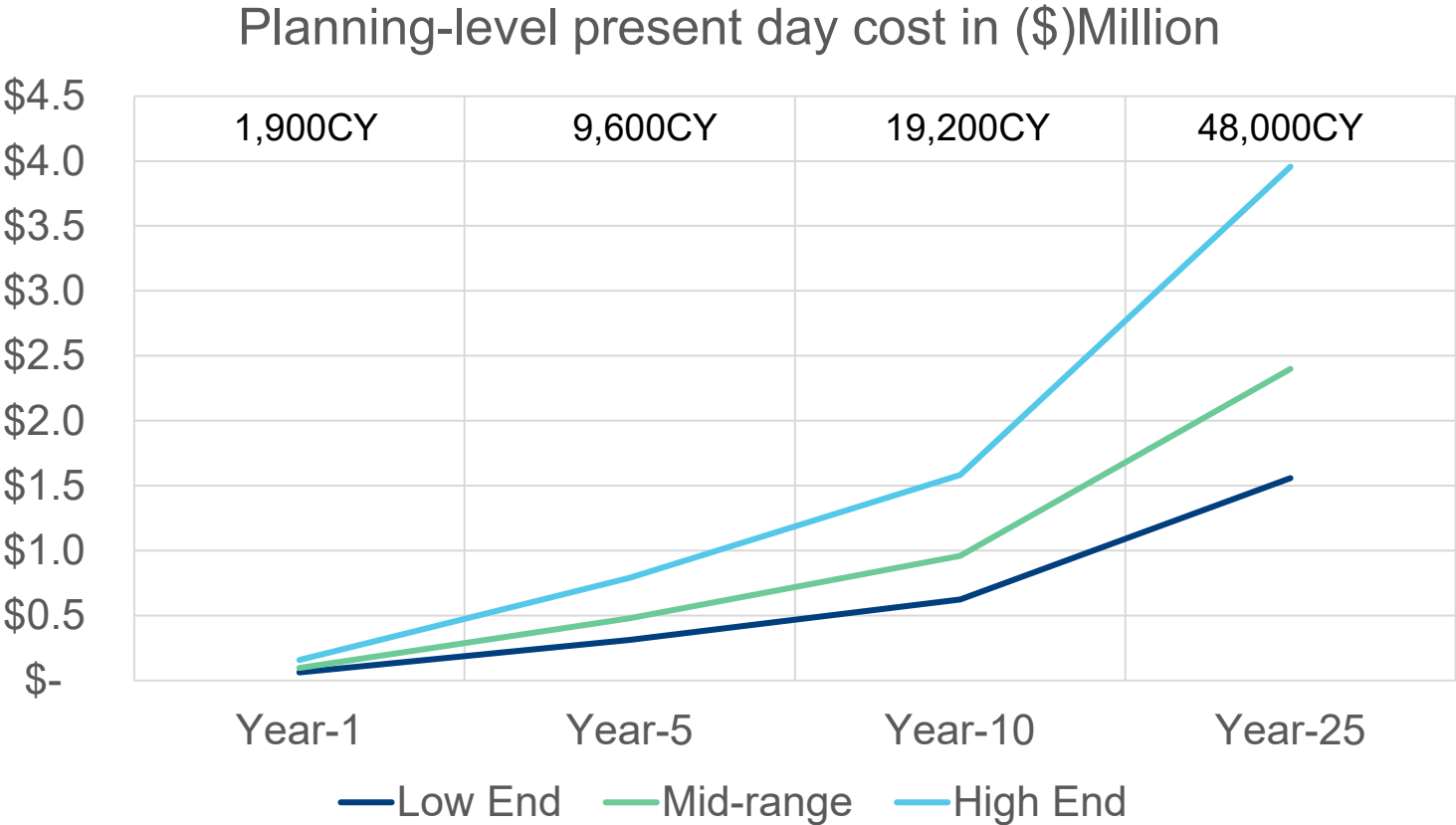
- ≤4
- ≤8
- ≤12
- ≤16
- ≤20

Present Lake Springfield Bathymetry at WSE 1140'→

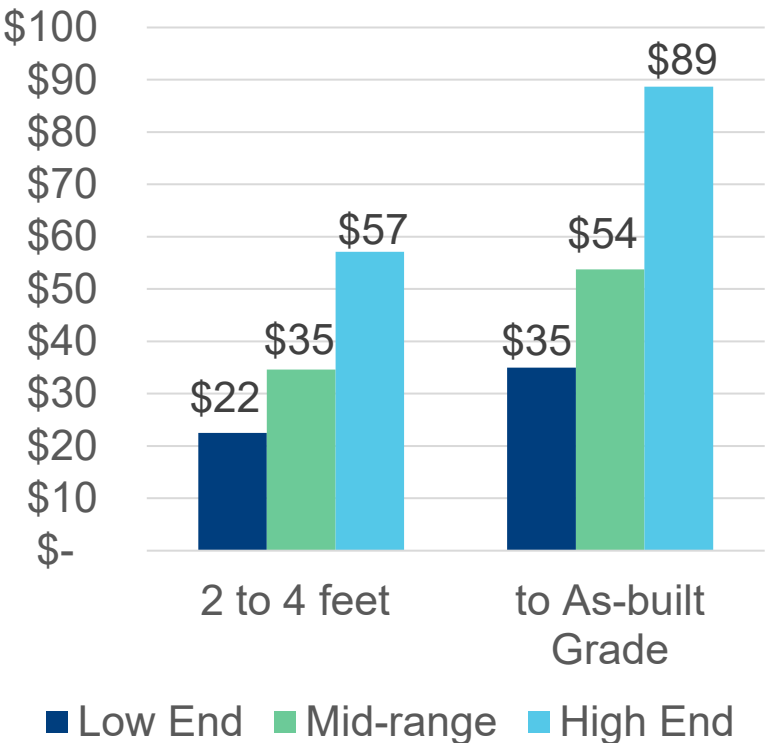


Sediment Management

Scenario 1: Manage All (Could apply to all Dam Mod Alt)



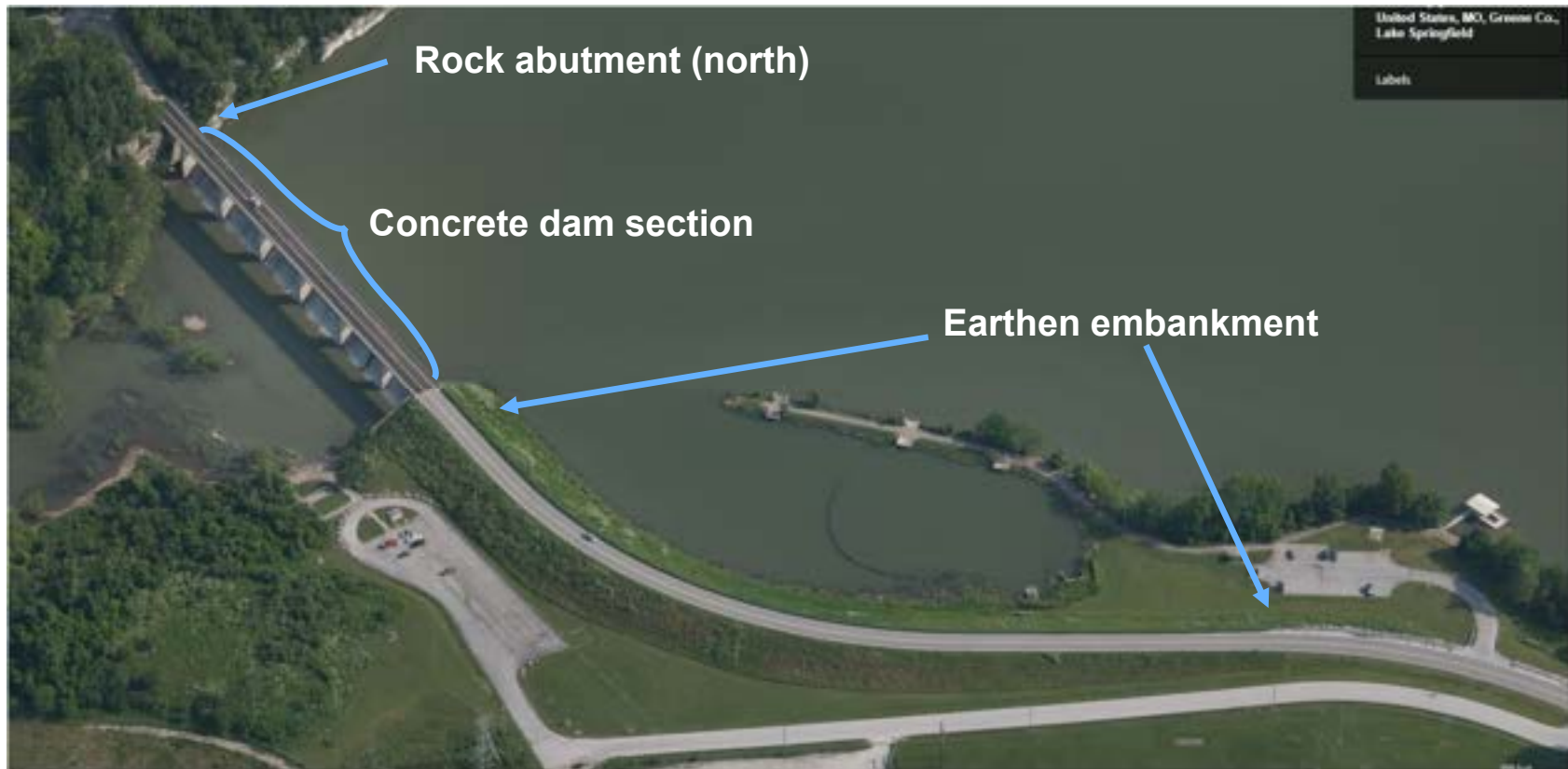
Current (In Lake) Sediment
Planning-level cost in (\$)^{Million}



Assumption

- Sediment loading only from the immediate 3 upstream watersheds

Dam Assessment



GEOSYNTEC CONSULTANTS



Overview of Hydrology Study Phase 1

Chapter 3: Water Quality Assessment

Chapter 4: Watershed Assessment

Chapter 5: Sediment Management

Chapter 6: Dam Assessment and Regulatory Compliance Review

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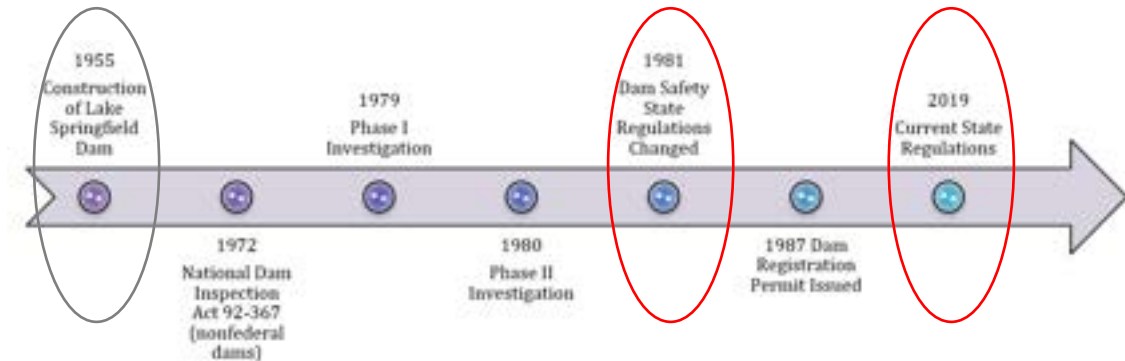


Figure 3: Historic Congressional and State Regulatory Updates on Dam Safety

Dam O&M costs (standard care)

Standard of care needed for operation and maintenance of Lake Springfield Dam whether modified or not modified.

	1 st year/Annual	1-10 years	10-20 years	20-30 years
Routine Maintenance	\$4,000	\$47,000	\$63,000	\$84,000
Capital Maintenance Programming	\$24,000	\$316,000	\$515,000	\$935,000
Total	\$28,000	\$363,000	\$578,000	\$1,019,000
Cumulative	\$28,000	\$391,000	\$969,000	\$1,988,000

Notes:

- Capital maintenance cost includes minor concrete repair.
- Inflation rate of 3% is included in the cost projection.

Potential Dam Modification Alternatives

Re-establish River Ecosystem
Remove or reduce liability of
maintaining a Dam

Full Dam
Removal

Partial Dam
Removal

Provide Kayak and Fish Passage

Concrete
Dam
Modification

Earth
Embankment
Modification

Avoid modification
Provide Lake
Enhancements

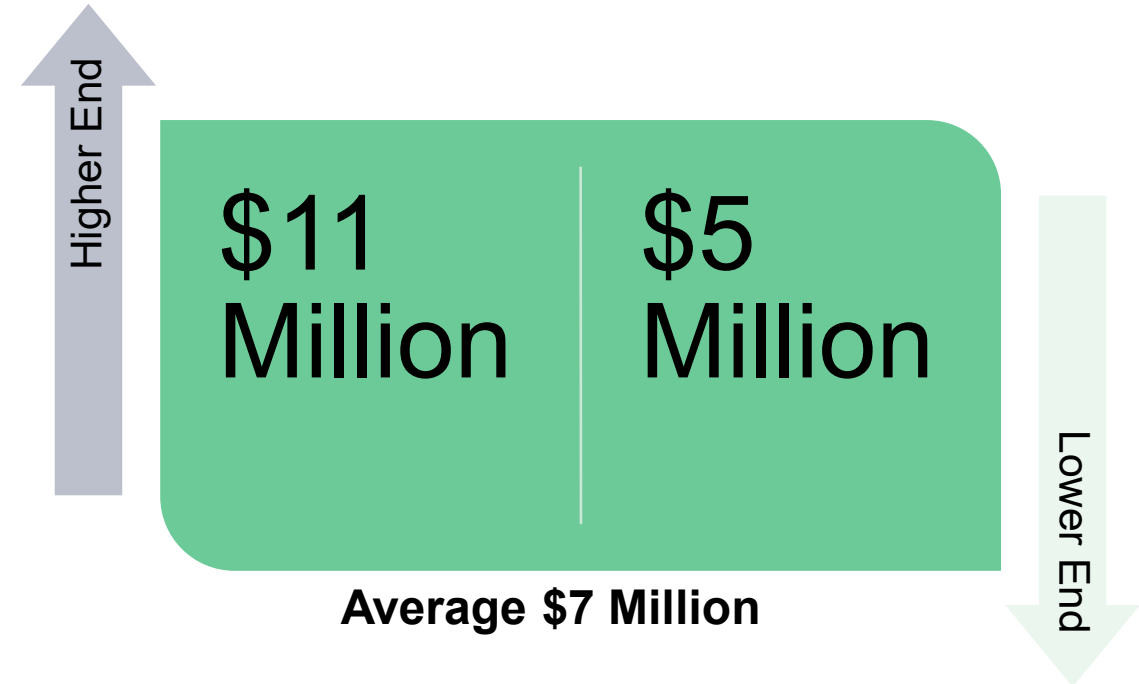
No
Modification

GEOSYNTEC CONSULTANTS



Planning-level costs for Alternative C3

Alternate C3: Earth Embankment Modification. Lower Impoundment by 2 feet.

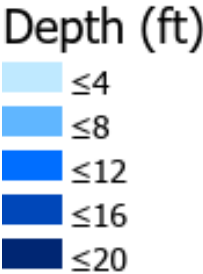


Items **not** included:

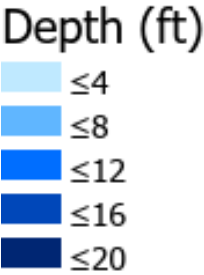
- Sediment management
- Restoration of natural stream as a result of dam modifications.
- Engineering and construction oversight
- Full removal of the dam feature
- Maintenance or reconstruction of existing bridge



←Present Lake Springfield Bathymetry at WSE 1140'



Present Lake Springfield Bathymetry at WSE 1138'→



Planning-level costs for Alternative A2

Alternate A2: Partial Dam Removal. Lower Impoundment by 12 feet.



Higher End

\$20
Million

\$8
Million

Lower End

Average \$12 Million

Items **not** included:

- Restoration of natural stream as a result of dam modifications.
- Engineering and construction oversight
- Full removal of the dam feature
- Maintenance or reconstruction of existing bridge
- Full removal of weir features
- Downstream cofferdam (assumed can access by laying riprap)

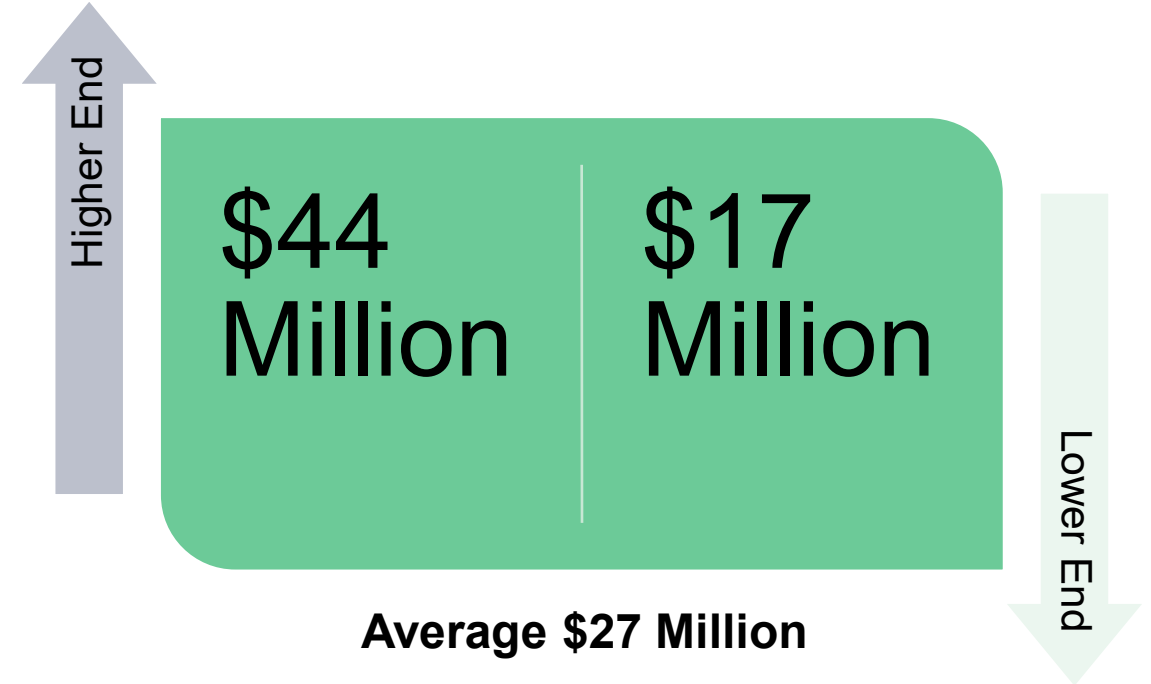
Planning-level costs for Alternative A1

Alternate A1: Dam Removal (to EL 1124)



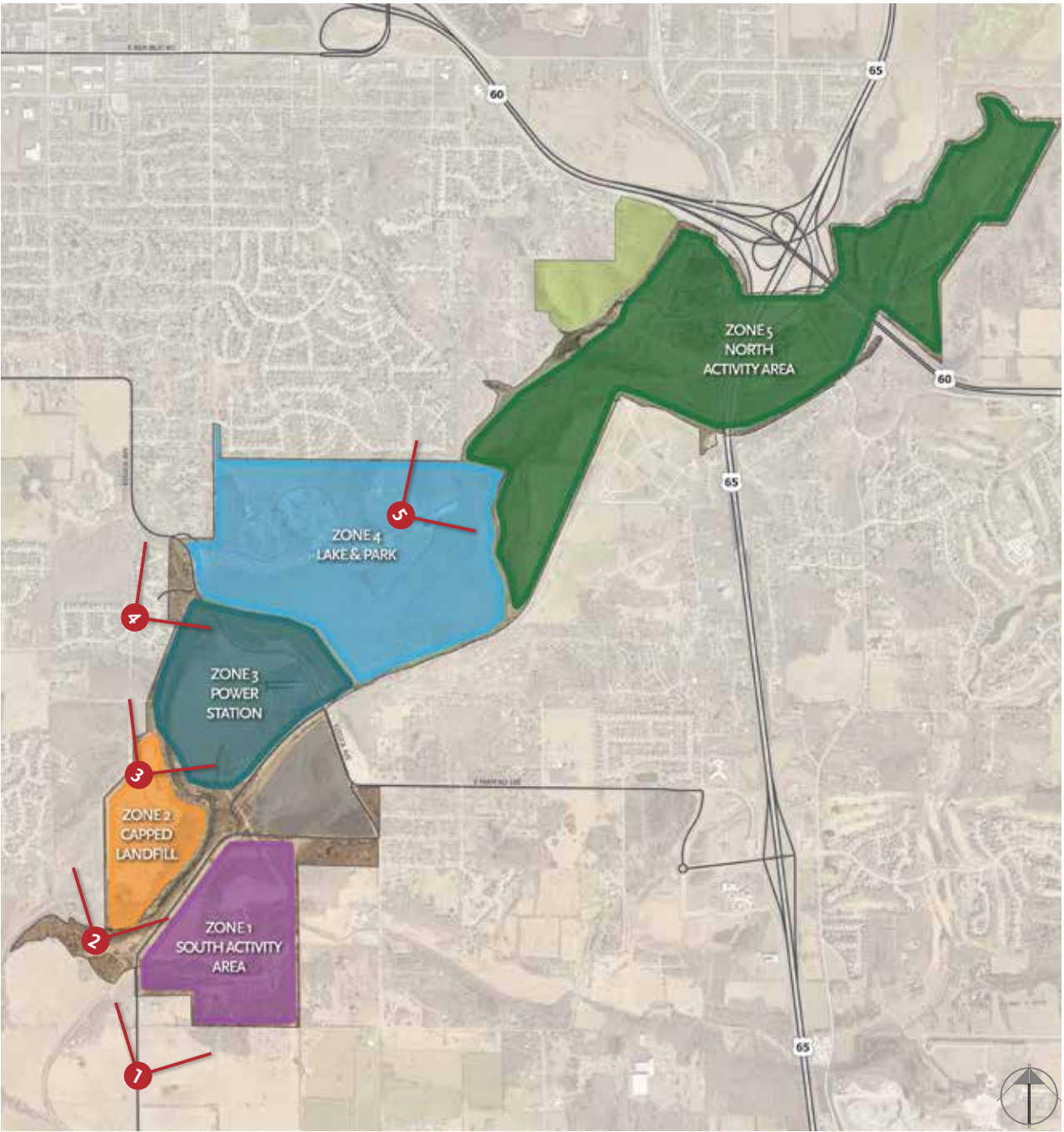
Items **not** included:

- Restoration of natural stream as a result of dam modifications.
- Engineering and construction oversight
- Full removal of the dam feature
- Maintenance or reconstruction of existing bridge
- Full removal of weir features
- Downstream cofferdam (assumed can access by laying riprap)





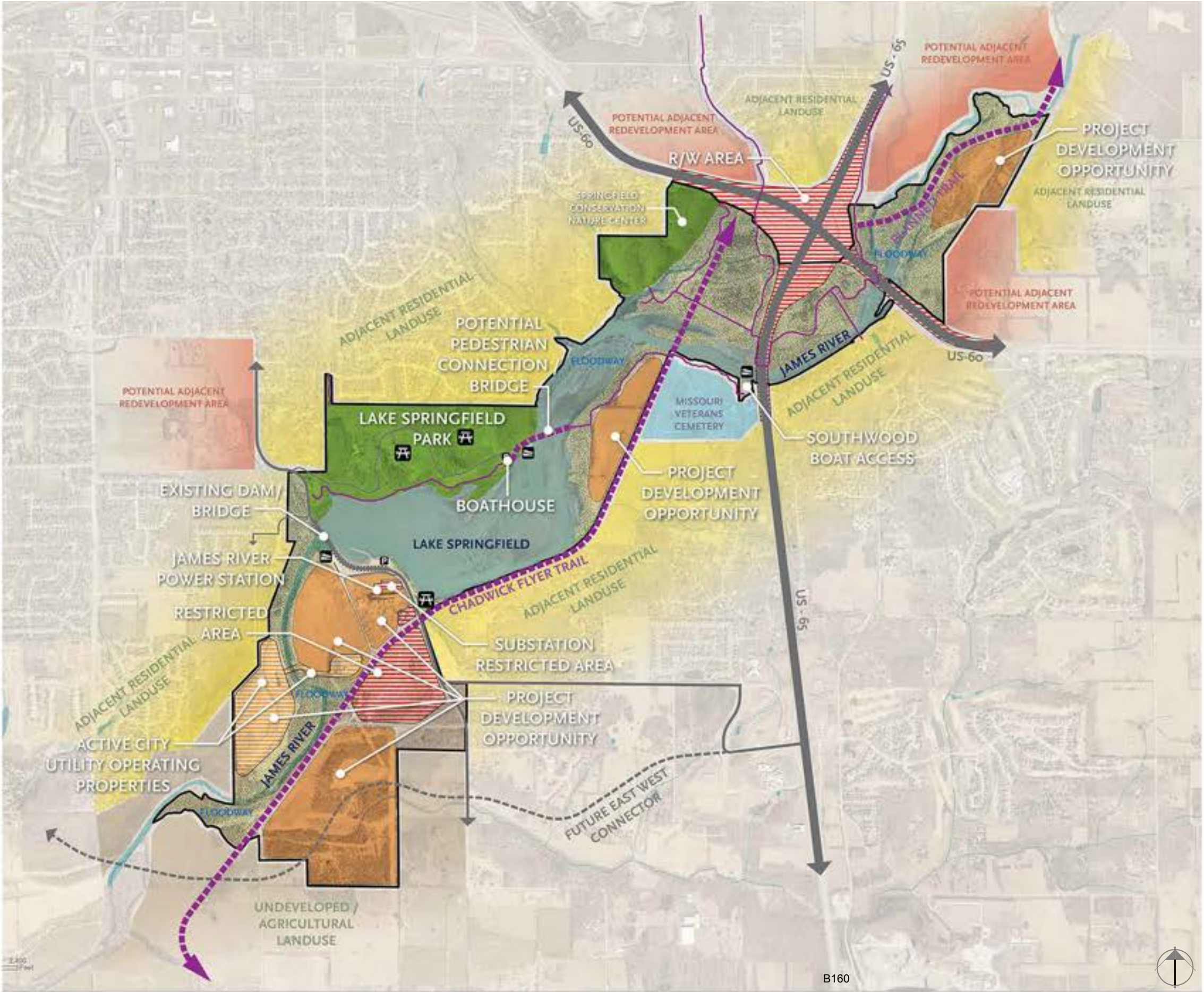
INITIAL CONCEPT ZONES



1 VIEWSHED FROM OBSERVER'S LOCATION

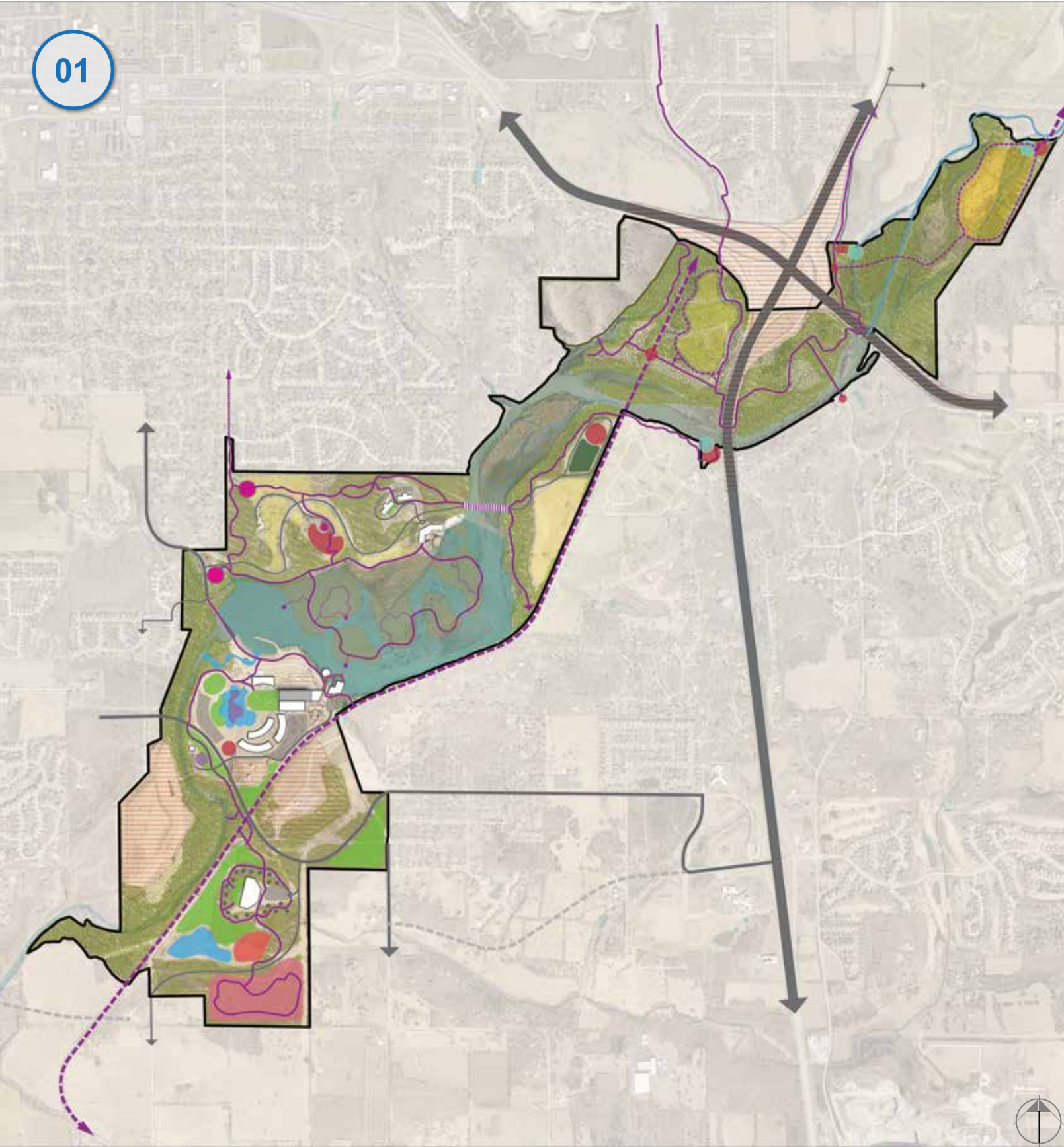


SITE ANALYSIS & PRELIMINARY CONCEPTS

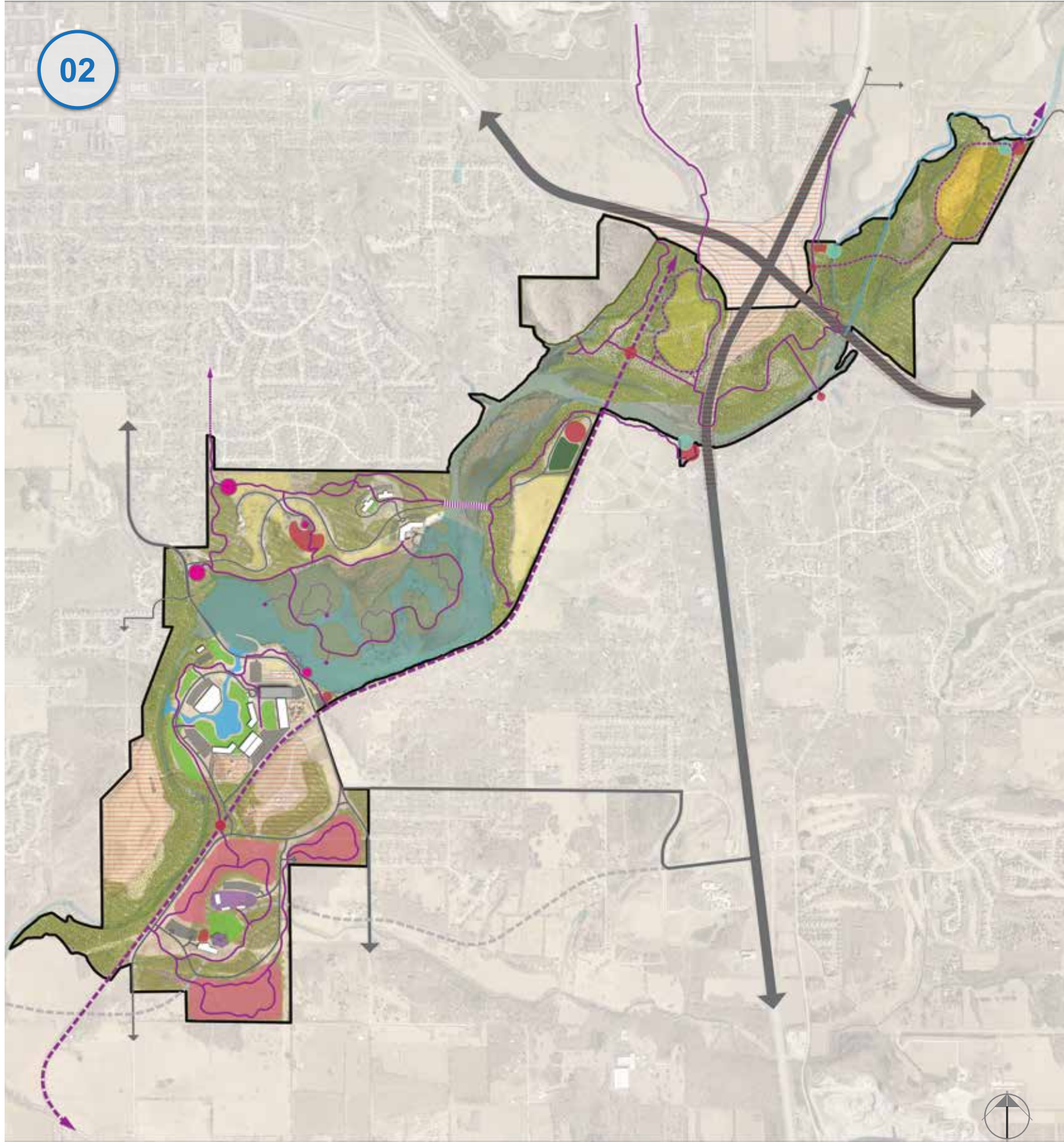


LAND-USE CONCEPTS

01



02



CONCEPTS

01



02



Experience

NORTH



- Wetland Preservation
- Trails / Trailheads
- Nature Amenity Area
- River Access
- Bird Meadow
- Culture Center/Lawn
- Culture Meadow
- Nature Center Access



B164

PARK & LAKE



- Expanded Boathouse/ Ecology Center
- Marina
- Wetland Boardwalk
- Retreat Center
- Destination Play
- Overlooks
- Park Entry Amenities



B165

PARK & LAKE



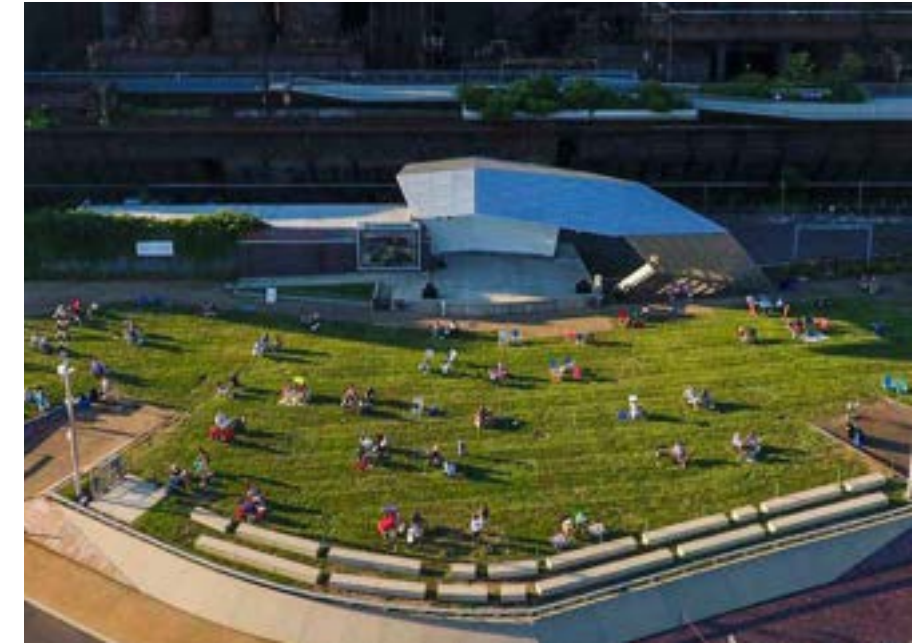
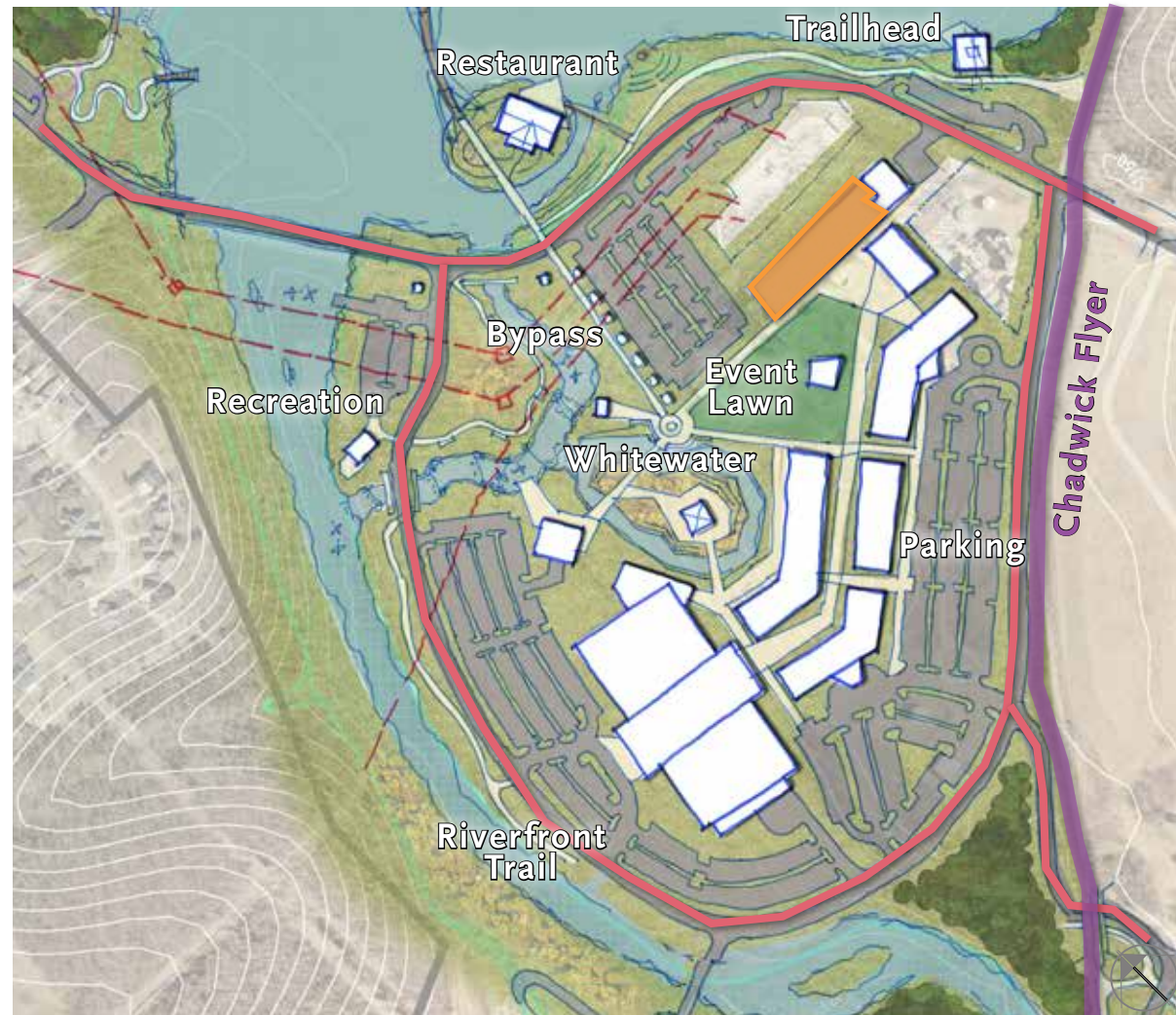
BEFORE

POWER PLANT + SOUTH ACTIVITY AREA



POWER PLANT - ENTERTAINMENT DISTRICT

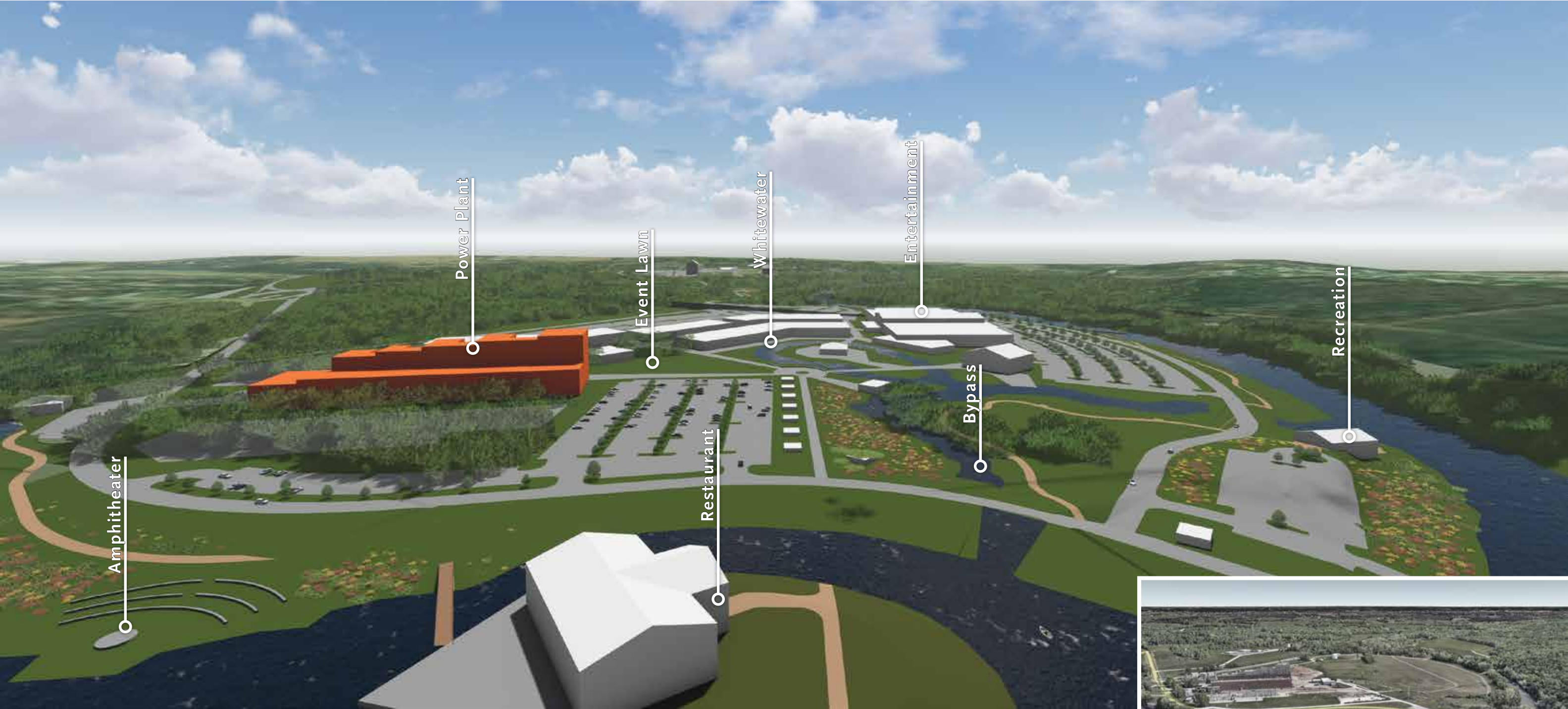
01



- Power Plant Reuse
- Anchor Entertainment
- Retail / Commercial
- Residential / Office
- Restaurant / Overlook
- Riverfront Recreation
- Event Lawn/ Pavilion
- Bypass Channel
- Whitewater Adventure
- Ropes Course



POWER PLANT - ENTERTAINMENT DISTRICT



SOUTH ACTIVITY - RESORT / ADVENTURE



- Conference / Resort
- Retreat Cabins/Yurts
- Adventure Course
- Destination Recreation
- Lake
- Bike Park

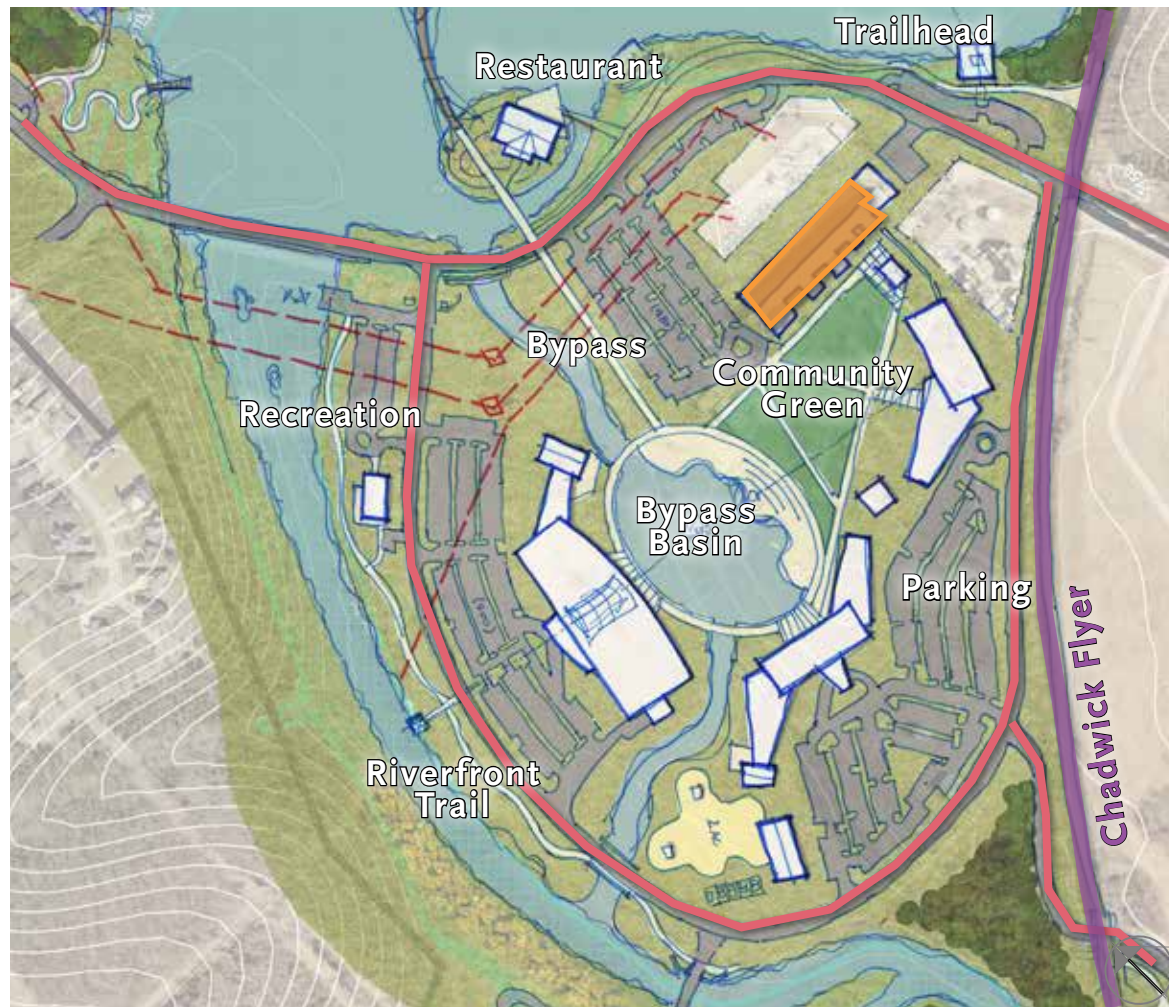


SOUTH ACTIVITY - CONFERENCE / ADVENTURE



POWER PLANT - MIXED USE EVENT VENUE

02



- Power Plant Reuse
- Mixed-use Event Venue
- Hospitality
- Restaurants
- Integrated Bypass Channel
- Community Green
- Water Adventure



POWER PLANT - MULTI-PURPOSE EVENT



SOUTH ACTIVITY - DESTINATION ADVENTURE PARK



- Canopy Ropes / Zipline
- Bike Park
- Lake / Water Adventure
- Archery Range
- Amphitheater
- Trails
- RV Camping
- Retail Building / Support



SOUTH ACTIVITY - DESTINATION ADVENTURE PARK



CONCEPTS

01

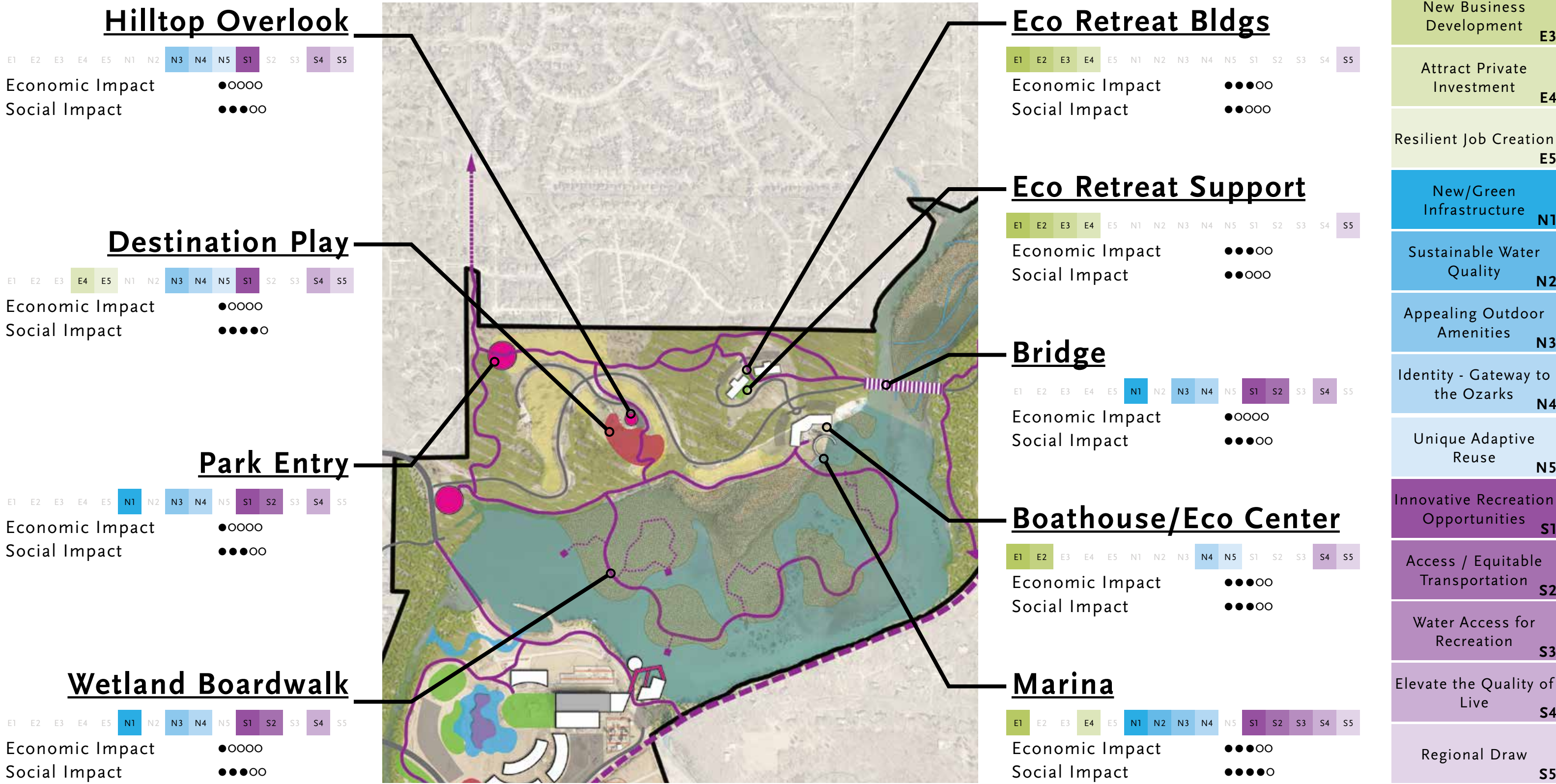


02





PARK + LAKE - GOAL ALIGNMENT SAMPLE



ECONOMIC - CONCEPT 1 IMPACTS

01



Lake Springfield, Missouri Estimated Direct Visitor Spending and Employment Concept 01				
	Assumptions	Year 1	Year 5	Year 10
Visitation				
Entertainment District (Power Plant)		287,500	311,199	343,589
Conference Center Lodge		40,000	43,297	47,804
South Adventure Area		165,000	178,601	197,190
North Activity Area		210,000	227,311	250,969
Park		178,000	192,673	212,726
Lake		30,000	32,473	35,853
Total		910,500	985,554	1,088,132
Possible Visitation Overlap	20%	(182,100)	(197,111)	(217,626)
Net Total		728,400	788,444	870,505
Room Nights				
Entertainment District (Power Plant)	7%	20,125	21,784	24,051
Conference Center Lodge	40%	16,000	17,319	19,121
South Adventure Area	5%	8,250	8,930	9,860
North Activity Area	2%	4,200	4,546	5,019
Park	2%	3,560	3,853	4,255
Lake	1%	300	325	359
Total		52,435	56,757	62,665
Direct Visitor Spending (\$ Million)				
On Lodging	\$151.66	\$8.0	\$9.7	\$12.4
On Food and Beverage	50.91	46.3	56.5	72.3
On Car Rental	49.01	2.6	3.1	4.0
On Retail	15.00	13.7	16.6	21.3
Total	\$266.58	\$70.5	\$85.9	\$110.0
Economic Impact (\$ Million)				
Direct Spending		\$70.5	\$85.9	\$110.0
Indirect and Induced Spending	0.796	56.1	68.4	87.5
Total Spending		\$126.6	\$154.3	\$197.5
Increased Earnings	0.586	\$41.3	\$50.3	\$64.4
Employment (Estimated Supported # of Jobs)	12.946	913	988	1,091
Fiscal Impact (\$ Million)				
Sales Tax	8.10%	\$5.7	\$7.0	\$8.9
Hotel/Motel Tax	5.00%	0.4	0.5	0.6
Total		\$6.1	\$7.4	\$9.5
Inflation Rate	3.00%			
Source: Johnson Consulting				

ECONOMIC - CONCEPT 2 IMPACTS

02



Lake Springfield, Missouri Estimated Direct Visitor Spending and Employment Concept 02				
	Assumptions	Year 1	Year 5	Year 10
Visitation				
Recreation (Power Plant)		230,000	248,959	274,871
Conference Center		40,000	43,297	47,804
Amphitheater/Bike Park (South Activity Area)		151,000	163,447	180,459
North Activity Area		210,000	227,311	250,969
Park		178,000	192,673	212,726
Lake		30,000	32,473	35,853
Total		839,000	908,161	1,002,683
Possible Visitation Overlap	20%	(167,800)	(181,632)	(200,537)
Net Total		671,200	726,528	802,146
Room Nights				
Recreation (Power Plant)	3%	6,900	7,469	8,246
Conference Center	30%	12,000	12,989	14,341
Amphitheater/Bike Park (South Activity Area)	4%	6,040	6,538	7,218
North Activity Area	1%	2,100	2,273	2,510
Park	1%	1,780	1,927	2,127
Lake	1%	300	325	359
Total		29,120	31,520	34,801
Direct Visitor Spending (\$ Million)				
On Lodging	\$151.66	\$4.4	\$5.4	\$6.9
On Food and Beverage	50.91	42.7	52.0	66.6
On Car Rental	49.01	1.4	1.7	2.2
On Retail	15.00	12.6	15.3	19.6
Total	\$251.58	\$61.1	\$74.5	\$95.3
Economic Impact (\$ Million)				
Direct Spending		\$61.1	\$74.5	\$95.3
Indirect and Induced Spending	0.796	48.6	59.3	75.8
Total Spending		\$109.8	\$133.7	\$171.2
Increased Earnings	0.586	\$35.8	\$43.6	\$55.9
Employment (Estimated Supported # of Jobs)	12.946	791	857	946
Fiscal Impact (\$ Million)				
Applicable Tax Rates	8.10%	\$5.0	\$6.0	\$7.7
City	5.00%	0.2	0.3	0.3
Total		\$5.2	\$6.3	\$8.1
Inflation Rate	3.00%			
Source: Johnson Consulting				

ECONOMIC - IMPACTS - KEY TAKEAWAYS

Highest Overall Impact: Concept 1

Note: Phasing not yet integrated into economic projections

YEAR 10 ESTIMATIONS

Jobs

Concept 01	1,091
Concept 02	946

Direct Visitor Spending (\$ Million)

Concept 01	\$197.5
Concept 02	\$171.2

Room Nights

Concept 01	62,665
Concept 02	34,801

Taxes Generated (\$ Million)

Concept 01	\$9.5
Concept 02	\$8.1

Lake Springfield, Missouri Estimated Direct Visitor Spending and Employment Concept 01				
	Assumptions	Year 1	Year 5	Year 10
Visitation				
Entertainment District (Power Plant)		287,500	311,199	343,589
Conference Center Lodge		40,000	43,297	47,804
South Adventure Area		165,000	178,601	197,190
North Activity Area		210,000	227,311	250,969
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Total		52,435	56,757	62,665
Direct Visitor Spending (\$ Million)				
On Lodging	\$151.66	\$8.0	\$9.7	\$12.4
On Food and Beverage	50.91	46.3	56.5	72.3
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Sales Tax	8.10%	\$5.7	\$7.0	\$8.9
Hotel/Motel Tax	5.00%	0.4	0.5	0.6
Total		\$6.1	\$7.4	\$9.5
Inflation Rate	3.00%			
Source: Johnson Consulting				

Lake Springfield, Missouri Estimated Direct Visitor Spending and Employment Concept 02				
	Assumptions	Year 1	Year 5	Year 10
Visitation				
Recreation (Power Plant)		230,000	248,959	274,871
Conference Center		40,000	43,297	47,804
Amphitheater/Bike Park (South Activity Area)		151,000	163,447	180,459
North Activity Area		210,000	227,311	250,969
Park		178,000	192,673	212,726
Lake		30,000	32,473	35,853
Total		839,000	908,161	1,002,683
Possible Visitation Overlap	20%	(167,800)	(181,632)	(200,537)
Net Total		671,200	726,528	802,146
Room Nights				
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Park	1%	1,780	1,927	2,127
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Total		29,120	31,520	34,801
Direct Visitor Spending (\$ Million)				
On Lodging	\$151.66	\$4.4	\$5.4	\$6.9
On Food and Beverage	50.91	42.7	52.0	66.6
On Car Rental	49.01	1.4	1.7	2.2
On Retail	15.00	12.6	15.3	19.6
Total	\$251.58	\$61.1	\$74.5	\$95.3
Economic Impact (\$ Million)				
Direct Spending		\$61.1	\$74.5	\$95.3
Indirect and Induced Spending	0.796	48.6	59.3	75.8
Total Spending		\$109.8	\$133.7	\$171.2
Increased Earnings	0.586	\$35.8	\$43.6	\$55.9
Employment (Estimated Supported # of Jobs)	12.946	791	857	946
Fiscal Impact (\$ Million)				
Applicable Tax Rates	8.10%	\$5.0	\$6.0	\$7.7
City	5.00%	0.2	0.3	0.3
Total		\$5.2	\$6.3	\$8.1
Inflation Rate	3.00%			
Source: Johnson Consulting				



ECONOMIC - DEVELOPMENT COSTS

Lake Springfield, Missouri Estimated Construction Cost Concept 01			
	Actual Area (SF, rounded)	Area (acres)	Estimated Cost (\$000)
North Area			\$15,480,000
Subtotal	13,593,000	312.05	\$15,480,000
MP Contingency (40%)			\$6,192,000
Site Infrastructure (20%)			3,096,000
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			8,668,800
Master Plan Order-of-Magnitude			\$33,436,800
Park & Lake			\$114,504,600
Subtotal	4,237,800	97	\$114,504,600
MP Contingency (40%)			\$45,801,840
Site Infrastructure (20%)			22,900,920
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			64,122,576
Master Plan Order-of-Magnitude			\$247,329,936
Entertainment District (Power Plant)			
Power Plant	80,000	1.84	\$51,500,000
Restaurant/Overlook	20,000	0.46	13,000,000
Entertainment Bldg A-B	37,000	0.85	24,050,000
Mixed Use Bldg A-D	226,000	5.19	113,000,000
Riverfront Hospitality Bldg	5,000	0.11	3,250,000
Multi-Purpose Event Center	270,000	6.20	81,000,000
Event Lawn	130,000	2.98	3,250,000
Bypass Channel	110,000	2.53	9,550,000
Water Adventure	159,000	3.65	31,625,000
Riverfront Destination Amenity Area	140,000	3.21	4,900,000
Site Improvements & Modifications			33,030,000
Subtotal	1,177,000	27.02	\$368,155,000
MP Contingency (40%)			\$147,262,000
Site Infrastructure (20%)			73,631,000
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			206,166,800
Master Plan Order-of-Magnitude			\$795,214,800
Conference / Supporting Adventure (South Activity Area)			
Conference Center Lodge	102,000	2.34	\$40,000,000
Retreat Cabins/Yurts	40,600	0.93	10,500,000
Ropes / Adventure Course / Destination Play	230,000	5.28	10,000,000
Bike Park	700,000	16.07	2,000,000
Green Space Trails	1,840,000	42.24	1,080,000
Lake	390,000	8.95	1,000,000
Green Space Buffer	930,000	21.35	1,000,000
Site Improvements & Modifications			9,100,000
Subtotal	4,232,600	97.17	\$74,680,000
MP Contingency (40%)			\$29,872,000
Site Infrastructure (20%)			14,936,000
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			41,820,800
Master Plan Order-of-Magnitude			\$161,308,800
Total Concept 01	23,240,400	534	\$1,237,290,336
Source: SWT, Johnson Consulting			

Lake Springfield, Missouri Estimated Construction Cost Concept 02			
	Actual Area (SF, rounded)	Area (acres)	Estimated Cost (\$000)
North Area			\$15,080,000
Subtotal	13,593,000	312.05	\$15,080,000
MP Contingency (40%)			\$6,032,000
Site Infrastructure (20%)			3,016,000
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			8,444,800
Master Plan Order-of-Magnitude			\$24,128,000
Park & Lake			\$114,079,600
Subtotal	4,237,800	97	\$114,079,600
MP Contingency (40%)			\$45,631,840
Site Infrastructure (20%)			22,815,920
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			63,884,576
Master Plan Order-of-Magnitude			\$246,411,936
Recreation (Power Plant)			
Power Plant	80,000	1.84	\$51,500,000
Mixed Use Bldg A-B	162,000	3.72	81,000,000
Entertainment Bldg	7,200	0.17	4,680,000
Conference Center	155,000	3.56	54,250,000
Overlook Restaurant	20,000	0.46	13,000,000
Riverfront Hospitality	5,000	0.11	3,250,000
Recreation / Entertainment Destination	180,000	4.13	63,000,000
Event Lawn	280,000	6.43	7,000,000
Lake / Water Feature / Bypass Channel	330,000	7.58	17,550,000
Riverfront Green / Parks Space	460,000	10.56	1,380,000
Site Improvements & Modifications			30,421,500
Subtotal	1,679,200	38.55	\$327,031,500
MP Contingency (40%)			\$130,812,600
Site Infrastructure (20%)			65,406,300
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			183,137,640
Master Plan Order-of-Magnitude			\$706,388,040
Amphitheater/Bike Park (South Activity Area)			
Amphitheater	70,000	1.61	\$2,500,000
Multi-Use Lawn	95,000	2.18	850,000
Amenities Plaza	29,000	0.67	360,000
Amenities Plaza Bldgs	40,000	0.92	5,000,000
RV Camping Area A-B	1,830,000	42.01	2,137,500
Bike Park	905,000	20.78	2,500,000
Bike Park Support Bldg	4,500	0.10	562,500
Adventure Park / Ropes Course	387,000	8.88	5,000,000
Archery Range	95,000	2.18	500,000
Lake	1,340,000	30.76	5,100,000
Green Space Buffer / Trails	1,040,000	23.88	2,160,000
Site Improvements & Modifications			7,600,000
Subtotal	5,835,500	133.96	\$34,270,000
MP Contingency (40%)			\$13,708,000
Site Infrastructure (20%)			6,854,000
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			19,191,200
Master Plan Order-of-Magnitude			\$74,023,200
Total Concept 02	25,345,500	582	\$1,050,951,176
Source: SWT, Johnson Consulting			





MOBILITY CONSIDERATIONS

TRIP GENERATORS:

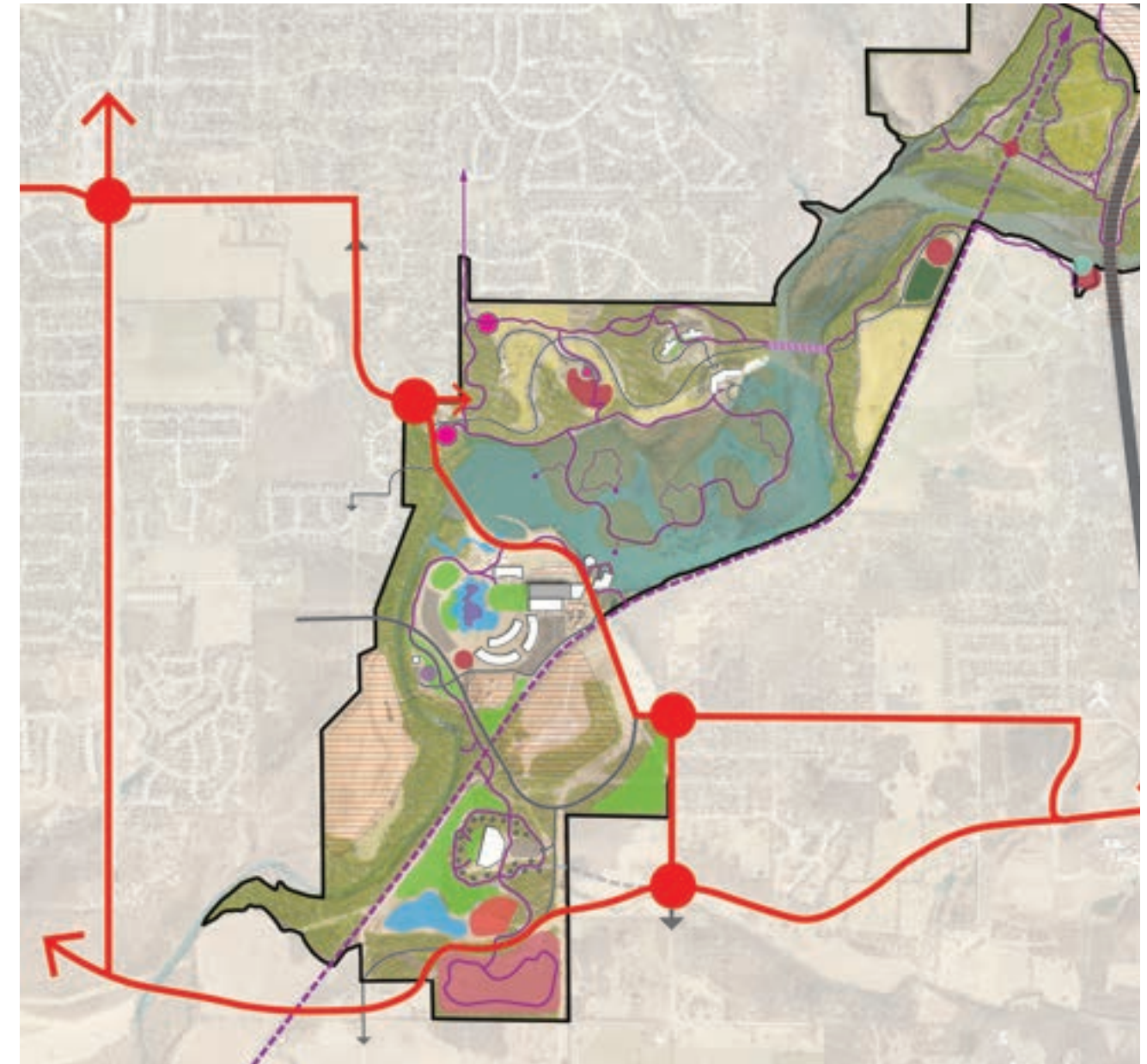
- Power Plant
- South Activity Area
- 20,000 trips/day (2,000 peak hour)

LONG RANGE PLAN:

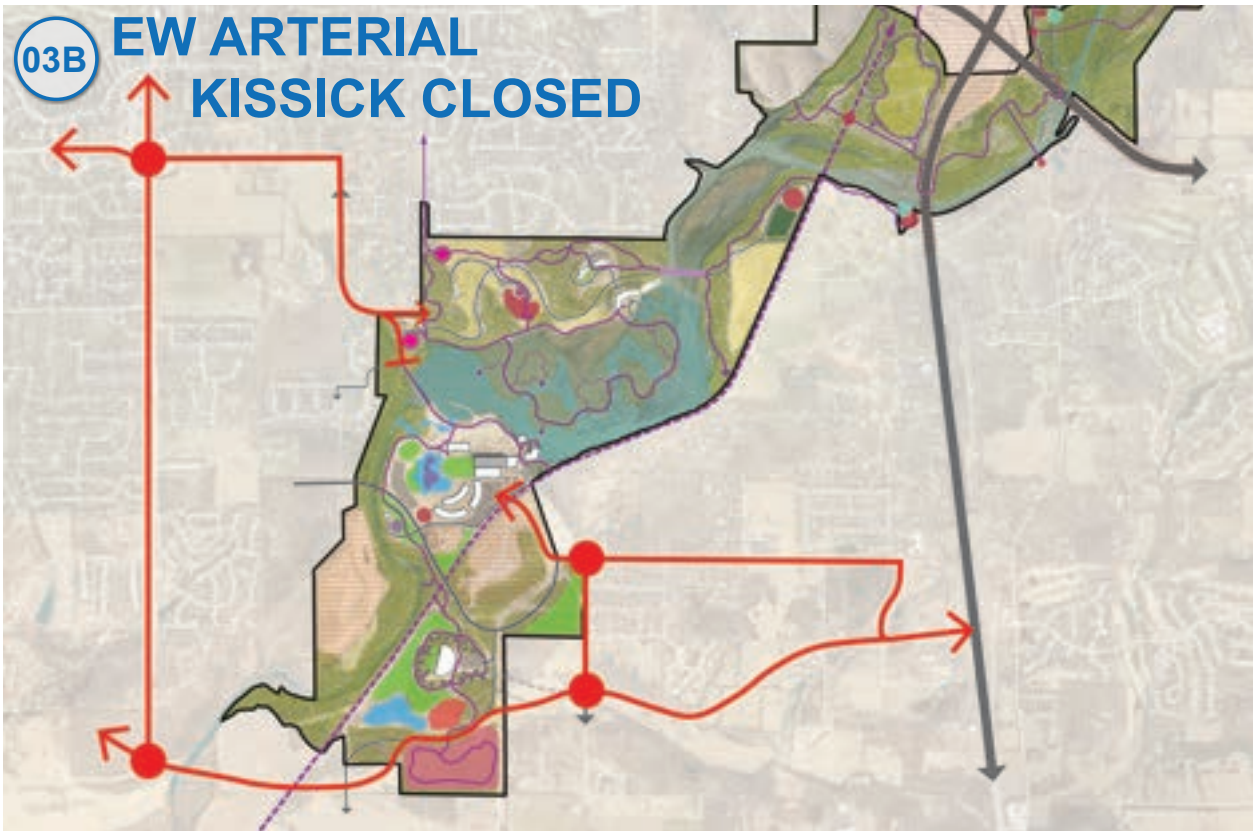
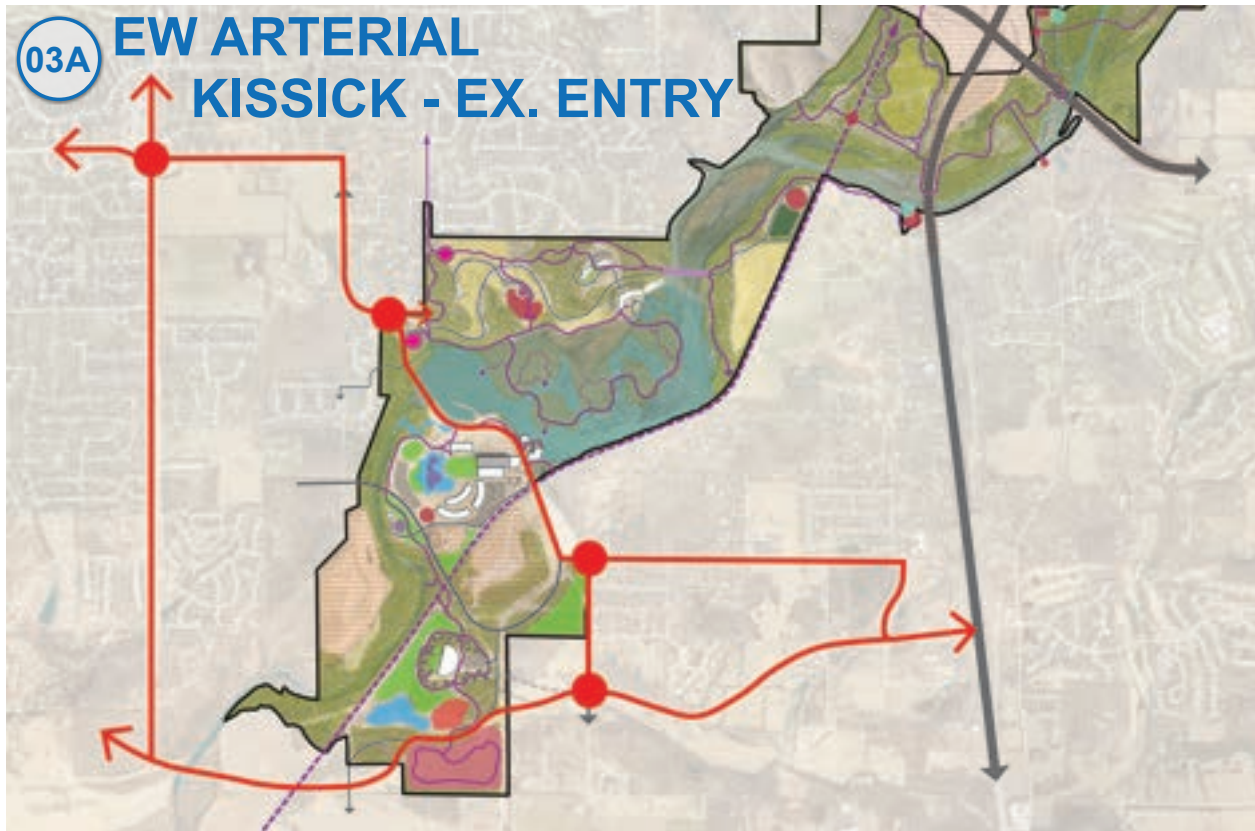
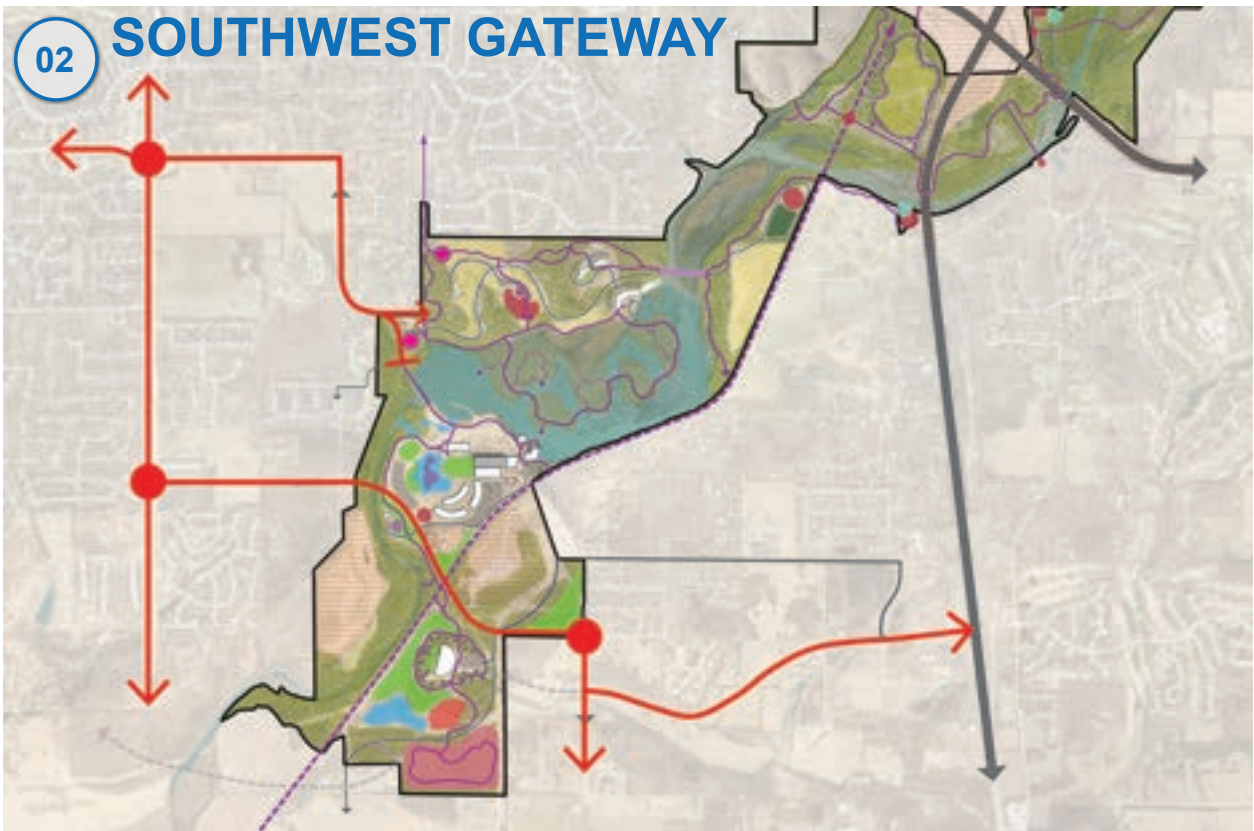
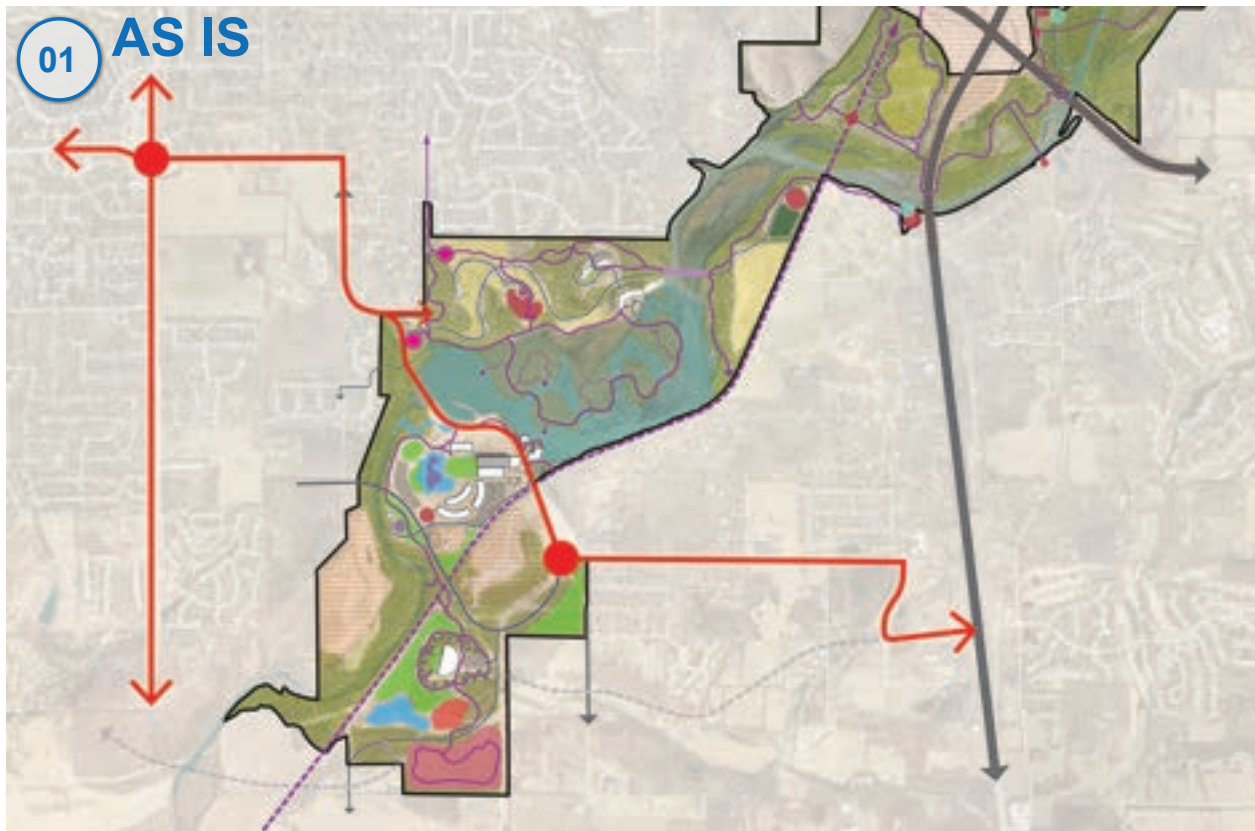
- E/W Arterial
- Typical sections for improvement

MULTIMODAL CONNECTIONS:

- Public transit on Republic/ Lake Springfield connector trail
- CFT Trail connection
- Trail system in site plan



ACCESS OPTIONS



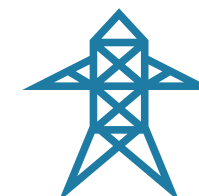
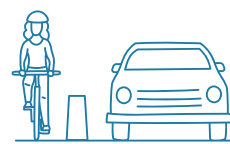


RISK ASSESSMENT

- **Initial risk assessment completed at retreat kickoff (109 risks)**
- **Reviewed and risk register included 62 risks**
- **Categories:**
 - *Parks & Recreation*
 - *Economic Development*
 - *Transportation*
 - *Public Relations*
 - *Dam*
 - *Environmental*
 - *Utilities*
 - *General*
- **Risk Register review - July 2023 (after 2nd public meeting May 4)**
- **Two risks added (total on register at 64)**
- **High Risks - 5**
- **Moderate Level - 52**
- **Low Level - 7**



QUALITATIVE ANALYSIS					
Likelihood ↑	E - Near Certainty	Yellow	Yellow	Red	Red
	D - Highly Likely	Green	Yellow	Yellow	Red
	C - Likely	Green	Green	Yellow	Yellow
	B - Unlikely	Green	Green	Green	Yellow
	A - Remote	Green	Green	Green	Green
RISK NO:		1	2	3	4
		Consequence →			



Lake Springfield

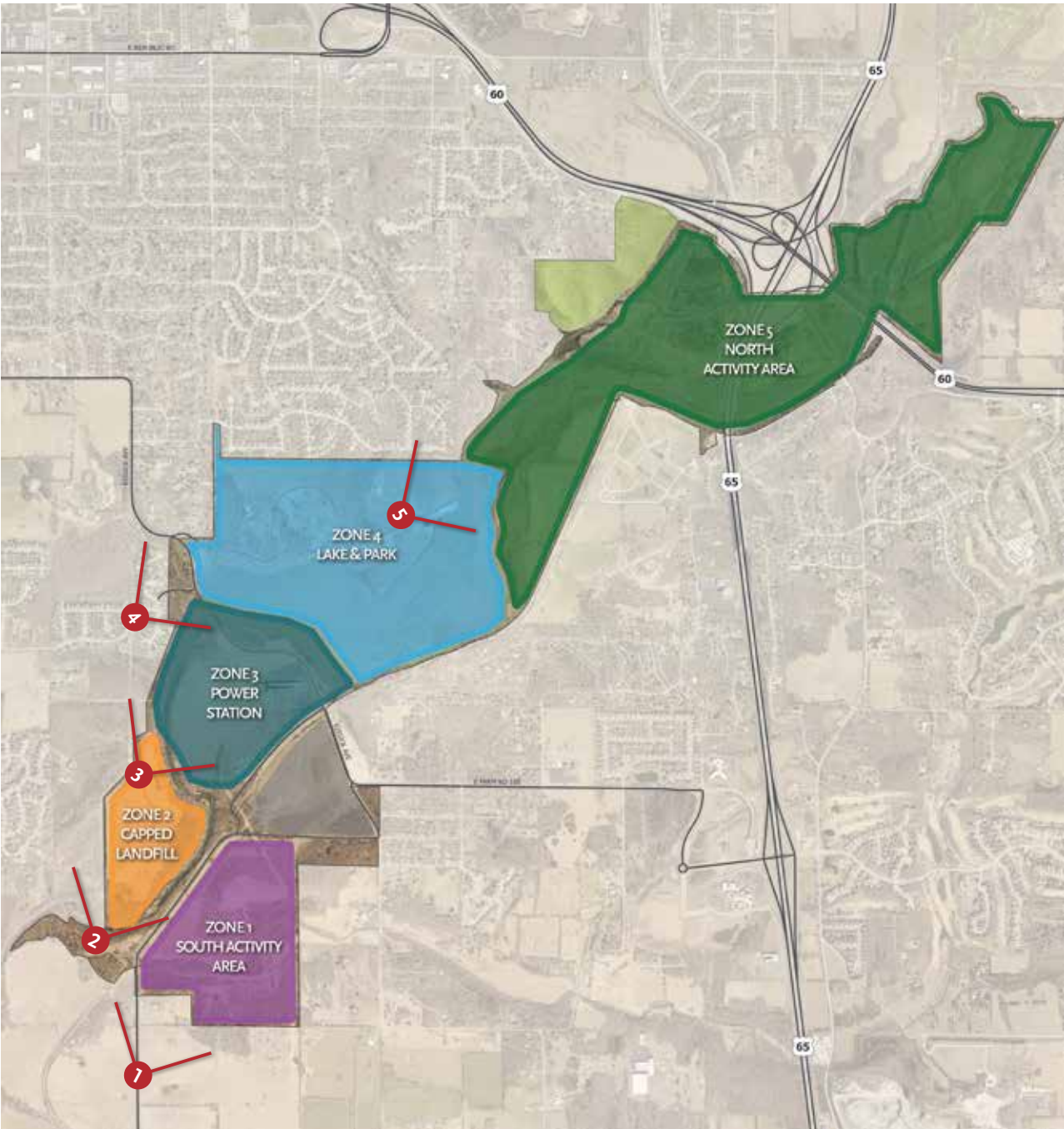
August 23, 2023

Land-Use Concepts

City Manager Update



INITIAL CONCEPT ZONES

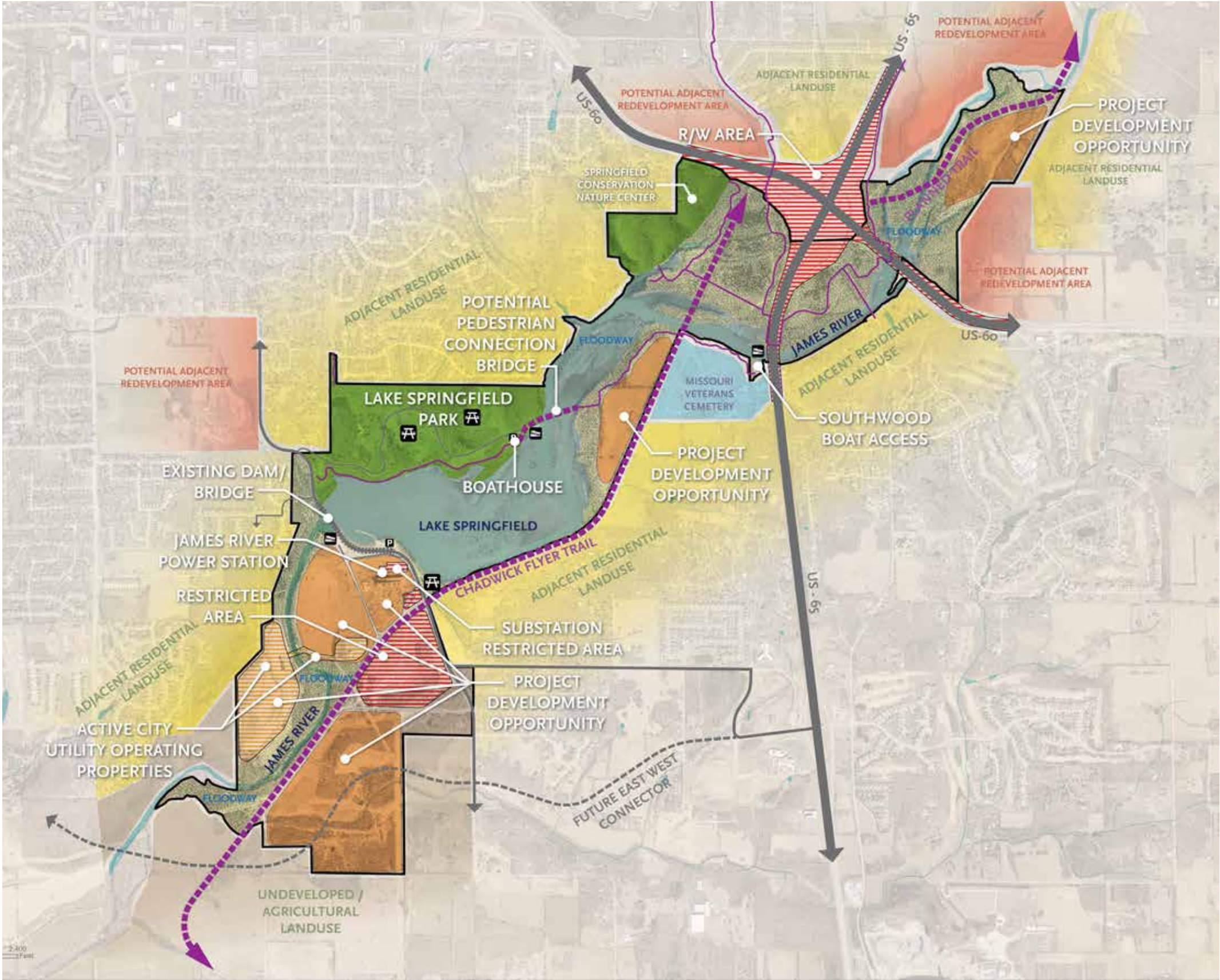


1 VIEWSHED FROM OBSERVER'S LOCATION

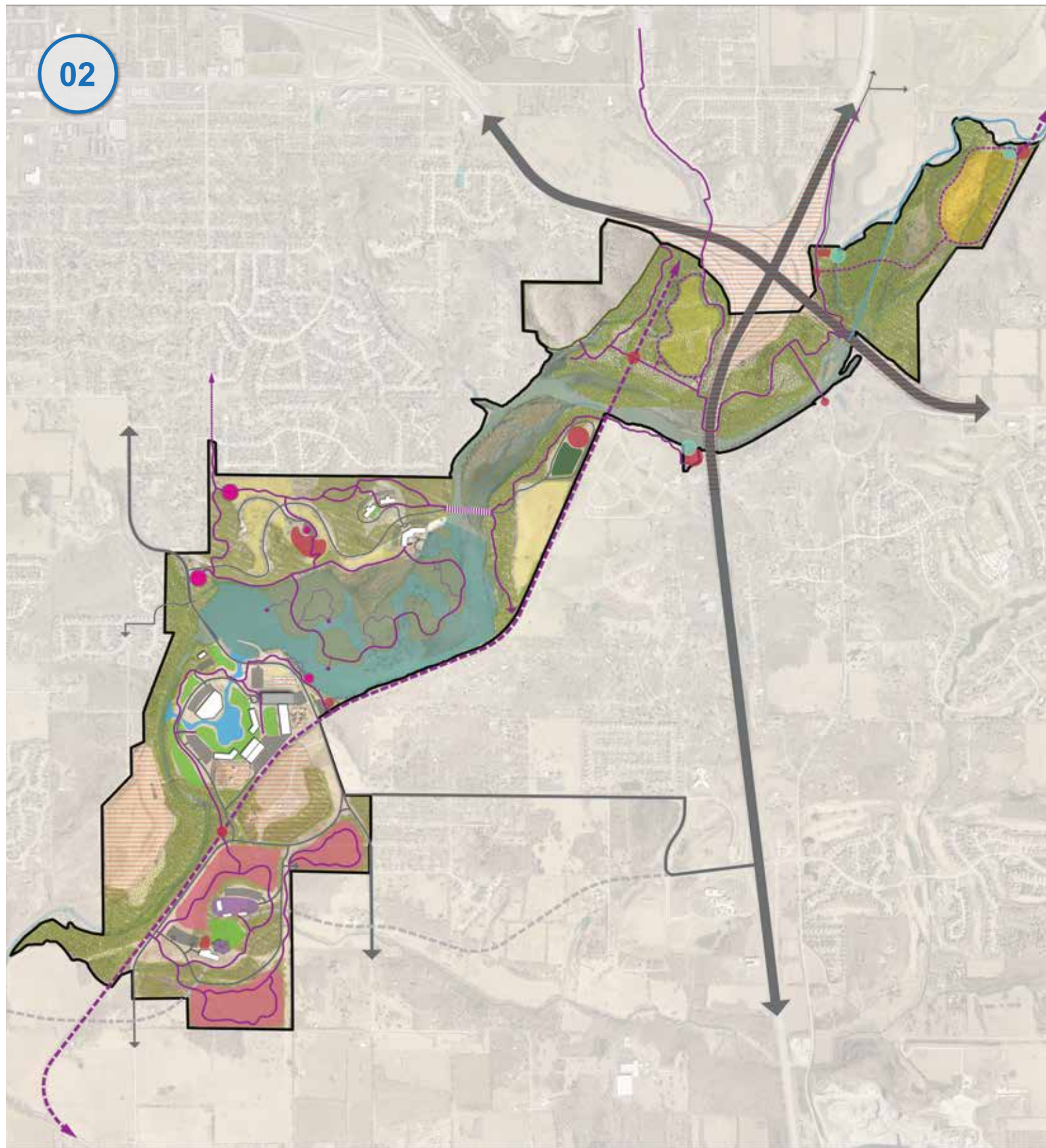
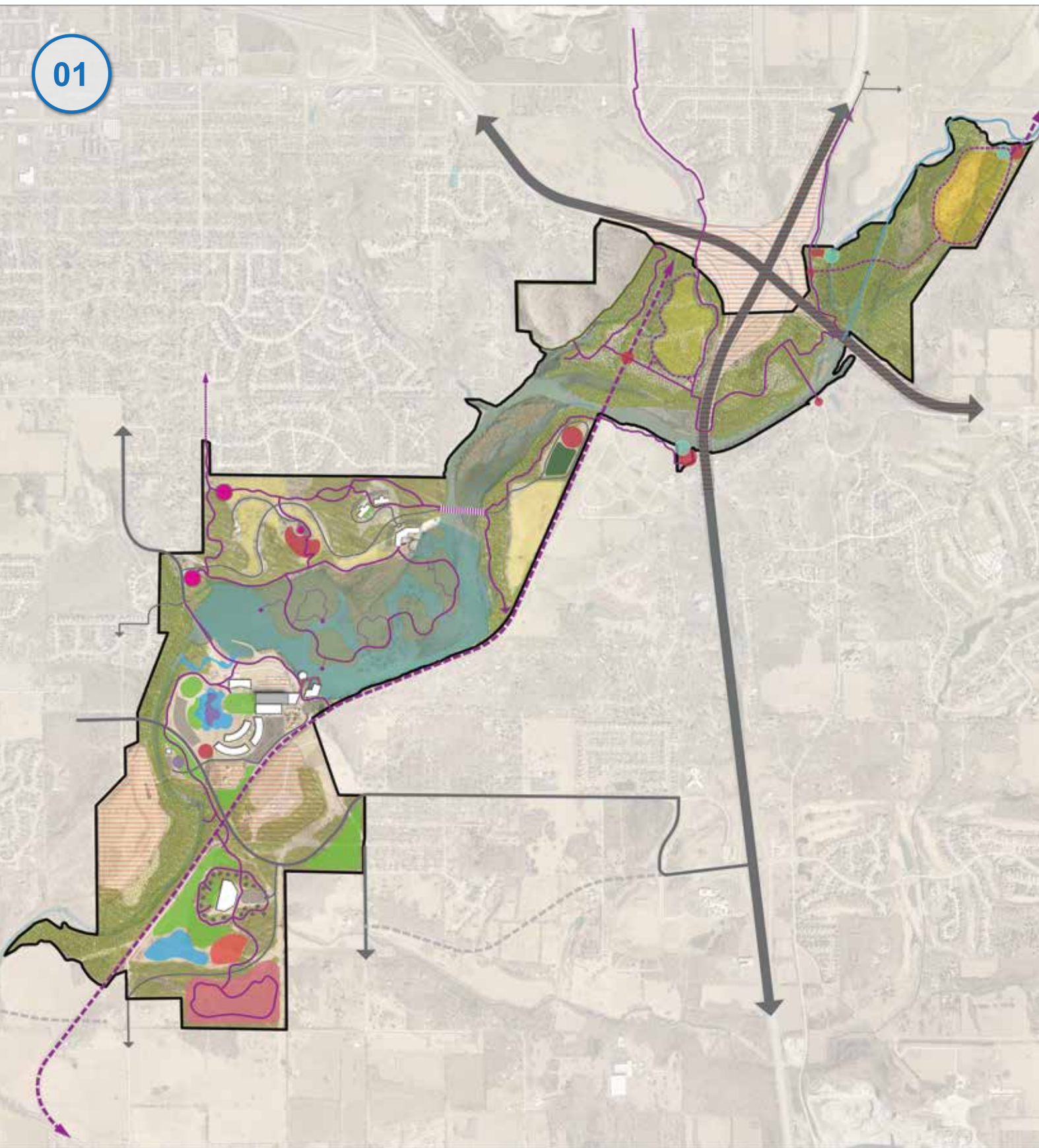


PLACE COMMENTS HERE

SITE ANALYSIS & PRELIMINARY CONCEPTS

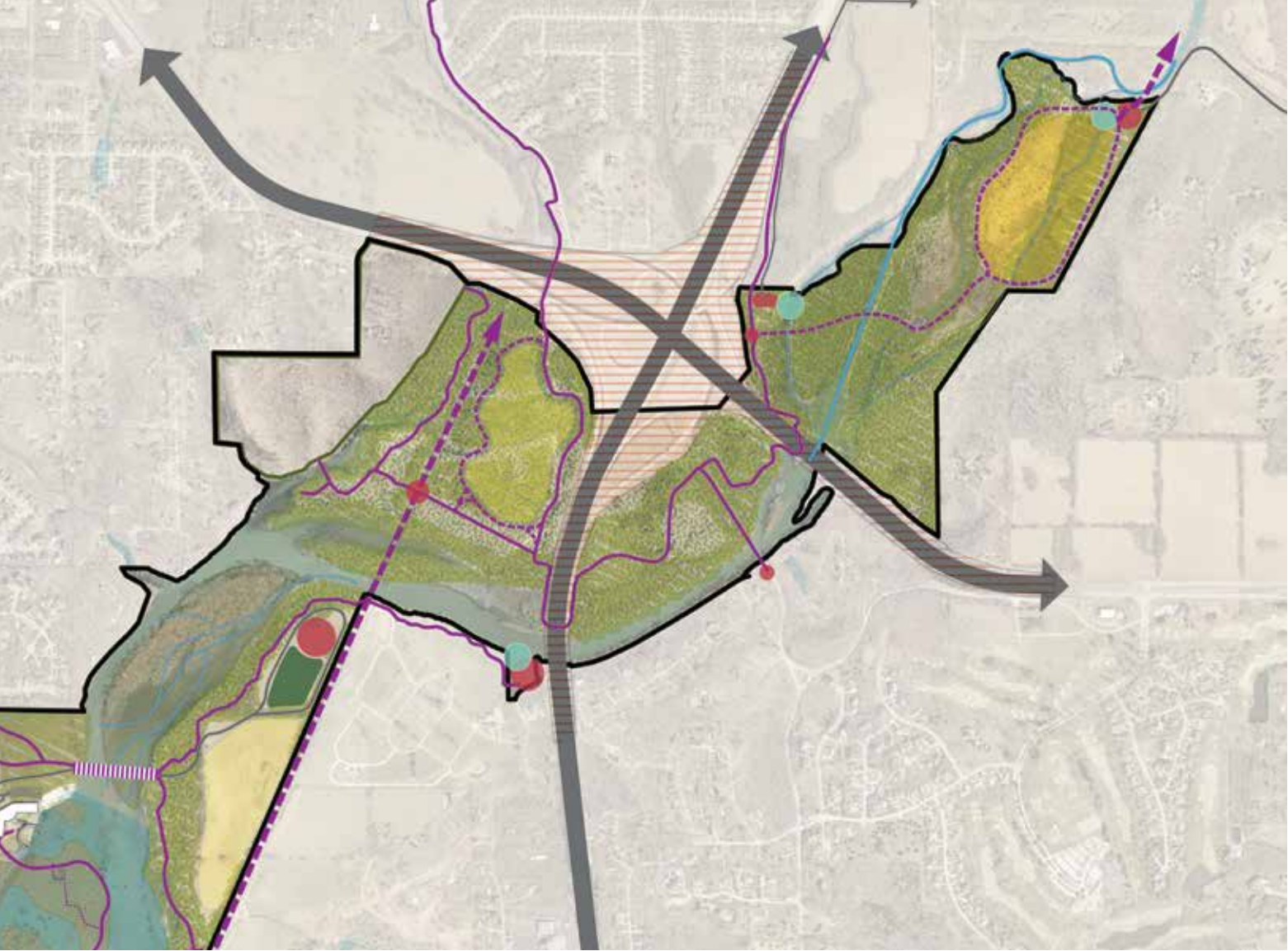


LAND-USE CONCEPTS



Experience

NORTH



Wetland Preservation
Trails
Nature Amenity Area
River Access/Trailheads
Bird Meadow
Culture Center/Lawn
Culture Meadow



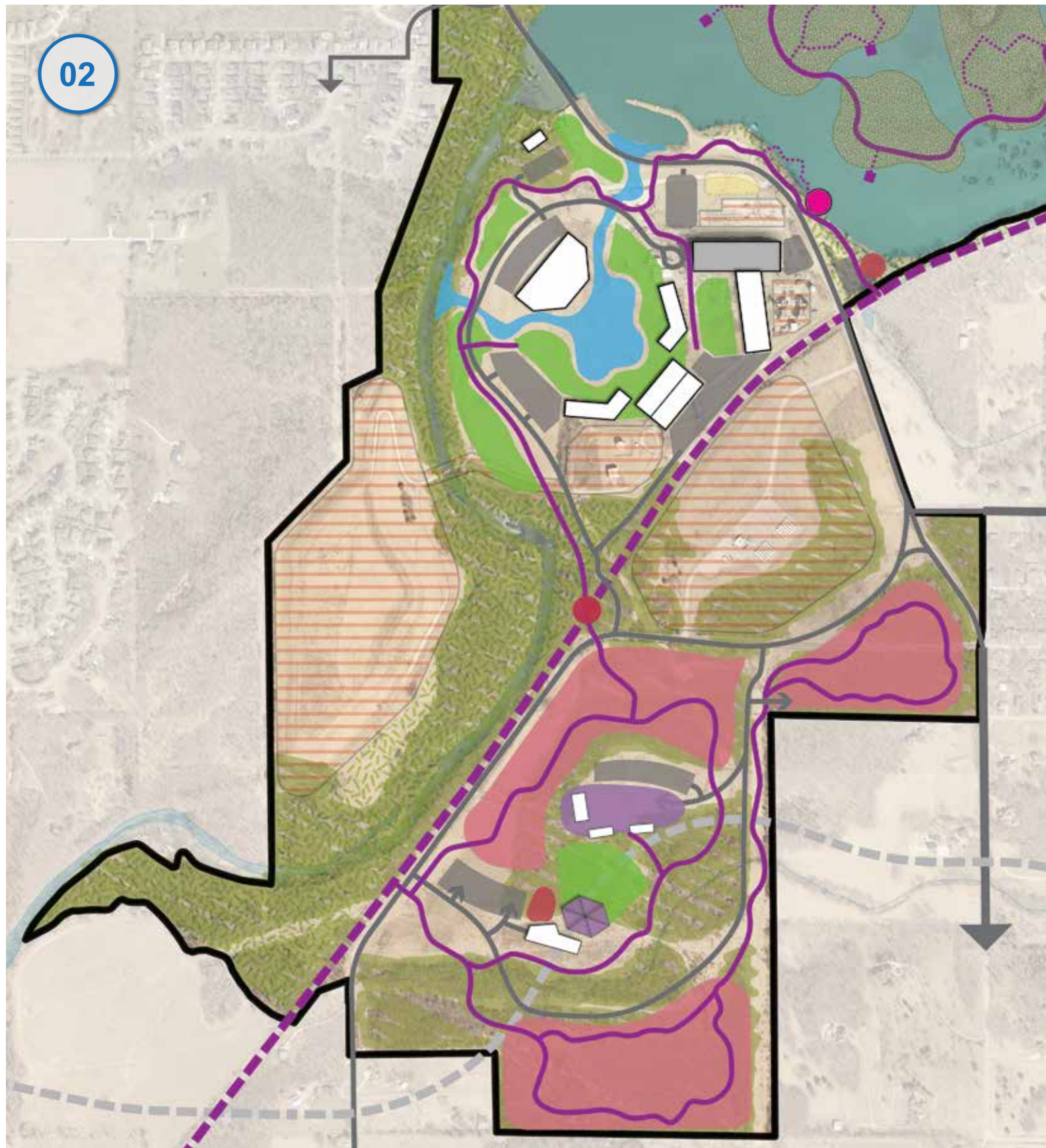
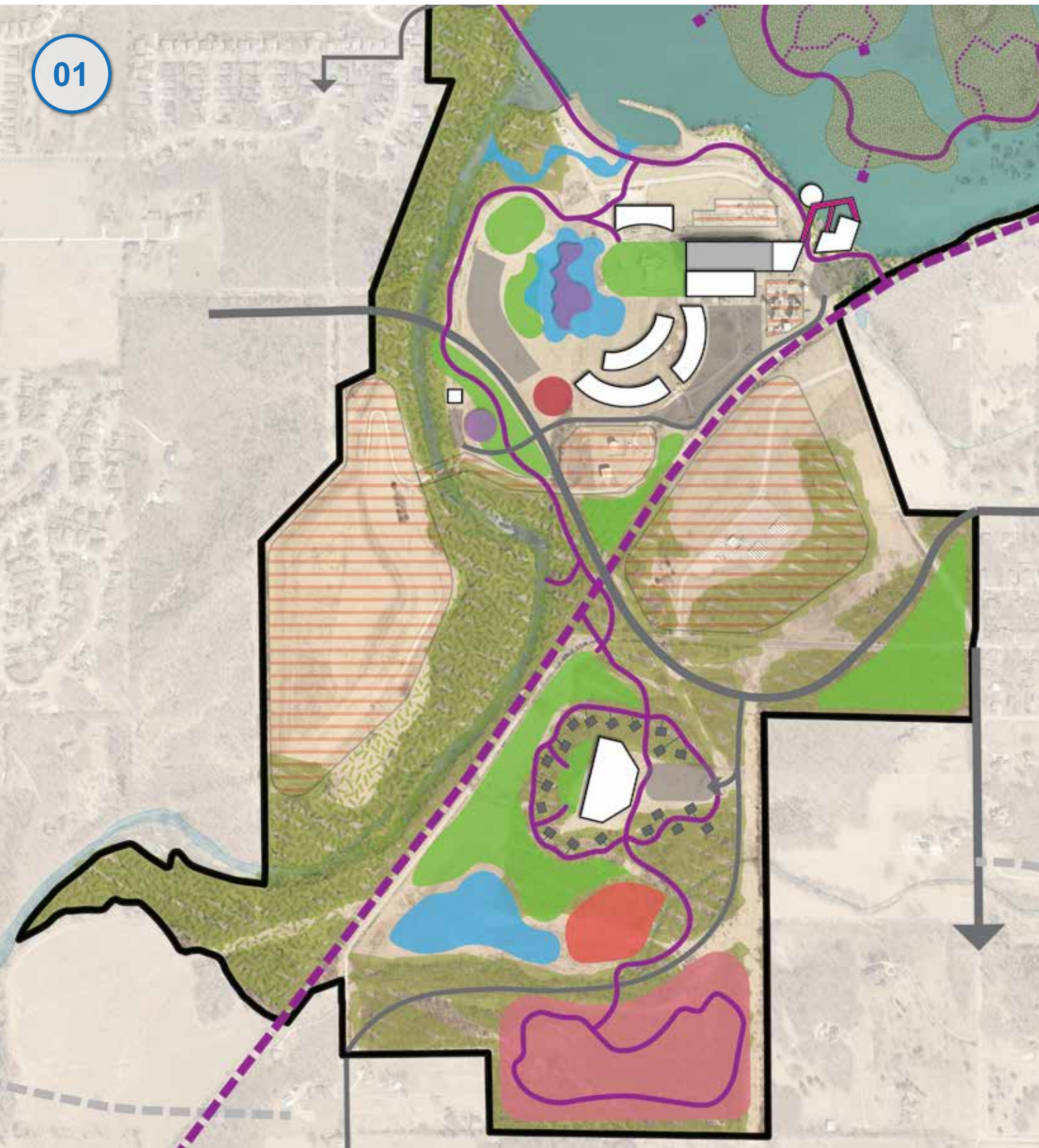
PARK & LAKE



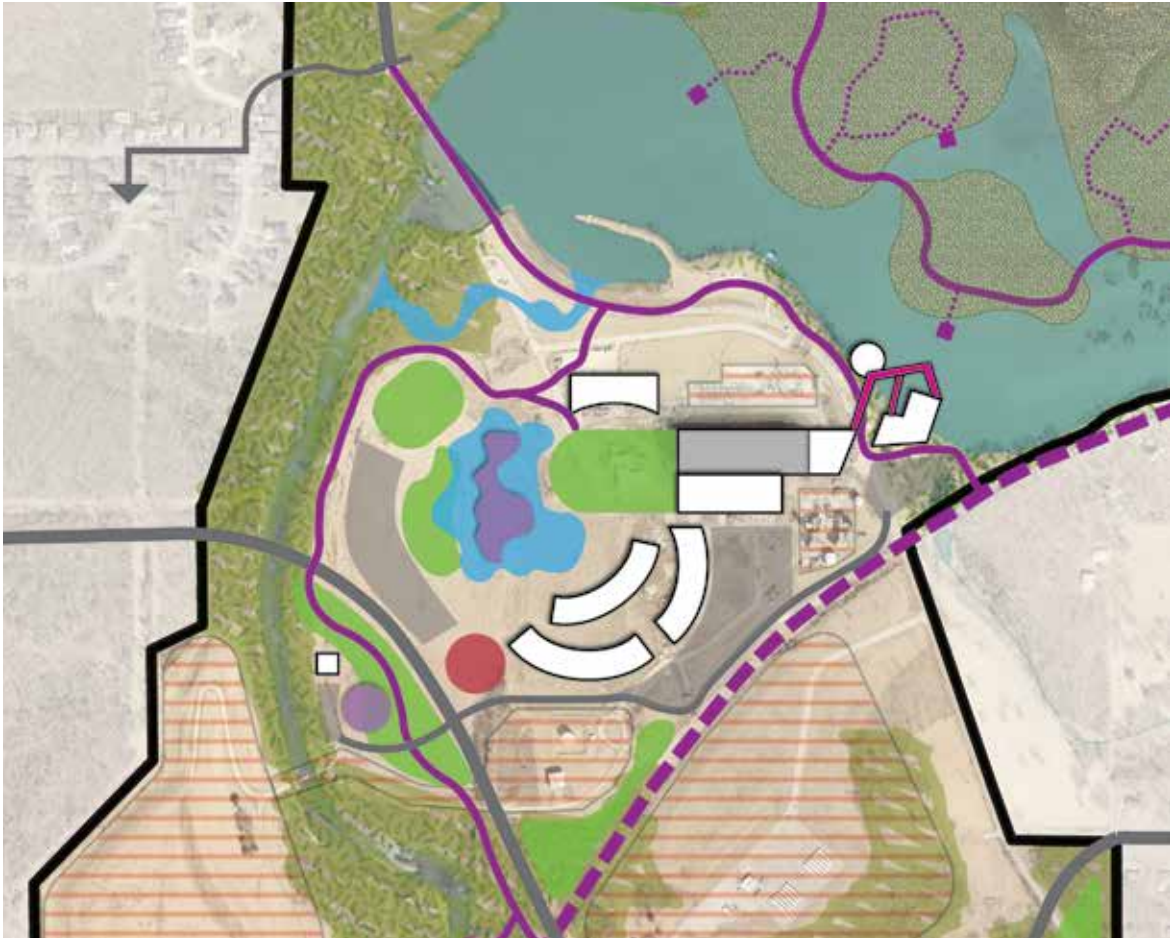
Boathouse/Eco Center
Marina
Wetland Boardwalk
Eco Retreat Center
Destination Play
Overlooks
Park Entry Amenities



POWER PLANT + SOUTH ACTIVITY AREA



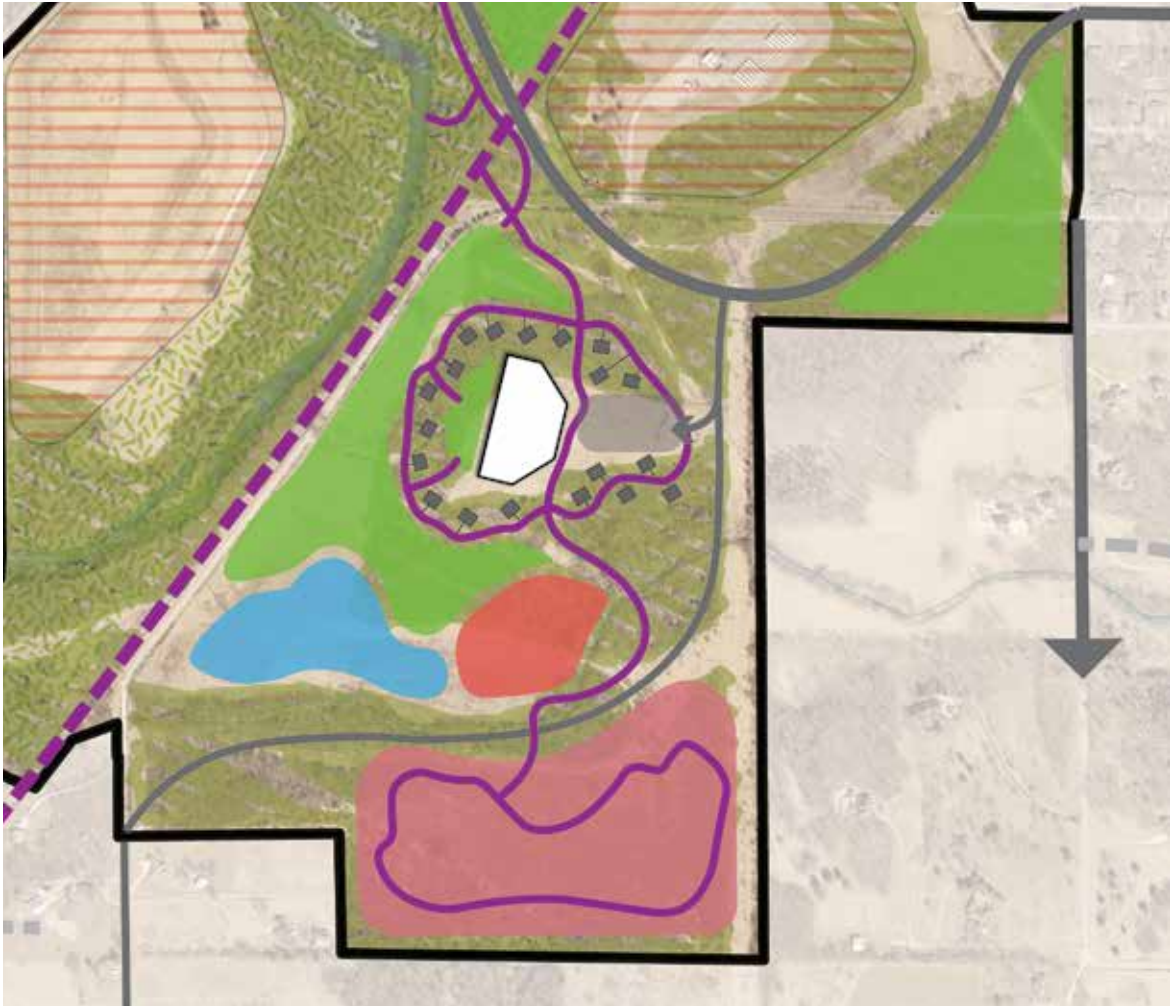
POWER PLANT - ENTERTAINMENT DISTRICT



Power Plant + Expansion
Restaurant/Overlook
Mixed Use Bldg
Entertainment Bldg
Riverfront Hospitality
Event Lawn
Bypass Channel
Water Adventure
Adventure Island
Ropes Course
Destination Play
Riverfront Play Area



SOUTH ACTIVITY - CONFERENCE / ADVENTURE



Retreat/Conference Bldg
Retreat Green
Retreat Cabins/Yurts
Destination Play
Lake
Bike Park
Green Space TBD



POWER PLANT - MULTI-PURPOSE EVENT



Power Plant + Expansion
Sports Complex
Mixed Use Bldg
Conference Center
Overlook Amenity
Riverfront Dining
Event Lawn
Community Green
Water Adventure
Riverfront Green



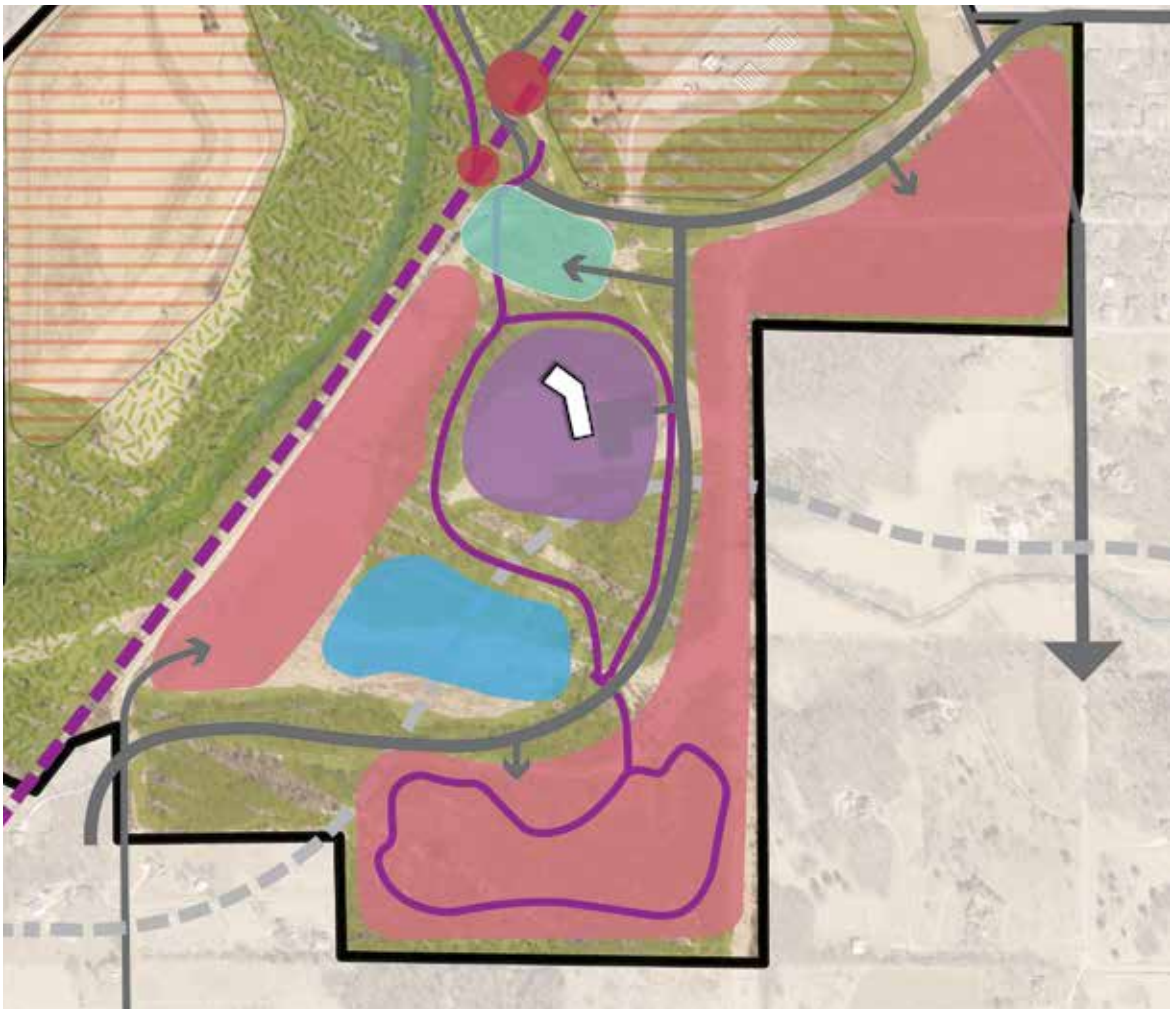
SOUTH ACTIVITY - AMPHITHEATER / BIKE PARK



Amphitheater
Multi-Use Lawn
Amenities Plaza
Amenities Bldg
Destination Play
RV Camping
Bike Park
Bike Park Expansion



SOUTH ACTIVITY - DESTINATION ADVENTURE PARK

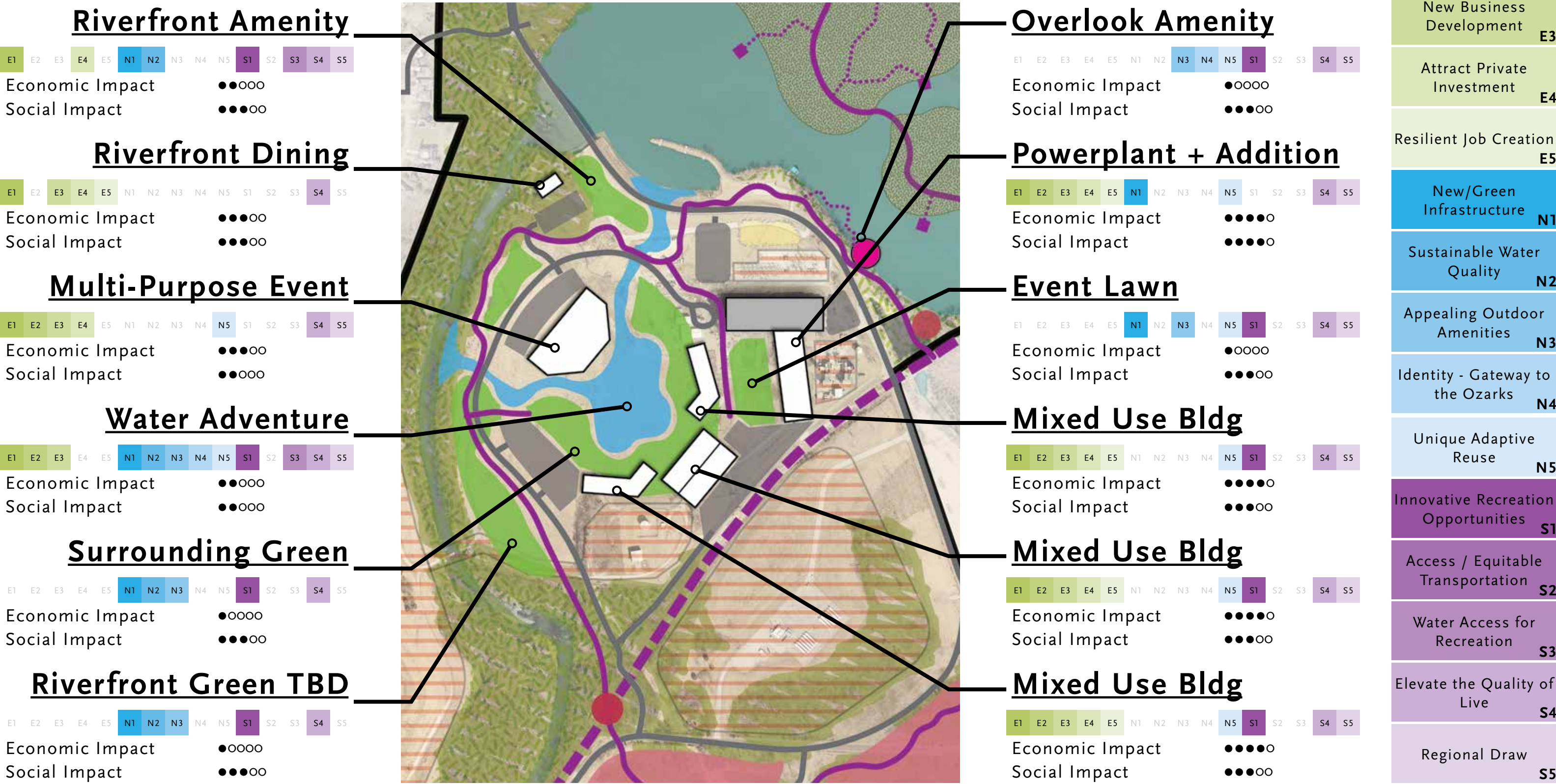


- Canopy Ropes / Trail
- Ziplines
- River Access
- Destination Building
- Destination Support Area
- Amenity Area
- Lake / Water Adventure
- Adventure Play
- Archery Range
- Event Lawn / Stage
- Food Truck Plaza



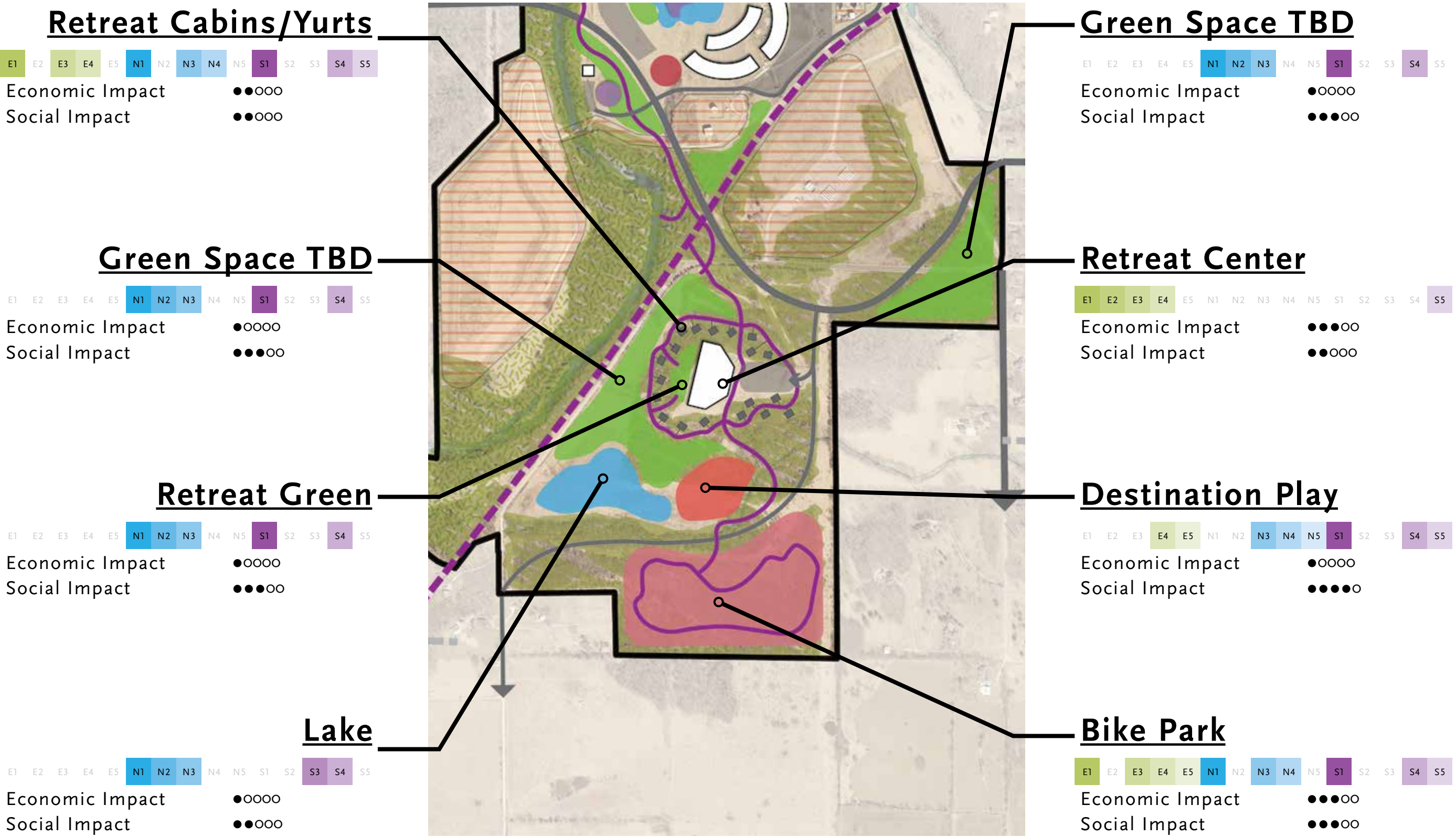
Economic Impact

POWER PLANT



SOUTH ACTIVITY AREA

01

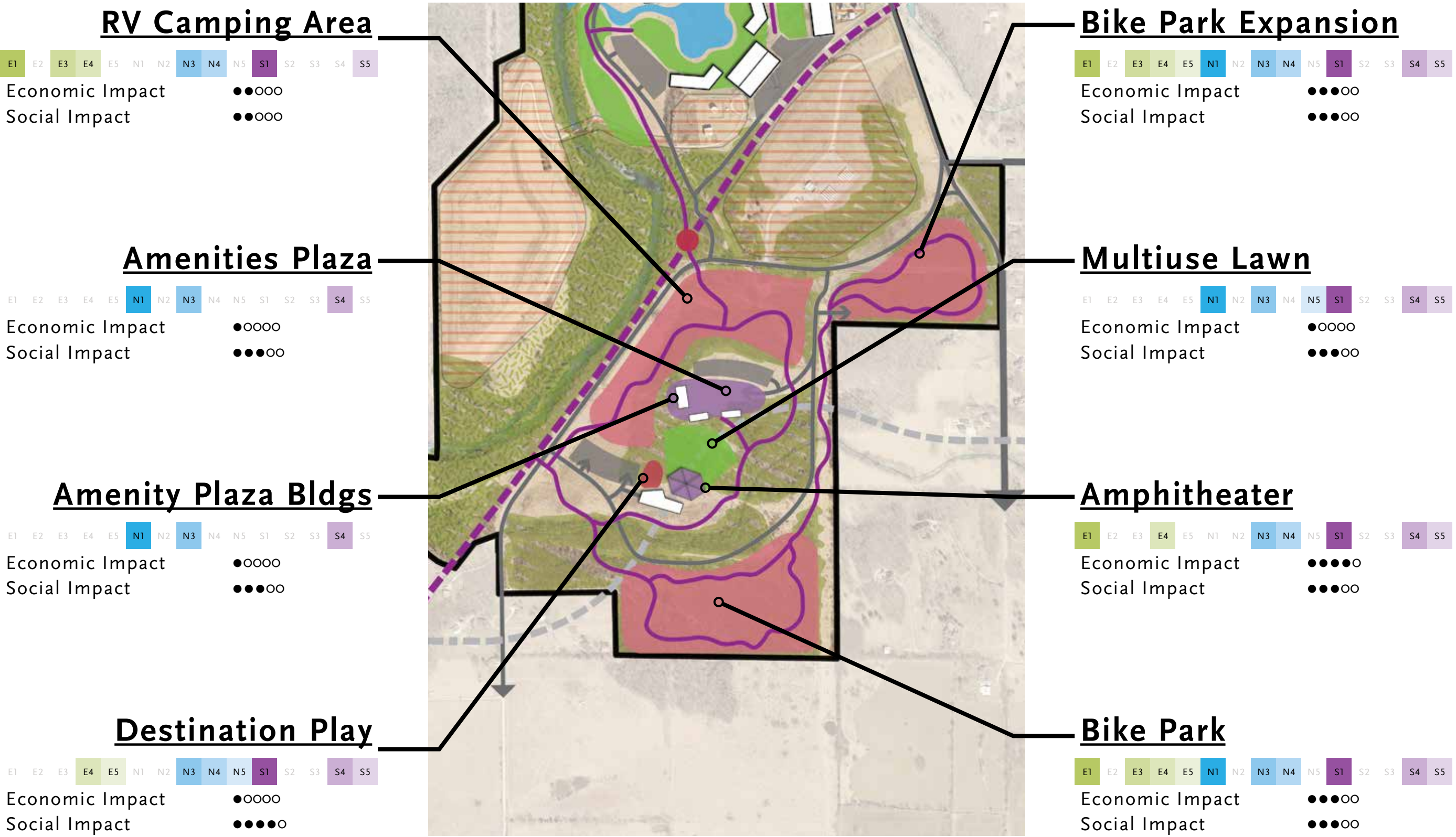


Innovative Economic Opportunities	E1
New Funding Allocations	E2
New Business Development	E3
Attract Private Investment	E4
Resilient Job Creation	E5
New/Green Infrastructure	N1
Sustainable Water Quality	N2
Appealing Outdoor Amenities	N3
Identity - Gateway to the Ozarks	N4
Unique Adaptive Reuse	N5
Innovative Recreation Opportunities	S1
Access / Equitable Transportation	S2
Water Access for Recreation	S3
Elevate the Quality of Live	S4
Regional Draw	S5



SOUTH ACTIVITY AREA

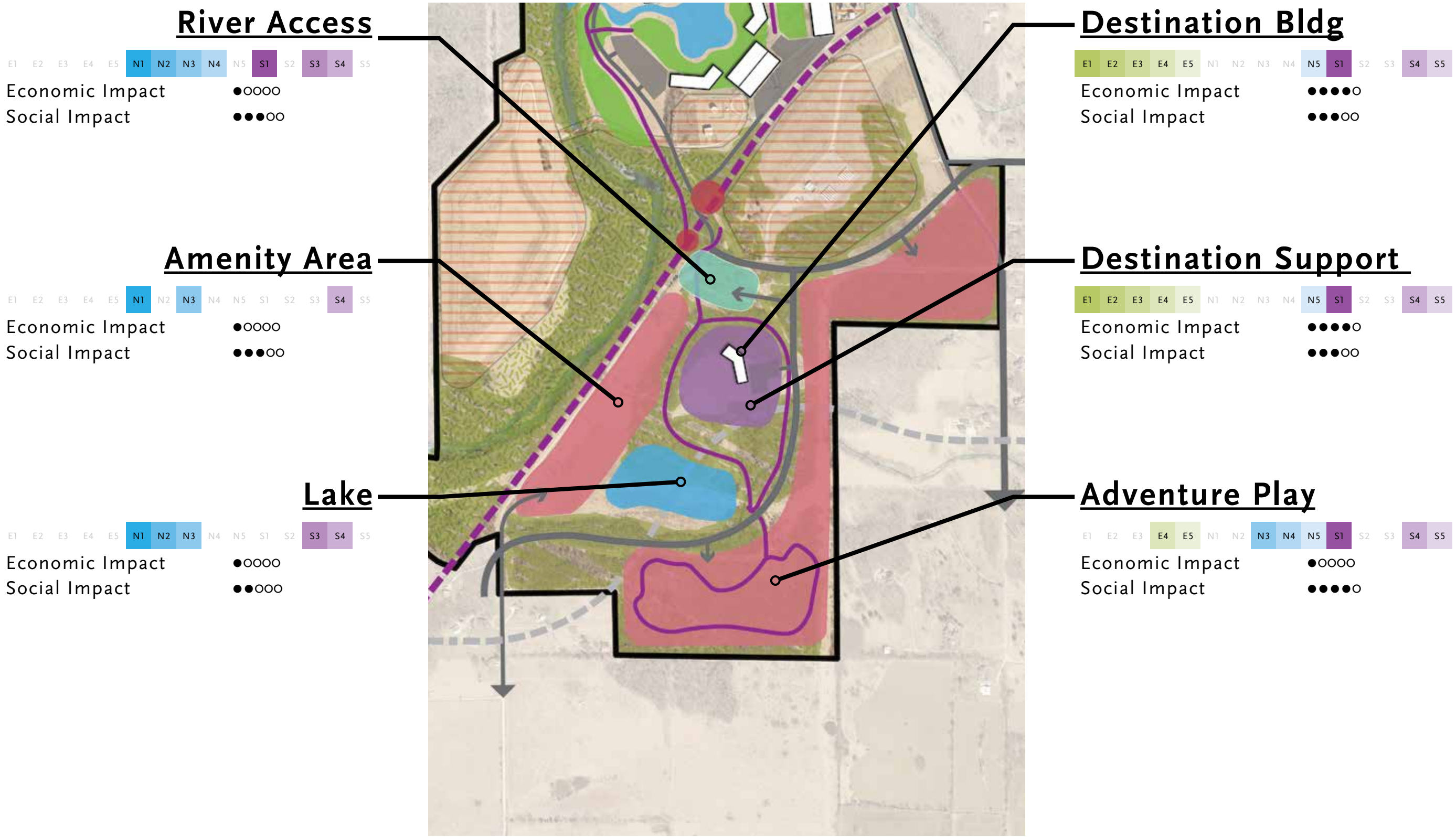
02A



Innovative Economic Opportunities	E1
New Funding Allocations	E2
New Business Development	E3
Attract Private Investment	E4
Resilient Job Creation	E5
New/Green Infrastructure	N1
Sustainable Water Quality	N2
Appealing Outdoor Amenities	N3
Identity - Gateway to the Ozarks	N4
Unique Adaptive Reuse	N5
Innovative Recreation Opportunities	S1
Access / Equitable Transportation	S2
Water Access for Recreation	S3
Elevate the Quality of Live	S4
Regional Draw	S5

SOUTH ACTIVITY AREA

02B

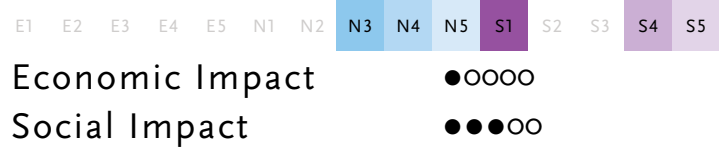


Innovative Economic Opportunities	E1
New Funding Allocations	E2
New Business Development	E3
Attract Private Investment	E4
Resilient Job Creation	E5
New/Green Infrastructure	N1
Sustainable Water Quality	N2
Appealing Outdoor Amenities	N3
Identity - Gateway to the Ozarks	N4
Unique Adaptive Reuse	N5
Innovative Recreation Opportunities	S1
Access / Equitable Transportation	S2
Water Access for Recreation	S3
Elevate the Quality of Live	S4
Regional Draw	S5

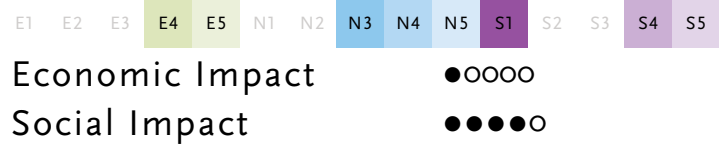


PARK + LAKE

Hilltop Overlook



Destination Play



Park Entry



Wetland Boardwalk



Eco Retreat Bldgs



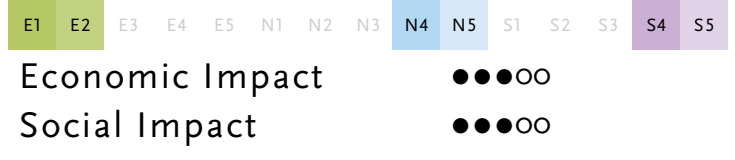
Eco Retreat Support



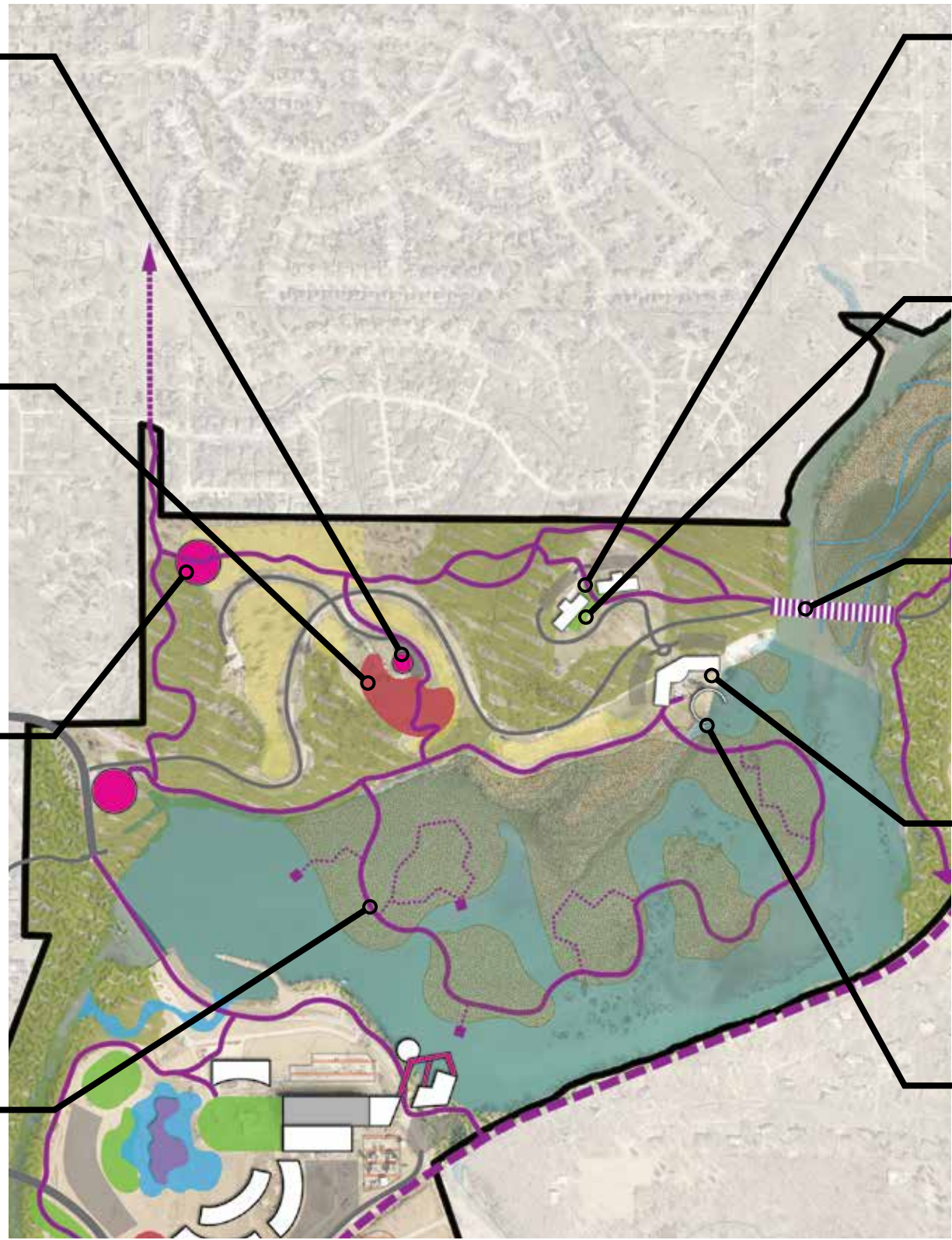
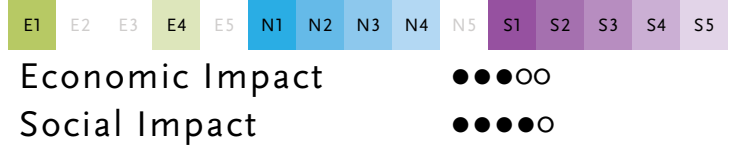
Bridge



Boathouse/Eco Center



Marina



Innovative Economic Opportunities	E1
New Funding Allocations	E2
New Business Development	E3
Attract Private Investment	E4
Resilient Job Creation	E5
New/Green Infrastructure	N1
Sustainable Water Quality	N2
Appealing Outdoor Amenities	N3
Identity - Gateway to the Ozarks	N4
Unique Adaptive Reuse	N5
Innovative Recreation Opportunities	S1
Access / Equitable Transportation	S2
Water Access for Recreation	S3
Elevate the Quality of Live	S4
Regional Draw	S5

NORTH

Bird Meadow

E1 E2 E3 E4 E5

N1 N2 N3 N4 N5

S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●○○

Culture Center

E1 E2 E3 E4 E5

N1 N2 N3 N4 N5

S1 S2 S3 S4 S5

Economic Impact ●●●○○

Social Impact ●●○○○

Culture Center Lawn

E1 E2 E3 E4 E5

N1 N2 N3 N4 N5

S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●○○

Culture Meadow

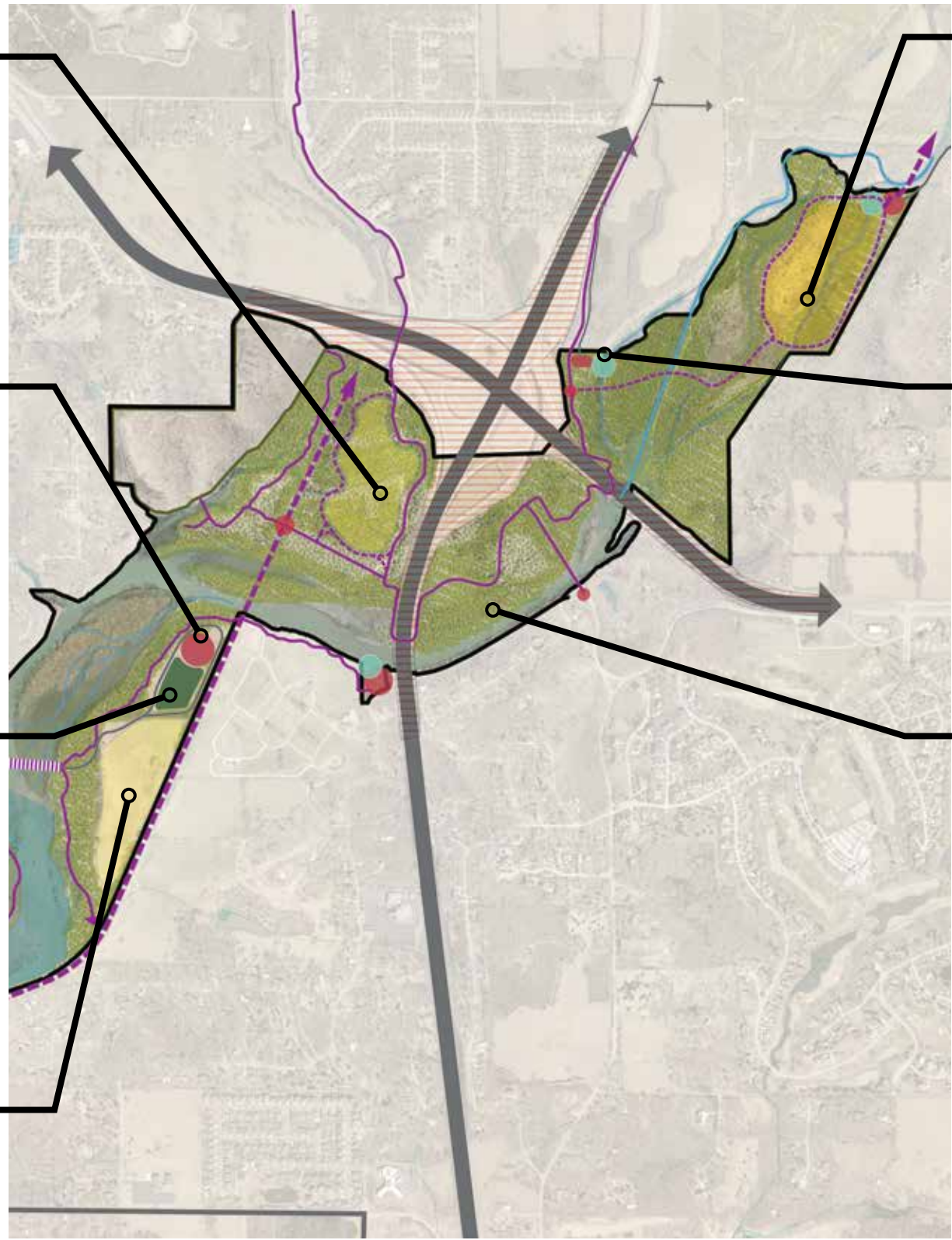
E1 E2 E3 E4 E5

N1 N2 N3 N4 N5

S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●○○



Nature Amenity Area

E1 E2 E3 E4 E5

N1 N2 N3 N4 N5

S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●○○

River Access/Trailhead

E1 E2 E3 E4 E5

N1 N2 N3 N4 N5

S1 S2 S3 S4 S5

Economic Impact ●○○○○

Social Impact ●●●○○

Preserved Nature/Trail

E1 E2 E3 E4 E5

N1 N2 N3 N4 N5

S1 S2 S3 S4 S5

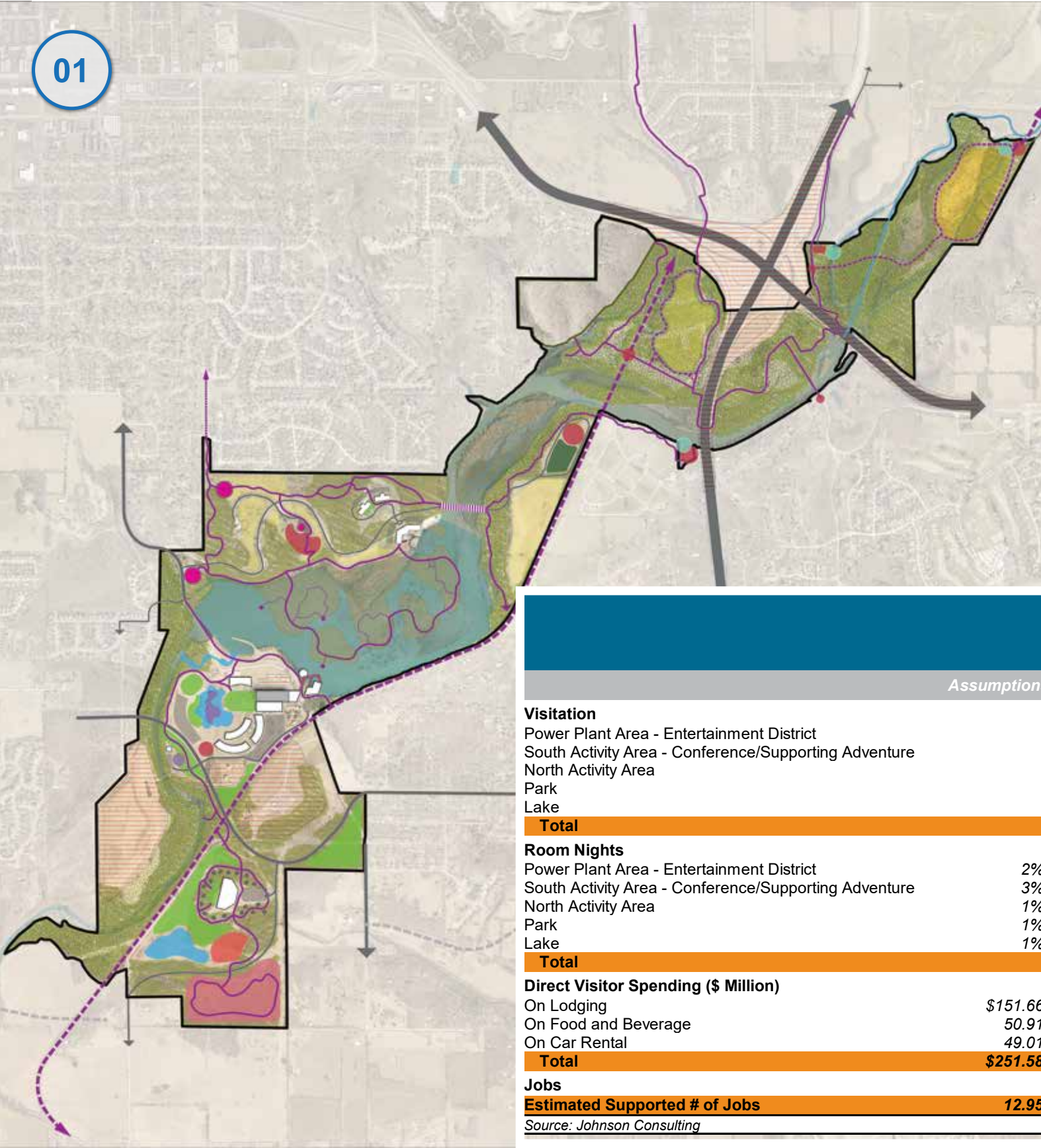
Economic Impact ●○○○○

Social Impact ●●●○○

Innovative Economic Opportunities	E1
New Funding Allocations	E2
New Business Development	E3
Attract Private Investment	E4
Resilient Job Creation	E5
New/Green Infrastructure	N1
Sustainable Water Quality	N2
Appealing Outdoor Amenities	N3
Identity - Gateway to the Ozarks	N4
Unique Adaptive Reuse	N5
Innovative Recreation Opportunities	S1
Access / Equitable Transportation	S2
Water Access for Recreation	S3
Elevate the Quality of Live	S4
Regional Draw	S5

ECONOMIC - VISITOR SPENDING AND EMPLOYMENT

01



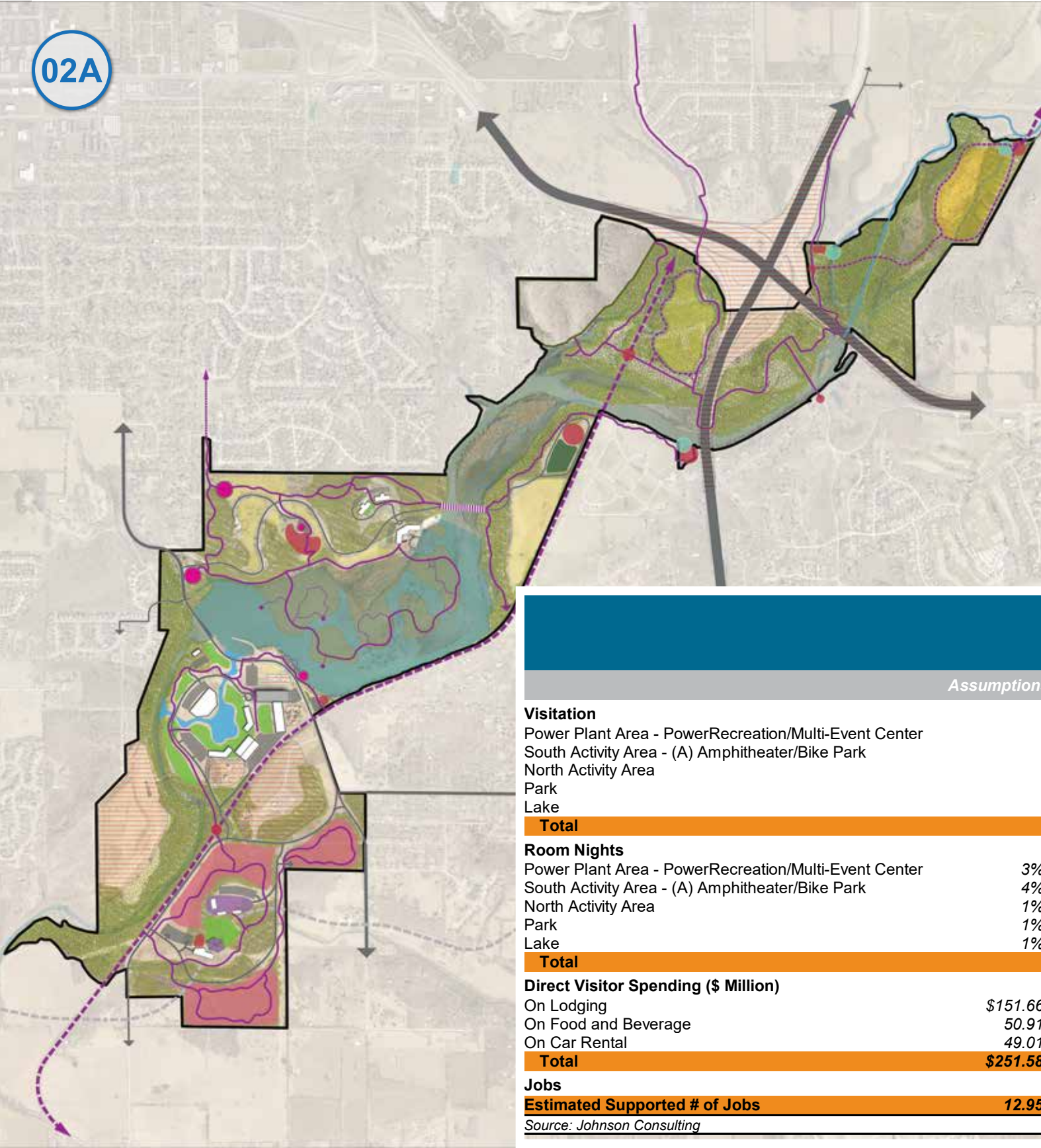
Lake Springfield, Missouri Estimated Direct Visitor Spending and Employment Concept 01										
Assumptions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Visitation										
Power Plant Area - Entertainment District	225,000	229,500	234,090	238,772	243,547	248,418	253,387	258,454	263,623	268,896
South Activity Area - Conference/Supporting Adventure	550,000	561,000	572,220	583,664	595,338	607,244	619,389	631,777	644,413	657,301
North Activity Area	210,000	214,200	218,484	222,854	227,311	231,857	236,494	241,224	246,048	250,969
Park	250,000	255,000	260,100	265,302	270,608	276,020	281,541	287,171	292,915	298,773
Lake	30,000	30,600	31,212	31,836	32,473	33,122	33,785	34,461	35,150	35,853
Total	1,265,000	1,290,300	1,316,106	1,342,428	1,369,277	1,396,662	1,424,595	1,453,087	1,482,149	1,511,792
Room Nights										
Power Plant Area - Entertainment District	2%	4,500	4,590	4,682	4,775	4,871	4,968	5,068	5,169	5,272
South Activity Area - Conference/Supporting Adventure	3%	16,500	16,830	17,167	17,510	17,860	18,217	18,582	18,953	19,332
North Activity Area	1%	2,100	2,142	2,185	2,229	2,273	2,319	2,365	2,412	2,460
Park	1%	2,500	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929
Lake	1%	300	306	312	318	325	331	338	345	351
Total		25,900	26,418	26,946	27,485	28,035	28,596	29,168	29,751	30,346
Direct Visitor Spending (\$ Million)										
On Lodging	\$151.66	\$3.9	\$4.1	\$4.3	\$4.6	\$4.8	\$5.0	\$5.3	\$5.5	\$5.8
On Food and Beverage	50.91	64.4	67.7	71.1	74.7	78.5	82.4	86.6	91.0	95.6
On Car Rental	49.01	1.3	1.3	1.4	1.5	1.5	1.6	1.7	1.8	2.0
Total	\$251.58	\$69.6	\$73.1	\$76.8	\$80.7	\$84.8	\$89.1	\$93.6	\$98.3	\$103.3
Jobs										
Estimated Supported # of Jobs	12.95	901	919	937	956	975	995	1,015	1,035	1,056

Source: Johnson Consulting



ECONOMIC - VISITOR SPENDING AND EMPLOYMENT

02A



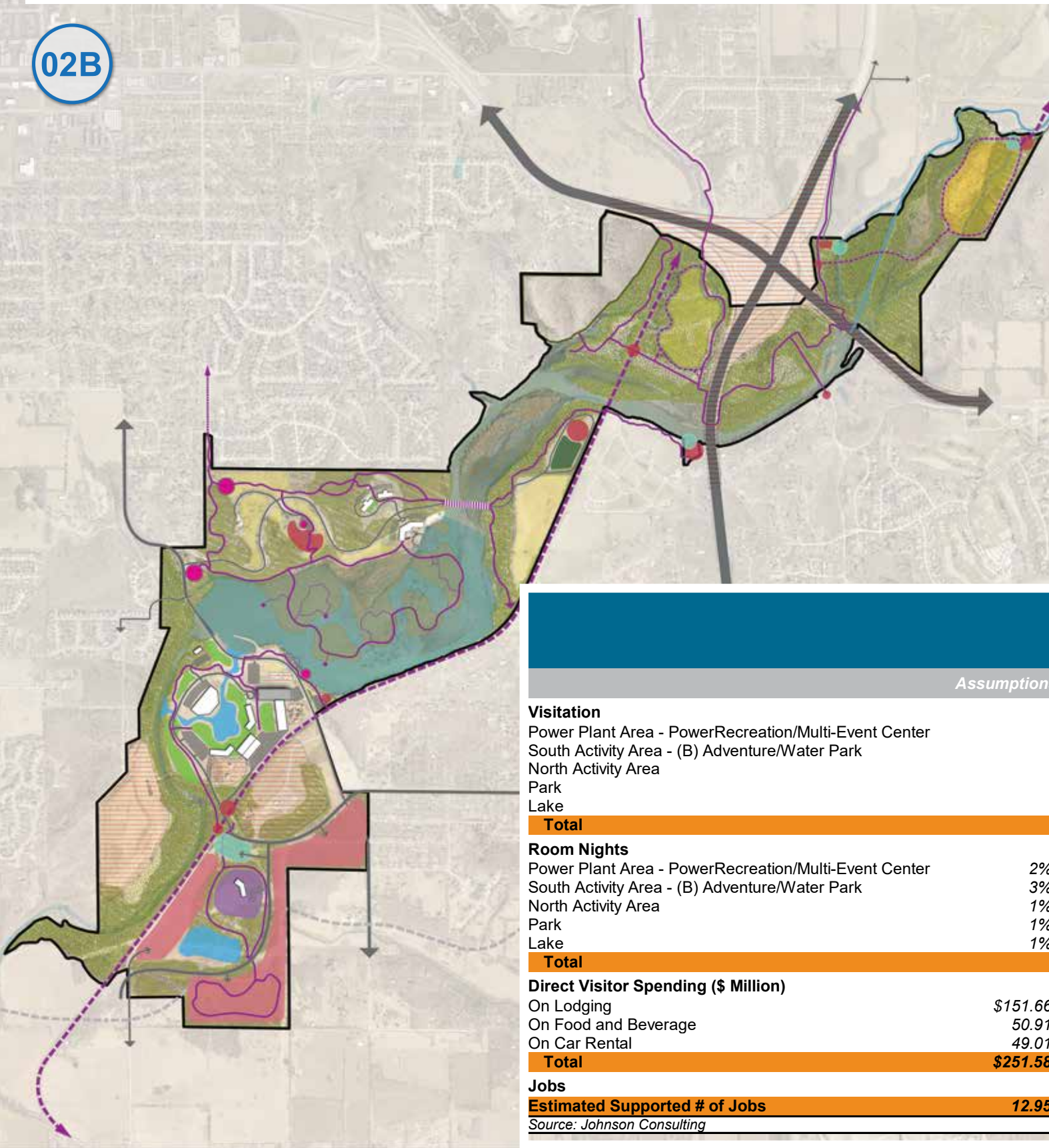
Lake Springfield, Missouri Estimated Direct Visitor Spending and Employment Concept 02 (A)											
	Assumptions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Visitation											
Power Plant Area - PowerRecreation/Multi-Event Center		280,000	270,300	275,706	281,220	286,845	292,581	298,433	304,402	310,490	316,700
South Activity Area - (A) Amphitheater/Bike Park		135,000	112,200	114,444	116,733	119,068	121,449	123,878	126,355	128,883	131,460
North Activity Area		210,000	214,200	218,484	222,854	227,311	231,857	236,494	241,224	246,048	250,969
Park		250,000	255,000	260,100	265,302	270,608	276,020	281,541	287,171	292,915	298,773
Lake		30,000	30,600	31,212	31,836	32,473	33,122	33,785	34,461	35,150	35,853
Total		905,000	882,300	899,946	917,945	936,304	955,030	974,130	993,613	1,013,485	1,033,755
Room Nights											
Power Plant Area - PowerRecreation/Multi-Event Center	3%	8,400	8,109	8,271	8,437	8,605	8,777	8,953	9,132	9,315	9,501
South Activity Area - (A) Amphitheater/Bike Park	4%	5,400	4,488	4,578	4,669	4,763	4,858	4,955	5,054	5,155	5,258
North Activity Area	1%	2,100	2,142	2,185	2,229	2,273	2,319	2,365	2,412	2,460	2,510
Park	1%	2,500	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929	2,988
Lake	1%	300	306	312	318	325	331	338	345	351	359
Total		18,700	17,595	17,947	18,306	18,672	19,045	19,426	19,815	20,211	20,615
Direct Visitor Spending (\$ Million)											
On Lodging	\$151.66	\$2.8	\$2.7	\$2.9	\$3.0	\$3.2	\$3.3	\$3.5	\$3.7	\$3.9	\$4.1
On Food and Beverage	50.91	46.1	46.3	48.6	51.1	53.6	56.4	59.2	62.2	65.4	68.7
On Car Rental	49.01	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.3
Total	\$251.58	\$49.8	\$49.9	\$52.4	\$55.1	\$57.9	\$60.8	\$63.9	\$67.1	\$70.5	\$74.1
Jobs											
Estimated Supported # of Jobs	12.95	645	627	640	652	666	679	692	706	720	735

Source: Johnson Consulting



ECONOMIC - VISITOR SPENDING AND EMPLOYMENT

02B



Lake Springfield, Missouri Estimated Direct Visitor Spending and Employment Concept 02 (B)											
Assumptions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Visitation											
Power Plant Area - PowerRecreation/Multi-Event Center	280,000	270,300	275,706	281,220	286,845	292,581	298,433	304,402	310,490	316,700	
South Activity Area - (B) Adventure/Water Park	540,000	530,400	541,008	551,828	562,865	574,122	585,604	597,317	609,263	621,448	
North Activity Area	210,000	214,200	218,484	222,854	227,311	231,857	236,494	241,224	246,048	250,969	
Park	350,000	357,000	364,140	371,423	378,851	386,428	394,157	402,040	410,081	418,282	
Lake	30,000	30,600	31,212	31,836	32,473	33,122	33,785	34,461	35,150	35,853	
Total	1,410,000	1,402,500	1,430,550	1,459,161	1,488,344	1,518,111	1,548,473	1,579,443	1,611,032	1,643,252	
Room Nights											
Power Plant Area - PowerRecreation/Multi-Event Center	2%	5,600	5,406	5,514	5,624	5,737	5,852	5,969	6,088	6,210	6,334
South Activity Area - (B) Adventure/Water Park	3%	16,200	15,912	16,230	16,555	16,886	17,224	17,568	17,919	18,278	18,643
North Activity Area	1%	2,100	2,142	2,185	2,229	2,273	2,319	2,365	2,412	2,460	2,510
Park	1%	3,500	3,570	3,641	3,714	3,789	3,864	3,942	4,020	4,101	4,183
Lake	1%	300	306	312	318	325	331	338	345	351	359
Total		27,700	27,336	27,883	28,440	29,009	29,589	30,181	30,785	31,400	32,028
Direct Visitor Spending (\$ Million)											
On Lodging	\$151.66	\$4.2	\$4.3	\$4.5	\$4.7	\$5.0	\$5.2	\$5.5	\$5.7	\$6.0	\$6.3
On Food and Beverage	50.91	71.8	73.5	77.3	81.2	85.3	89.6	94.1	98.9	103.9	109.1
On Car Rental	49.01	1.4	1.4	1.4	1.5	1.6	1.7	1.8	1.9	1.9	2.0
Total	\$251.58	\$77.3	\$79.2	\$83.2	\$87.4	\$91.8	\$96.5	\$101.4	\$106.5	\$111.9	\$117.5
Jobs											
Estimated Supported # of Jobs	12.95	1,001	995	1,015	1,035	1,056	1,077	1,099	1,121	1,143	1,166

Source: Johnson Consulting



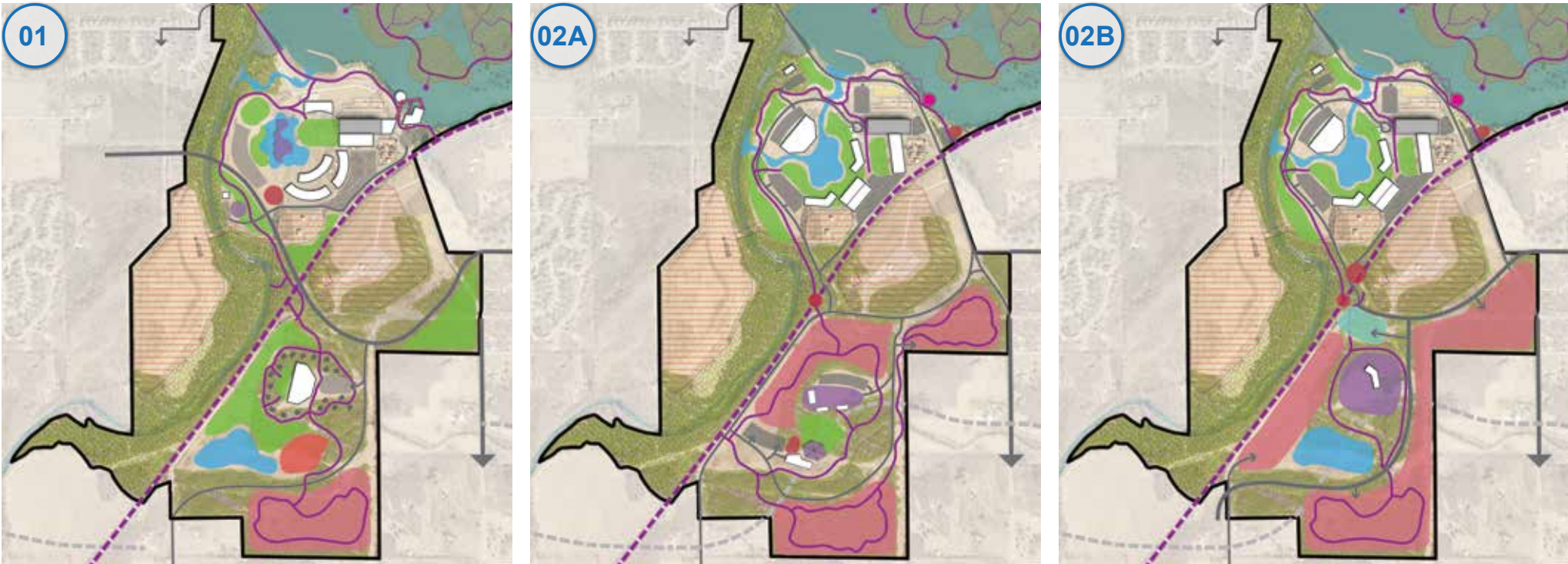
ECONOMIC IMPACT SUMMARY

KEY TAKEAWAYS

Highest Overall Impact - 02B

Lowest Overall Impact - 02A

Note: Taxes and Phasing not yet integrated into economic projections



YEAR 10 ESTIMATIONS

Jobs

Concept 01	1,077
Concept 02A	735
Concept 02B	1,166

Direct Visitor Spending (\$ Million)

Concept 01	109
Concept 02A	74
Concept 02B	118

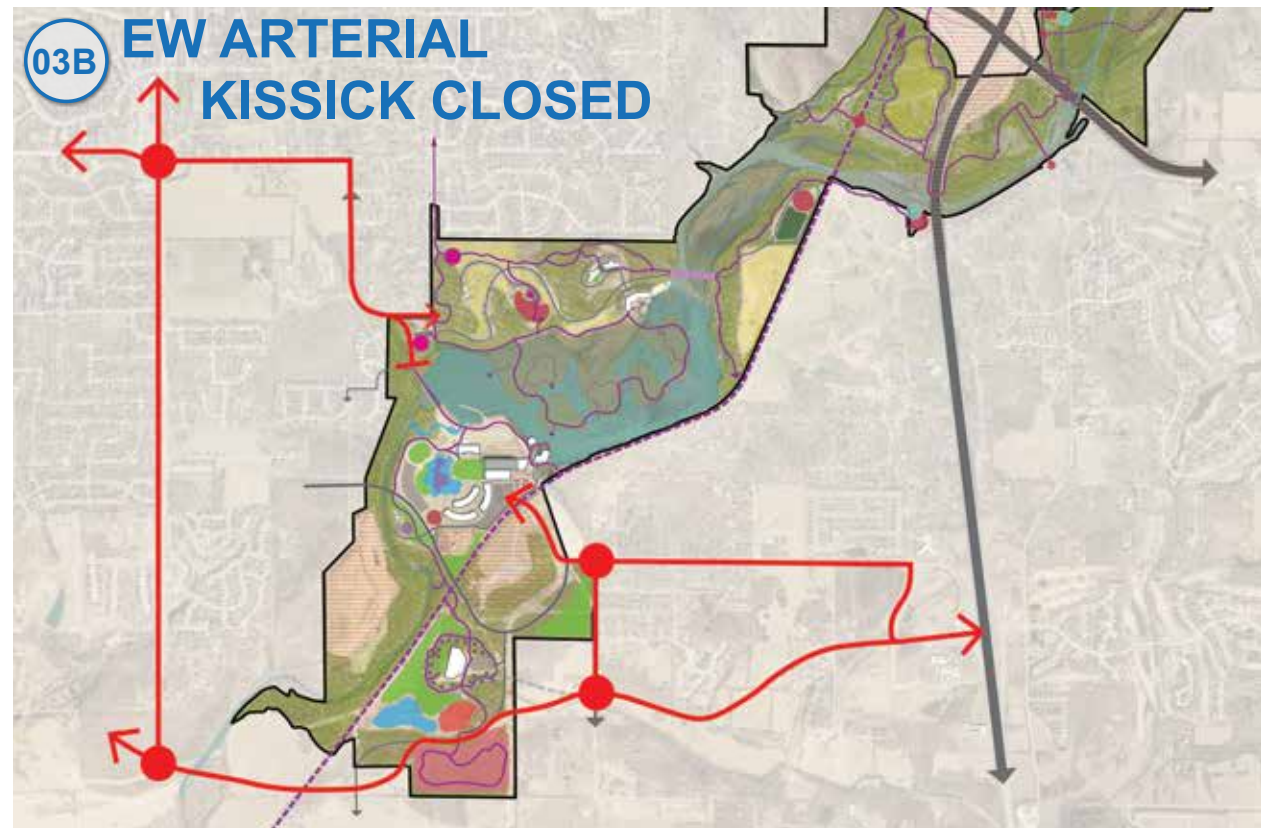
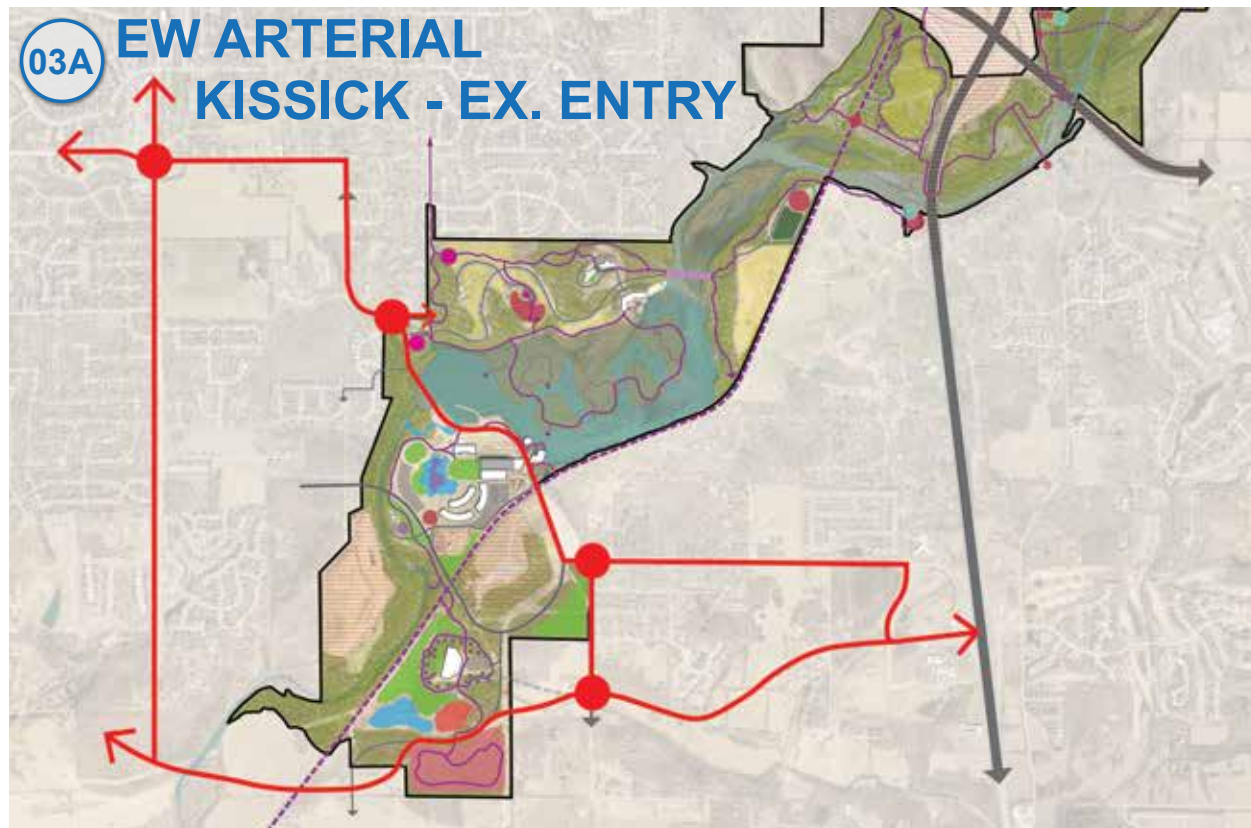
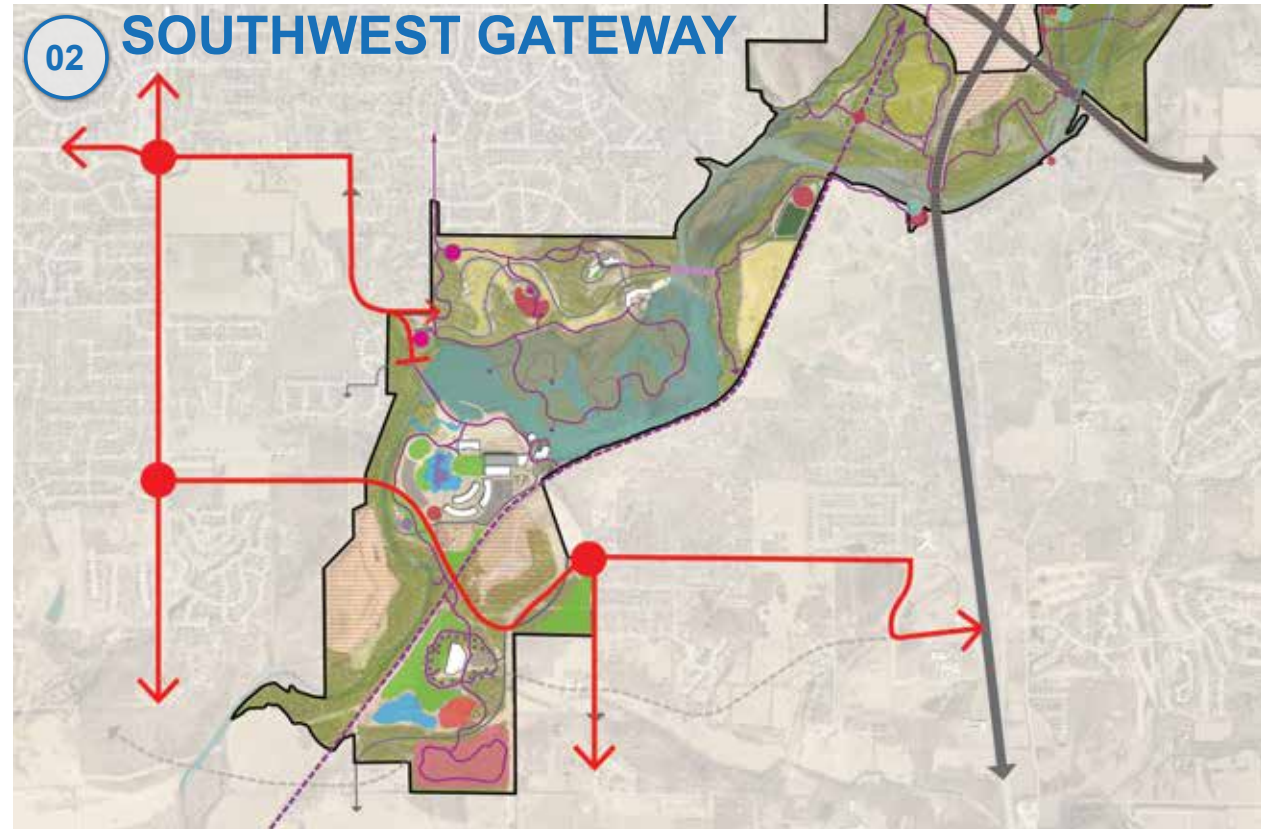
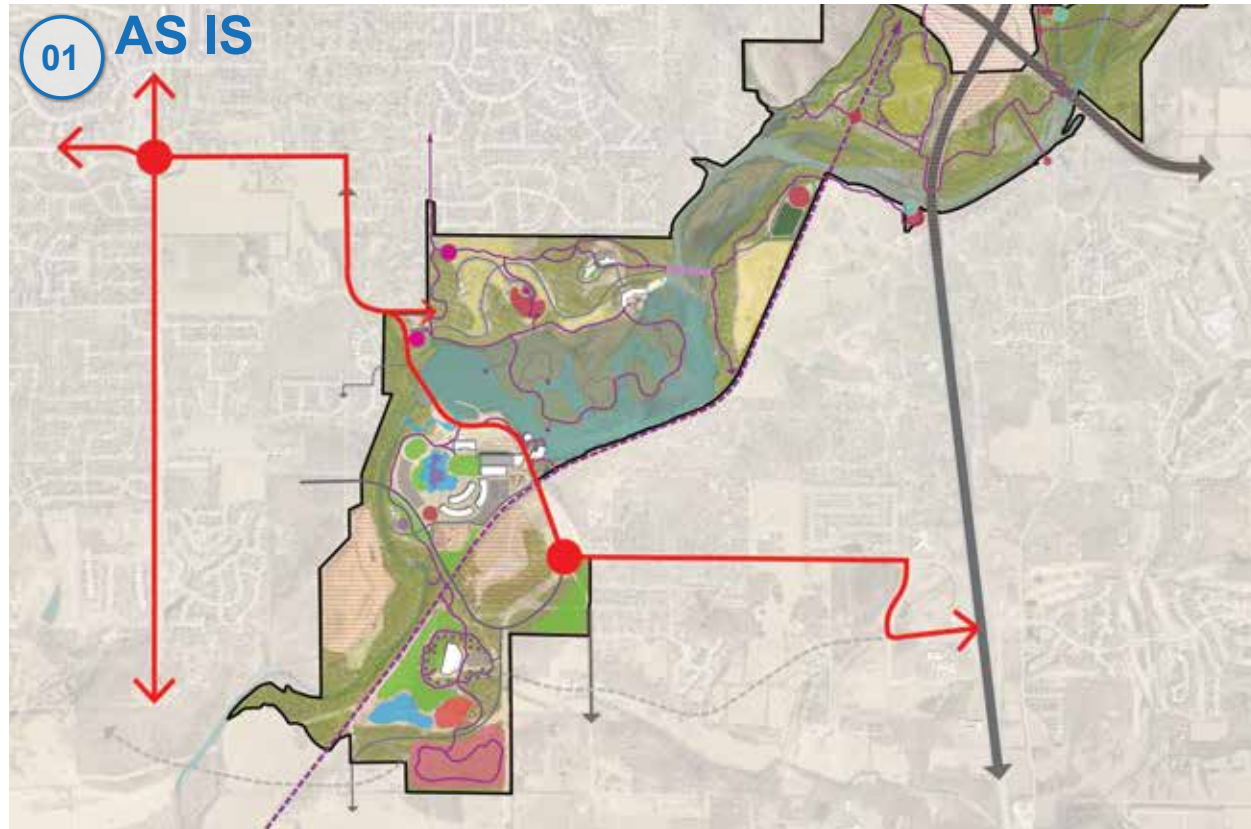
Lake Springfield, Missouri												
Estimated Direct Visitor Spending and Employment Summary												
	Concept 01				Concept 02 (A)				Concept 02 (B)			
	Assumptions	Year 1	Year 5	Year 10	Assumptions	Year 1	Year 5	Year 10	Assumptions	Year 1	Year 5	Year 10
Visitation												
Power Plant Area - Entertainment District		225,000	243,547	268,896		280,000	286,845	316,700		280,000	286,845	316,700
South Activity Area - Conference/Supporting Adventure		550,000	595,338	657,301		135,000	119,068	131,460		540,000	562,865	621,448
North Activity Area		210,000	227,311	250,969		210,000	227,311	250,969		210,000	227,311	250,969
Park		250,000	270,608	298,773		250,000	270,608	298,773		350,000	378,851	418,282
Lake		30,000	32,473	35,853		30,000	32,473	35,853		30,000	32,473	35,853
Total		1,265,000	1,369,277	1,511,792		905,000	936,304	1,033,755		1,410,000	1,488,344	1,643,252
Room Nights												
Power Plant Area - Entertainment District	2%	4,500	4,871	5,378	3%	8,400	8,605	9,501	2%	5,600	5,737	6,334
South Activity Area - Conference/Supporting Adventure	3%	16,500	17,860	19,719	4%	5,400	4,763	5,258	3%	16,200	16,886	18,643
North Activity Area	1%	2,100	2,273	2,510	1%	2,100	2,273	2,510	1%	2,100	2,273	2,510
Park	1%	2,500	2,706	2,988	1%	2,500	2,706	2,988	1%	3,500	3,789	4,183
Lake	1%	300	325	359	1%	300	325	359	1%	300	325	359
Total		25,900	28,035	30,953		18,700	18,672	20,615		27,700	29,009	32,028
Direct Visitor Spending (\$ Million)												
On Lodging	\$151.66	\$3.93	\$4.79	\$6.13	\$151.66	\$2.84	\$3.19	\$4.08	\$151.66	\$4.20	\$4.95	\$6.34
On Food and Beverage	50.91	64.39	78.45	100.41	50.91	46.07	53.64	68.66	50.91	71.78	85.27	109.14
On Car Rental	49.01	1.27	1.55	1.98	49.01	0.92	1.03	1.32	49.01	1.36	1.60	2.05
Total	\$251.58	70	85	109	\$251.58	50	58	74	\$251.58	77	92	118
Jobs												
Estimated Supported # of Jobs	12.95	901	975	1,077	12.95	645	666	735	12.95	1,001	1,056	1,166

Source: Johnson Consulting



Transportation / Access

ACCESS OPTIONS



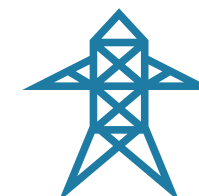
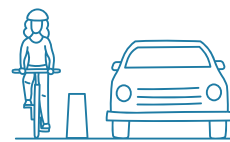
Risk Assessment

RISK ASSESSMENT

- **Initial risk assessment completed at retreat kickoff (109 risks)**
- **Reviewed and risk register included 62 risks**
- **Categories:**
 - *Parks & Recreation*
 - *Economic Development*
 - *Transportation*
 - *Public Relations*
 - *Dam*
 - *Environmental*
 - *Utilities*
 - *General*
- **Risk Register review - July 2023 (after 2nd public meeting May 4)**
- **Two risks added (total on register at 64)**
- **High Risks - 5**
- **Moderate Level - 52**
- **Low Level - 7**

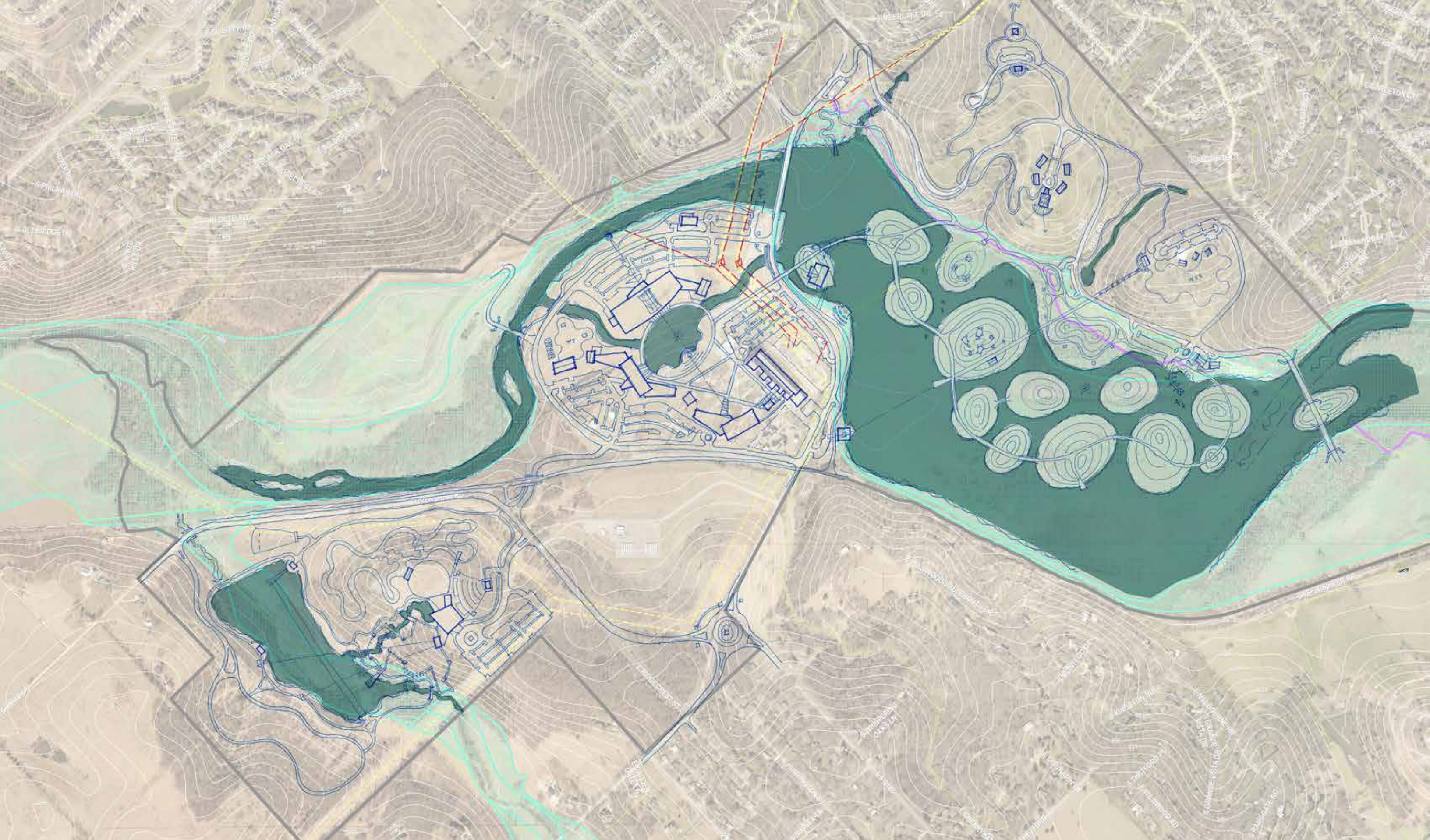


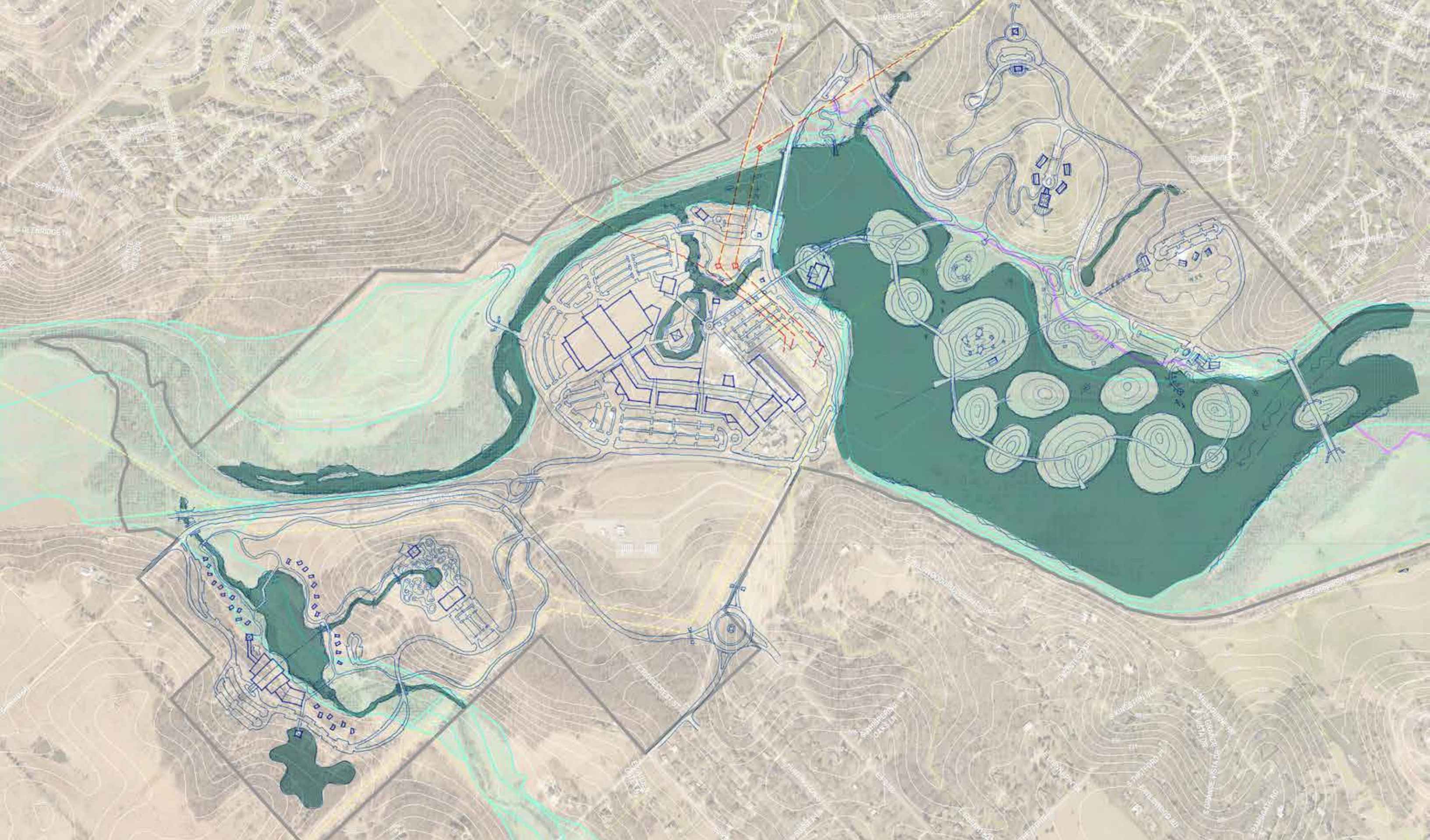
QUALITATIVE ANALYSIS					
Likelihood ↑	E - Near Certainty	Yellow	Yellow	Red	Red
	D - Highly Likely	Green	Yellow	Yellow	Red
	C - Likely	Green	Green	Yellow	Yellow
	B - Unlikely	Green	Green	Green	Yellow
	A - Remote	Green	Green	Green	Green
RISK NO:		1	2	3	4
		Consequence →			



Discussion

Concept Refinement (Internal only)





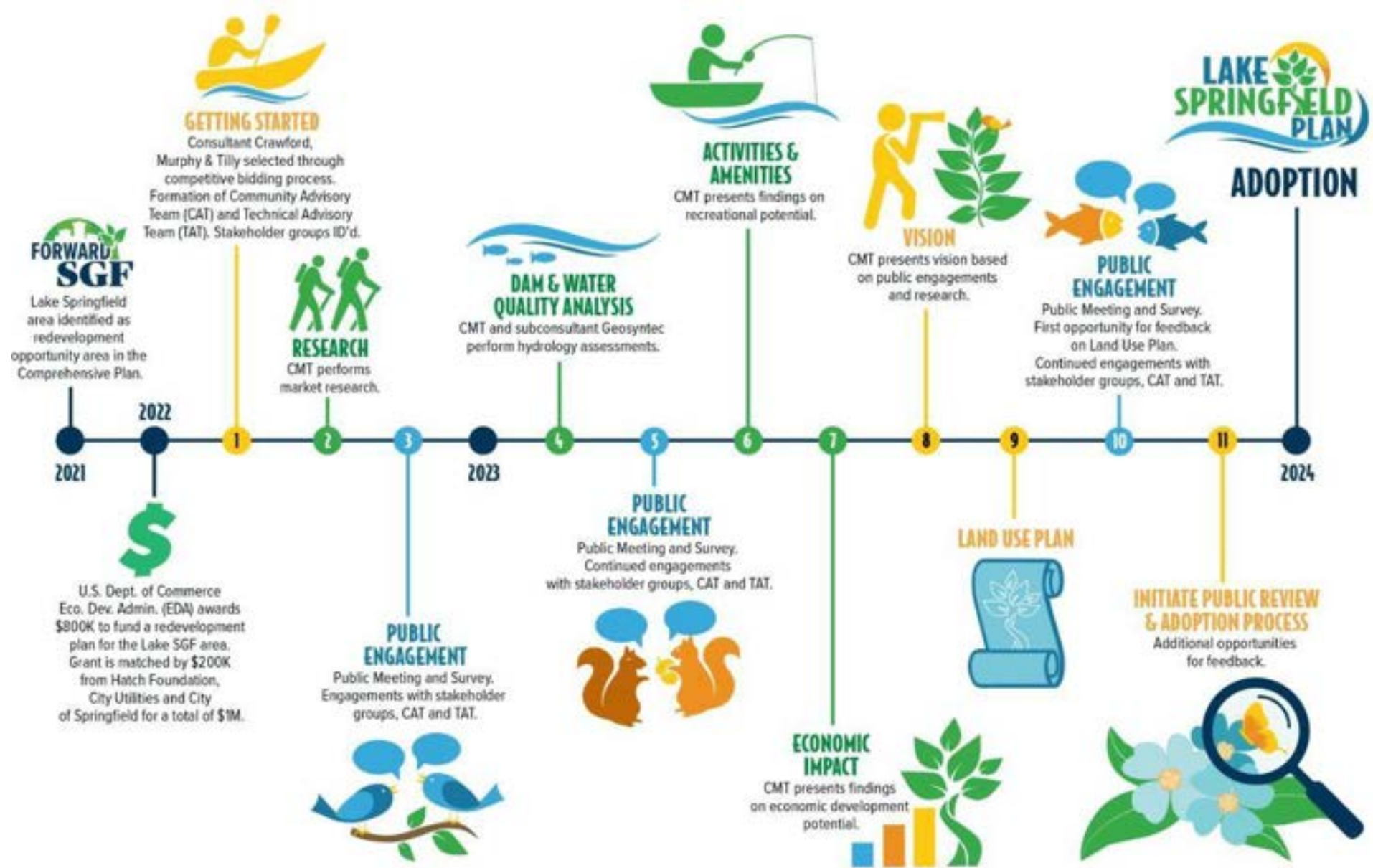
LAKE SPRINGFIELD PLAN



Public Meeting No. 3
10.12.2023



Timeline





CITY OF
SPRINGFIELD

Springfield Conservation
Nature Center

Lake Springfield Park
and Boathouse

RAVENWOOD

Missouri Veterans Cemetery

UNINCORPORATED
AREA

**LAKE
SPRINGFIELD
SUBAREA**

**FUTURE CITY
UTILITIES OPERATION**

Planning Goals

1

Attract Innovative **Economic Development & Resilient Job Creation** within the study area that complements Regional Vision and Priorities.

2

Develop a Strategy for **Sustainable Water Quality & Green Infrastructure** Improvements.

3

Establish an **Adaptive Reuse Strategy** for the James River Power Station.

4

Focus on **Transportation enhancements** that are accessible and equitable to Lake Springfield and the Surrounding Communities.

5

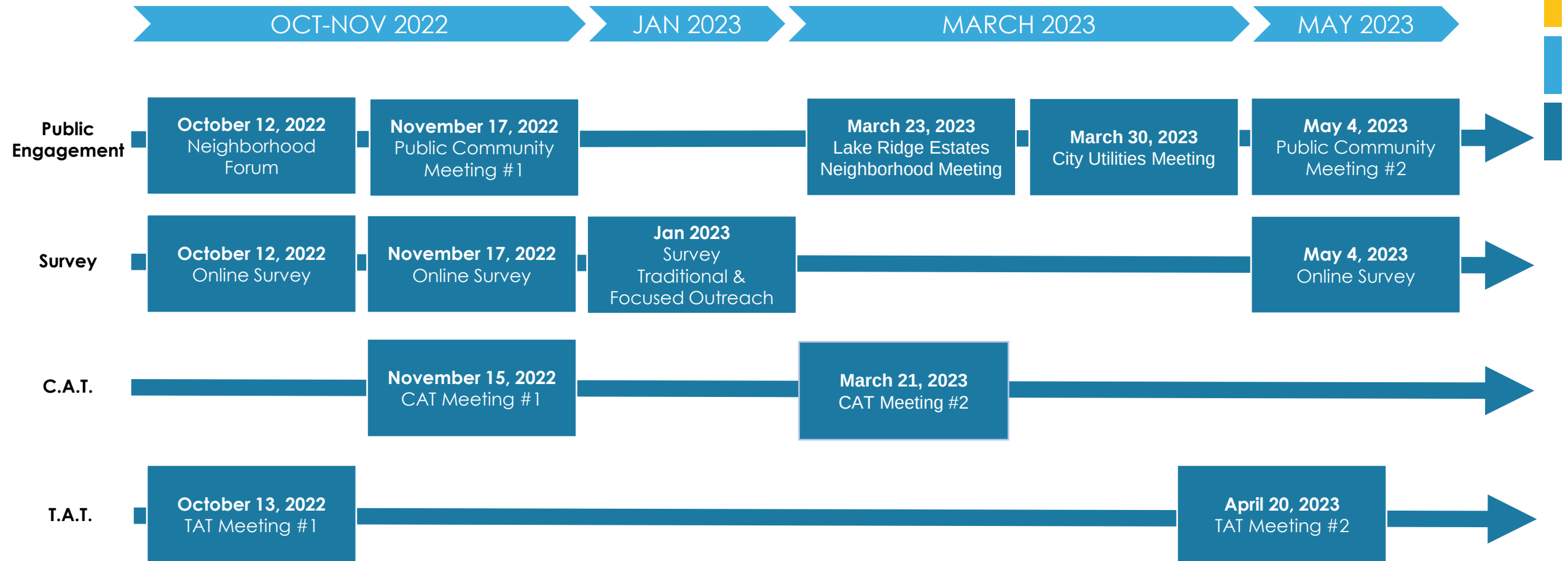
Embrace **Active and Passive Recreational Opportunities** as a Regional Economic Development Catalyst.

6

Engage the Community in a way that is Inclusive of a **Diverse and Multi-Cultural Perspective**.

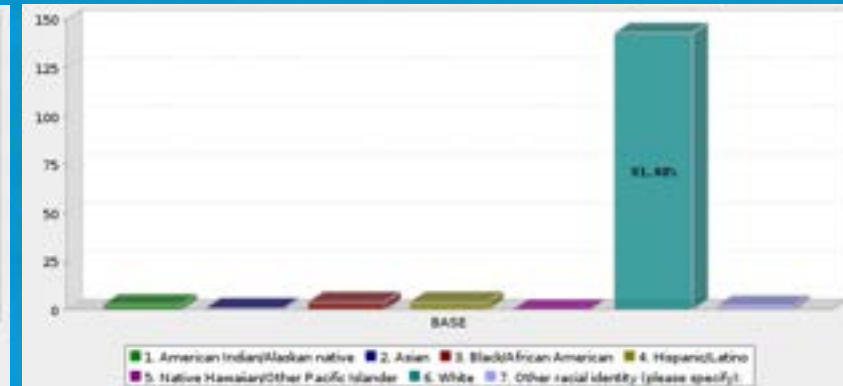
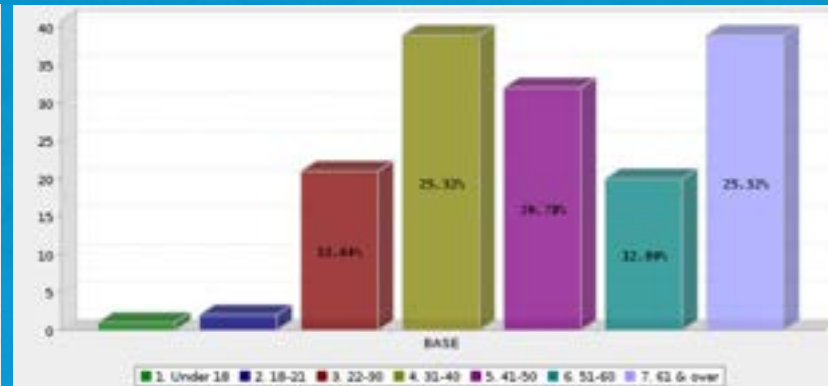
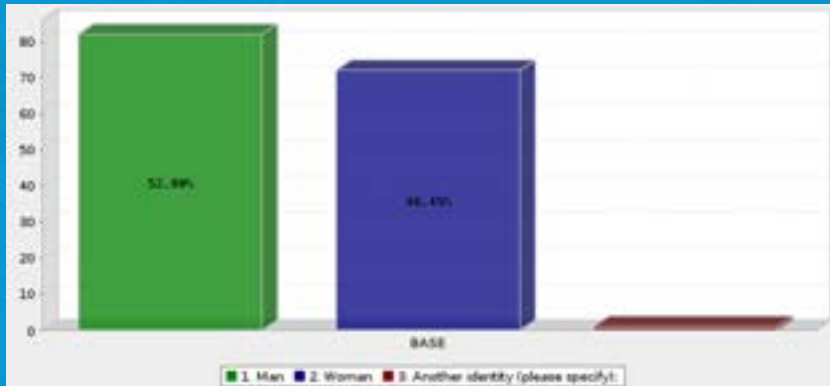


PUBLIC INPUT PROCESS TO DATE



Public Input - Survey Respondent Summary

- **100+ Survey Respondents** – Online Survey
- **264 Survey Respondents + 727 Total Views** (148 Survey Completions, 116 Incomplete) – Online Survey
- **200 Traditional + 602 Focused Respondents** – Local Water Resources Survey
- **462 Survey Respondents + 779 Total Views** (161 Survey Completions, 301 Incomplete) – Online Survey





Overview of Hydrology Study Phase 1

Chapter 3: Water Quality Assessment

Chapter 4: Watershed Assessment

Chapter 5: Sediment Management

Chapter 6: Dam Assessment and Regulatory Compliance Review

Chapter 7: Dam Modification Alternatives Assessment

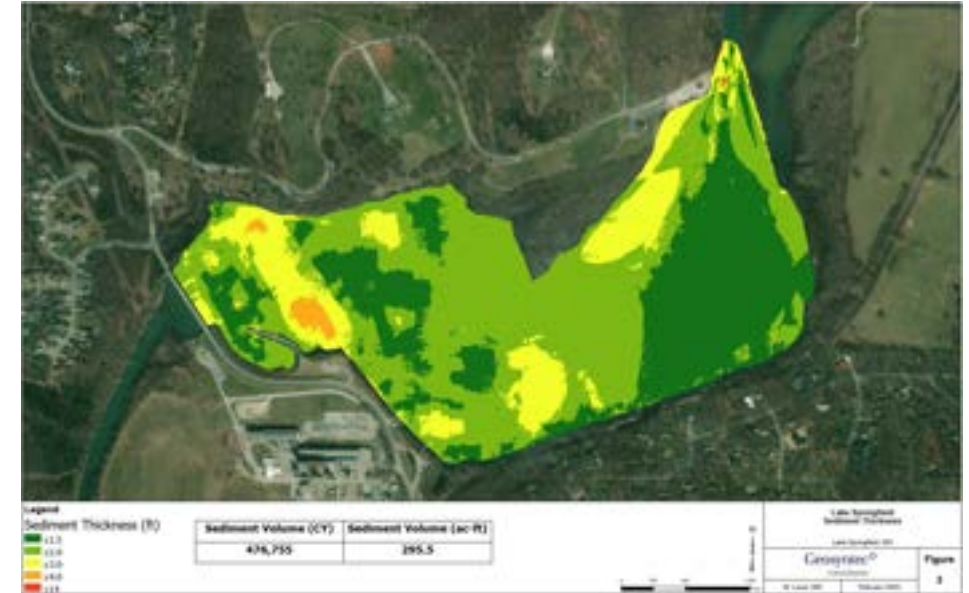
Chapter 8: Envision Sustainability Planning

Appendix A1: Field data Collection Methods Results

Appendix A2: U.S. Fish and Wildlife Service (Information for Planning and Consultation Resource List)

Appendix B: Dam Inspection Photo Log

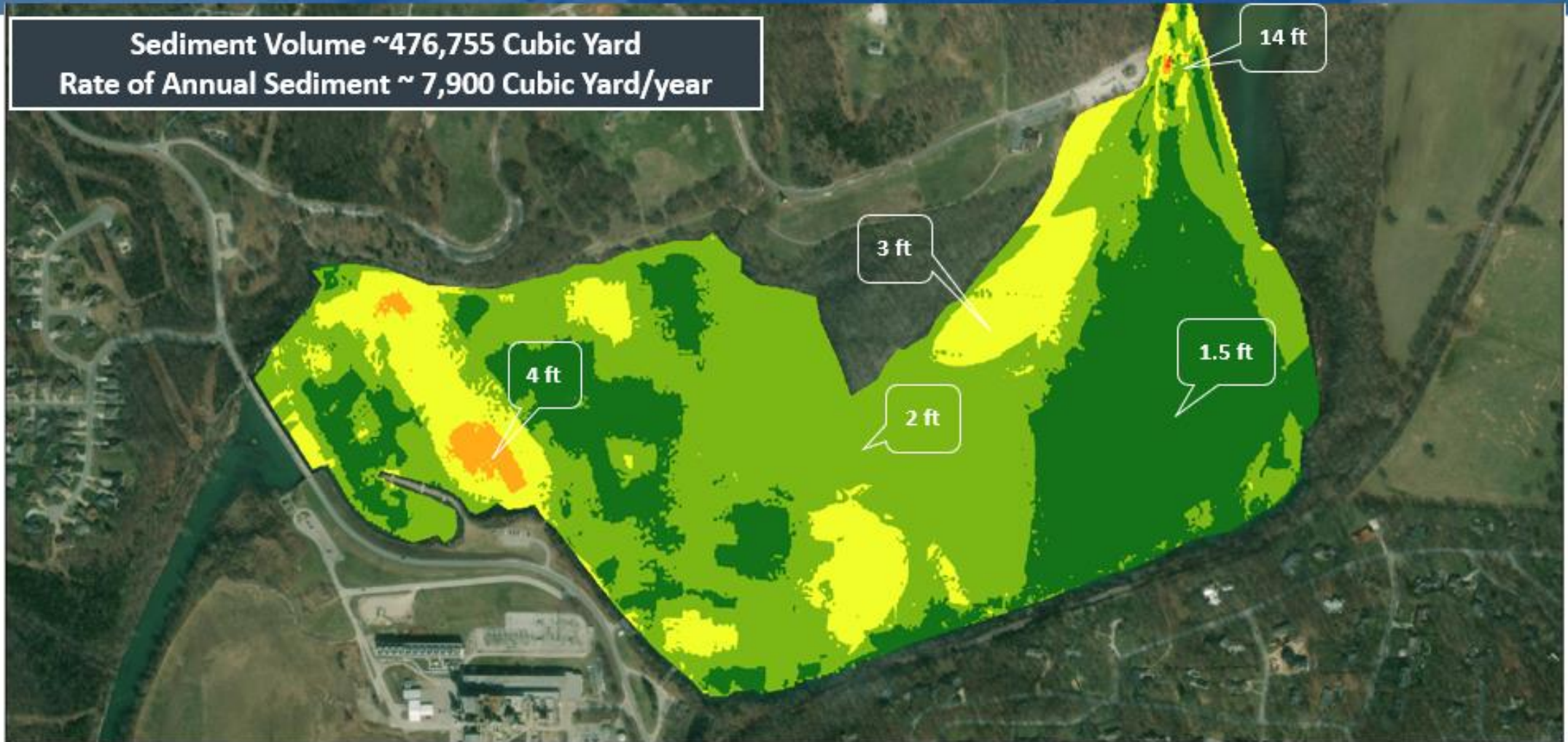
Appendix C: Dam Modification Alternatives Concept Figures



Predicted Annual Rate of Sediment from the watershed ~ 7,900 Cubic Yard

Bathymetry and Sediment sampling

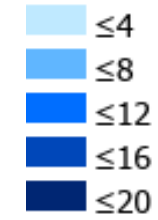
Sediment Volume ~476,755 Cubic Yard
Rate of Annual Sediment ~ 7,900 Cubic Yard/year





←1955 Topo WSE below 1140'

Depth (ft)

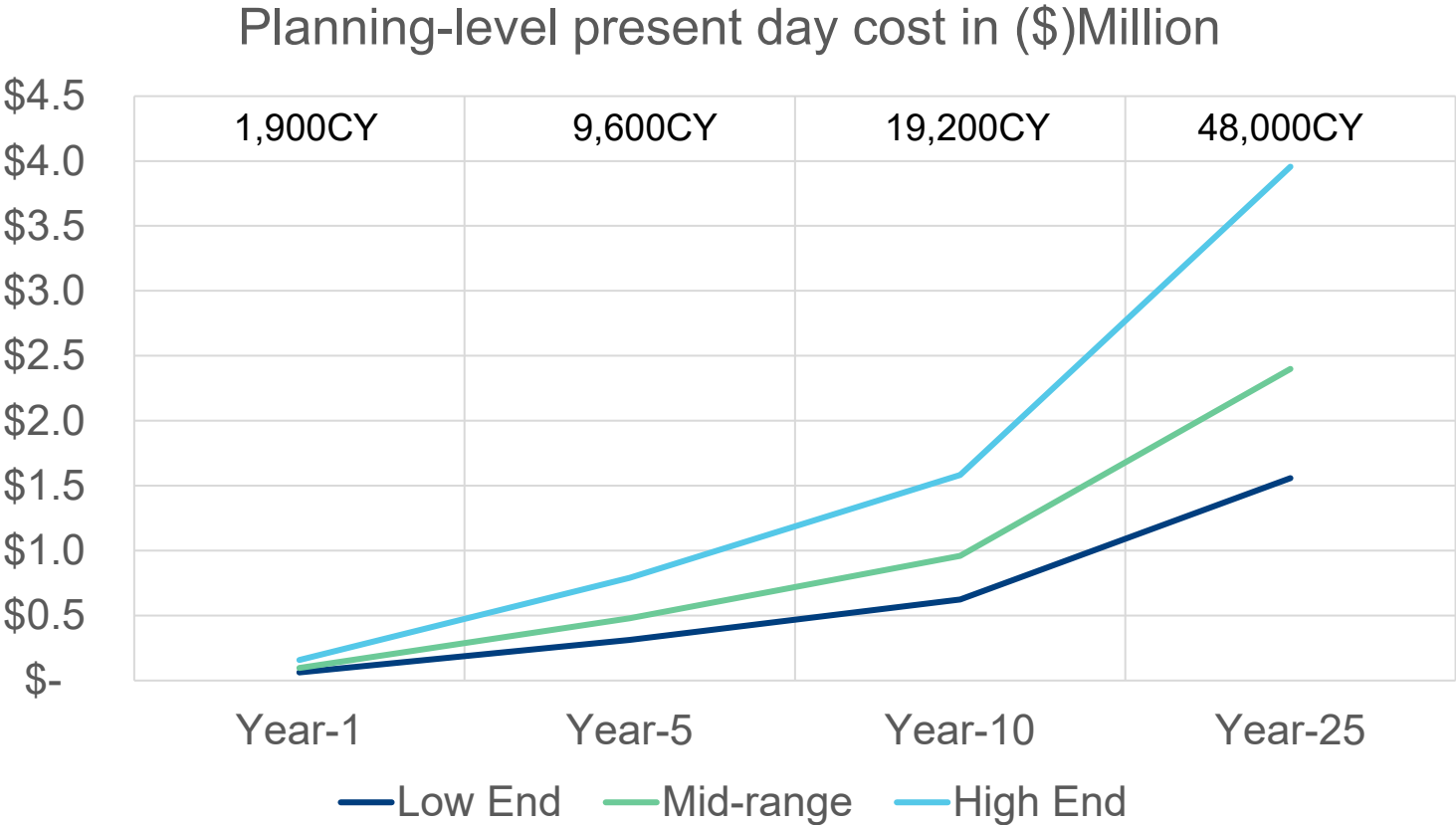


Present Lake Springfield Bathymetry at WSE 1140'→

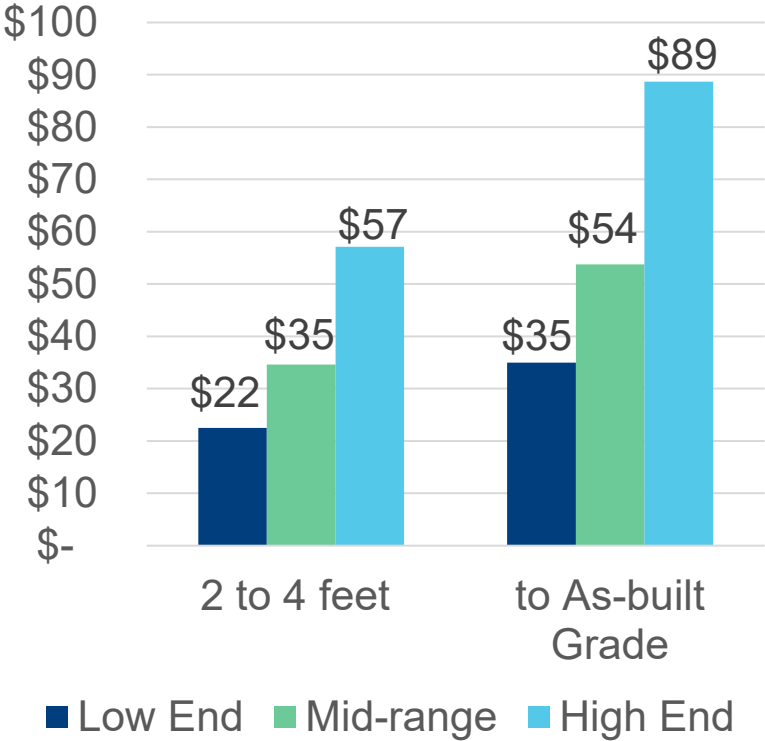


Sediment Management

Scenario 1: Manage All (Could apply to all Dam Mod Alt)



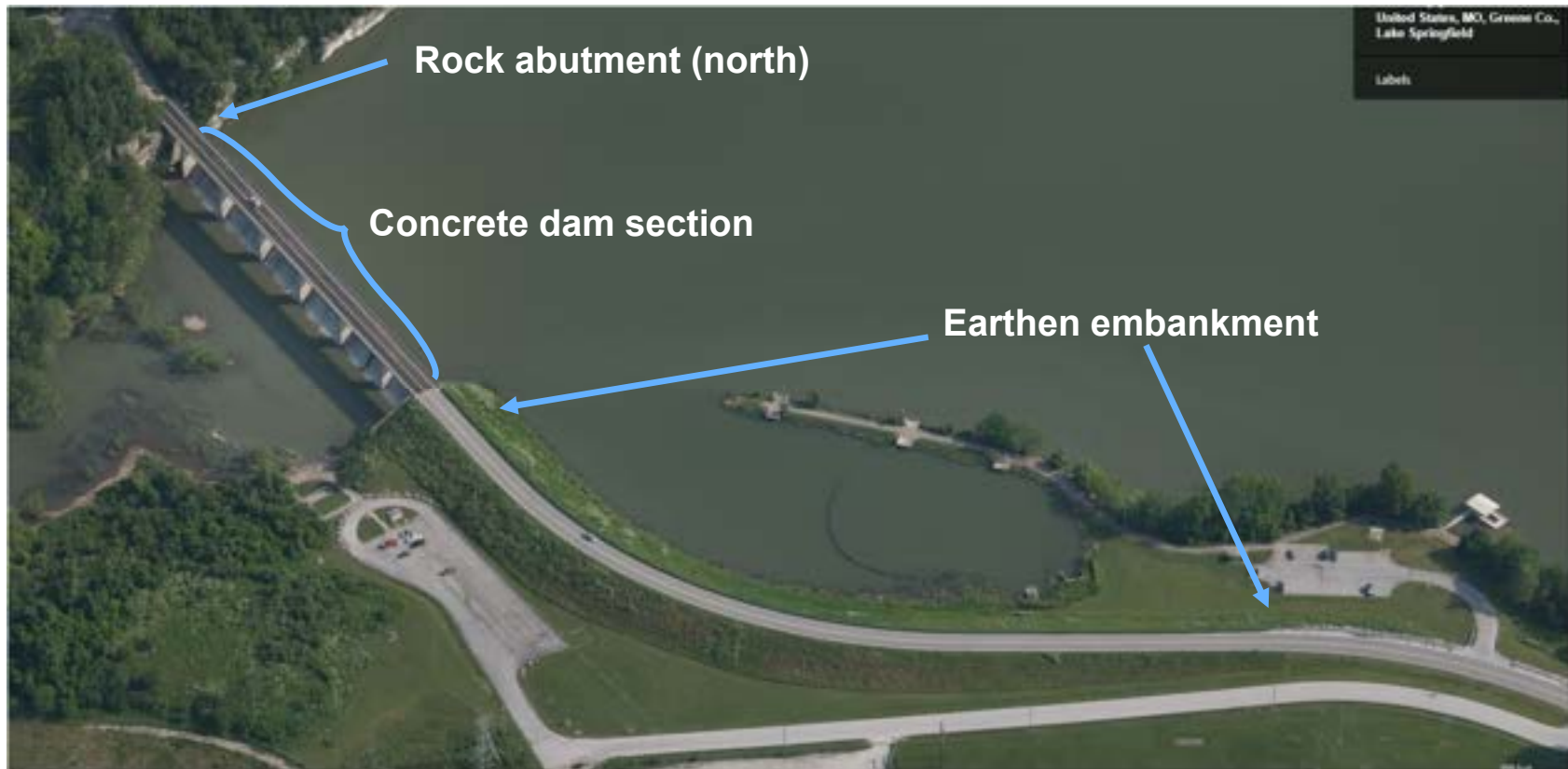
Current (In Lake) Sediment
Planning-level cost in
(\$)^{Million}



Assumption

- Sediment loading only from the immediate 3 upstream watersheds

Dam Assessment



GEOSYNTEC CONSULTANTS



Overview of Hydrology Study Phase 1

Chapter 3: Water Quality Assessment

Chapter 4: Watershed Assessment

Chapter 5: Sediment Management

Chapter 6: Dam Assessment and Regulatory Compliance Review

Chapter 7: Dam Modification Alternatives Assessment

Chapter 8: Envision Sustainability Planning

Appendix A1: Field data Collection Methods Results

Appendix A2: U.S. Fish and Wildlife Service (Information for Planning and Consultation Resource List)

Appendix B: Dam Inspection Photo Log

Appendix C: Dam Modification Alternatives Concept Figures

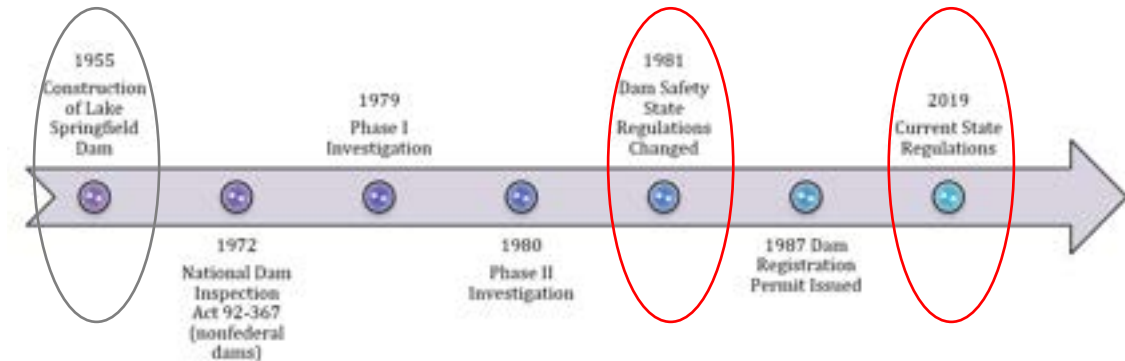


Figure 3: Historic Congressional and State Regulatory Updates on Dam Safety

Dam O&M costs (standard care)

Standard of care needed for operation and maintenance of Lake Springfield Dam whether modified or not modified.

	1 st year/Annual	1-10 years	10-20 years	20-30 years
Routine Maintenance	\$4,000	\$47,000	\$63,000	\$84,000
Capital Maintenance Programming	\$24,000	\$316,000	\$515,000	\$935,000
Total	\$28,000	\$363,000	\$578,000	\$1,019,000
Cumulative	\$28,000	\$391,000	\$969,000	\$1,988,000

Notes:

- Capital maintenance cost includes minor concrete repair.
- Inflation rate of 3% is included in the cost projection.

Potential Dam Modification Alternatives

Re-establish River Ecosystem
Remove or reduce liability of
maintaining a Dam

Full Dam
Removal

Partial Dam
Removal

Provide Kayak and Fish Passage

Concrete
Dam
Modification

Earth
Embankment
Modification

Avoid modification
Provide Lake
Enhancements

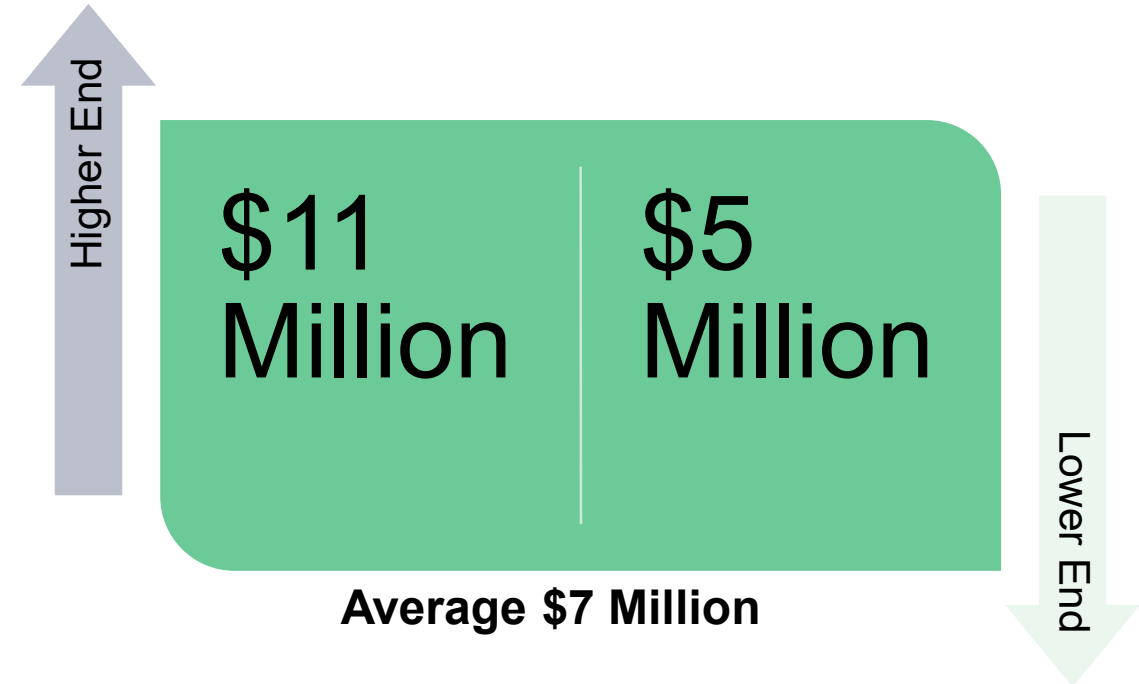
No
Modification

GEOSYNTEC CONSULTANTS



Planning-level costs for Alternative C3

Alternate C3: Earth Embankment Modification. Lower Impoundment by 2 feet.

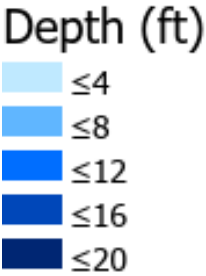


Items **not** included:

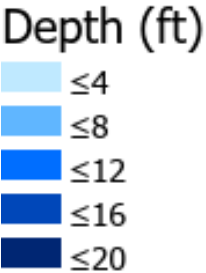
- Sediment management
- Restoration of natural stream as a result of dam modifications.
- Engineering and construction oversight
- Full removal of the dam feature
- Maintenance or reconstruction of existing bridge



←Present Lake Springfield Bathymetry at WSE 1140'



Present Lake Springfield Bathymetry at WSE 1138'→



Planning-level costs for Alternative A2

Alternate A2: Partial Dam Removal. Lower Impoundment by 12 feet.



Higher End

**\$20
Million**

**\$8
Million**

Lower End

Average \$12 Million

Items **not** included:

- Restoration of natural stream as a result of dam modifications.
- Engineering and construction oversight
- Full removal of the dam feature
- Maintenance or reconstruction of existing bridge
- Full removal of weir features
- Downstream cofferdam (assumed can access by laying riprap)

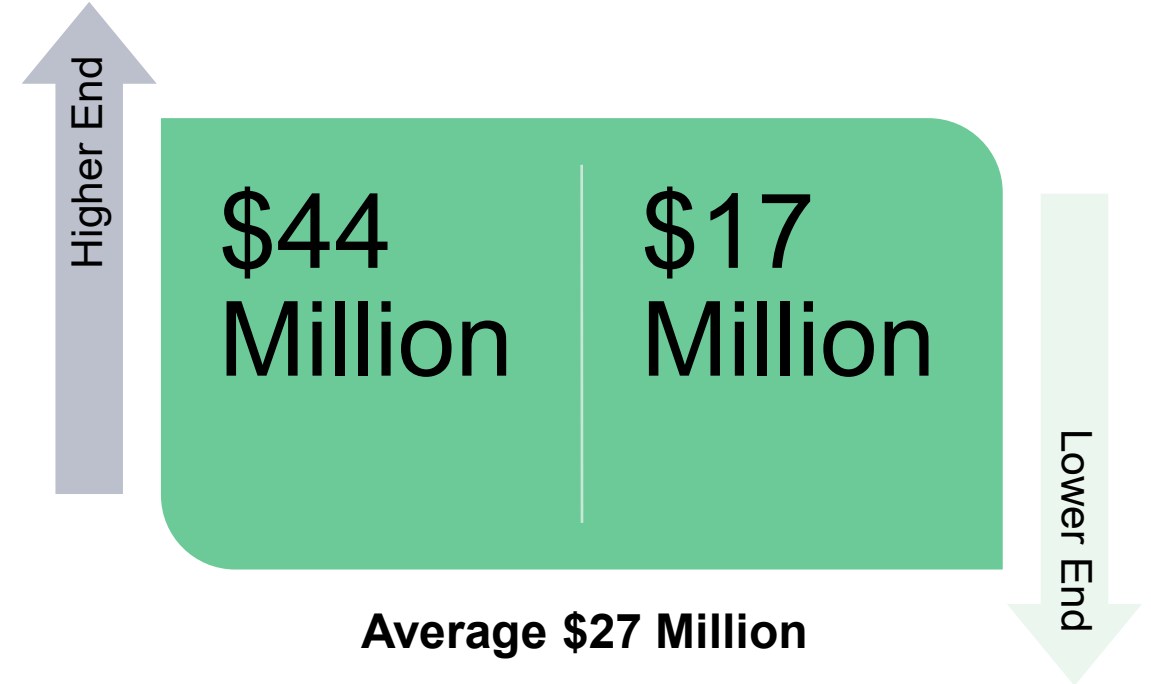
Planning-level costs for Alternative A1

Alternate A1: Dam Removal (to EL 1124)



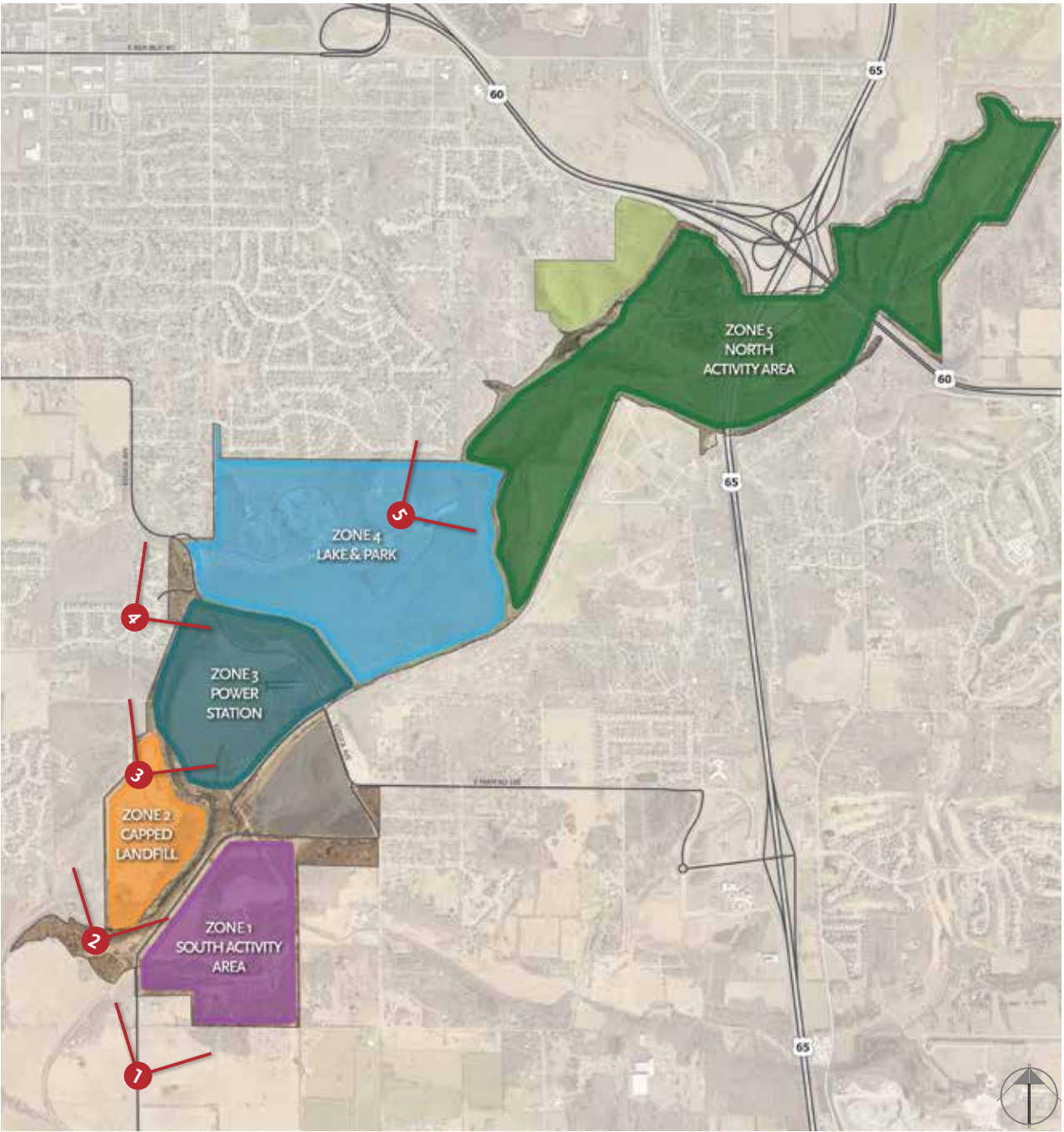
Items **not** included:

- Restoration of natural stream as a result of dam modifications.
- Engineering and construction oversight
- Full removal of the dam feature
- Maintenance or reconstruction of existing bridge
- Full removal of weir features
- Downstream cofferdam (assumed can access by laying riprap)





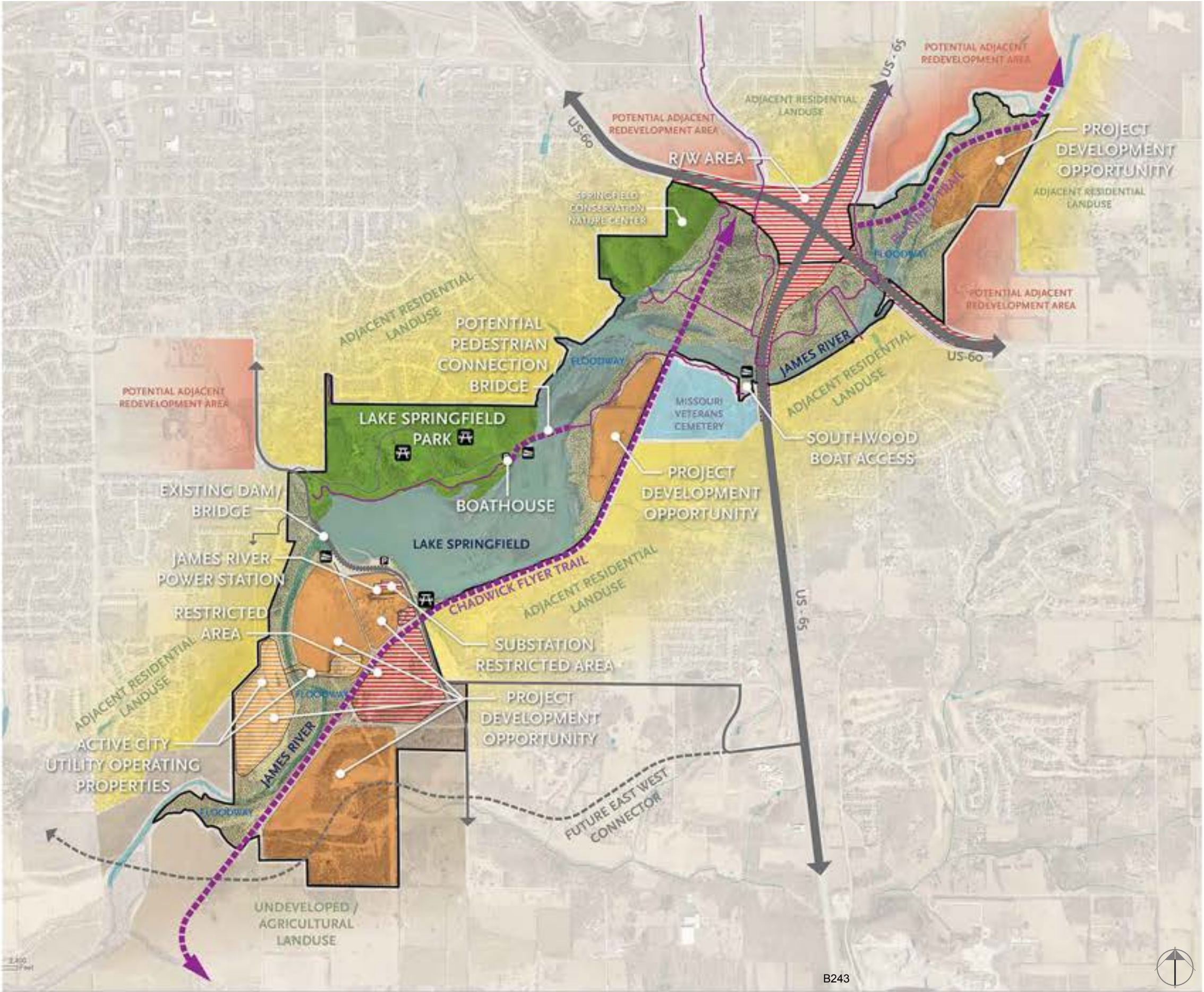
INITIAL CONCEPT ZONES



1 VIEWSHED FROM OBSERVER'S LOCATION

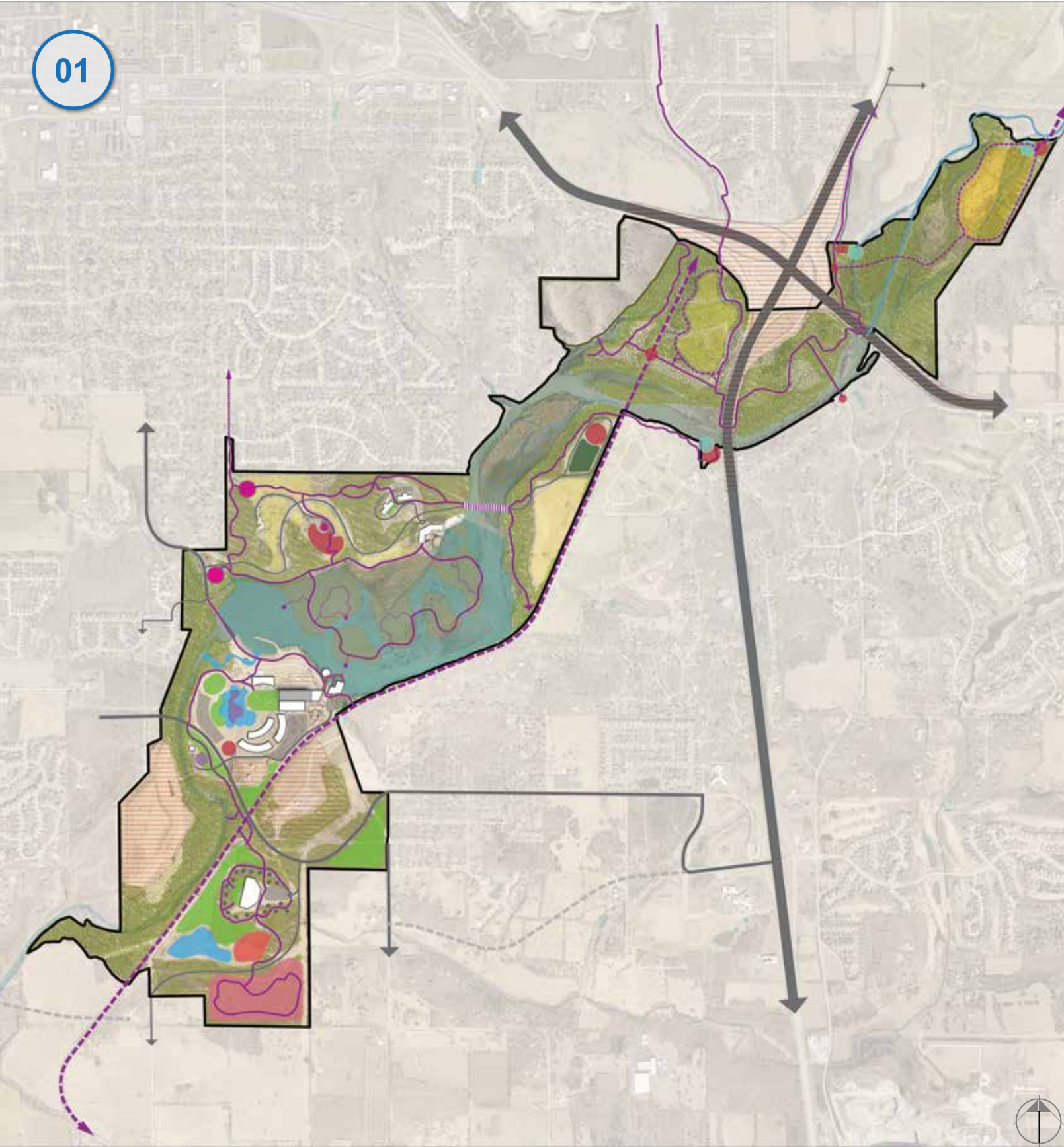


SITE ANALYSIS & PRELIMINARY CONCEPTS

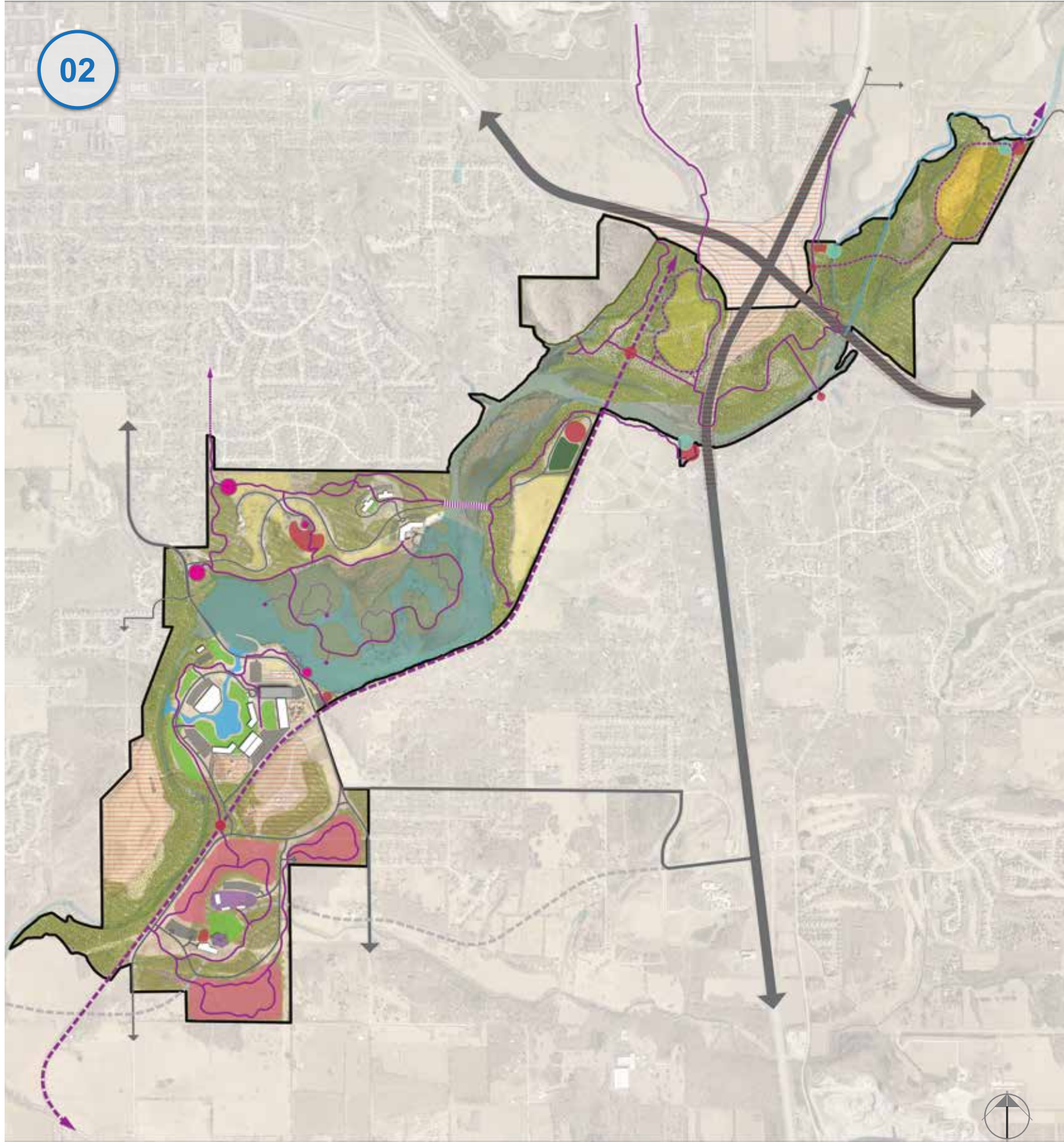


LAND-USE CONCEPTS

01



02



SITE CONCEPTS

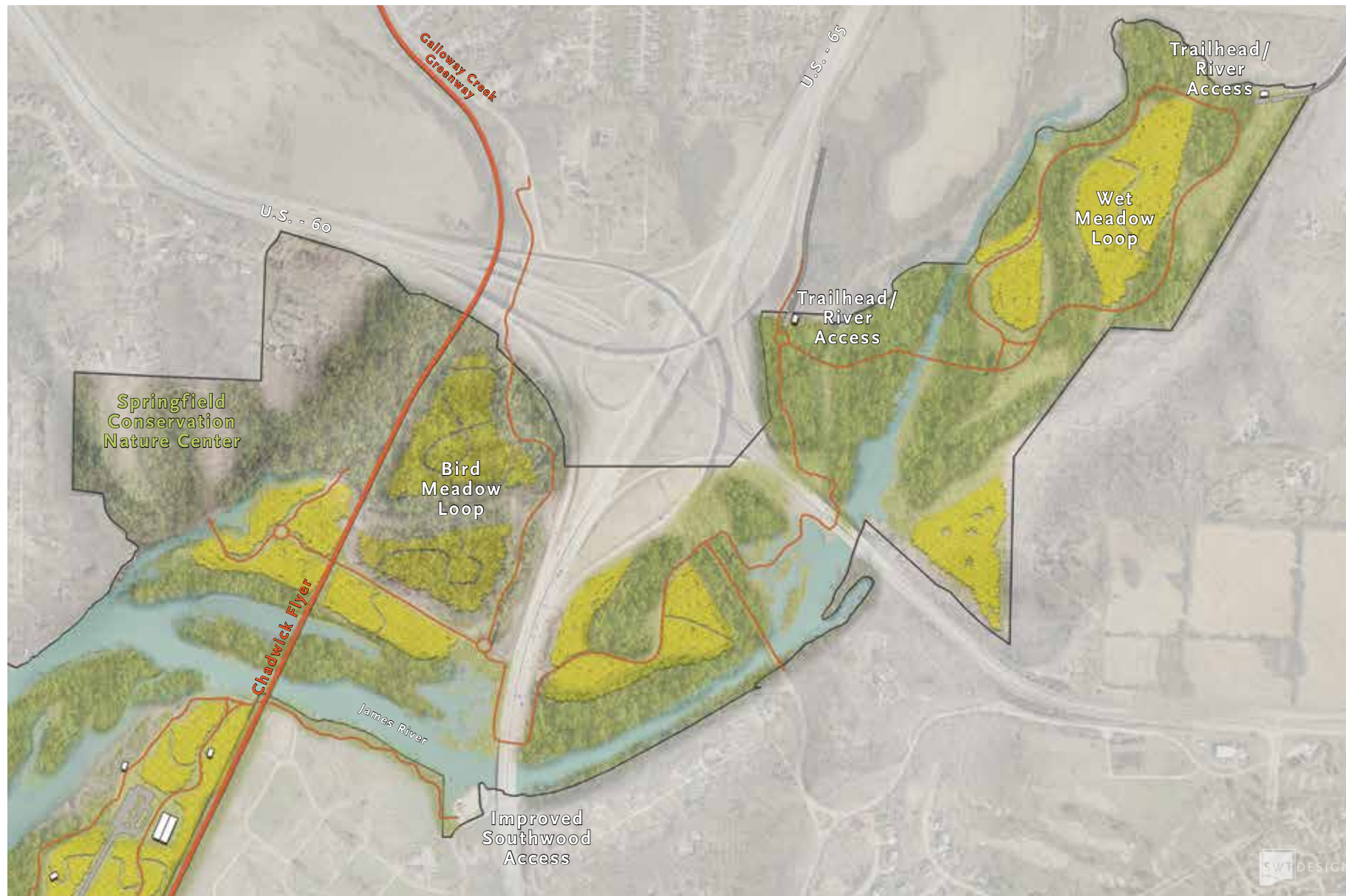
01



02



NORTH - ACCESS AND CONNECTIVITY



ZONE AMENITIES

- Wetland Preservation
- Nature Amenity Area
- Meadows
- Trails / Trailheads
- River Access
- Culture Education / Event Lawn
- Nature Center Access



PARK & LAKE ACTIVATION



ZONE AMENITIES

- Boathouse / Ecology Center
- Marina / Wetland Boardwalk
- Retreat Center
- Destination Play
- River Crossings / Overlooks
- Disc Golf
- Neighborhood Trail Connection
- Renovated Park Entry



PARK & LAKE ACTIVATION



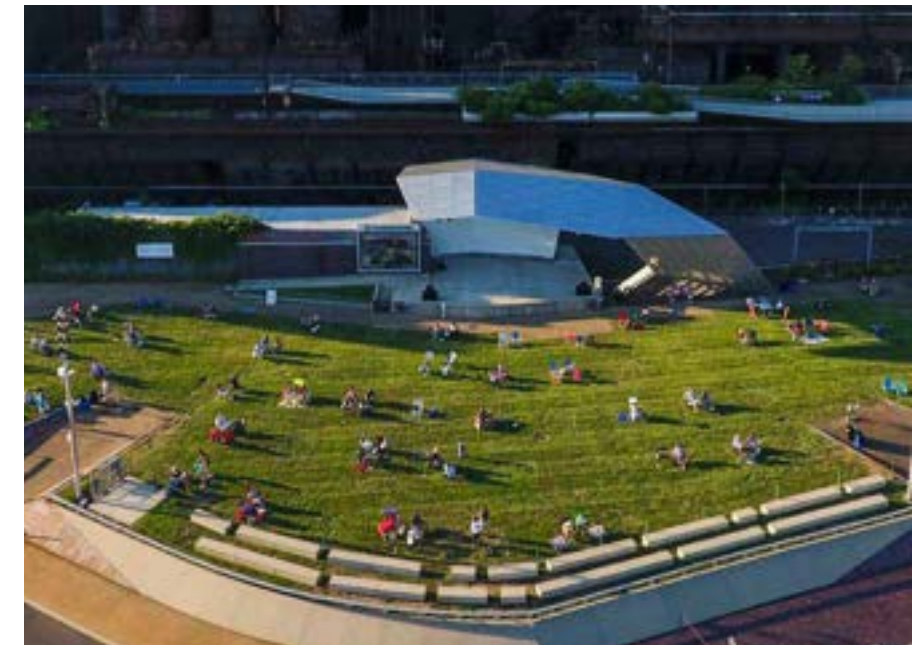


POWER PLANT + SOUTH ACTIVITY AREA REDEVELOPMENT



POWER PLANT - ENTERTAINMENT DISTRICT

01



ZONE AMENITIES

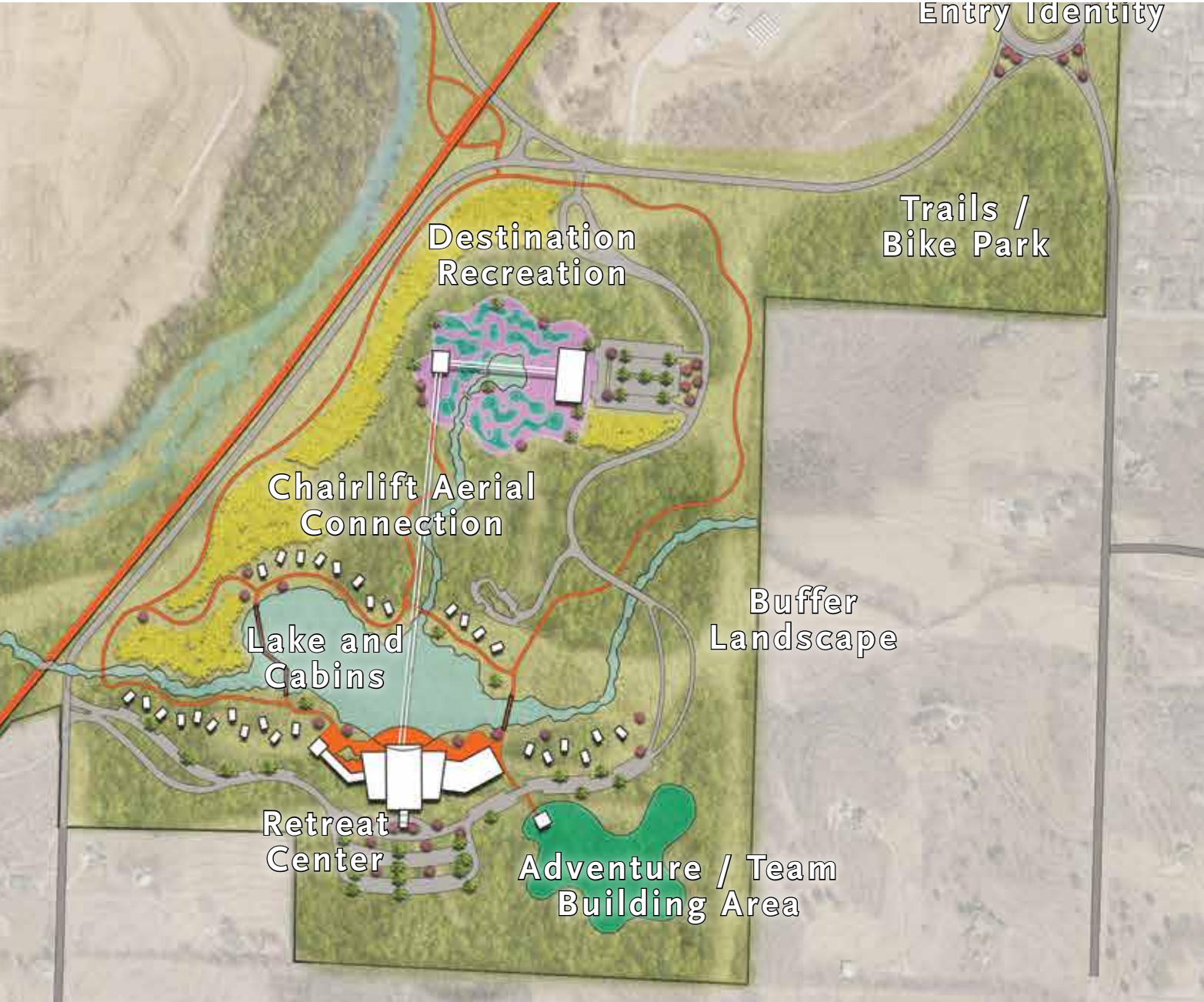
- Power Plant Entertainment
- Multi-use Event Venue
- Retail / Residential / Office
- Restaurant / Overlook
- Riverfront Recreation
- Event Lawn/ Pavilion
- Bypass Channel
- Whitewater Adventure
- Chadwick Trailhead



POWER PLANT - ENTERTAINMENT DISTRICT



SOUTH ACTIVITY - ECO RETREAT

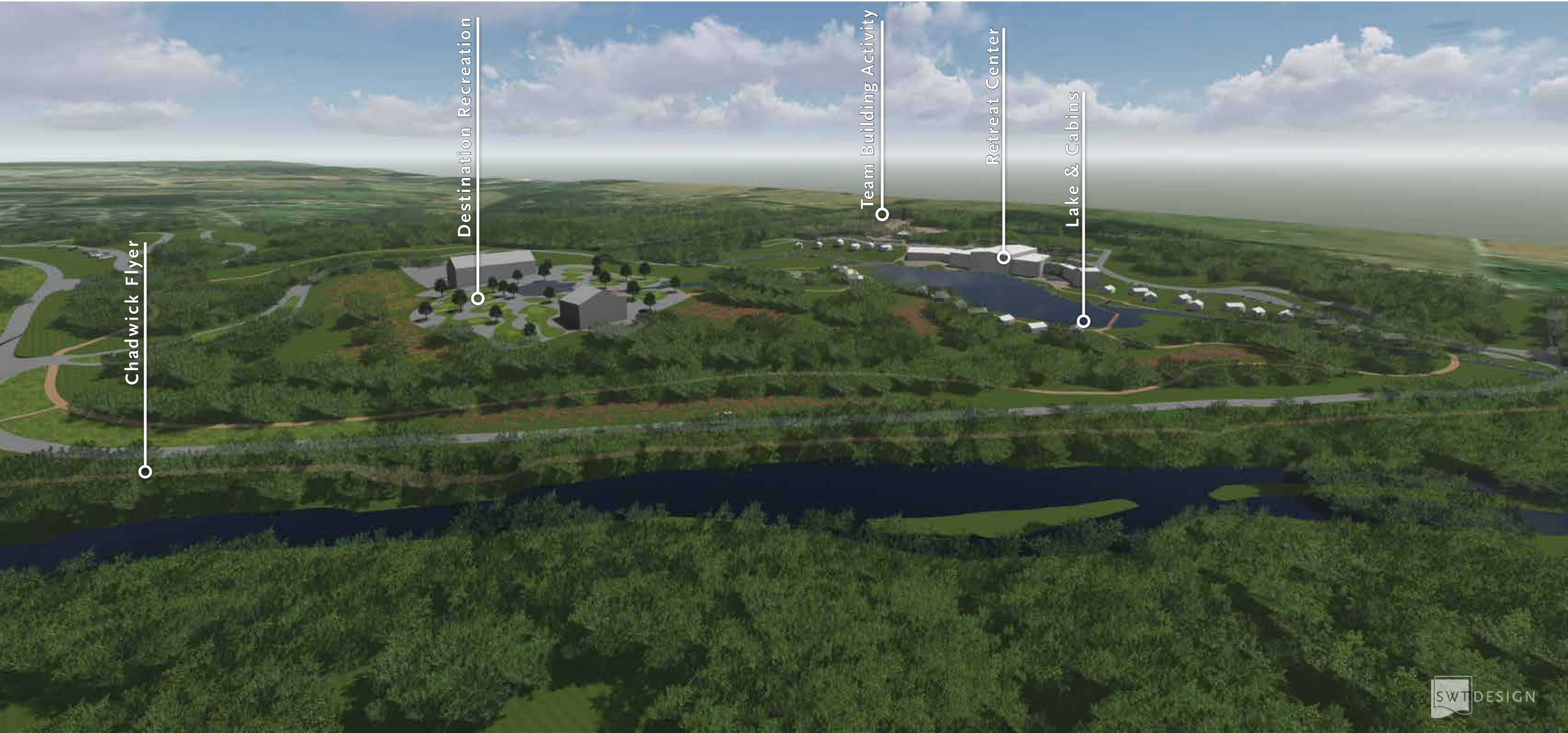


ZONE AMENITIES

- Retreat Center
- Retreat Cabins/Yurts
- Adventure Course
- Destination Recreation
- Lake / Amenities
- Bike Park



SOUTH ACTIVITY - ECO RETREAT



POWER PLANT - ADVENTURE HUB



ZONE AMENITIES

- Power Plant Reuse
- Conference Center
- Hospitality
- Restaurants
- Integrated Bypass Channel
- Kayak Basin
- Community Green
- Water Adventure



POWER PLANT - ADVENTURE HUB



SOUTH ACTIVITY - DESTINATION ADVENTURE PARK

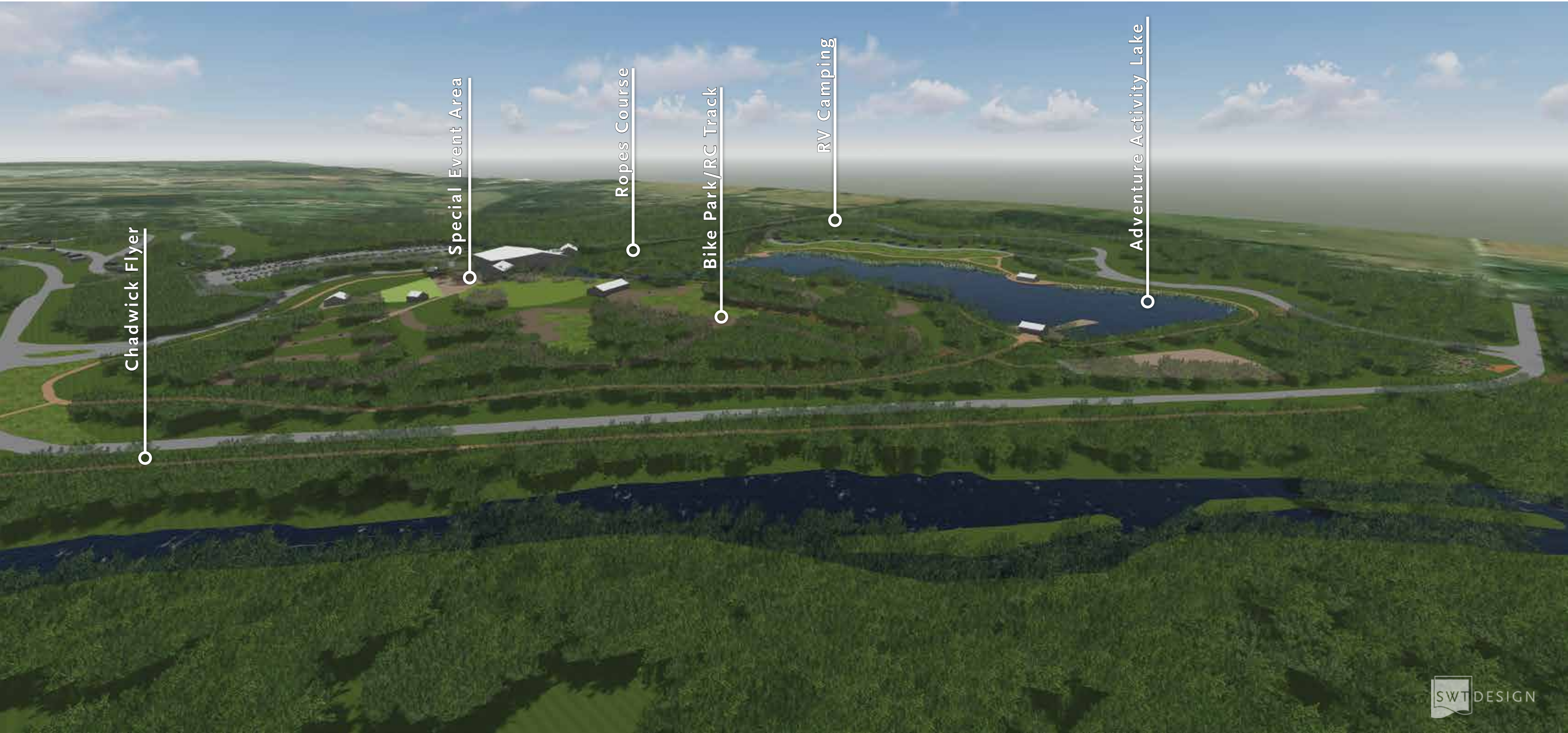


ZONE AMENITIES

- Canopy Ropes / Zipline
- Lake / Water Adventure
- Bike Park / Archery
- Trails
- RV Camping
- Amphitheater
- Retail / Food & Beverage



SOUTH ACTIVITY - DESTINATION ADVENTURE PARK



CONCEPTS

01

LAKE SPRINGFIELD - ENTERTAINMENT DISTRICT



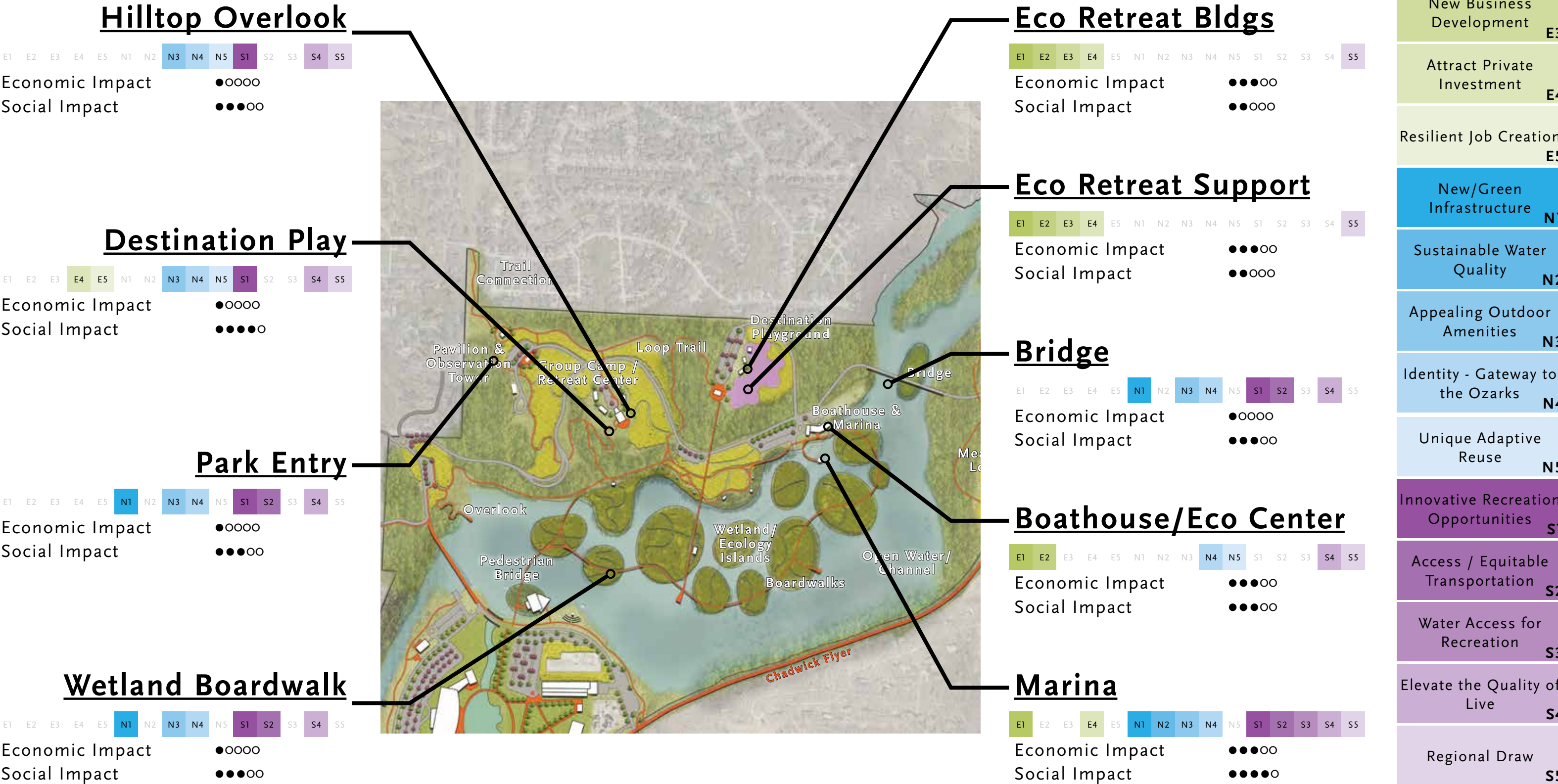
02

LAKE SPRINGFIELD - ADVENTURE HUB





PARK + LAKE - GOAL ALIGNMENT SAMPLE



ECONOMIC - CONCEPT 1 IMPACTS

01

LAKE SPRINGFIELD - ENTERTAINMENT DISTRICT



Lake Springfield, Missouri Estimated Direct Visitor Spending and Employment Concept 01				
	Assumptions	Year 1	Year 5	Year 10
Visitation				
Entertainment District (Power Plant)		287,500	311,199	343,589
Conference Center Lodge		40,000	43,297	47,804
South Adventure Area		165,000	178,601	197,190
North Activity Area		210,000	227,311	250,969
Park		178,000	192,673	212,726
Lake		30,000	32,473	35,853
Total		910,500	985,554	1,088,132
Possible Visitation Overlap	20%	(182,100)	(197,111)	(217,626)
Net Total		728,400	788,444	870,505
Room Nights				
Entertainment District (Power Plant)	7%	20,125	21,784	24,051
Conference Center Lodge	40%	16,000	17,319	19,121
South Adventure Area	5%	8,250	8,930	9,860
North Activity Area	2%	4,200	4,546	5,019
Park	2%	3,560	3,853	4,255
Lake	1%	300	325	359
Total		52,435	56,757	62,665
Direct Visitor Spending (\$ Million)				
On Lodging	\$151.66	\$8.0	\$9.7	\$12.4
On Food and Beverage	50.91	46.3	56.5	72.3
On Car Rental	49.01	2.6	3.1	4.0
On Retail	15.00	13.7	16.6	21.3
Total	\$266.58	\$70.5	\$85.9	\$110.0
Economic Impact (\$ Million)				
Direct Spending		\$70.5	\$85.9	\$110.0
Indirect and Induced Spending	0.796	56.1	68.4	87.5
Total Spending		\$126.6	\$154.3	\$197.5
Increased Earnings	0.586	\$41.3	\$50.3	\$64.4
Employment (Estimated Supported # of Jobs)	12.946	913	988	1,091
Fiscal Impact (\$ Million)				
Sales Tax	8.10%	\$5.7	\$7.0	\$8.9
Hotel/Motel Tax	5.00%	0.4	0.5	0.6
Total		\$6.1	\$7.4	\$9.5
Inflation Rate	3.00%			
Source: Johnson Consulting				



ECONOMIC - CONCEPT 2 IMPACTS

02

LAKE SPRINGFIELD - ADVENTURE HUB



Lake Springfield, Missouri Estimated Direct Visitor Spending and Employment Concept 02				
	Assumptions	Year 1	Year 5	Year 10
Visitation				
Recreation (Power Plant)		230,000	248,959	274,871
Conference Center		40,000	43,297	47,804
Amphitheater/Bike Park (South Activity Area)		151,000	163,447	180,459
North Activity Area		210,000	227,311	250,969
Park		178,000	192,673	212,726
Lake		30,000	32,473	35,853
Total		839,000	908,161	1,002,683
Possible Visitation Overlap	20%	(167,800)	(181,632)	(200,537)
Net Total		671,200	726,528	802,146
Room Nights				
Recreation (Power Plant)	3%	6,900	7,469	8,246
Conference Center	30%	12,000	12,989	14,341
Amphitheater/Bike Park (South Activity Area)	4%	6,040	6,538	7,218
North Activity Area	1%	2,100	2,273	2,510
Park	1%	1,780	1,927	2,127
Lake	1%	300	325	359
Total		29,120	31,520	34,801
Direct Visitor Spending (\$ Million)				
On Lodging	\$151.66	\$4.4	\$5.4	\$6.9
On Food and Beverage	50.91	42.7	52.0	66.6
On Car Rental	49.01	1.4	1.7	2.2
On Retail	15.00	12.6	15.3	19.6
Total	\$251.58	\$61.1	\$74.5	\$95.3
Economic Impact (\$ Million)				
Direct Spending		\$61.1	\$74.5	\$95.3
Indirect and Induced Spending	0.796	48.6	59.3	75.8
Total Spending		\$109.8	\$133.7	\$171.2
Increased Earnings	0.586	\$35.8	\$43.6	\$55.9
Employment (Estimated Supported # of Jobs)	12.946	791	857	946
Fiscal Impact (\$ Million)				
Applicable Tax Rates	8.10%	\$5.0	\$6.0	\$7.7
City	5.00%	0.2	0.3	0.3
Total		\$5.2	\$6.3	\$8.1
Inflation Rate	3.00%			
Source: Johnson Consulting				



ECONOMIC - DEVELOPMENT COSTS

Lake Springfield, Missouri Estimated Construction Cost Concept 01			
	Actual Area (SF, rounded)	Area (acres)	Estimated Cost (\$000)
North Area			\$15,480,000
Subtotal	13,593,000	312.05	\$15,480,000
MP Contingency (40%)			\$6,192,000
Site Infrastructure (20%)			3,096,000
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			8,668,800
Master Plan Order-of-Magnitude			\$33,436,800
Park & Lake			\$114,504,600
Subtotal	4,237,800	97	\$114,504,600
MP Contingency (40%)			\$45,801,840
Site Infrastructure (20%)			22,900,920
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			64,122,576
Master Plan Order-of-Magnitude			\$247,329,936
Entertainment District (Power Plant)			
Power Plant	80,000	1.84	\$51,500,000
Restaurant/Overlook	20,000	0.46	13,000,000
Entertainment Bldg A-B	37,000	0.85	24,050,000
Mixed Use Bldg A-D	226,000	5.19	113,000,000
Riverfront Hospitality Bldg	5,000	0.11	3,250,000
Multi-Purpose Event Center	270,000	6.20	81,000,000
Event Lawn	130,000	2.98	3,250,000
Bypass Channel	110,000	2.53	9,550,000
Water Adventure	159,000	3.65	31,625,000
Riverfront Destination Amenity Area	140,000	3.21	4,900,000
Site Improvements & Modifications			33,030,000
Subtotal	1,177,000	27.02	\$368,155,000
MP Contingency (40%)			\$147,262,000
Site Infrastructure (20%)			73,631,000
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			206,166,800
Master Plan Order-of-Magnitude			\$795,214,800
Conference / Supporting Adventure (South Activity Area)			
Conference Center Lodge	102,000	2.34	\$40,000,000
Retreat Cabins/Yurts	40,600	0.93	10,500,000
Ropes / Adventure Course / Destination Play	230,000	5.28	10,000,000
Bike Park	700,000	16.07	2,000,000
Green Space Trails	1,840,000	42.24	1,080,000
Lake	390,000	8.95	1,000,000
Green Space Buffer	930,000	21.35	1,000,000
Site Improvements & Modifications			9,100,000
Subtotal	4,232,600	97.17	\$74,680,000
MP Contingency (40%)			\$29,872,000
Site Infrastructure (20%)			14,936,000
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			41,820,800
Master Plan Order-of-Magnitude			\$161,308,800
Total Concept 01	23,240,400	534	\$1,237,290,336

Source: SWT, Johnson Consulting

Lake Springfield, Missouri Estimated Construction Cost Concept 02			
	Actual Area (SF, rounded)	Area (acres)	Estimated Cost (\$000)
North Area			\$15,080,000
Subtotal	13,593,000	312.05	\$15,080,000
MP Contingency (40%)			\$6,032,000
Site Infrastructure (20%)			3,016,000
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			8,444,800
Master Plan Order-of-Magnitude			\$24,128,000
Park & Lake			\$114,079,600
Subtotal	4,237,800	97	\$114,079,600
MP Contingency (40%)			\$45,631,840
Site Infrastructure (20%)			22,815,920
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			63,884,576
Master Plan Order-of-Magnitude			\$246,411,936
Recreation (Power Plant)			
Power Plant	80,000	1.84	\$51,500,000
Mixed Use Bldg A-B	162,000	3.72	81,000,000
Entertainment Bldg	7,200	0.17	4,680,000
Conference Center	155,000	3.56	54,250,000
Overlook Restaurant	20,000	0.46	13,000,000
Riverfront Hospitality	5,000	0.11	3,250,000
Recreation / Entertainment Destination	180,000	4.13	63,000,000
Event Lawn	280,000	6.43	7,000,000
Lake / Water Feature / Bypass Channel	330,000	7.58	17,550,000
Riverfront Green / Parks Space	460,000	10.56	1,380,000
Site Improvements & Modifications			30,421,500
Subtotal	1,679,200	38.55	\$327,031,500
MP Contingency (40%)			\$130,812,600
Site Infrastructure (20%)			65,406,300
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			183,137,640
Master Plan Order-of-Magnitude			\$706,388,040
Amphitheater/Bike Park (South Activity Area)			
Amphitheater	70,000	1.61	\$2,500,000
Multi-Use Lawn	95,000	2.18	850,000
Amenities Plaza	29,000	0.67	360,000
Amenities Plaza Bldgs	40,000	0.92	5,000,000
RV Camping Area A-B	1,830,000	42.01	2,137,500
Bike Park	905,000	20.78	2,500,000
Bike Park Support Bldg	4,500	0.10	562,500
Adventure Park / Ropes Course	387,000	8.88	5,000,000
Archery Range	95,000	2.18	500,000
Lake	1,340,000	30.76	5,100,000
Green Space Buffer / Trails	1,040,000	23.88	2,160,000
Site Improvements & Modifications			7,600,000
Subtotal	5,835,500	133.96	\$34,270,000
MP Contingency (40%)			\$13,708,000
Site Infrastructure (20%)			6,854,000
Professional and Contractor Services (35% of Subtotal + Infrastructure and Contingency)			19,191,200
Master Plan Order-of-Magnitude			\$74,023,200
Total Concept 02	25,345,500	582	\$1,050,951,176

Source: SWT, Johnson Consulting



ECONOMIC - IMPACTS - KEY TAKEAWAYS

Highest Overall Impact: Concept 1

Note: Phasing not yet integrated into economic projections

YEAR 10 ESTIMATIONS

Jobs

Concept 01	1,091
Concept 02	946

Direct Visitor Spending (\$ Million)

Concept 01	\$197.5
Concept 02	\$171.2

Room Nights

Concept 01	62,665
Concept 02	34,801

Taxes Generated (\$ Million)

Concept 01	\$9.5
Concept 02	\$8.1

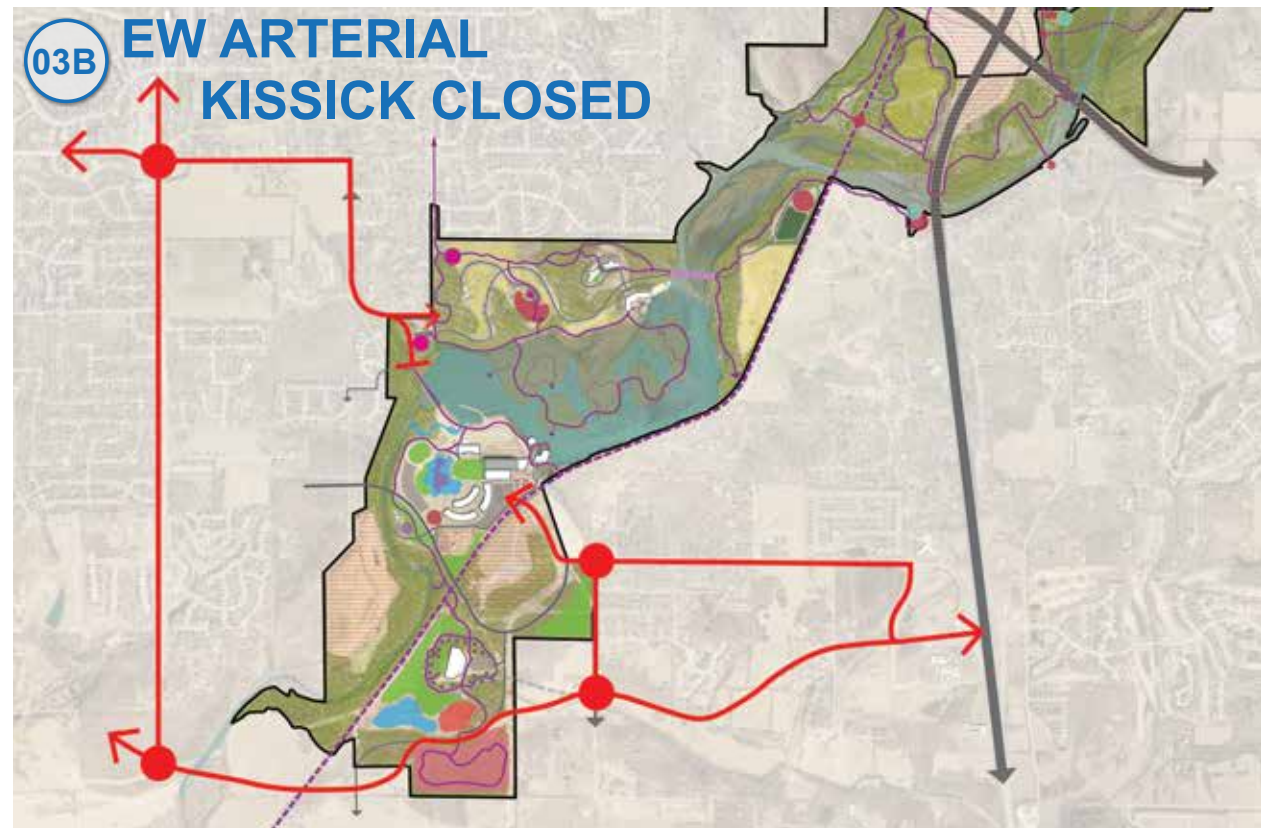
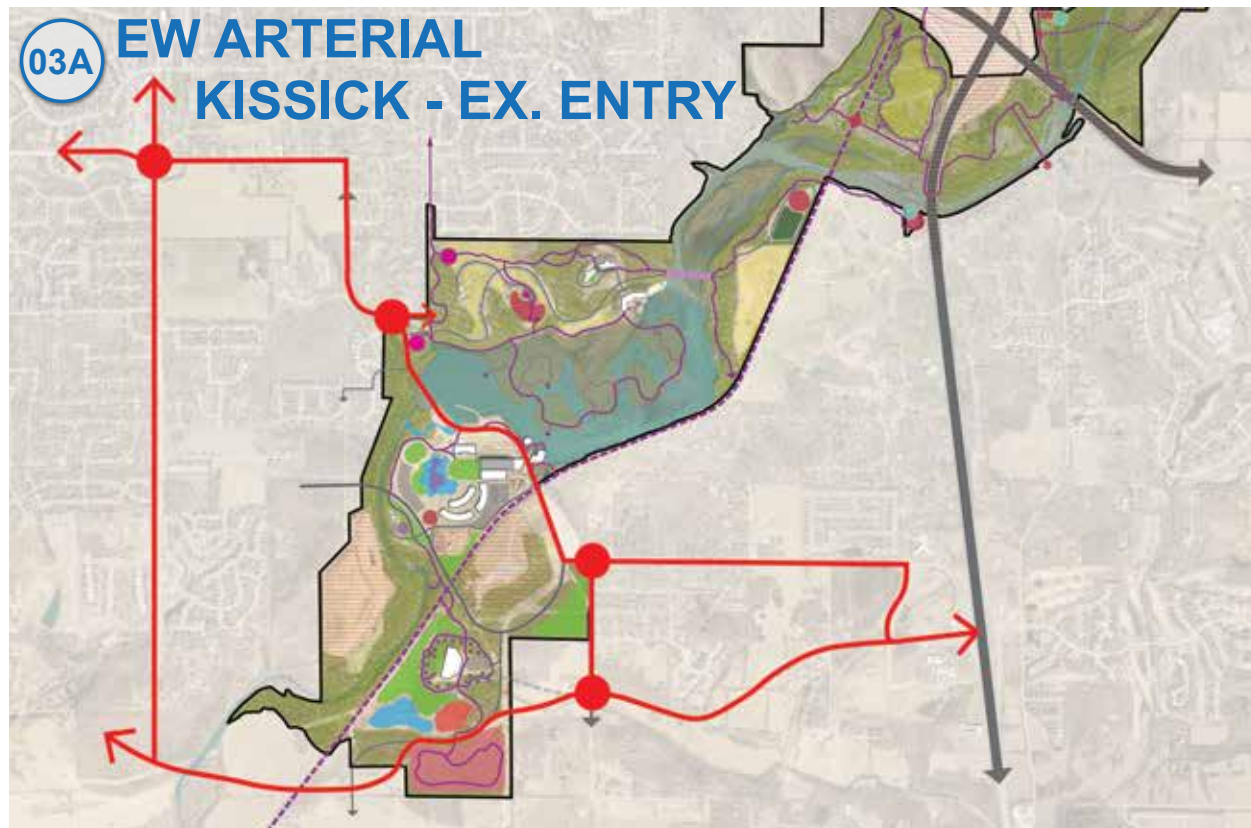
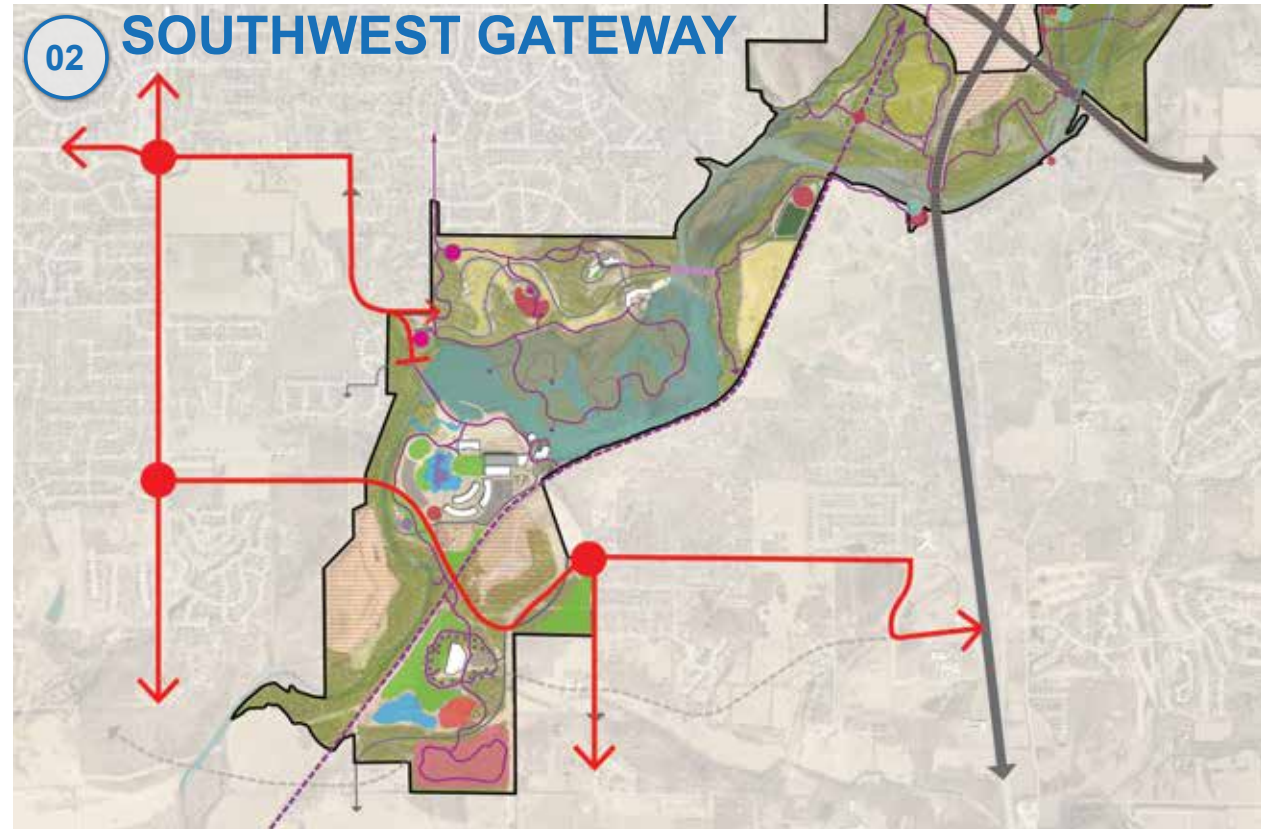
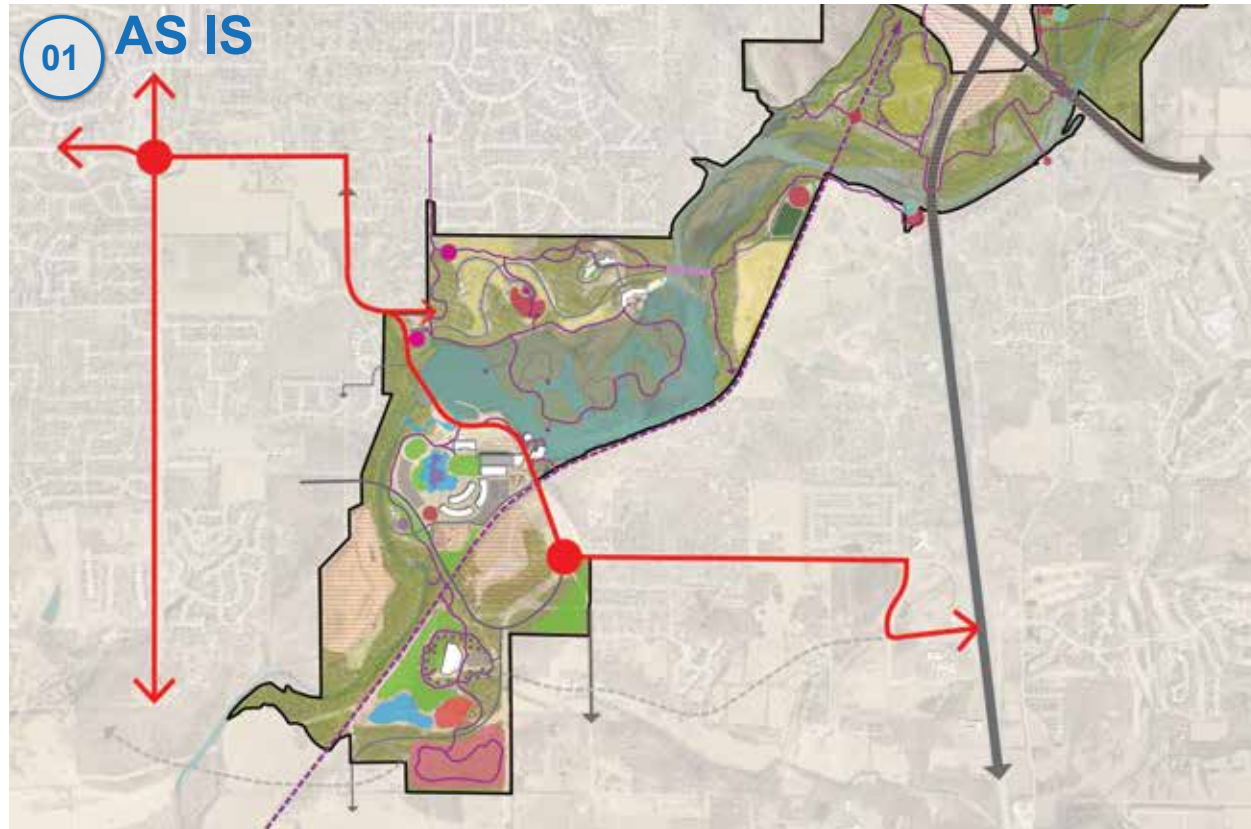
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Lake Springfield, Missouri Estimated Direct Visitor Spending and Employment Concept 02				
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Room Nights				
Recreation (Power Plant)	3%	6,900	7,469	8,246
Conference Center	30%	12,000	12,989	14,341
Amphitheater/Bike Park (South Activity Area)	4%	6,040	6,538	7,218
North Activity Area	1%	2,100	2,273	2,510
Park	1%	1,780	1,927	2,127
Lake	1%	300	325	359
Total		29,120	31,520	34,801
Direct Visitor Spending (\$ Million)				
On Lodging	\$151.66	\$4.4	\$5.4	\$6.9
On Food and Beverage	50.91	42.7	52.0	66.6
On Car Rental	49.01	1.4	1.7	2.2
On Retail	15.00	12.6	15.3	19.6
Total	\$251.58	\$61.1	\$74.5	\$95.3
Economic Impact (\$ Million)				
Direct Spending		\$61.1	\$74.5	\$95.3
Indirect and Induced Spending	0.796	48.6	59.3	75.8
Total Spending		\$109.8	\$133.7	\$171.2
Increased Earnings	0.586	\$35.8	\$43.6	\$55.9
Employment (Estimated Supported # of Jobs)	12.946	791	857	946
Fiscal Impact (\$ Million)				
Applicable Tax Rates	8.10%	\$5.0	\$6.0	\$7.7
City	5.00%	0.2	0.3	0.3
Total		\$5.2	\$6.3	\$8.1
Inflation Rate	3.00%			
Source: Johnson Consulting				





ACCESS OPTIONS





Technical

HYDROLOGY STUDY

In support of the Lake Springfield Plan Springfield, Missouri

Prepared for

Client: City of Springfield, Department of Economic Vitality
840 Boonville, P.O. Box 8368
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&

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DRAFT Document for Client Review

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ACRONYMS AND ABBREVIATIONS

AQL	aquatic life
CFU	colony-forming units
cfs	cubic feet per second
CSR	Code of State Regulations
the Dam	Lake Springfield Dam
DWS	drinking water supply
FEMA	Federal Emergency Management Agency
FS	factor of safety
Geosyntec	Geosyntec Consultants, Inc.
IND	industrial water supply
IRR	irrigation
LMVP	Lakes of Missouri Volunteer Program
LWP	livestock and wildlife protection
MDC	Missouri Department of Conservation
MoDNR	Missouri Department of Natural Resources
ml	milliliter(s)
PCB	polychlorinated biphenyl
PMP	probable maximum precipitation
SCR	secondary contact recreation
SLAP	Statewide Lake Assessment Program
SPF	standard project flood
TMDL	total maximum daily load
µg/L	microgram(s) per liter
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
USEPA	United States Environmental Protection Agency
WBC	whole body contact
WBID #	waterbody identification number
WWH	warm water habitat

1. EXECUTIVE SUMMARY

The Lake Springfield Dam (the Dam) was originally constructed in the 1950s to supply cooling water to the James River Power Plant. Damming the Upper James River formed Lake Springfield, an underutilized recreation asset for the City of Springfield, Missouri, and the surrounding communities (**Figure 1**). Because of the power plant being decommissioned in 2021, the Dam purpose and function is now being reconsidered.

The City of Springfield is developing the Lake Springfield Plan to enhance the area into a recreational focal point of the region, improve water quality, and spur economic development around the lake. Currently, the lake is impaired for aquatic life (AQL) use due to elevated levels of chlorophyll-a, which is simply a measure of algae that could reduce dissolved oxygen levels vital for aquatic life. Due to a higher level of bacteria (*E. Coli*) upstream of the lake in the James River, it is impaired for whole body contact recreation category A (WBC-A), which means recreation activity such as swimming is not recommended.

Predominantly comprising of agricultural areas, the Upper James River drains an area of 270 square miles into Lake Springfield. Vast patches of nuisance aquatic vegetation within the lake are noticeable, which may have formed over the years due to continued accumulation of sediment transported by the James River. The lake exhibits a “transitional zone” in its upper portion where the riverine characteristics of the James River transition to lacustrine (lake-like) characteristics, as evidenced by shallow, sediment-rich areas supporting emergent and submerged aquatic vegetation. There are several permitted wastewater point source discharges within the watershed authorized by the Missouri Department of Natural Resources (MoDNR). Additionally, there are permitted direct stormwater discharges to the lake, and historically the James River Power Plant discharged domestic/industrial water to Lake Springfield (before being decommissioned in 2021).

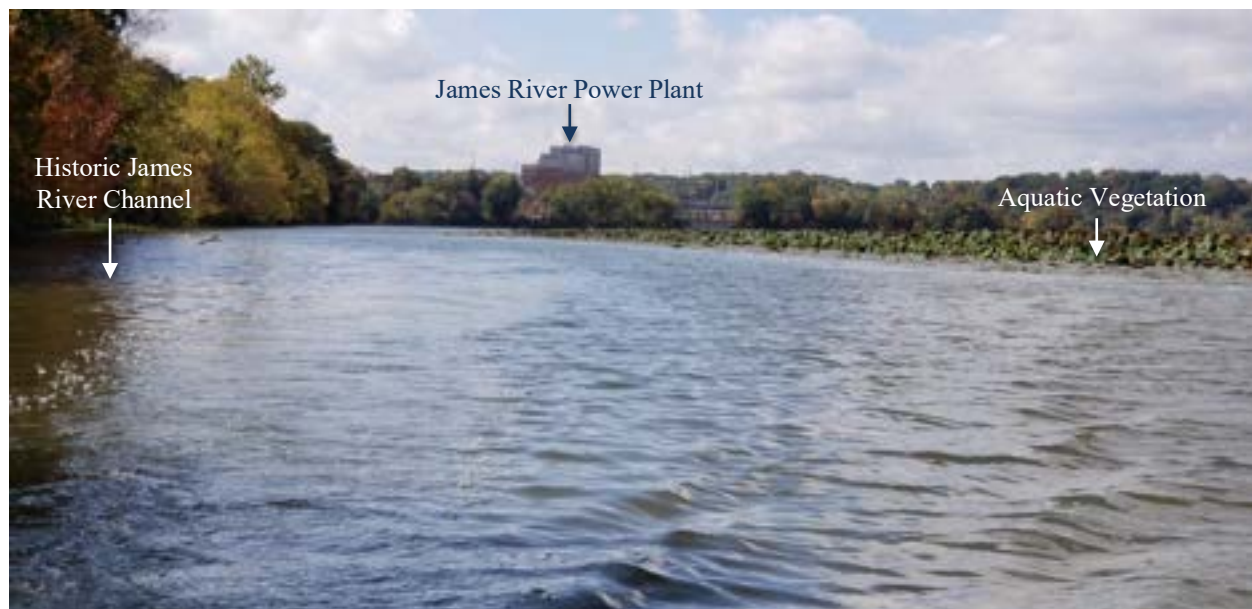


Figure 1: Lake Springfield, Missouri (Looking West)

This study includes three primary elements: water quality and sediment assessment, characterization of the watershed, and an assessment of the Dam and potential modification alternatives.

1.1. Water Quality and Sediment Assessment

Geosyntec collected field data in November and December 2022, which included a bathymetric survey and a sediment profiling of the lake, 41 sediment grab samples, and 11 water quality grab samples. This brief window during which water quality samples were collected provided useful but limited information regarding long-term water quality conditions for Lake Springfield. The water quality standards in Missouri are set by MoDNR, in accordance with the federal Clean Water Act. These standards establish specific goals for a specific water body and describe desired conditions and how those conditions will be protected or reached. Specifically, the standards contain core components such as designated use(s) of a water body, criteria necessary to protect the designated use(s), and antidegradation requirements.

Designated uses are an expression of goals for a body of water, such as supporting AQL, allowing for human recreation, or functioning as a public water supply; in addition, designated uses help to establish water quality management. In other words, a “use” is an elucidation of a body of water’s role in both human and aquatic environments. All waters are designated for protection of AQL and further classified based on the type of aquatic habitat they provide. The following designated uses apply to Lake Springfield:

1. Lake Springfield’s designated AQL use is as a warm water habitat (WWH)—that is, waters in which naturally occurring water quality and habitats allow the maintenance of a wide variety of warm water biota.
2. Human health criteria (HHP) is set in place to limit the use of fish consumption on a long-term basis and protect recreators from harmful water quality conditions.
3. Recreational uses are assigned to the lake as part of the HHP criteria. There are three categories of recreational uses applicable from April 1 through October 31 each year. Lake Springfield is designated for two of the three recreational categories:
 - a. Whole body contact recreation category B (WBC-B), which applies to waters designated for whole body contact recreation not contained within category A.
 - b. Secondary contact recreation (SCR), which involves activities that do not typically result in complete submergence of the body.
4. Other designated uses include irrigation (IRR), industrial water supply (IND), and livestock and wildlife protection (LWP).

Note: Lake Springfield is currently not designated for whole body contact recreation category A (WBC-A), which applies to waters that have been established as public swimming areas.



Figure 2: Potential Pollutants of Concern for Future Development

Based on the impaired designated uses in the upstream James River and Lake Springfield, nutrients, bacteria (*E. coli*), and polychlorinated biphenyls (PCBs) are the known pollutants of concern for future planning purposes (**Figure 2**).

Nutrients: Total phosphorus and total nitrogen concentrations are typically higher upstream of the lake compared to near the Dam, while chlorophyll-a concentrations are higher in the lake compared to upstream. This is likely a pattern related to the transition from riverine ecosystem of the James River (flow water with shaded riparian) compared to the open water lacustrine (lake-like) ecosystem of Lake Springfield.

***E. coli*:** From previous studies, *E. coli* data in the James River upstream of Lake Springfield indicates nonattainment of WBC-A water quality criteria, but immediately downstream of Lake Springfield, WBC-A water quality criteria is attained. In other words, higher concentration of bacteria is present in the upstream James River than immediately downstream of the lake. However, there is not enough *E. coli* data available to make a conclusive assessment on this water quality criteria for the lake itself. (Springfield-Greene County 2017)

Polychlorinated Biphenyls: The impact to aquatic life and recreators can be assessed by investigating more recent sediment deposition (top 0 to 6.0 inches) compared to legacy sediments (below 6 inches). Sediment sampling conducted by Geosyntec in 2022 indicates PCBs are not accumulating in detectable concentrations in more recent sediment deposits. However, due to elevated PCB levels found in fish tissue, the Department of Health and Senior Services (DHSS) has issued a fish tissue consumption advisory for Lake Springfield. (MDC 2011)

Any future sediment dredging activity must consider investigating beyond the top 6.0-inch horizon for sediment characterization, and for sediment handling and disposal.

Lake Depth: Results from the bathymetric survey and sediment profiling of the lake reveal that the lake is relatively shallow outside of the historic James River channel, which hugs the southern shoreline of the lake, with varying sediment thicknesses. Since the construction of the Dam, the lake's depth has largely decreased, ranging from 1.0 to 4.0 feet outside of the historic James River channel, and 7.0 to 8.0 feet within the historic James River channel.

1.2. Watershed Assessment Summary

Streamflow across the United States has generally increased as published by the United States Environmental Protection Agency (USEPA 2022) For Lake Springfield, analysis performed on 68 years of stream flow data demonstrates that the frequent and infrequent flows have increased over the years along with the rise in extreme events—rate and frequency of flows. Change in land cover data in the last 20 years demonstrates a decrease in forest areas and an increase in pastureland and development. If this trend continues, it is more likely that the stream flows will experience extreme events. The City of Springfield, as part of their integrated water quality management plan, is undertaking implementation of a riparian corridor within 100 feet of the creek section in approximately 156 acres of city-owned land (City of Springfield, Missouri 2020). The James River Watershed Management Plan outlines a 5-to-20-year goal to improve water quality in the James

River. Community benefits could be realized through continued collaboration and implementation of these outlined goals. (SMCOG 2012)

1.2.1. Sediment Management Summary

From visual observations, bathymetric and sediment profiling, and watershed-based predictive modeling, it is clear that sediment deposits are present in the lake, and the lake continues to receive more sediment load from the upstream watershed. In-lake sediment volume of approximately 476 thousand cubic yards equates to about 35% of the estimated lake volume. The rate of incoming annual sediment load could significantly change in the future based on watershed land use changes. Not only is the amount of sediment load an important factor to consider when planning for future site improvements, but also the characteristic pattern of accumulation within the lake and the quality of sediment are critical factors when planning for strategic management of present and future sediment.

1.3. Dam Assessment and Regulatory Compliance Review

MoDNR was identified as the sole regulatory authority for the Dam, and Geosyntec researched MoDNR's current (2019) state-level dam rules and regulations. The Dam was built in 1955 and owned by City Utilities. An initial registration permit for the Dam was completed in 1987 following the change in dam safety state regulations. This permit package was used as the main source of information to assess hydrologic and hydraulics, geotechnical, and structural engineering components of the dam. A graphical representation of historic congressional and state regulatory updates in relation to the dam is provided in **Figure 3**.

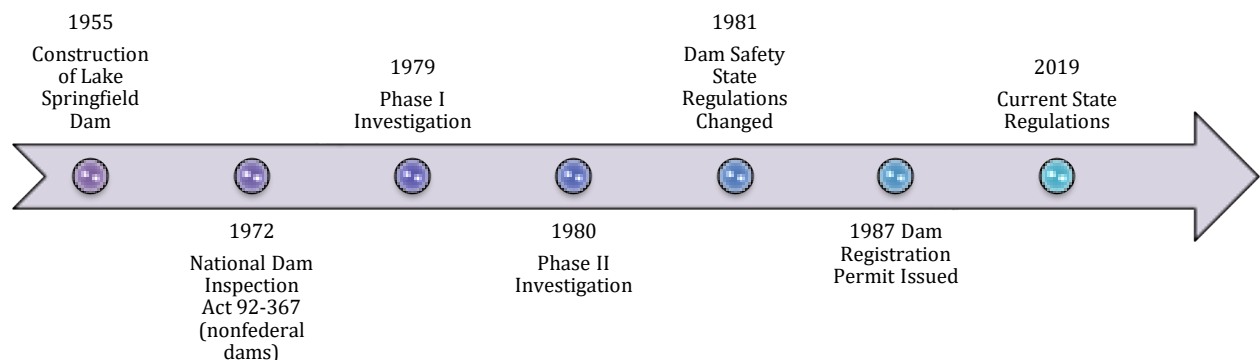


Figure 3: Historic Congressional and State Regulatory Updates on Dam Safety

The Dam does not conform with the current 2019 regulations. The following engineering analyses require updates to qualify the Dam as compliant with the standing MoDNR Dam and Reservoir Safety Program:

1. Geotechnical slope stability analysis of the earthen embankment for static loading conditions with steady seepage and the maximum reservoir
2. Geotechnical slope stability analysis of the earthen embankment for the drawdown case going from full (i.e., normal reservoir pool elevation) to empty reservoir conditions
3. Structural stability analysis of the concrete spillway using an updated seismic design acceleration of 0.15 g (gravity constant).

However, before performing any updates, a discussion with the MoDNR Dam and Reservoir Safety Program may reveal that the previously performed analyses fulfill the active program's requirements.

1.3.1. Dam Modification Alternatives Assessment

The Lake Springfield Plan presents an opportunity to modify the Dam to enhance recreational opportunities, spur economic growth while preserving the environment, and improve the quality of water and aquatic habitat. The following modification alternatives were assessed:

1. **Dam Removal:** Full or partial Dam removal with the intent of restoring the historic James River alignment.
2. **Concrete Dam Modification:** Lowering either the south or center concrete bay by 2 feet and creating a kayak and/or fish ladder at the downstream face of the Dam.
3. **Earth Dam Modification:** Grading a channel in the earthen Dam/embankment by creating a 50-foot-wide opening at an elevation 2-feet deeper than the primary spillway.
4. **No Modification:** No structural modification to the Dam's components, but an update to engineering analysis using current practices based on current state regulations.

Any significant structural modification that changes the original function of the dam will require associated engineering analyses and a construction permit from MoDNR. A sediment management plan for present and future sediment load would be critical, regardless of the selected alternative, as it would impact what recreational amenities or activities are planned. The implementation cost of each alternative should consider an itemized sequence of construction, permit application, associated engineering analysis, and sediment management.

2. INTRODUCTION

This report assesses the Lake Springfield watershed, its water quality, and its sediment, as well as an assessment of the Lake Springfield Dam. The report also provides an assessment of conceptual Dam modification alternatives for the concrete and earthen dam.

An outline of this document by section is provided as follows:

- Water quality assessment focusing on recreational-based usage of the waterbody, current state of Lake Springfield's bathymetry and sediment profiling, and future recreational season monitoring.
- Watershed assessment and analysis of stream gage data dating back to 1955 when the Dam was constructed.
- An overview of potential lake sediment management strategies and challenges, as well as future design considerations and detailed sampling.
- Dam compliance assessment per current standing regulations, including a review of inspections, engineering analysis, and compliance action and recommendations.
- An assessment of the concrete and earthen Dam modification alternatives, including design, cost, and risk considerations, with the objective of improving water quality and allowing for Kayaking and fish passage.
- Finally, an introductory summary of the Envision® Sustainability framework to assist with infrastructure planning and decision-making processes.

3. WATER QUALITY ASSESSMENT

This section presents an overview of the Lake Springfield’s current recreational use, limitations in expanding the uses and its physical characteristics and changes.

3.1. Description of the Waterbody and Designated Uses

Lake Springfield is an approximately 293-acre reservoir situated in the southeastern portion of the City of Springfield, Missouri, located in Greene County. In the mid-1950’s, the James River was impounded (dammed) to create a cooling water lake for the coal-fired power plant, which is owned and operated by City Utilities of Springfield, Missouri, thus creating Lake Springfield. The lake exhibits a “transitional zone” in its upper portion where the riverine characteristics of the James River transition to lacustrine (lake-like) characteristics, as evidenced by shallow, sediment-rich areas supporting emergent and submerged aquatic vegetation. Lake Springfield’s immediate surrounding topography includes park land, limestone bluffs, forest, open land, and urbanized/developed areas to the north. Lake Springfield and its contributing watershed are in the ecological drainage unit Ozark/White of the Ozark Highlands ecoregion. The Dam is run-of-the-river style, in that the flow of water in the river downstream of the Dam is the same as the flow of water upstream of the dam.

Within the Lake Springfield watershed are several MoDNR-issued permitted discharges. There are no permitted direct discharges to the lake, and the only historical direct domestic/industrial discharge to the lake was the James River power plant, which was recently decommissioned.

According to the United States Geologic Survey (USGS)¹, Lake Springfield is predominantly sourced by the James River, averaging approximately 90% of the total lake outflow during varying hydrologic conditions (drought and flood) with other tributaries making up the remaining 10%. Therefore, upstream James River water quality data is critical to inform the status of current and future potential designated uses.

3.1.1. Current Designated Uses

According to MoDNR, Lake Springfield is currently classified as an L3 waterbody and assigned the waterbody identification number (WBID) 7312. Class L3 lakes are publicly and privately owned lakes for which a substantial portion of the surrounding lands are publicly owned or managed.

MoDNR assigned Lake Springfield’s current designated uses (**Table 1**). All waters are designated for the protection of aquatic life (AQL), and each waterbody is further classified based on the type of aquatic habitat it provides. Based on limnological characteristics and the biological community, Lake Springfield’s designated AQL use is as a warm water habitat (WWH). A WWH is defined as waters in which naturally occurring water quality and habitat allow the maintenance of a wide variety of warm water biota.

¹ StreamStats flow model, a web-based application that publishes an assortment of analytical tools and data to support water-resources planning and engineering.

Furthermore, Lake Springfield has human health protection (HHP) criteria set in place to limit fish consumption on a long-term basis and to protect recreators from harmful water quality conditions. Protection of this use includes compliance with the Food and Drug Administration limits for fish tissue, maximum water concentrations corresponding to the cancer risk level, and other human health fish consumption criteria. Irrigation (IRR) is also included in the designated uses of Lake Springfield. Irrigation can be outlined as the application of water to a cropland or directly to cultivated plants that may be used for human or livestock consumption. Industrial water supply (IND) is another designated use of the lake. This water can be used to support various industrial uses, but quality needs will vary by industry. Therefore, no specific numeric criteria are set for IND uses. The lake is also designated for the use of livestock and wildlife protection (LWP), which requires the maintenance of conditions in water to support health of livestock and wildlife.

Table 1: Applicable Designated Uses Upstream, at, and Downstream Lake Springfield

Designated Use	Upstream Lake, James River WBID #2365	Lake Springfield WBID #7312	Downstream Lake, James River WBID #2362
WWH AQL	Yes	Yes	Yes
CLH AQL	Yes	No	Yes
WBC-A	Yes	No	Yes
WBC-B	No	Yes	No
SCR	Yes	Yes	Yes
HHPC	Yes	Yes	Yes
IRR	Yes	Yes	Yes
IND	No	Yes	No
LWP	Yes	Yes	Yes
DWS	Yes	No	No

Notes:

CLH: cool-water habitat (waters in which naturally occurring water quality and habitat conditions allow the maintenance of a wide variety of cool-water biota [i.e., smallmouth bass, rock bass])

DWS: drinking water supply

3.1.1.1. *Recreational Uses*

Recreational uses are assigned to Lake Springfield as part of the HHP criteria. There are three categories of recreational uses applicable from April 1 through October 31 each year, including whole body contact recreation category A (WBC-A), whole body contact recreation category B (WBC-B), and secondary contact recreation (SCR). WBC-A applies to waters that have been established as public swimming areas welcoming access by the public for swimming purposes and other recreational activities. WBC-B applies to waters designated for whole body contact recreation not contained within category A, which involves activities that do not typically result in complete submergence of the body.

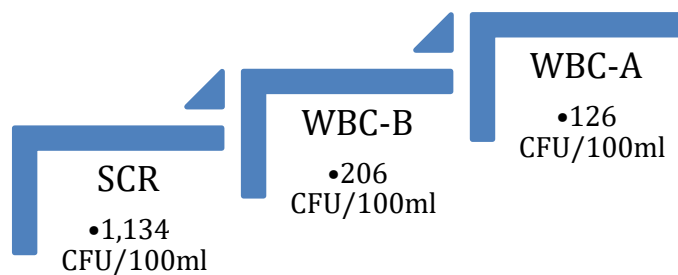


Figure 4: Numeric Water Quality Criteria to Maintain Recreational Uses

Lake Springfield is designated as a WBC-B and SCR, which includes recreational activities such as fishing and boating. These activities may result in contact with the water, but the probability of ingesting substantial quantities of water is unlikely. Numeric water quality limits (**Figure 4**) required to maintain these recreational designated uses are 126 colony-forming units (CFU) per 100 milliliters (ml) for WBC-A; 206 CFU/100 ml for WBC-B; and 1,134 CFU/100 ml for SCR.

Recently promulgated in the water quality standards (2018), lake nutrient criteria related to AQL/WWH apply to Lake Springfield. These criteria, 10 Code of State Regulations (CSR) 20-7.031(5)(N), include ecoregional chlorophyll-a response impairment thresholds and nutrient screening thresholds. Lake Springfield is in the Ozark Highlands ecoregion, which includes the most stringent of these thresholds. The chlorophyll-a response threshold applied to Lake Springfield is 15 micrograms per liter ($\mu\text{g/L}$), and nutrient screening thresholds for total phosphorus, total nitrogen, and chlorophyll-a are 16 $\mu\text{g/L}$, 401 $\mu\text{g/L}$, and 6 $\mu\text{g/L}$, respectively. The response and screening thresholds represent the annual geometric means of samples collected from May through September. These criteria, if exceeded regularly, can lead to impairment of the waterbody per MoDNR's 303(d) listing methodology.

3.1.1.2. Designated Uses That Do Not Align with Lake Springfield

Designated uses that do not align with Lake Springfield's limnological characteristics and biotic community are as follows:

- The lake is currently not designated for WBC-A.
- Additionally, the designated AQL uses of Lake Springfield do not include cool-water habitats or cold-water habitats. Both cool-water habitats and cold-water habitats consist of waters in which naturally occurring water quality and habitat conditions provide livable conditions for a wide range of cool water biota.
- The lake's designated uses do not include ephemeral aquatic habitat, which consists of waters that sustain a surface flow or pools in response to precipitation events for a limited period of time.
- Two other designated uses that do not pertain to Lake Springfield are modified aquatic habitat, or limited aquatic habitat. These uses refer to aquatic habitats that have been altered physically, chemically, or biologically.
- The lake does not include the designated use of being a drinking water supply (DWS). DWS is a water supply which will yield potable water after treatment by public water treatment facilities.

- Lake Springfield does not act as an overflow or storage for flood or storm events and therefore is not considered a storm and flood water attenuation.
- Lake Springfield is not considered for the use of a habitat for resident and migratory wildlife species, including rare and endangered species.
- The lake is not considered to provide recreational, cultural, educational, scientific, and natural aesthetic values and uses.
- Lastly, Lake Springfield is not considered a hydrologic cycle maintenance, which refers to wetlands and other waters that are hydrologically connected to rivers and streams that serve to maintain flow during periods of drought.

3.2. Historic Data and Current Status of Designated Uses

A number of studies have been conducted on Lake Springfield and within the upper James River watershed, including water quality investigations, aquatic vegetation surveys, fish community and tissue surveys, and sediments (**Table 2**). These data sources were also reviewed for their applicability to assist with identifying potential data gaps that would need to be filled before redevelopment or development on and around Lake Springfield and to inform existing and potential future designated uses to protect recreators and fish and wildlife.

Many of these studies were conducted on the upper James River, including the 2016 and 2019 snapshot monitoring, which contain useful water quality data, including *E. coli* bacterial concentrations. The use of the data collected on the James River is limited in applicability to Lake Springfield because of the differences between still or standing water (lentic) and flowing water (lotic) systems. Data from the University of Missouri Statewide Lake Assessment Program, and the Lakes of Missouri Volunteer Program (LMVP), collected at Lake Springfield provide valuable insight into lake water quality because of the number of samples collected over time. These data were used to assess the lake's compliance with numeric lake nutrient criteria, as well as chlorophyll-a impairments. Fish tissue analyses from the Missouri Department of Conservation (MDC) provides a somewhat recent (2016–2017) insight into the bioaccumulation of PCBs in fish tissues in Lake Springfield, which is useful when evaluating human health protection.

Table 2: Previous Water Quality Studies in the Lake Springfield Watershed

Document Name	Report Date	Nutrients	Sediment	Fish	Aquatic Vegetation	Physical	Metals	Bacteria	Algal toxins	Number of Samples	Time Period of Data Collection
2015 Lake Springfield Vegetation Management Plan	November 2015				X					N/A	N/A
Snapshot Report October 2019	October 2019	X				X		X		210 samples	July 2013, July 2016, July 2019
Snapshot results 2016	July 2016	X				X		X		70 samples	July 2016
Snapshot results 2019	July 2019	X				X		X		70 samples	July 2019
Suitable Return on Investment Scope	January 2022									N/A	N/A
Suitable Return on Investment Integrated Planning Opportunities Alternatives Analysis Riparian Restoration	June 2020	X	X		X					N/A	N/A
Springfield Multi-Criteria Decision Analysis Appendices (small)	June 2017	X					X			N/A	2000–2017
Database Population Guidance 060116	June 2016	X					X			N/A	N/A
Final Database Recommendations Memo	January 2016									N/A	N/A
SpfdIP_WQDB_083117 ¹	N/A			X		X	X			342 samples	January 1950–October 2016
As-builts for sewer crossings	November 1978									N/A	N/A
2011 Lake Springfield Fishery Management Plan (MDC)	February 2011			X						N/A	January 1991–February 2011
2016 Lake Springfield Report (MDC)	March 2016			X	X		X			N/A	January 2014–December 2015
2018 Lake Springfield Report (MDC)	March 2018			X	X		X			N/A	January 2016–December 2017
Heavy metal concentrations in the waters of the Springfield Area	1973						X			106 samples	October 1971–August 1972
Heavy metal analysis of stream sediments in the James River Basin	1973		X				X			53 samples	N/A

University of Missouri SLAP and LMVP Data	October 2022	X							X	150 samples	May 2003–Sept. 2021
Missouri State University Sediment Study	2002		X							N/A	N/A
MoDNR Missouri Clean Water Information System Data	October 2022	X		X			X	X	X	829 samples	August 1964–March 2021

1.Lake Springfield integrated water plan quality database
SLAP: Statewide Lake Assessment Program
SROI: suitable return on investment
N/A: Not applicable

3.2.1. Current Use Attainment

Most of Lake Springfield's and the James River's designated uses discussed in this section have corresponding numeric water quality standards that must be met to maintain and protect the continuance of those uses. Missouri's narrative and numeric water quality standards are presented in Title 10, CSR, Division 20, Chapter 7—Water Quality, §7.030—Water Quality Standards.

When a waterbody is not meeting a designated use as determined by MoDNR through credible data collection and assessment efforts, the waterbody is included on the state's 303(d) list of impaired waters and assigned a priority for Total Maximum Daily Load (TMDL) development.

A TMDL is a regulatory term that describes a plan for restoring impaired waters that identifies the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards. **Table 3** summarizes the current attainment of the James River (upstream and downstream of Lake Springfield) and Lake Springfield as determined by the MoDNR.

Table 3: Current Designated Use Attainment for Upstream, at, and Downstream of Lake Springfield

Designated Use	Upstream Lake, James River WBID #2365	Lake Springfield	Downstream Lake, James River WBID #2362
WWH/AQL	✓	X	✓
CLH/AQL	✓	NA	✓
WBC-A	X	NA	✓
WBC-B	NA	✓	NA
SCR	✓	✓	✓
HHP	✓	✓*	✓
IRR	✓	✓	✓
IND	NA	✓	NA
LWP	✓	✓	✓
DWS	✓	NA	NA

✓: meeting use standards

X: not meeting use standards

NA: not applicable use

*: human health fish consumption advisory for mercury (statewide) and PCBs specific to Lake Springfield

CLH: cool-water habitat

Currently, MoDNR lists Lake Springfield as impaired for WWH/AQL due to elevated chlorophyll-a concentrations from nonpoint source nutrient pollutants with a low priority (>10 years) TMDL schedule (MoDNR 2020), meaning that a TMDL is not expected to be developed in the next 10 years. LMVP and SLAP, operating through the University of Missouri Columbia Limnology Laboratory, have historically monitored nutrient and chlorophyll-a concentrations in Lake Springfield.

Geosyntec obtained the long-term dataset for Lake Springfield through a request directly to the University of Missouri Columbia Limnology Laboratory. Chlorophyll-a data collected from Lake Springfield exceeded the Ozark Highlands numeric lake nutrient criterion (15 µg/L annual geometric mean from May through September) in 2018 and 2020, and chlorophyll-a concentrations typically increase from upstream to downstream in all recent years of data (**Table 4**).

Table 4: Lake Springfield LMVP Chlorophyll-a Data (May–September)

Date	Geomean (mg/L)		Minimum (mg/L)		Maximum (mg/L)	
	James River Hwy 60	Near Dam ¹	James River Hwy 60	Near Dam	James River Hwy 60	Near Dam
2018	5.8	24.8*	1.1	13.2	25.2	44.3
2019	3.1	7.7	0.6	4.0	20.2	17.1
2020	2.6	17.5*	1.5	11.1	4.9	26.6
2021	1.1	3.8	0.5	0.1	1.9	18.5

1. Water Quality Standard criterion compliance location

*: exceeds numeric lake nutrient criteria

Total nitrogen concentrations and ranges are similar in the upstream James River compared to near the Lake Springfield dam, while total phosphorus concentrations and ranges are slightly higher at the dam compared to the upstream James River (**Table 5** and **Table 6**).

Table 5: Lake Springfield LMVP Total Nitrogen Data

Date	Geomean (mg/L)		Minimum (mg/L)		Maximum (mg/L)	
	James River Hwy 60	Near Dam	Hwy 60	Near Dam	Hwy 60	Near Dam
2018	1.03	0.84	0.74	0.61	1.44	1.24
2019	1.02	0.91	0.57	0.50	1.42	1.30
2020	0.85	0.91	0.47	0.48	1.27	1.32
2021	0.88	0.78	0.71	0.48	1.13	1.15

Table 6: Lake Springfield LMVP Total Phosphorus Data

Date	Geomean (mg/L)		Minimum (mg/L)		Maximum (mg/L)	
	James River Hwy 60	Near Dam	Hwy 60	Near Dam	Hwy 60	Near Dam
2018	0.03	0.04	0.01	0.03	0.07	0.07
2019	0.03	0.04	0.02	0.02	0.05	0.08

2020	0.02	0.05	0.02	0.03	0.03	0.08
2021	0.04	0.08	0.02	0.05	0.09	0.10

Alongside nutrient monitoring, LMVP and SLAP collect water quality information related to harmful algal blooms. Currently, there are no recreational use water quality criteria for algal toxins; however, there will likely be future numeric water quality criteria for algal toxins, as USEPA has issued national recommended criteria for recreational uses, and MoDNR is currently conducting related stakeholder meetings to incorporate those criteria in the Missouri's Water Quality Standards. A review of LMVP and SLAP microcystins and cylindrospermopsin (algal toxins) data indicate the proposed USEPA recreational use water quality criteria of 8 µg/L and 15 µg/L, respectively, have not been exceeded from 2017 through 2021 in Lake Springfield.

Recent *Escherichia coli* (*E. coli*) data collected by MoDNR from the James River upstream of Lake Springfield (WBID #2365) indicate nonattainment of the WBC-A recreation criterion (Table 7), which has resulted in 303(d) listing of this waterbody segment as impaired. MoDNR has not included a known source for bacterial loads to the James River, and TMDL development is assigned low priority. Relevant to source water protection, the James River (WBID #2365) is also designated as a drinking water resource. Immediately downstream of Lake Springfield, the James River is attaining the WBC-A criterion based on MoDNR data collection. These data suggest that the immediate areas surrounding Lake Springfield are likely not contributing excess bacterial loads to Lake Springfield (Table 7).

Table 7: MoDNR Missouri Clean Water Information System James River Upstream and Downstream of Lake Springfield, *E. coli* Data Assessing Compliance with Recreation Criteria

Date	Geomean (#/100ml)	
	Upstream	Downstream
2016	260.2*	64.4
2017	158.5*	37.9
2018	166.2*	52.9
2019	231.3*	63.0

1. bolded values exceed Lake Springfield WBC-B recreation criterion (240 CFU/100 mL)

*: Exceeds applicable WBC-A recreation criterion (120 CFU/100mL)

Additionally, Lake Springfield is currently under a Missouri DHSS advisory to limit the fish consumption due to elevated concentrations of polychlorinated biphenyls (PCBs) in fish tissue. Fish tissue data supporting this advisory were collected by MDC in 2016 from carp and channel catfish. However, the fish consumption advisory does not constitute nonattainment of any of the lake's designated uses, such as HHP.

3.2.2. Designated Use Impairments Summary

Data from the above-mentioned studies were reviewed to inform the Lake Springfield Plan. Based on identified impaired designated uses in the upstream James River and within Lake Springfield, nutrients, bacteria, and PCBs are the known pollutants of potential concern for future planning purposes.

3.3. 2022 Data Collection

To supplement previous studies, Geosyntec collected additional data, including water quality sampling, bathymetric mapping and sediment thickness profiling, and sediment sampling of Lake Springfield during November and December of 2022. A detailed discussion on the method, results, and data gap assessment are provided in Appendix A-1. Bacterial concentrations were not evaluated as the data collection period was outside the MpDNR-established recreation season.

3.3.1. Water Quality

The brief window during which water quality samples were collected provides useful but limited information regarding long-term water quality conditions for Lake Springfield. Water quality samples collected in November and December 2022 provide insight to lake homogeneity and upstream to downstream water quality changes. For the water quality parameters analyzed, several have applicable water quality standards to the lake.

11 water quality samples were collected from 5 selected locations: one upstream of Lake Springfield at Crighton beach access, one immediately downstream of the Dam at Tailwater public access, and three in Lake Springfield. The rationale for these sampling locations was to understand upstream inputs, downstream outputs, and water quality gradients within the lake itself.

3.3.2. Bathymetry

Bathymetric mapping and sediment thickness profiling were conducted in early November within the boatable portions (>2.0 feet water depth) of Lake Springfield from the Dam to upstream of the Lake Springfield Boat House launch. Transects approximately 100 feet apart were established across the boatable portions of the lake where data was collected using a sub-bottom profiler, as described in Appendix A. These data were interpolated, and a raster surface was created in a geographic information system to illustrate sediment thickness across the lake. Further details on sediment thickness and volume are discussed in Section 5.

3.3.3. Sediment Quality

Lake Springfield sediment samples were collected at 41 locations from the top 6.0 inches of substrate using a Ponar grab sampler in early December 2022. Sampling locations were selected for maximum lake coverage in readily accessible areas. Bathymetric mapping and sediment thickness profiling determined that adequate sediment was present for sampling throughout the boatable portions of the lake. Sediment samples were used to assess sediment quality spatially throughout the lake, and targeted samples were collected in areas of potential concern, including near the historic cooling water discharge pipe and at the Dam. These data are further discussed below. The sediment sampling equipment used provided useful information on a specific area, for example, near a discharge pipe, and insight into the overall lake sediment quality.

3.4. Summary Discussion and Data Gaps

The below subsections discuss additional considerations and data gaps for designated uses (current/future) of Lake Springfield.

3.4.1. Recreational Uses

E. coli data have been collected in the James River upstream (WBID #2365) and downstream (WBID #2362) of Lake Springfield, which allows for characterization of compliance with the recreational use criteria for WBC-A, WBC-B, and SCR. *E. coli* data has not historically been collected on Lake Springfield during the recreational season (April 1–October 31). Bacteria concentration during the recreational season should be obtained and assessed during the recreational season before any future planning that promotes new WBC-A (public swim beach) and additional WBC-B recreational uses. Additional monitoring should occur for one or more recreational seasons at focused locations to verify maintenance and protection of the recreational use. Because the MoDNR has not determined the source of upstream James River bacterial loads and the reach serves as DWS, microbial source tracking tools could be used to identify the source of bacterial pollution and aid the development of a plan to mitigate any identified source(s).

Continued monitoring of Lake Springfield for microcystin and cylindrospermopsin (algal toxins) is recommended as the lake likely continues to receive excess nutrients from unregulated, upstream nonpoint sources. SLAP and LMVP collected the minimum number of samples each year required to assess impairment of a waterbody, so more robust sampling frequency would provide greater insight into the climatic conditions and temporal variations among these parameters throughout the recreational season. Although algal toxin criteria are not currently promulgated in Missouri's water quality standards, pending state regulation is being developed and national criteria are recommended by USEPA.

3.4.2. Aquatic Life Uses

Continued monitoring of nutrients (total phosphorus, total nitrogen, and chlorophyll-a) near the Dam and upstream James River is recommended to improve long-term understanding of local and watershed nutrient concentrations and trends. Presently, the LMVP or SLAP infrequently monitor the lake at two locations (approximately five times each) per summer season (May–September). The existing data set, while sufficient to assess numeric water quality criteria, is of relatively small sample size. Total phosphorus and total nitrogen concentrations are typically higher upstream compared to at the Dam, while chlorophyll-a concentrations are higher at the Dam compared to upstream, which suggests that chlorophyll-a responds to nutrient inputs differently in the lake as opposed to the river. This is likely a pattern related to the transition from riverine ecosystems of the James River (flow water with shaded riparian) compared to the open water lacustrine (lake-like) ecosystem of Lake Springfield.

3.4.3. Bathymetry and Sediment

The sediment sampling performed in 2022 examined more recent sediment deposition versus potential legacy sediment quality. Recent (0 to 6.0 inches) sediment deposition is more likely to impact aquatic life and recreators compared to legacy sediments. As noted by DHSS's fish tissue consumption advisory due to elevated PCB levels in fish tissue, legacy sediment may contain

elevated concentrations of PCBs. Sediment sampling from 2022 indicates that PCBs are not accumulating in detectable concentrations in more recent sediment deposits. Future Lake Springfield projects requiring dredging of sediment beyond the top 6.0-inch horizon should perform additional sediment characterization for handling, management and disposal.

Bathymetric sounding throughout the current navigable portions of Lake Springfield yielded predominantly shallow areas with moderate fine sediment deposition. Based on current lake depths, opportunities for enhanced recreation, such as powerboating, are limited to areas near the historic James River channel with greater water depths and safe distances from the Dam.

3.4.4. Local Environmental Considerations

Expansion of recreational opportunities in and surrounding Lake Springfield must consider potential impacts to sensitive habitats (i.e., wetlands, cultural) and sensitive species (threatened or endangered bald/golden eagles). A preliminary United States Fish and Wildlife Service Information for Planning and Consultation was used to evaluate potential threatened and/or endangered species and sensitive habitats near and surrounding Lake Springfield (Appendix A-2). The United States Fish and Wildlife Service Information for Planning and Consultation provides an initial list of critical habitats, migratory birds, and other natural resources that could be impacted by a project.

Since construction in the 1950s, the Dam has created an impassable barrier for upstream movement of native aquatic life. Since the late 1990s, regulatory agencies and managers such as the United States Fish and Wildlife Service and MDC have partnered with communities and tribes to restore riverine ecosystems by removing or bypassing barriers to benefit aquatic life and people through resource avenues like the National Fish Passage Program. Additional funding opportunities for the National Fish Passage Program were incorporated in the 2021 Bipartisan Infrastructure Law.

3.4.5. Watershed Considerations

Lake Springfield's inclusion on the 303(d) list of impaired waters for AQL impairment from excess nutrients from nonpoint source contributions, and the James River WBC-A impairment from unknown source(s), should likely be addressed at the watershed scale. Watershed land uses of urban areas, pastureland, unsewered Karst topography, and other agriculture practices could be contributing these pollutants and could be addressed through local soil and water conservation partnerships and watershed planning efforts. In addition, several permitted point sources of industrial and domestic wastewater are known to discharge to tributaries of the James River upstream of Lake Springfield. Opportunities for eliminating wastewater discharges or combining to a more advanced regional provider would improve water quality.

4. WATERSHED ASSESSMENT

4.1. Watershed Characteristics

About 270 square miles of the Upper James River basin drains to Lake Springfield. Eight sub-watersheds—Headwaters, Dry Creek, Panther Creek, Turnbo Creek, Sawyer Creek, Pearson Creek, Turner Creek and Lake Springfield—make up the Upper James River basin and cover portions of Greene and Webster County.

Agricultural uses, primarily cattle on pastures, predominate in the basin, covering over 47% of the basin. About 13% of land use comprises developed areas largely in the City of Springfield and urbanized Greene County. Areas dominated by trees, generally greater than 16 feet tall, cover about 35% of the basin. The change in land cover composition per the USGS National Land Cover Database estimates an increase in developed areas by about 2,020 acres and a decrease in forest land about 850 acres since 2001 (**Figure 5**).

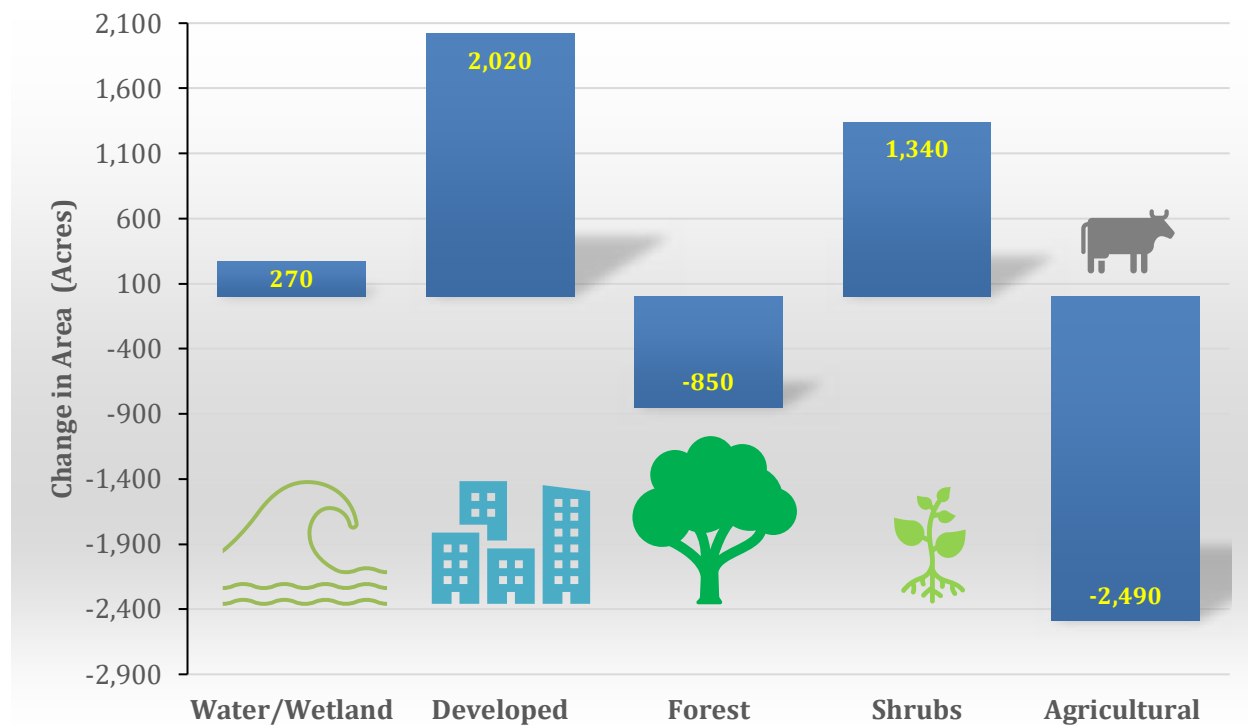


Figure 5: Land Cover Change between 2001 and 2019

Land cover changes influence environmental conditions in many ways, such as altering hydrologic regimes, runoff patterns, and flood buffering in watersheds. Changes can also affect water quality, habitat and species composition, climate, and carbon storage. If this trend of an increase in imperviousness along with a decrease in forested areas observed in the past 20 years continues, the lake will experience increased stream flows during wet weather conditions.

4.2. Watershed Studies

The Federal Emergency Management Agency's (FEMA's) Flood Insurance Study report revises and updates information on the existence and severity of flood hazards for study areas. The Flood Insurance Study for Greene County dated 2016 uses statistical gage analyses for the James River near the City of Springfield. Over 100 years (1909 to 2015) of recorded gage data was utilized to compute peak annual chance flows. The peak annual flows for the respective probability of exceedances documented in the Flood Insurance Study report is presented in **Table 8: Peak Annual Discharges Computed by FEMA**. The Flood Insurance Study and the Flood Insurance Rate Map are currently being updated by Greene County. Geosyntec reviewed a preliminary Hydrologic Engineering Center's River Analysis System (HEC-RAS) model and noted that the model uses the same flows from the 2016 Flood Insurance Study report.

Table 8: Peak Annual Discharges Computed by FEMA

Annual Exceedance Probability ¹	Peak Annual Chance Discharges (cfs) ²
10.0%	26,740
4.0%	34,010
2.0%	39,190
1.0%	44,160
0.2%	54,950

1. Annual Exceedance Probability (AEP) is the probability that a flood of a given magnitude will occur within a period of one year.
2. Selected gage was USGS 0705700 (James River near City of Springfield) that picks up flows from 246 square miles of upstream drainage area. Statistical analysis performed by FEMA uses weighted skew. cfs: cubic feet per second

As part of the hydrologic assessment, Geosyntec reviewed the USGS StreamStats data. StreamStats allows users to select a location along a stream and obtain annual exceedance probability discharge estimates that are computed through regression analyses for ungagged stream sites. **Table 9** presents annual exceedance probability discharge estimates for the 245 square miles of watershed just upstream of the USGS gage 07050700.

Table 9: Peak Discharge from USGS StreamStats

Annual Exceedance Probability	Peak Annual Chance Discharges (cfs)
10.0%	13,200
4.0%	18,600
2.0%	23,600
1.0%	28,800
0.2%	43,700

The two sources of information discussed above differ significantly in their computed peak discharges due to the use of a different methodologies/approach. FEMA relies on the use of historical gage data, whereas the StreamStats relies upon regional regression equations. Both sets of information are presented for comparison and for completeness to support future decisions as part of the Lake Springfield Plan.

4.3. Streamflow Analysis

The USGS 07050700 stream gage is located about 2.5 miles northeast from US Highway 60 and downstream of the confluence with Pearson Creek near Springfield, Missouri. This gage has been in place since 1909. Nearly 90% of the watershed draining to the lake, approximately 245 square miles, is measured by this gage. The remaining 25 square miles of the watershed draining to the lake is ungaged. Geosyntec analyzed streamflow from gage data collected over the last 68 years since the river was dammed to assess seasonal and annual variations. For the ungaged portion of the watershed, the drainage-area ratio method was used. The drainage-area ratio method equates the ratio of streamflow at two stream locations to the ratio of the respective drainage areas (USGS 2006).

4.3.1. Seasonal Variation

A statistics-based approach on daily average discharges between 1955 and 2022 was performed to compute mean, median, maximum, and minimum flows (**Figure 6**). This could inform the flow regime needed for a specific recreational activity to achieve the desired flow depth in the main channel.

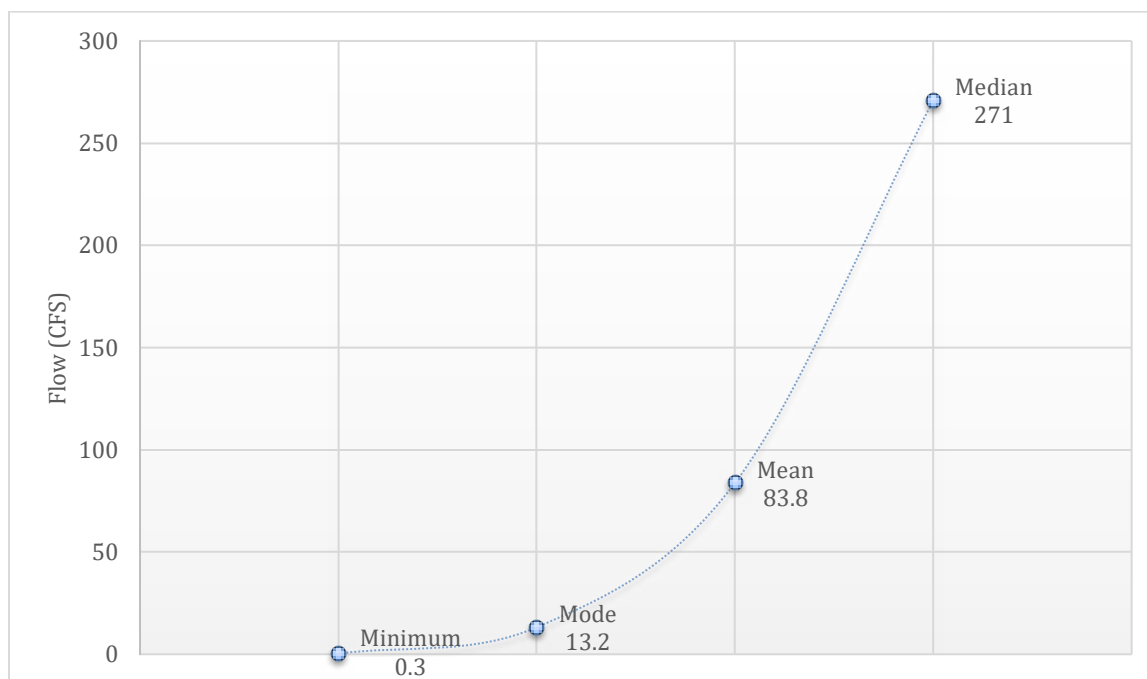


Figure 6: Statistical Analysis on 67 years of Daily Average Flow Data

In the spring and fall season, streams typically experience more frequent flows, which is evident in **Figure 7** where an overlay of daily average annual flow data for the last 10 years shows a dense cloud between March and May. Additionally, **Table 10** provides a monthly and seasonal summary for the entire 68-year period. The spring flow regime could increase circulation (if free flowing), likely benefiting water quality due to higher lake turnover. The summer season would likely be more popular for recreators when flow regimes drop during late summer.

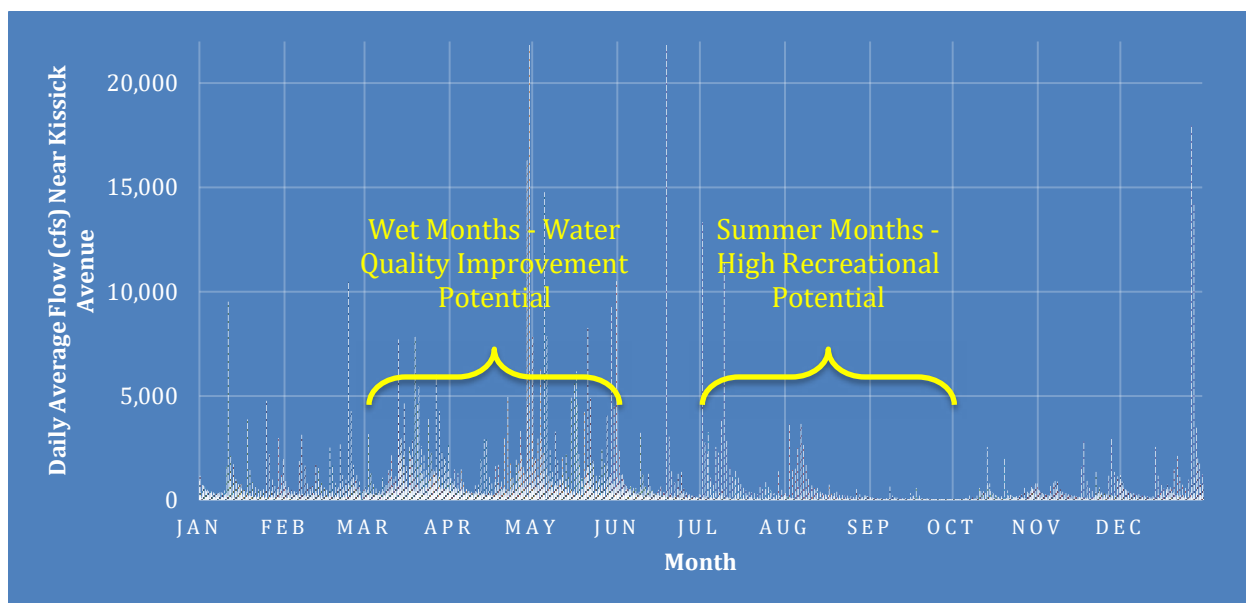


Figure 7: Daily Average Flows in a Typical Year (period of record 2012 -2022)

Table 10: Seasonal Variation (Period of Record 1955–2022)

Season	Month	Daily Flows (cfs) Exceeded Given % of Time		
		90%	50%	10%
Wet	March	66	253	1,025
	April	67	239	906
	May	56	188	981
Transition	June	33	93	474
Dry	July	16	45	203
	August	8	21	94
	September	6	20	162
	October			
Transition	November–February	-	-	-
Year	All	13.2	83.8	560.9

4.3.2. Annual Variations and Extreme Events

One of the resulting factors attributed to climate change is an increase in heavy precipitation. Heavy precipitation refers to instances during which the amount of rain and snow experienced in a location substantially exceeds what is normal. What constitutes a period of heavy precipitation varies by location and season. Warmer oceans increase the amount of water that evaporates into the air. When more moisture-laden air moves over land it can produce more intense precipitation (USEPA 2022).

The potential impacts of heavy precipitation include increased stream flows in rivers and streams. A flow duration analysis illustrates that the more frequent storms, or storms with 90% exceedance probability, have increased by 24%, while infrequent storms, or storms with 10% exceedance probability, have increased by 16% (**Figure 8**). A similar flow duration curve comparison was performed to assess decadal change (1960–1970 and 2000–2020) in stream flows (**Figure 9**). This also showed increases by 36% and 29% for exceedance probability of 90% and 10%, respectively.

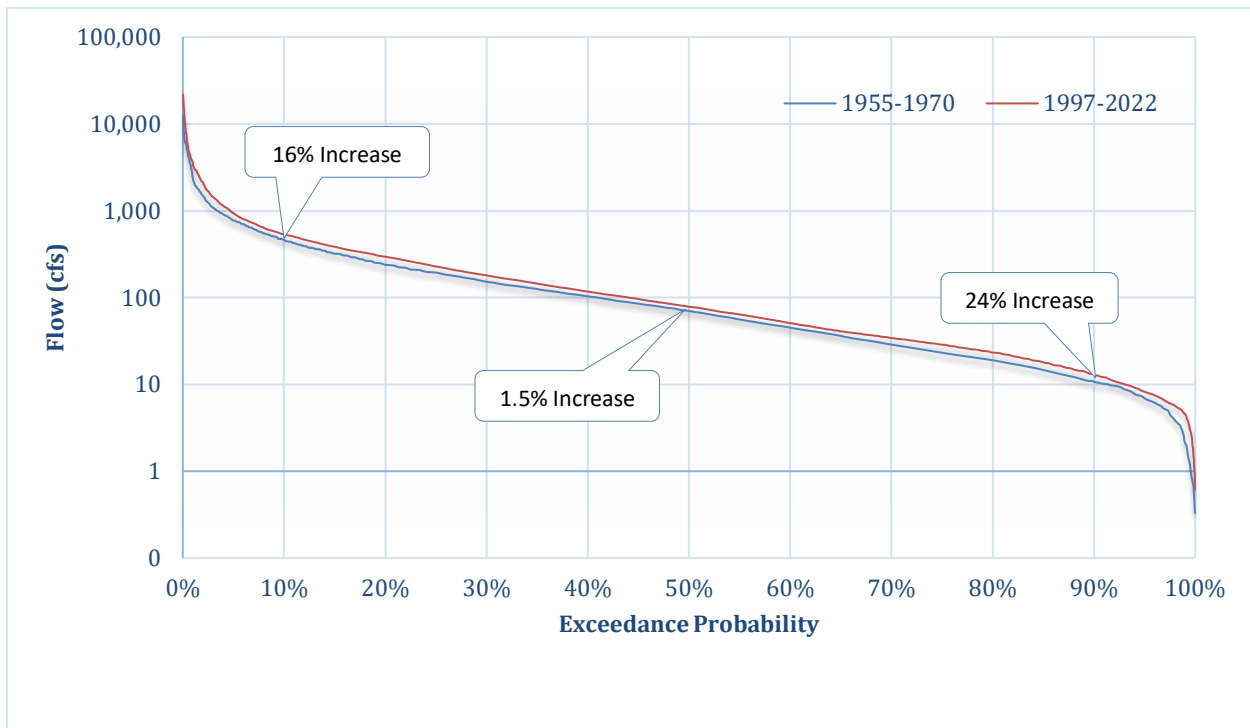


Figure 8: Increase in Flows Due to Potential Climate Change Impact

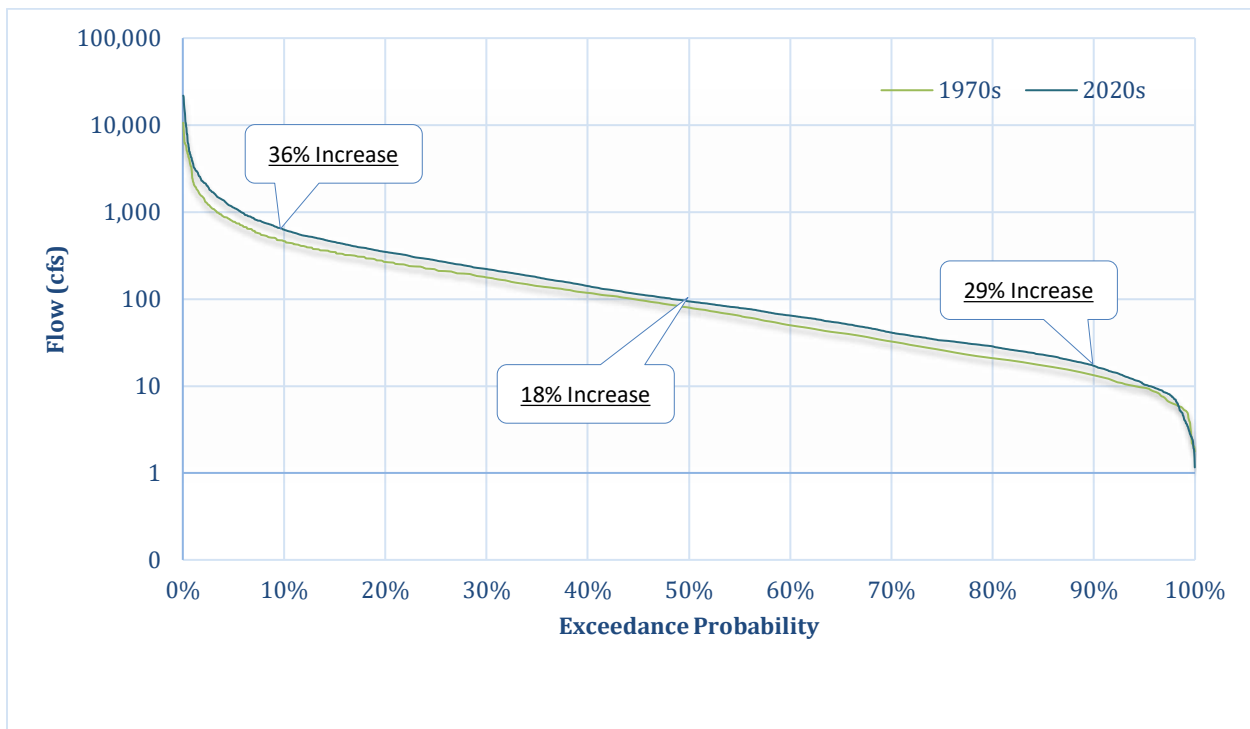


Figure 9: Decadal Change

Extreme events can comprise heavy precipitation and the frequency in which it occurs. More frequent extreme events have occurred since 2001 (**Figure 10**). This could be due to land use changes, watershed management practices, and climate change impact.

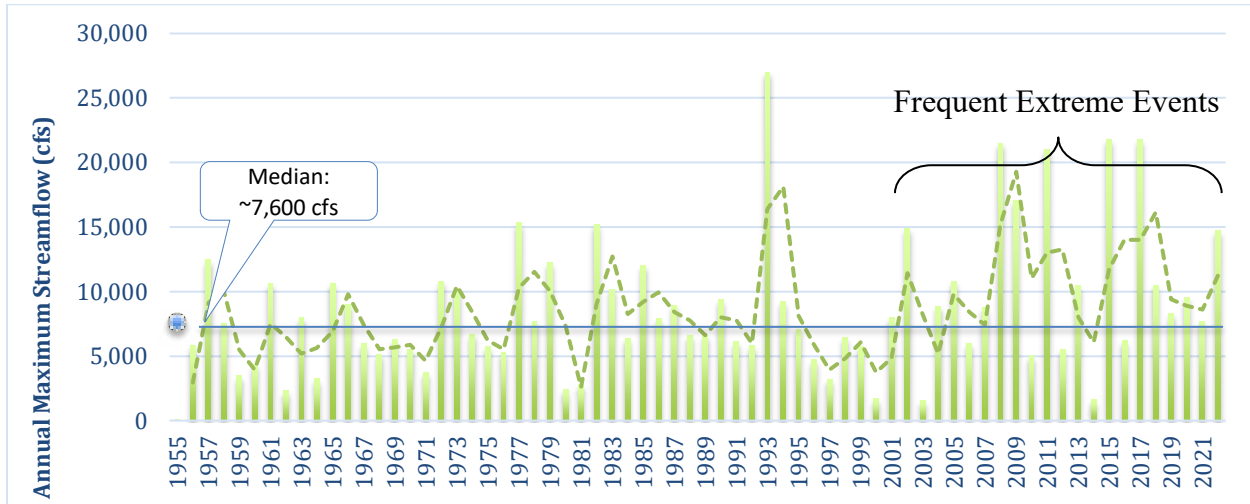


Figure 10: Annual Maximum Series

5. SEDIMENT MANAGEMENT

This section provides an initial assessment of sediment management challenges, potential sediment management alternatives, and potential order of magnitude costs for representative sediment management scenarios relevant to Lake Springfield. Sediment management strategies, implementation techniques, and costs are highly dependent on on-site-specific conditions, sediment characteristics, and available resources. The information presented within this section is based on the limited available data and our professional experience and is intended to provide planning level conceptual strategies to guide the Lake Springfield Plan.

5.1. Sediment Management Challenges

The proposed dam modification alternatives presented in this report would impact the hydrodynamics and by extension, the sedimentation characteristics, of Lake Springfield. If the existing lake sediment is not appropriately managed, structural modifications or the removal of the Dam could lead to sediment releases with potential negative consequences to the downstream environment. Management of the sediment within Lake Springfield should be considered and performed as part of any dam modification.

Lake Springfield receives continuous inputs of sediment because of the transportation of material from the James River and the tributary watershed. Portions of this sediment will continue to deposit in Lake Springfield, with the exact patterns and quantities subject to both the hydrodynamic conditions of the river/lake system and localized conditions within the lake itself. Developing sediment management plans that consider and account for future deposition within Lake Springfield is critical to achieving the desired goals for the lake. Additionally, this plan should consider sediment transport and deposition as a result of future dam modification, and impacts to the stream geomorphology and aquatic habitat downstream of the lake.

Lake Springfield is a complex system with many factors influencing the depositional characteristics of sediment within the lake. The recently obtained lake bathymetry, sediment samples, and watershed sediment loading data can be used to provide a planning-level assessment of potential sediment management strategies. Additional data (e.g., deep sediment core samples) and analytics (e.g., hydrodynamic and sediment transport models) would be required to provide a full characterization to support engineering design and permitting.

5.1.1. Management of Current Lake Sediment Inventory

Sediment thickness across the lake varies, likely because of the geomorphology of the historic James River channel. Depositional areas were observed approximately 500 feet upstream of the Dam across the entire lake, where sediment thicknesses ranged from 2.0 to 6.4 feet, and near the center of the lake, where aquatic macrophytes and shallow water are present and sediment thickness ranged from 1.5 to 2.3 feet. Total sediment volume in the lake was estimated using a geographic information system and is approximately 476,000 cubic yards.

5.1.2. Management of Future Lake Sediment Deposition

To understand the annual sediment loading rate from the 270-square-mile Upper James River basin, a watershed-based sediment load analysis was performed using USEPA's Pollutant Load Estimation Tool. This model computes watershed surface runoff, nutrient loading, and sediment delivery based on land uses and watershed management practices. **Table 11** presents computed annual sediment load from the Upper James River basin along with projected cumulative sediment loads (assuming the loading rate does not change) over 5-, 10-, and 25-year periods.

Table 11: Estimated Watershed-Scale Sediment Load Projections

Period	1-year	5-year	10-year	25-year
Cumulative sediment volume in cubic yards	7,900	39,500	79,000	197,500

At an annual loading rate of 7,900 cubic yards over a 67 year-period, cumulative sediment volume equates to 529,300 cubic yards, which is only about 11% higher compared to the sediment volume present in the lake now. This may be the case because it is unlikely that the areas farther upstream in the James River basin would contribute to the lake's sediment load.

5.2. Sediment Management Approaches

Proactive management of unwanted sediment loading can be achieved by reducing erosion in the upstream watershed through, for example, applying stormwater best management practices as source controls. However, this is not always controllable by downstream stakeholders. Some degree of control of sedimentation may also be achieved by the regulating reservoir levels. Lowering the lake during winter and early spring when many of the larger floods occur can carry sediments deposition into the narrow "ribbon" several feet below the normal pool level. However, based on the alternatives chosen for the Dam, this may not be achievable for Lake Springfield in the future. Once sediment has deposited in an area, the typical approach for the managing this sediment involves excavation in the form of dredging to maintain sediment inventory at the desired quantity and locations. Applied regularly, some combination of the above approaches can result in the management of the Lake Springfield sediment inventory consistent with the goals for the lake.

As removal of some amount of current Lake Springfield sediment inventory is expected to be required to achieve the goals for the lake, the following sections outline typical key elements related to the process of removal of sediment. Before selecting an approach, however, additional evaluation would be warranted to evaluate method feasibility, regulatory requirements, and options for the ultimate disposition of the sediment.

5.2.1. Sediment Removal via Dredging

Dredging approaches used as part of the physical management of sediment inventory are typically classified as mechanical or hydraulic dredging, with the distinction being in the way they achieve

excavation and removal. Both methods are used extensively for the management of sediment inventory for a wide range of waterbodies, including lakes and rivers. Variables influencing the selection of dredging techniques include the physical properties of the sediment; size, shape, and water depth of the waterbody being dredged; available space for staging and equipment setup; and the presence or absence of significant debris.

A wide variety of mechanical dredging techniques can be explored, including land-side and water-side work setups. The common element between the array of mechanical dredging processes is the use of some form of a bucket (e.g., excavator bucket, clamshell bucket) to excavate and raise the bottom material. In some cases, the dredged material can be deposited directly in the water or on the bank immediately adjacent to the dredging area. Traditionally, the mechanical dredge deposits material into a barge or scow that transports it to a separate area for further processing.

Hydraulic dredges are characterized by using a centrifugal pump to dredge sediment and transport it, in a liquid slurry form, to a discharge area. Given the size and water depth of Lake Springfield, a cutterhead suction dredge would be the most suitable equipment for hydraulic dredging in this setting. One of the benefits of hydraulic dredging includes the direct transfer of materials to the processing plant. During the hydraulic dredging process, the dredged material is transported to the processing area as a slurry through piping without the need for multiple handling steps involving barges or scows. However, this process also generates more dredge process water, which must be managed along with the solid materials.

5.2.2. Dredged Material Dewatering and Management

After the removal of the sediment from the waterbody, the material must typically be dewatered and otherwise prepared for its ultimate disposal (Section 5.2.3). Various methods exist for sediment dewatering, with each providing benefits in various settings. Variables influencing the selection of a dewatering approach include the physical composition of the dredged material itself, dredged material water content, and the physical space available for the project. Examples of dewatering techniques include drying by “working” the material on a dewatering pad; dewatering within specially designed textile bags, such as Geotubes®; and mechanical dewatering approaches, like belt filter presses or plate and frame presses. Depending on the dewatering technique selected, chemical additives may be considered to improve the efficiency of the dewatering.

Regardless of the technique, the management and disposal of dredged process water must be considered during the planning stages of a dredging program. If dewatering is occurring near the waterbody being dredged and significant contamination is not present, it may be most efficient to discharge this water into the waterbody after appropriate treatment. This process would require specific permitting (e.g., under the National Pollutant Discharge Elimination System, Nationwide Permit etc.), which should be considered in the project scope and schedule. Discharge to a publicly owned treatment works has similar advantages and requirements but may ultimately be more feasible if the dewatering location is not near an appropriate water body. Other approaches typically involve off-site disposal of the dredged process water; this option is not reliant on the location of the dewatering area but is likely to be comparatively expensive relative to other options.

5.2.3. Dredged Material Disposal

Planning a dredging program must include the ultimate disposal of the dredged material. A variety of options are available, with variables including the physical and chemical properties of the dredged material being key factors. If the dredged material is contaminated, disposal may be the only option. However, in settings where significant contamination is not present, beneficial re-use alternatives can be considered. Dredged clean material may have potential benefits in agricultural land applications; exploring this potential use would likely involve analyzing nutrient parameters including nitrogen and phosphorus to determine the appropriateness of this application. Other beneficial uses for dredged sediment have included use as landfill daily cover or as fill in various construction projects. Regardless of the selected disposal method of the dredged material, it is necessary to understand the requirements of the entity taking the material.

5.3. Sediment Management as a Design Strategy

The following beneficial use alternatives of dredged material could be considered as a design strategy for the lake:

- Dredge and place material in study area for land contouring. Detailed sampling analysis would be needed to verify there are not elevated levels of contaminants or pollutants of concern. Adding dredged material to marginally characteristic soil could alter the physical and chemical characteristics to make water and nutrients more available for crop growth.
- Dredge or reposition sediment within the lake to create deeper pools, islands, and habitat features. Use of dredged material as the substrate for habitat development is one of the most common and important beneficial categories (USEPA 2004). Similar to the above option, a detailed sampling analysis would be needed.
- Dredge and remove off-site (disposal). Particularly appropriate if sediment has elevated levels of contaminants or pollutants of concern.

6. DAM ASSESSMENT AND REGULATORY COMPLIANCE REVIEW

The Dam, registered with the National Inventory of Dams as MO.20023, is owned and operated by City Utilities of Springfield, Missouri. The Dam is an earth fill dam with a concrete ogee spillway section located on the right (north) abutment (**Figure 11**). Construction of the Dam was completed in 1955 to function as a cooling water impoundment for the adjacent James River Power Station. Until January 28, 2021, when the power plant was decommissioned, the Dam was under the jurisdiction of the Federal Energy Regulatory Commission. Currently considered a recreational dam, the Dam is regulated by MoDNR and registered as a Class 1 dam (high hazard potential classification).

The earth embankment section is approximately 1,400 feet long with a maximum height of approximately 45 feet. The earth embankment is primarily founded on rock and is comprised of low plasticity clays for the core and coarser materials on the upstream and downstream slopes. A rock toe is present along the embankment. Upstream and downstream slopes of the earth embankment were designed to be 2-horizontal to 1-vertical (2H:1V). A paved road (S Farm Road 169/S Kissick Avenue) is atop the crest of the dam.

The spillway consists of a concrete gravity ogee section, with a maximum height of 30 feet. A 10-foot-deep cutoff is present on the upstream toe of the gravity section. The upstream slope of the Dam is vertical. A 30-foot-long concrete apron extends below the toe of the gravity sections with a 4-foot-deep cut off. The spillway is 563 feet long and contains six concrete piers which support the roadway bridge superstructure.



Figure 11: Lake Springfield Dam

Table 12 presents the list of documents Geosyntec reviewed as part of the Compliance Assessment task.

Table 12: Collected and Reliance Data

Item No.	Document “Title” and/or Description	Author and Date
1.	Lake Springfield Dam construction “as-built drawings”	Burns and McDonnell 1957
2.	Lake Springfield Dam construction photographs	Burns and McDonnell 1955
3.	<i>Phase I Dam Safety Inspection Report</i> . Prepared by Kimball and Associates Engineering per the National Dam Safety Program established in 1972 under USACE St. Louis District direction.	USACE 1979
4.	<i>Lake Springfield Dam Phase II Studies</i> . Prepared per the National Dam Safety Program established in 1972.	USACE 1981
5.	“Registration Permit”	City Utilities of Springfield, Missouri, 1987
6.	<i>Emergency Action Plan for Lake Springfield Dam</i> . Prepared in 1981 and most recently revised in 2020.	City Utilities of Springfield, Missouri, 2020
7.	“Lake Springfield Dam Breach Analysis”	MoDNR 2011
8.	<i>Registration Permit Renewal Inspections Report</i>	MoDNR 2016, 2018, and 2020
9.	<i>Annual Inspection Report</i>	City Utilities of Springfield, Missouri, 2019; 2020; and 2021
10.	National Inventory of Dams Website. National Inventory of Dams (army.mil)	USACE 2020
11.	Rules of Department of Natural Resources, Division 22–Dam and Reservoir Safety Council, Chapter 1–Definitions, Chapter 2–Permits, and Chapter 3–Permit Requirements	MoDNR 2019
12.	<i>Best Practices in Dam and Levee Safety Risk Analysis, Best Practices Manual</i> , Chapter D-5, “Embankment Slope Instability”	United States Bureau of Reclamation and USACE 2019

1. Phase I dam safety inspections are not intended to provide detailed hydrologic and hydraulic analyses of dam and reservoir capabilities. Phase II provides refinement of the hydrological analyses from Phase I. Updated hydrological results used to update dam and spillway stability analyses.

2. The National Inventory of Dams is a congressionally authorized database that documents more than 91,000 dams across the U.S. and its territories. It is a web-based platform maintained and published by USACE since the 1990s in cooperation with the Association of State Dam Safety Officials, the states, territories, and federal agencies.

USACE: United States Army Corps of Engineers

6.1. Current Applicable Regulations and Definitions

The MoDNR is the sole regulatory agency for the Dam. The rules and regulations are promulgated by MoDNR’s Dam and Reservoir Safety Council, which are contained in Title 10, CSR, Division 22—Dam and Reservoir Safety Council. The regulations are grouped within three chapters: Chapter 1–Definitions, Chapter 2–Permits, and Chapter 3–Permit Requirements

Provided below are excerpts from the three chapters that are applicable to the Dam's compliance review. Certain excerpts below are used to assess current/non-modification permit compliance, while others shown will be critical to understand while in the decision-making process of analyzing modification alternatives for the Dam. All text in italics represent direct quotes or excerpts from the regulations. A few notes and comments are inserted below to provide clarity with respect to applicability to the Dam; these notes and comments are indented and underlined.

6.1.1. Title 10 CSR Chapter 1, § 1.020. Definitions (2019)

§1.020(13). “Dam” means any artificial or man-made barrier which does or may impound water and which impoundment has or may have a surface area of fifteen (15) or more acres of water at the water storage elevation or which is thirty-five feet (35') or more in height from the natural bed of the stream or watercourse or lowest point on the toe of the dam (whichever is lower) up to the crest elevation, together with appurtenant works.

§1.020(43). “Registration permit” means a permit issued for a period not to exceed five (5) years by the council to the owner of a dam or reservoir in existence or in the progress of construction on August 13, 1981 or which becomes subject to the law for the dams and reservoirs by a change in factors or circumstances subsequent to that date.

6.1.2. Title 10 CSR Chapter 2, §2.020. Types of Permits (2019)

§2.020(1). There are three (3) types of permits—registration permits, construction permits, and safety permits and each one is intended to regulate different type of activity. A dam and reservoir will have only one type of permit in effect at any given time although they may have more than one type of permit during their existence.

§2.020(2). Registration permits are required for the continued operation of a dam and reservoir that was in existence or in the process of being constructed on the effective date of this section, August 13, 1981. Registration permits may be issued for a time period up to five (5) years.

§2.020(3). Construction permits apply to the construction of a new dam and reservoir, the alteration, enlargement, reduction, repair, or removal of a new or existing dam, reservoir, or appurtenances. A construction permit may be issued for any reasonable length time period in order to complete construction. At the conclusion of construction, a safety or registration permit shall be obtained by the owner.

§2.020(4). Safety permits apply to the operation of a dam and reservoir constructed pursuant to a construction permit. The safety permit is not a guarantee of the dam and reservoir's safety and does not alter the owner's liability; it is simply an operating permit. If a dam and reservoir were not subject to the provisions of the law when they were constructed but subsequently become subject to the provisions of the law, the owner shall obtain a registration permit, not a safety permit. Safety permits may be issued for a time period up to five (5) years, and they may contain appropriate conditions for the operation and safety of the dam and reservoir.

6.1.3. Title 10 CSR Chapter 2, §2.040. Classes of Downstream Environment

§2.040(1). The downstream environment zone is the area downstream from a dam that would be affected by inundation in the event the dam failed. Inundation is defined as water, two feet (2') or

more deep over the general level, in the event the dam failed. Based on the content of the downstream environment zone, three (3) environmental classes are defined. Class I, which contains ten (10) or more permanent dwellings or any public building; Class II, which contains one to nine (1-9) permanent dwellings, or one (1) or more campgrounds with permanent water, sewer and electrical services or one (1) or more industrial buildings; and Class III, which is everything else.

6.1.4. Title 10 CSR Chapter 3, §3.020. General Requirements

§3.020(2). *The owner must provide a determination of an environmental class for each dam and reservoir. The method, data and assumptions used by the owner to determine environmental class shall conform to practices reputable and in current use in the engineering, geologic and construction professions.*

§3.020(3). *The anticipated consequences of a dam failure with respect to public safety, life and property damage are important considerations in establishing acceptable methods for specific investigations and sites. Methods used in exploration design, construction and maintenance must be in accordance with good engineering practices reputable and in current use in the engineering, geologic and construction professions.*

§3.020(4). *When the owner is applying for a construction permit, the design factors of safety for slope stability for earth and rock conventional dams which are given in Table 1 shall be met. The required design factors of safety for concrete conventional dams are given in Table 2. Owners shall also meet these requirements when substantial changes are proposed to the height or slope of an existing conventional dam or structure prior to the issuance of the construction permit.*

§3.020(7). *The required spillway design flood, which shall allow for flood storage in the reservoir, is to be derived by using the precipitation values given in Table 5 and shall apply to both new and existing dams.*

6.1.5. Title 10 CSR Chapter 3, §3.030. Registration Permit Requirements

§3.020(1). *In addition to the basic requirements for all permits listed in 10 CSR 22-3.020(1), (2), (3), and (7), the registration permit application for a conventional dam and reservoir must include certification by an experienced professional engineer or an agency engineer that the dam and reservoir have been inspected in accordance with the law and that the owner has complied with the engineer's recommendations to correct the observed defects and an inspection report, as required by the law. The engineer must further show that the spillway can safely pass the spillway design flood derived from Table 5 and submit a report describing the correction of all observed defects and the description of an operation and maintenance program to be followed while the registration permit is in effect.*

- §3.020(1)(A). *The inspection of a dam and reservoir for a registration permit is intended to detect observable defects. The procedure to determine observable defects normally will be a surface examination by an experienced professional engineer or an agency engineer. The inspection must include all surface examinations necessary to determine if observable defects exist that affect the stability of the dam and reservoir or the adequacy of the spillway. Judgement of the structural stability and an evaluation*

of the spillway capacity must be made. Judgment shall be based on the engineer's experience, training and knowledge of similar dams in accordance with practices reputable and in current use in the engineering, geologic and construction professions.

- *§3.020(1)(B). Proper maintenance and operation of a dam and reservoir are critical to the continuing safety of a dam and reservoir and to public safety, life and property. A maintenance program is required and shall include the following items: erosion control on the embankment; monitoring emergency spillway flow rates; vegetation control; spillway maintenance; emergency action plans; maintenance and monitoring of seepage observation devices, if any; and maintenance and monitoring of instruments used, if any, to observe the stability of the dam.*

6.1.6. Title 10 CSR Chapter 3, §3.040. Construction Permit Requirements

§3.040(1). In addition to the basic requirements for all permits listed in 10 CSR 22-3.030, the construction permit application for a conventional dam and reservoir shall be prepared under the direction of and certified by an experienced professional engineer and shall be in accordance with practices reputable and appropriate in the engineering, geologic, and construction professions.

A construction permit is required when modifications are to be made to an existing dam. A likely condition of approving the construction permit to modify an existing dam is demonstrating the dam meets all current regulations and requirements, which may include updating supporting technical analyses.

6.1.7. Title 10 CSR Chapter 3, §3.050. Safety Permit Requirements

§3.050(1). In addition to the basic requirements for all permits listed in 10 CSR 22-3.020, the safety permit application for a conventional dam and reservoir shall include:

- *§3.050(1)(A). Notification of the completion of construction and application for the first safety permit for the dam and reservoir shall be provided by the owner. If revisions have been made which vary considerably from the provisions of the construction permit, it must be shown that the revisions do not endanger public safety, life or property.*
- *§3.050(1)(B). Notification of completion shall be within two (2)-months' time after completion of construction; and*
- *§3.050(1)(C). As-built drawings shall be submitted.*

6.1.8. Consultation with MoDNR

On November 11, 2022, Mr. Matt Bardol from Geosyntec contacted Mr. Ryan Stack, P.E., from MoDNR to clarify elements of MoDNR regulations. Mr. Stack is the Dam and Reservoir Safety Program Director and Chief Engineer for the department's Missouri Geological Survey. Mr. Stack and the MoDNR staff were extremely helpful, polite, and eager to assist. A summary of the key elements of the discussion are as follows:

- MoDNR performs inspections every two years that comply with the state's requirements. In the past, City Utilities staff performed additional inspections to supplement MoDNR inspections.
- Regulations changed in 1981 that required existing dams to request a permit or register existing dams within five years. The 1987 registration permit was prepared in response to this requirement.
- An updated slope stability analysis was not performed as part of the permit application and was grandfathered in.
- Significant modifications to the Dam would require a permit, which potentially would result in a full review of the Dam's regulatory compliance to current standards. Current standards would include design or performance standards (e.g., stability and factors of safety) and analytical methods (e.g., spillway rating curves or hydraulic models).

6.2. Engineering Analysis Review

A summary of the required engineering analysis per Title 10 CSR Chapter 3, §3.020, specific to geotechnical, structural, and hydrologic and hydraulics engineering, is presented in the following section. The basic requirements itemized in §3.020(4), (5), and (6) were not required for registration permits, such as the permit obtained for the Dam.

6.2.1. Geotechnical

For slope stability of earth and rock conventional dams, target design factors of safety (FS) within Table 1 (Section 6.1.4) for the different loading conditions are as follows:

FS = 1.5 for static loading conditions with steady seepage and a full reservoir²

FS = 1.3 for static loading conditions with steady seepage and the maximum reservoir³

FS = 1.2 for sudden draw down conditions, from full to empty reservoir

FS = 1.0 for earthquake loading conditions, with steady seepage and a full reservoir

Earthquake loading will vary according to a dam's location in relation to seismic source zones and downstream environmental zones.

The recommended design factor of safety for conventional earth dams according to the *Best Practices Manual* (United States Bureau of Reclamation and USACE 2019) are as follows:

FS = 1.3 for flood loading with the reservoir at the crest of the dam

FS = 1.2 for sudden draw down conditions of the reservoir from full reservoir to empty

² Full reservoir means the water is at the storage level elevation.

³ Maximum reservoir means water level is at maximum water level attained during the spillway design flood or at the dam crest elevation.

Guidance for seismic stability analysis within the *Best Practices Manual* is under preparation at the time of this compliance assessment (United States Bureau of Reclamation and USACE 2019).

6.2.2. Structural

For concrete dams, design structural FS within Table 2 (Section 6.1.4) under different loading conditions are as follows:

FS = 1.5 for overturning check under static loading and a full reservoir

FS = 1.3 for overturning check under static loading and a maximum reservoir

FS = 1.5 for sliding check under static loading and a full reservoir

FS = 1.3 for overturning check under static loading and a maximum reservoir

FS = 1.5 for structural integrity check under static loading and a full reservoir

FS = 1.3 for structural integrity check under static loading and a maximum reservoir

FS = 1.0 for earthquake loading conditions and a maximum reservoir

6.2.3. Seismic

Estimates of bedrock accelerations for seismic analyses are provided in Title 10 CSR Chapter 3, §3.020, General Requirements, within Table 4. For a conventional dam less than 50 feet in height with an Environmental Class I, the bedrock acceleration is estimated as 75% of the probable maximum acceleration.⁴ The Dam is located in Greene County, which falls within Zone E and, thus, is expected to have a probable maximum acceleration of 0.20 g. So, the required design acceleration for any seismic analyses of the Dam is 0.15 g (75% of 0.20 g).

Guidance on slope stability during earthquake loading is provided in Title 10 CSR Chapter 3, §3.020(5) and (6). §3.020(6) is applicable to the earth embankment, as the embankment is comprised of clayey materials. The embankment is also founded on bedrock and, because of this, it can be expected to withstand significant earthquake shaking if other design factors of safety for slope stability are satisfied. The earth embankment does not need to meet the requirements for slope stability during earthquake loading per §3.020(6) because it is located in Greene County and because it is comprised of cohesive, clayey materials.

Even though seismic slope stability analyses are not required for the earth embankment due to the Dam's composition and location, the concrete spillway and the bridge substructure (piers) need to satisfy the requirements for stability during earthquake loading and any other governing regulations pertaining to the bridge superstructure.

6.2.4. Hydrologic/Hydraulics

Guidance on spillway design for existing dams built by August 1981 is provided in Table 5 of §3.020. The Springfield Dam is a conventional, Environmental Class I dam that was constructed prior to 1981. The spillway is required to pass the 75% probable maximum precipitation (PMP) event.

⁴ Probable Maximum Acceleration of bedrock is determined as a function of the acceleration of gravity ($g=32.2$ fps²).

6.3. Compliance Assessment

Geosyntec assessed compliance of the Dam against the current 2019 MoDNR regulations. The following presents a summary of the assessment.

6.3.1. Permit Background and Assessment Evaluation

USACE performed a Phase 1⁵ Inspection in 1979. In 1981, the dam safety regulations in Missouri changed. Existing dams had five years to submit a registration permit to become registered under the updated regulations. Existing design analyses (e.g., slope stability analyses of the earthen embankment) were not required to be updated for existing dams under the new regulations. The initial registration permit for the Dam was completed in 1987 and included supporting analyses by Harza Engineering Company. Following approval of the initial registration permit, the MoDNR Dam and Reservoir Safety Program indicated that they have performed an inspection of the Dam every two years to comply with the state regulations. City Utilities performed supplemental inspections annually in addition to those performed by MoDNR. Inspection records prepared by City Utilities are available from 2019 through 2021.

6.3.2. Geotechnical Engineering Analysis

While not required, slope stability analysis of the earth embankment was performed by Harza Engineering Company as part of the initial registration permit. No additional slope stability analyses have been performed since 1987. For the earth fill, the following properties were considered in the analysis:

- Moist and saturated unit weights of 125 and 130 pounds per cubic foot, respectively
- Internal friction angles of 28 degrees for earth fill and 35 degrees for rockfill
- Saturated cohesion of 250 pounds per square foot

These numbers are reasonable for the geotechnical parameters based on the available geotechnical information and Geosyntec's professional experience. The method of slices and calculations used by Harza Engineering Company in the slope stability analyses appears to be appropriate for the methods available at the time of analysis. Three cases were analyzed for the earth embankment in the slope stability analysis:

1. Static loading conditions with a full reservoir
2. Sudden (rapid) draw down conditions, from the reservoir at the probable maximum flood to the full reservoir
3. Earthquake loading conditions with a full reservoir

⁵ Phase 1 Dam Safety Inspections were not intended to provide detailed hydrologic and hydraulic analysis of dam and reservoir capabilities.

The calculated FS for the analyzed cases satisfies the required regulatory FS; however, a static loading condition with the maximum reservoir was not analyzed. Additionally, the analysis for the sudden draw down conditions considered a different change in the reservoir level (i.e., maximum reservoir to full reservoir) that may not be as critical as the draw down from the full reservoir to the empty reservoir. There are modern methods and computer programs (e.g., Slide2) available in the industry to perform slope stability analyses that have superseded the hand calculations performed by Harza Engineering Company.

6.3.3. Structural Engineering Analysis

As stated in the registration permit report from 1987, the original spillway design accounted for a head of 10 feet with zero negative pressure on the downstream face. The original design did not consider the location of the drainage curtain in determining the uplift under the spillway. According to the guidelines and accepted practice applicable for the time when this study was conducted (Engineering Regulations 1110-1-103), the Dam is located in Seismic Zone 2, and the ground acceleration was taken as 0.05 g.

The original studies prepared by the designer did not consider the silt load. Soundings taken in July of 1980 show the silt level to be between Elevation. 1122.3 and 1125.8. For the registration permit report by Harza Engineering Company, engineers used a silt load beginning at Elevation. 1125.0 to a depth of 15.0 feet, the top of rock upstream of the spillway.

The stability analysis based on the assumption of full uplift at the base is as follows:

- Case I: Normal operation elevations within middle third of base
 - FS=1.78 against overturning, while FS=27.3 against sliding
- Case II: Case I plus earthquake loadings within middle third of base
 - FS=1.69 against overturning, while FS=22.6 against sliding
- Case III: probable maximum flood elevations, within middle third of base:
 - FS=1.35 against overturning, while FS=18 against sliding

These safety factors against sliding were computed with an assumed shear value of 150 pounds per square inch for concrete and a friction coefficient of 1.0 between the concrete base and the rock foundation.

The safety factors were satisfied comparing to the followed regulations at the time of this study using the estimated values for concrete shear capacity and friction coefficient which need a detailed study when performing any future evaluations.

6.3.4. Seismic Analysis

In the initial registration permit, seismic analyses were performed for the concrete spillway and earth embankment using an earthquake loading of 0.05g in the horizontal direction. The calculated

FS for the seismic stability analysis of the spillway and the earth embankment satisfied the required FS.

Based on the information presented in this report, a seismic assessment of the concrete spillway is required based on current regulations using the adopted design acceleration of 0.15g instead of the previously used acceleration of 0.05g.

Section 22-3.020(6) is applicable to the Dam's earth embankment because the embankment is comprised of clayey materials and founded on rock, so it can be expected to withstand significant earthquake shaking if other design factors of safety for slope stability are satisfied. The Dam is located in Greene County, so the earth embankment does not need to meet the requirements for slope stability during earthquake loading per Section 22-3.020(6) of the Title 10, CSR.

6.3.5. Hydrologic/Hydraulics Analysis

The latest hydrologic and hydraulic study is the Lake Springfield Dam Phase II study with a cover letter dated November 5, 1980. This study builds upon the Phase I inspection report dated September 1979. Both studies are included as attachments within the registration permit report for the Dam (MO. 20023) dated 1987.

The presented information and analyses indicate the Dam and spillway capacity is sufficient to pass the 75% PMP as per the current regulations. The design capacity meets current regulatory requirements; however, the supporting analytical methods and documentation are not consistent with current industry standards. The design analyses would need to be updated to meet current analytical methods for approval of any modification to the Dam. Even without proposed dam modifications that necessitate updating hydrologic and hydraulic analysis, updating the analytical methods to meet current industry standards is recommended. Below is a summary of the current analyses, with comments for potential updates or revisions.

- Phase II study (November 1980) Intensity Duration and Frequency (IDF) rainfall source, calculations, and results:
 - Probable Maximum Precipitation (PMP) derived from Hydro Meteorological Report 51.
 - Calculations performed with HEC-1
 - Probable Maximum Flood peak inflow was calculated as 205,000 cfs
 - Spillway capacity calculated at 205,000 cfs has a freeboard of 1.7 feet to minimum earthen-dam crest elevation.
- Previous IDF analyses (1980) appear to meet minimum regulatory requirements:
 - Hydro Meteorological Report 51 is still relevant for obtaining PMP depth
 - Regulations do not prescribe a specific freeboard for depth above the IDF peak elevation from the Dam crest. However, it may be required that the freeboard at

peak of the spillway IDF (75% PMP) must be greater than the wave height (wind, fetch length, prevailing wind direction, etc.). We did not find this in the previous analyses.

- Updates to the IDF analysis are recommended through using more current modeling software and accounting for changes in the watershed and lake storage. The rainfall runoff approach did not have much detail, and there are several review comments in *1987 Inspection: Appendix 5 (Vol 4)* on the hydrologic/hydraulic parameters used, in particular that the spillway rating curve used in the 1980 IDF was overly conservative.
- Standard project flood (SPF) is used in the 1980 spillway stability analysis:
 - Based on the annual average peak flow of 12,900 cfs
 - The annual average peak flows will likely change if they updated to be derived from current data and methods; these updates would impact the resultant SPF along with the spillway stability analysis.
 - It is recommended that the SPF be updated using current data and methodology, with the corresponding results used to update the spillway stability analysis.
- Dam breach analysis and maps:
 - Published by MoDNR (Dated November 1, 2011) and appears sufficient to meet minimum regulatory requirements since they are published by MoDNR.
 - Supporting breach analysis calculations and modeling have not been obtained, so they could not be reviewed for adequacy.
 - Recommend updates to breach analysis and maps with current analytical methods, including sunny and wet weather breaches.

6.3.6. Inspection History

6.3.6.1. Permit Inspections

As of this report, documentation of bi-annual inspections is available for 2016, 2018, and 2020. A state inspection was scheduled for 2022 but is not currently available. The state inspections were supplemented by annual inspections performed by City Utilities. Annual inspections are available from 2019 through 2021. No major deficiencies (e.g., slope instabilities) have been noted during these inspections. The bi-annual state inspections in 2016, 2018, and 2020 did make note of seepage approximately 200 feet downstream of the left-wing wall of the Dam.

6.3.6.2. Geosyntec 2022 Visual Inspection

A visual inspection of the Dam was conducted by Geosyntec on December 1, 2022. The previously observed seepage location approximately 200 feet downstream of the left-wing wall was not

inspected by Geosyntec. Observations and recommendations from the inspection are listed below. A photograph log with comments is provided in Appendix B.

Observations from Geosyntec's visual inspection are as follows:

- Concrete structural components of the Dam are in overall good condition (Photographs 1, 3, and 5).
- Some debris (logs and branches) has accumulated on the upstream side of the concrete spillway (Photograph 4).
- The left (south) abutment of the spillway adjacent to the earth embankment is experiencing noticeable soil erosion along the length of the abutment wingwall (Photographs 6 and 11).
- The downstream side of the earth embankment is well-vegetated and maintained. No erosion, depressions, or cracks were observed (Photograph 7).
- The upstream side of the earth embankment has been armored with gravel and riprap, though some areas of the armoring have been slightly eroded (Photographs 8 and 12). No erosion, depressions, or cracks were observed in the unarmored portions of the upstream side.
- The paved road atop the earth embankment was in good condition with no observed low spots or cracks.
- Post holes from a previous guardrail were observed on the crest of the earth embankment (Photograph 9).
- No visible damage was observed in the roadway above the spillway.

Recommendations based on this visual inspection are as follows:

- Perform a LiDAR survey of the earth embankment. This will help verify the observed conditions from the visual inspection (i.e., no significant settlement) and available documentation (i.e., slopes of the embankment).
- Remove debris that has accumulated within the spillway.
- Perform maintenance on the armoring for the upstream side of the earth embankment (e.g., clear any vegetation, replace eroded riprap).
- Restore eroded soil adjacent to the south abutment on the downstream side of the earth embankment. Consider also removing the concrete stairs.
- Fill post holes on the crest of the earth embankment to limit water infiltration into the earth embankment.

6.3.7. Summary of Regulation Compliance Assessment

The Dam is not fully in conformance with the current MoDNR regulations for conventional dams constructed prior to 1981 (Title 10 CSR 22). The Dam fails to meet the current MoDNR standards for certain geotechnical and structural stability engineering analyses.

The initial registration permit in 1987 met MoDNR requirements at the time and received approval. The engineering analyses that were included in the initial registration permit were performed by Harza Engineering Company in 1987, and USACE Phase I (1979) and Phase II (1980) studies indicate that the concrete spillway and earthen embankment meet or exceed the Title 10 CSR 22 required factors of safety for a Class I Environment Dam. However, the Dam's engineering analyses have not been updated since and are out of compliance with current regulations. The Dam has met inspection requirements as indicated by the MoDNR Dam and Reservoir Safety Program and requirements for renewal registration permits.

For any future proposed substantial dam modifications to be approved by MoDNR, further engineering analyses will need to be updated as part of a construction permit application per MoDNR Title 10 CSR 22-2: Chapter 2—Permits. The updated engineering analyses will require application of current dam safety analysis methods and updated engineering software technologies to assess proposed dam modification conditions. Even if there are no proposed modifications to the Dam, engineering analyses may be required to make the Dam compliant with current MoDNR regulations and reflect any physical/operational changes to the Dam, its reservoir, or adjacent areas that have occurred since 1987 that could impact the analyses. Details of the necessary engineering analyses and our recommendations are provided above in Section 6.4.2 and summarized below in Section 6.4.5.

6.3.8. Compliance Action Plan and Recommendations

6.3.8.1. Current Dam Compliance Requirements

Per Geosyntec's compliance assessment review, the following engineering analyses require updates to keep the Dam in compliance with the MoDNR Dam and Reservoir Safety Program:

1. Geotechnical slope stability analysis of the earthen embankment for static loading conditions with steady seepage and the maximum reservoir
2. Geotechnical slope stability analysis of the earthen embankment for drawdown case going from full (i.e., normal reservoir pool elevation) to empty reservoir conditions
3. Structural stability analyses of the concrete spillway using an updated seismic design acceleration of 0.15g

The results of the above engineering analyses will identify whether the Dam meets current MoDNR factor of safety requirements or if further action, by way of modifications to the Dam, is necessary to achieve compliance. Geosyntec proposes to review the above noted analyses with the MoDNR Dam and Reservoir Safety Program to verify if compliance can be achieved without performing updated analyses.

6.3.8.2. Potential Dam Modifications

If substantial improvements or modifications are made to the Dam, a construction permit will be required from MoDNR per 10 CSR 22-2: Chapter 2—Permits. The Dam's design requirements and supporting calculations would need to fully comply with current regulations to be eligible for construction permit application. In addition to design engineering to support the modification, existing analyses considered compliant under current regulations would likely need to be updated to use current analytical methods and technologies. Engineering analyses potentially requiring updates to meet current analytical methods as part of the construction permit application may include the following:

1. Hydrologic analysis to determine the required critical in-flow design IDF hydrograph based on the required PMP (75% of PMP for Environmental Class I dams). PMP values can be obtained from the Hydrometeorological Report No. 51 or the latest published values by NOAA.
2. Use current analytical methods to compare the required design storm outflow hydrograph derived by reservoir routing through the spillway.
3. Riverine and spillway hydraulic analysis with HEC-RAS that is consistent with current FEMA practices (10-year, 50-year, 100-year, and 500-year flood return intervals).
4. A full assessment of the bedrock on the north abutment of the spillway to assess the capacity before applying any modification to the Dam's structure.
5. Slope stability analyses of the earth embankment to use updated analytical methods and available computer programs.

6.3.8.3. Recommendations

In the event no substantial improvement or modifications are proposed for the Dam, Geosyntec still recommends updating the following list of engineering analyses per our assessment findings even though the following updates are not currently required by MoDNR as part of their renewal registration permit for the Dam. Some of the following updates may be updated in concert with the required engineering analyses:

- Update the IDF analysis utilizing current hydrologic data, analytical methods and modeling software to develop and route the hydrograph.
- Update the SPF with current data and analytical methods/software.
- Update breach analysis and inundation maps with current analytical methods, including sunny and rainy-day breach scenarios.
- Update geotechnical stability analyses using modern methods and computer programs. May be included as part of required updated analyses.

- Update spillway structural stability analyses with updated SPF or full reservoir conditions, current silt build-up, and drainage curtain impacts to uplift pressures. This may be included as part of required updated analyses.
- Geosyntec also recommends obtaining LiDAR and making minor repairs per our visual inspection findings.

7. DAM MODIFICATION ALTERNATIVES ASSESSMENT

The Dam components comprise a concrete dam section approximately 598 feet in length between the rock abutment on the north end and concrete abutment on the south end, as well as an earthen embankment approximately 1,753 feet in length from the concrete abutment to before the Dam transitions to a lower elevation (<1,162 feet per the National Geodetic Vertical Datum of 1929) near the cooling water intake structure on the southwest corner of the lake (City Utilities 1955).

This section provides an initial assessment of four primary dam modification alternatives with the objective of enhancing current recreational use, habitat conditions, and fish passage.

7.1. Design Objectives and Considerations

Different water quality standards may apply to different types of recreational water activities, depending on the potential health risks associated with exposure to pathogens or other contaminants in the water. The design of improvements must begin with identifying design objectives. A few high-level objectives that may be interdependent are presented below:

Improve Water Quality. Selective withdrawal, run-of-the-river releases, variable minimum flows, temperature management, and routing of sediments are some of the potential considerations that could address water quality—that would accumulate slowly but become quite substantial over time. Water quality releases for downstream management have both quantitative and qualitative aspects. The stream and reservoir water temperature annual cycle of warming in the spring and cooling in the fall is an important consideration as it is critical to life cycles in the aquatic community. Dissolved oxygen is related to temperature, and aquatic communities require continuous supplies of dissolved oxygen (USACE 2017).

Create Kayak Passage. Recreational users of both upstream and downstream areas of the reservoir generally prefer constant water levels (USACE 1987). Recreational use of reservoirs may extend throughout the year. Under most circumstances, reservoirs yield optimal recreational use when they are at or near full pool depth during the recreational season, which is generally from April through October (USACE 2017). Design considerations should include an assessment of flow rate and volume of water; gradient and shape of the riverbend; presence and location of rocks, eddies, waves, holes, and other features; and safety and accessibility of the river run.

Create Fish Passage. There are many benefits to providing fish passage. It restores river ecosystems and enhances biodiversity by allowing fish to access their historical spawning and rearing grounds; improves water quality and reduces sedimentation by reconnecting natural flow regimes and increase riparian vegetation; and enables fish or other aquatic species to move through an aquatic system among all habitats necessary to complete their life cycle (NOAA). Fish and wildlife conservation and enhancement in the reservoir may include features such as the following:

- Intake structures to minimize entrapment and entrainment of fish and other aquatic species.
- Outlet and emergency spillway structures to minimize contact of aquatic species with waters supersaturated with dissolved gases and to provide appropriate release water quality.

- Fish ladders, fish bypasses, and other pertinent facilities to permit fish passage around structures.

Fish and Wildlife passage at these reservoirs is improved by retaining standing vegetation during construction, as well as providing conditions conducive to growth of suitable aquatic and wetland vegetation. Low-flow augmentation reservoirs provide releases that increase flow in the downstream channel for downstream fish and wildlife purposes or, for downstream water quality control (USACE 1987).

Remove Owner's Liability. Studies show that dam removal has sustainable long-term environmental and water quality benefits. (National Oceanic and Atmospheric Association 2021). Dams not only impede flow of water, but also trap sediments, which can be physically managed before the dam removal and then maintained periodically.

In summary, design considerations should include 1) optimal water level throughout the year, 2) steady supply and routing of sediments, 3) circulation of water to manage temperature and dissolved oxygen supply, and 4) appropriate passage across the Dam spillway. The James River Power Station Landfill and the downstream low-bridge water crossing was not included in this assessment and should be assessed in future detailed designs.

7.2. Alternatives Assessment⁶

The complexity of the Dam's structure allows for an array of potential modifications within the four primary alternatives. Any modification to the Dam's components will trigger a construction permit and associated engineering analysis as presented in Section 6. For each alternative presented below, engineering and geological design considerations will be required by a fully coordinated team of structural, material, geotechnical, hydrological and hydraulics engineers and geologists.

Note: Prior to any physical modification to the dam, a sediment management plan must be executed to properly manage accumulated sediment and the annual sediment inflow from the watershed.

(Note: stationing and elevations discussed in this section are based on construction as-built records and National Geodetic Vertical Datum of 1929.)

7.2.1. Dam Removal

The objective of removing the Dam would mainly be to restore free flowing stream and remove the liability of maintaining the Dam structure. Aging dams are increasingly removed in the United States and elsewhere because they no longer serve the intended uses, and because removing dams benefit river health, public safety and climate resilience. (American Rivers 2022) Generally, the physical transition in a river due to dam removal is going from a wider, deeper, and slower flow that resembles a pond or a lake to a narrower, shallower and faster flow of a river (National Oceanic and Atmospheric Association 2017).

⁶ Stationing and elevations presented in the Alternatives Assessment section are based on construction as-built records and National Geodetic Vertical Datum of 1929

Two alternatives, A-1 and A-2 were assessed under the dam removal category.

7.2.1.1. *Alternative A1-Full Removal*

The concrete dam is deconstructed all the way to the toe with the intent of restoring the historic James River channel alignment (**Appendix C-1**). The earthen embankment would remain in place. The roadway bridge going across the channel would be reconstructed, thus extending its design life. Once the Dam is removed, the river flow would match the characteristics of the James River upstream of the lake.

Design concept: The concrete dam would be deconstructed between stations 23+10 and 29+08 approximately 598 feet down to the toe at 1,120 feet. Once the concrete dam is removed and materials hauled off the site, the channel must be restored, graded, and stabilized with riprap or other appropriate stabilizing products to prevent erosion and dissipate energy. The concrete footing will remain in place while the channel alignment is adjusted and graded to provide appropriate drop height for fish and/or kayak passage.

7.2.1.2. *Alternative A2-Partial removal*

The two center concrete bays are deconstructed all the way to the toe with the intent of restoring the historic James River alignment (**Appendix C-2**). The routing of the historic James River alignment may need to be adjusted and stabilized. This alternative will minimize permanent impoundment of water that forms the lake without removing the entire concrete section described above. It will also help improve the quality of water over time and allow for a steady sediment supply to support the downstream habitat.

Design concept: Two bays near the center of the concrete dam from station 24+74 to 26+54 approximately 180 feet would be deconstructed to the toe at 1,128 feet elevation. Partial reconstruction of the roadway bridge along with bridge pier #3 at station 25+54 may be needed. The concrete footing will remain in place while the channel alignment is adjusted and graded to provide appropriate drop height for fish and/or kayak passage.

7.2.2. Concrete Dam Modification

The primary objective of this alternative would be to create fish and/or kayak passage. When dam removal is not feasible, lowering the primary spillway elevation along with modifying the downstream facing dam section with a flatter slope could still improve water quality and also provide for fish and kayak passage. Length of downstream passage run may be different. The primary spillway elevation would be lowered by approximately 2 feet and the downstream facing dam section would be modified to meet the design requirements of kayak and/or fish ladder.

Two alternatives, B-1 and B-2 were assessed under the concrete dam modification category (**Appendix C-3**).

7.2.2.1. *Alternative B1-Center Bay*

The location of the modification would be near the center of the Dam to align close to the historic James River and have relatively less scour potential. This is also the same location where an opening existed during construction of the Dam. In this case, both sides of the wall would be exposed to water, which is a concern.

Design concept: Saw cut a 2 feet deep concrete section between bridge pier #3 at station 25+64 and bridge pier#4 at station 26+54 approximately 50 feet wide. No modification to earth embankment and the abutment. Since this only lowers the impounded water by 2 feet, minimum sediment management may be required then compared to the dam removal alternative. A kayak passage or a fish ladder may be constructed on the downstream face of the Dam with a 10H:1V slope tying at 1,123 feet. Energy dissipation must be considered along with appropriate channel grading at the tie-in points.

7.2.2.2. *Alternative B2-Southern Bay*

The location of this modification would be adjacent to the earthen embankment. This will provide for a better design (geometry), as only one side of the wall would be exposed to the water. Scour flow, however, could be an issue.

Design concept: Saw cut an approximately 50 feet wide and 2 feet deep concrete section between bridge pier #6 at station 28+34 and the earth abutment at station 29+08. Protect earth embankment and the abutment. Since this only lowers the impounded water by 2 feet, minimum sediment management may be required then compared to the dam removal alternative. A kayak or fish ladder may be constructed on the downstream facing of the Dam with a 10H:1V slope tying at 1,123 feet. Energy dissipation must be considered along with appropriate channel grading at the tie-in points.

7.2.3. Earthen Dam Modification

In this alternative, a section of the earthen portion of the Dam would be modified with the objective of creating fish and kayak passage across the dam and reducing cost of removing or modifying the concrete section. A new roadway bridge would be constructed across this opening. This modification would include constructing a passage with an upstream invert elevation near the elevation of accumulated sediments. The passage run alignment may vary depending on the requirements for the type of passage desired. Alternatively, this could also be used to provide bypass for any of the above presented concrete modification alternatives.

Three alternatives, C-1, C-2 and C-3 were assessed under the earthen dam modification category (**Appendix C-4**).

7.2.3.1. *Alternative C1*

The location of the modification would be about 120 feet from the bridge abutment. Channel alignment with a mild bend will follow existing grade and tie into the downstream channel.

Design concept: Excavate an approximately 22-foot-deep channel, 50 feet wide between station 30+28 and 30+78. Grade a channel with a 5-foot drop and tie grade at 1,120 feet. Retaining walls will be needed.

7.2.3.2. *Alternative C2*

The location of the modification would be about 265 feet from the bridge abutment. Channel alignment with a 90° bend will follow existing grade but encroach into the parking area more than alternative C1.

Design concept: Excavate approximately 22-foot-deep channel, 50 feet wide between station 31+73 and 32+23. Grade a channel with a 5-foot drop and tie grade at 1,120 feet. Retaining walls will be needed.

A third alternative (Alternative C-3) could be a hybrid of alternate 1 and 2. This alignment may require more robust energy dissipation feature due to a short channel length.

7.2.4. No Modification

Lastly, with no modifications to the structural components of the Dam, physical features would remain functionally the same, but engineering analysis would be updated to current practices. Minor structural repairs would be performed, such as restoring riprap armor on the upstream side of the earth embankment and restoring grade adjacent to left (south) abutment (**Appendix C-5**). All physical elements and the hydraulic performance of the Dam will remain the same.

Though a construction permit is not required, this alternative would provide a bookend analysis of the current condition for a range of flows, lake conditions, and interventions. Potential evaluation components should include structure, hydrology and hydraulics, lake management, and regulatory compliance. Even with no modifications to the structural components of the Dam’s infrastructure, an engineering analysis using current analytical methodologies should be performed to evaluate slope stability, concrete loading, seismic stability, and hydrologic and hydraulics.

7.2.4.1. Operation and Maintenance

A dam owner is responsible for its safety. Liability can be imposed upon a dam owner for failure to maintain, repair, or operate the dam in a safe and proper manner. This liability can apply not only to the dam owner, but also to any company/agency that leases the land upon which the dam sets, or any person who operates or maintains the dam. To meet the responsibility of maintaining a dam in a reasonable and safe condition, every jurisdiction will require a dam owner to conduct regular inspections (by a registered engineer) of the dam and maintain and/or repair deficient items.

7.3. Drinking Water Intake Impact Assessment

Geosyntec reviewed the existing HEC-RAS model (Version 4.1.0). An initial assessment was performed to check if there would be any changes to the water surface elevation due to potential dam modifications. This assessment included HEC-RAS model runs for two scenarios where the elevation of the inline structure (Dam) was adjusted to 1120 and 1138 feet as summarized in **Table 13**.

Table 13: Summary of Drinking Water Intake Impact Assessment Using HEC-RAS

HEC-RAS 6.2 (FEMA Model)		
Run Date: August 1, 2023		
Geometric Data Edits to Inline Structure STA 48143.6 (Dam)		
Scenario	Edits	
1. Earth Embankment Mod	Reduced Gate Opening from 1140 FT to 1138 FT	
2. Dam Removal	Reduced Gate Opening from 1140 FT to 1120 FT	
Output - Water Surface Elevation (WSE) Change		
STA 82150.7 (James River Intake Structure)	100yr.	2yr.
Existing Model	1169.67	1162.88
Earth Embankment Mod	1169.67	1162.88
Dam Removal	1169.67	1162.88

STA 76743.2 (Downstream of Intake)

Existing Model	1164.67	1157.98
Earth Embankment Mod	1164.65	1157.98
Dam Removal	1164.65	1157.97

STA 48183.6 (Dam)

Existing Model	1149.19	1143.92
Earth Embankment Mod	1147.16	1141.92
Dam Removal	1143.8	1132.6

The location of the drinking water intake in relation to the Lake Springfield is presented in **Appendix D**.

8. COST CONSIDERATIONS

Geosyntec developed cost predictions for the select dam modification alternatives (**Table 14**); cost of standard of care needed for the operation and maintenance of the Dam whether modified or not modified (**Table 15**); and prediction of cost for removing sediment deposited in the lake and future deposition from the watershed (**Table 16**). Line items considered in developing cost range for dam modification alternatives are presented in **Appendix E**.

For dam modification alternatives, assumptions⁷ included general contractor mobilization, site access, temporary water retention structures, dewatering inside cofferdam, demolition of concrete weir features, finishing of concrete to remain, removal of temporary water retention structures, and site restoration.

Table 14: Dam Modification Cost Prediction Summary

Alternative	Description	Cost Range Prediction (2023 Dollars in Millions)		
		Lower	Middle	Upper
Alternative A-1	Complete dam removal	\$17M	\$27M	\$44M
Alternative A-2	Partial dam removal	\$8M	\$12M	\$20M
Alternative C-1, C-2 or C-3	Earthen embankment bypass	\$5M	\$7M	\$11M

Note: Cost of replacement or rehabilitation of the Kissick Roadway bridge is not included in this cost summary.

To achieve a standard of care for the operation and maintenance of the existing dam, two main categories are presented in **Table 15**. A routine maintenance is assumed to include monthly and annual inspection and mowing of the earth embankment. While capital maintenance is assumed to include periodic inspection (every 5 years), seeding of eroded areas, backfill of settlement and animal borrow areas, clearing of large vegetation, riprap replacement, debris removal from the spillway, and minor concrete repairs.

⁷ Currently, for this nature of scope, there is limited market data available to develop a cost estimate. It is also difficult to predict market volatility and sensitivity, especially post-2020/2021. Developing cost estimates based on an expected sequence of construction reduces some of these market-based risks in evaluating a true cost of construction.

Table 15: Operation and Maintenance Cost Summary

	1st year/Annual	1-10 years	10-20 years	20-30 years
Routine Maintenance	\$4,000	\$47,000	\$63,000	\$84,000
Capital Maintenance Programming	\$24,000	\$316,000	\$515,000	\$935,000
Total	\$28,000	\$363,000	\$578,000	\$1,019,000
Cumulative	\$28,000	\$391,000	\$969,000	\$1,988,000

As of the date of this report, no additional sediment investigation has been performed to determine whether sediment below the top six inches is polluted or clean, hence cost prediction summary presented in **Table 16** assumes dredging and haul off operations. The unit cost assumed based on Geosyntec's professional judgement is \$50 per cubic yard of sediment removed.

Table 16: Sediment (in Lake) Management Cost Summary

		Cost Range Prediction (2023 Dollars in Million)		
	Volume (Cubic Yard)	Lower	Middle	Higher
Loose or unconsolidated sediment	0.7 million	\$22.5M	\$34.6M	\$57M
Restore lake to as-built grades	1.08 million	\$35M	\$53.8M	\$88.7M

Figure 11 presents cost to remove incoming annual sediment volume of 7,900 cubic yard (estimate based on PLET model) from the Upper James River watershed.

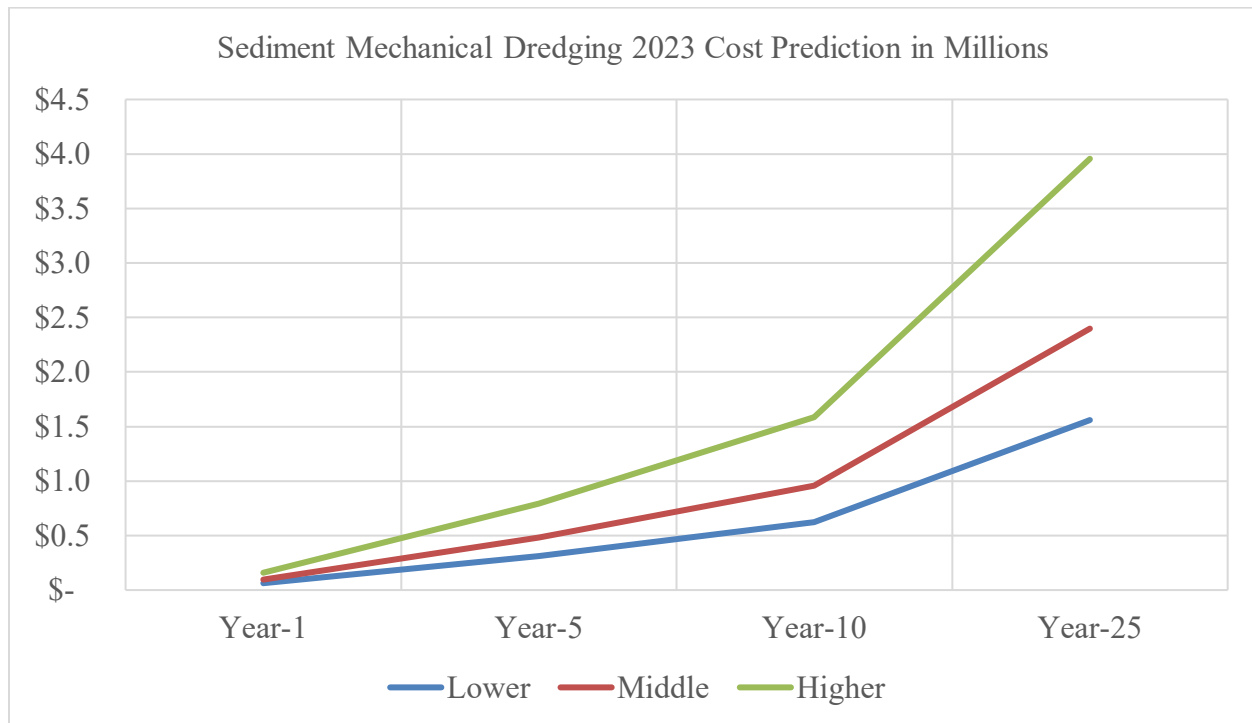


Figure 12: Sediment (from Watershed) Management Cost Summary

The following elements must be considered when developing detailed project costs:

- Sediment management plan including investigation, analysis, treatment (if needed), reuse and disposal alternatives.
- Wetlands identification, delineation and restoration or preservation.
- Riverine or lake reservoir restoration.
- Fish passage and kayak passage design alternatives.
- Water pump and treat system design alternatives.
- Continuous water quality monitoring for public health and safety
- Operation and preventative maintenance of the Dam structure and the lake.
- Drawdown operation of impoundment and earth embankment bypass feature.
- Extent of revegetation of the formerly inundated area and long-term maintenance
- Engineering analysis and design.
- Local, state and federal permitting and compliance requirements.
- Construction and oversight

9. RISKS CONSIDERATIONS

The service life of a well-designed, well-monitored, and maintained dam could last about 100 years. Factors affecting the lifespan of dams are as follows:

- Changes in the design criteria (hydrology and seismic hazard) based on new information obtained since the initial design of the dam
- Changes in methods of analysis and new safety concepts
- Results of risk assessments
- Aging of construction and foundation materials and components

In addition, it may be drastic to adapt an old dam to a new seismic design and flood safety criteria than the rather more long-term changes in the floods. Evaluating risks associated with the alternatives presented can be summarized under two main features: the waterbody/Lake and the Dam structure.

9.1.1. Waterbody/Lake

Regulatory compliance: As it stands today, the waterbody is impaired for AQL due to chlorophyll-a and has nuisance vegetation forming on sediment deltas within the lake.

The City of Springfield is supportive of undertaking a nutrient management strategy through a watershed-based approach to:

- Improve the river's water quality; and
- Provide a cost-effective alternative to additional nutrient removal at their Wastewater Treatment Plants.

The approach includes installation of a riparian corridor along the James River. When implemented, this would help reduce the amount of nutrients transported by the stream. If updated to WBC-A, the designated use of the lake would need to maintain more stringent water quality criteria to stay in compliance. Managing this risk would include continued coordination of efforts with the city's water quality integrated plan and the James River Basin Partnership.

Eutrophication: If no passage is created for movement of incoming sediments, continued accumulation from upstream watershed would ultimately result in reduced lake volume, thus leading to less options for recreational usage.

Maintenance: If nuisance vegetation continues to spread over time, it could encroach areas that are currently boatable. Removal of nuisance vegetation is important to maintain and/or improve water quality along with installing aquatic vegetation that could support a healthy warm water biota. This could also compliment the city's watershed-based approach for nutrient management.

Climate Change: Increase in stream flows due to extreme events could impact the flow velocity and its water surface elevation in the lake. Seasonal and annual changes could impact how the lake is used. Continuous monitoring of weather and stream flows just upstream of the lake could help manage risks in real time.

Land Use Management: As presented in this report, land use changes in the last 20 years indicate an increase in developed areas and a decrease in forest land. The direct impact that this has on water quality is that instead of percolating into the ground, stormwater runs off impervious surfaces transporting pollutants and essentially polluting the waterbody. Stormwater management is an important aspect of infrastructure planning process as it could deteriorate water quality significantly and increase flooding risks downstream, if not managed properly.

9.1.2. Dam Structure

Regulatory Compliance: Regulations change over time based on many factors. Keeping up with the changing regulations, along with managing safety risks to downstream life and property, could become a burden.

Infrastructure Failure: As with anything, an engineered structure has a service design life. Once the design life has exceeded, structure failure could occur if not maintained or restored to meet its original design intent.

Maintenance and Rehabilitation: Preventative maintenance and repairs/rehabilitation must occur in a timely manner. There is risk of increase in repair costs as infrastructure ages.

Sediment Management: Dams are barriers to the flow of water that transports sediment from the watershed. Sediment will continue to accumulate upstream of the Dam that could deprive appropriate sediment supply to the river downstream of the Dam and negatively impact a healthy stream geomorphology and habitat.

Existing Utility Infrastructure Impacts: Under the water surface elevation of the lake, there are two 30-to-40-inch sewer crossings that may need repair or replacement in the future. Access to these sewer lines could be challenging and costly due to impounded water.

10. ENVISION SUSTAINABILITY PLANNING

Selecting the appropriate dam modification alternatives based on the relative cost of construction could be ambiguous by itself, but stakeholder input on risk management associated with a high hazard dam, coupled with long-term vision for the community, could enable a holistic planning process.

Many cities, towns, public agencies, and academic institutions both globally and across the United States recognize or use Envision to guide infrastructure development. It can provide a consistent, consensus-based framework for broadly assessing sustainability, resiliency, and equity in civil infrastructure.

The use of Envision can benefit projects in many ways, including the following:

- Long-term viability through increased resiliency and preparedness
- Lower costs through management and stakeholder collaboration
- Reduced negative impacts on the community and the environment
- Potential to save owners money over time through efficiency
- Credibility of a third-party rating system
- Increased public confidence and involvement in decision-making

Envision is used to assess project factors under five categories of suitability and resilience:

1. **Quality of Life:** Quality of Life assesses whether infrastructure projects align with community goals, are incorporated into existing community networks, and will benefit the community in the long term.
2. **Leadership:** Successful sustainable projects require a new way of thinking about how projects are developed and delivered. Project teams are most successful if they communicate and collaborate early in the project's development; involve a wide variety of people in creating ideas for the project; and understand the long-term, holistic view of the project and its life cycle. The city has demonstrated superior leadership in bringing different stakeholders to the table to discuss project risks and align with the long-term vision for the lake.
3. **Resource Allocation:** Resources are the assets needed to build infrastructure and keep it running. Resource allocation concerns itself with the quantity, source, and characteristics of these resources and their impacts on the overall sustainability of the project.
4. **Natural World:** Infrastructure projects have an impact on the natural world around them, including habitats, species, and nonliving natural systems. The natural systems

perform critical functions called ecosystem services that provide us with clean air, clean water, healthy food, and hazard mitigation.

5. **Climate and Resilience:** The scope of Climate and Resilience is two-fold: minimizing emissions that may contribute to climate change and other short- and long-term risks and ensuring that infrastructure projects are resilient. To be resilient, infrastructure must be informed, resourceful, robust, redundant, flexible, integrated, and inclusive.

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Appendix A-1

Field Data Collection, Methodology and Results

Field Data Collection, Methodology and Results

Methodology

The following subsections prescribe the methods for collection of water quality, bathymetry, and sediment characterization of Lake Springfield.

Water Quality Data

A total of 11 water quality samples were collected throughout November and December including quality assurance and quality control (QA/QC) samples.

Riverine samples were collected at the center of the channel as grab samples via wading using a DH-81 depth integrated sampler. Lake samples were collected at the lake surface via boat as surface grabs. Samples were collected with composite sample jars and then distributed into pre-labeled laboratory bottles and placed on ice. Samples were transported to Pace Analytical in Springfield, Missouri, for analysis. Laboratory parameters included biological oxygen demand (BOD), chl-a, nitrate/nitrite, total phosphorus, dissolved orthophosphorus, ammonia, total Kjeldahl nitrogen (TKN), total nitrogen, and total suspended solids (TSS). Samples were filtered in the field for chl-a and dissolved orthophosphorus. Field blanks (DI water) and field duplicates were collected for QA/QC purposes and water quality readings of water temperature, dissolved oxygen, conductivity, and pH were also collected at each location.

Bathymetry Data

Bathymetric mapping and sediment thickness profiling were conducted in early November within the boatable portions (>2.0 feet water depth) of Lake Springfield from the dam to upstream of the Lake Springfield Boat House launch. Data were collected using a small john boat equipped with a Specialty Devices Inc. BSS+ sub-bottom profiler, which includes multiple acoustic depth sounders and a sub-meter global positioning system (GPS). This device uses three acoustic frequencies to continuously collect water depth and sediment thickness measurements. The highest frequency (200khz) represents the water depth to the lake bottom. The lower frequencies (50khz and 12khz) penetrate fine sediment and the difference between the highest and lower frequencies represents the thickness of unconsolidated lake sediments.

The boat was piloted slowly along transects approximately 100 feet apart back and forth across the boatable portions of the lake, including the historic James River channel, which lies on the southern edge of the lake (See **Figure 1** in this Appendix). The data collected were then reviewed and corrected for sensor depth and anomalies (i.e., submerged woody debris) using Specialty Devices Inc. DepthPic software and exported to an excel database, which included depth (water and sediment), latitude, and longitude of each acoustic sounding. These data were interpolated using GIS software to generate maps for lake bathymetry and the thickness of fine sediment deposits (see **Figure 2** in this Appendix).

Sediment Data

Lake Springfield sediment samples were collected at 41 locations in early December. Sediment sampling locations are also depicted on **Figure 2**. Sampling locations were selected for maximum lake coverage in readily accessible areas. It was determined through bathymetric mapping and sediment thickness profiling that adequate sediment was present for sampling throughout the boatable portion of the lake.

Field Data Collection, Methodology and Results

Sediment samples were collected using a Ponar sampler, which collects lake sediment to a depth of approximately six inches at a given location. Sediment samples ranged from a single Ponar grab to a composite of up to five lake locations. A single ponar grab is useful for collecting information of a specific area (i.e., near a discharge pipe), while lake composites inform overall lake sediment quality. Ponar samples were composited using stainless steel bowls and stainless mixing implements and transferred to pre-labelled laboratory bottles for analysis. The sample nearest the cooling water discharge was collected as a single ponar grab, and a land-based soil sample was also collected as a single grab. A total of 9 composite samples and 2 grab samples were collected and transported to Pace Analytical in Hazelwood, Missouri for analysis. Laboratory parameters included particle size, total solids, solids-moisture, organic carbon, nutrients, pesticides, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and total metals.

Results and Discussion

The following sections summarize the results from field investigations conducted by Geosyntec in 2022 and their relevance to Lake Springfield Master Planning efforts.

Water Quality Data

Surface water samples were collected in November and December of 2022 and analyzed for nutrients, chl-a, BOD, and TSS. 11 total samples were collected, two of which were QA/QC samples. In general, nutrient, BOD, and chl-a concentrations were low at all sites. Given samples were collected during the late fall, results are likely not representative of worst-case conditions, as biological activity and nutrient concentrations are expected to be higher during the spring and summer months. A water quality data table including the analytical methods, reporting limits, and results from the laboratory and field are included as part of this Appendix.

Data collected in November and December do not provide relevant information to assess compliance with the summertime nutrient water quality standards. However, it is worth noting that the highest chlorophyll-a value observed occurred below the dam at 6.8 µg/L and that none of the in-lake samples exceeded 2.8 µg/L. Chl-a concentrations were below applicable criterion but detectable across most samples.

All ammonia nitrogen samples were below laboratory reporting limit of 0.3 mg/L and well below applicable water quality standards. Acute and chronic water quality criteria related to AQL/WWH for ammonia nitrogen are temperature and pH dependent. During sampling, pH values ranged from 7.7 to 8.1 S.U. and water temperature ranged from 14.6 to 14.8 °C (Table X). Under these conditions, the acute and chronic ammonia nitrogen water quality standards would be approximately 6.9 and 2.0 mg/L, respectively.

All samples were below the reporting limit for total phosphorus (0.05 mg/L). There was only one detection for dissolved orthophosphorus on the James River upstream of the lake (Crighton Beach) of 0.038 mg/L. Total nitrogen values ranged from 1.0 mg/L (the reporting limit) to 2.6 mg/L (Crighton Beach). All collected samples had detections for nitrate/nitrate above the laboratory reporting limit. Nitrate/nitrate values ranged from 0.46 mg/L (near dam) to 2.6 mg/L (Crighton

Field Data Collection, Methodology and Results

Beach), with higher concentrations typically occurring upstream of the lake (Crighton Beach). Many of the samples were below the reporting limit for TKN (1.0 mg/L), except for the 3 lake samples collected on November 9th where TKN was 1.2 mg/L.

There are no numeric water quality standards specific to BOD and TSS in Missouri, however, point sources commonly have effluent BOD and TSS limitations that must be met. At 10 CSR 20-7.015(4)(A) discharges from publicly owned treatment works to lakes must conform to BOD and TSS monthly averages of 20 mg/L and 30 mg/L, respectively. None of the TSS concentrations exceeded these point source thresholds. TSS concentrations were generally low, ranging from 4.0 (reporting limit) to 16.0 mg/L. BOD was generally below the reporting limit (4.0 mg/L) for most samples. However, the November 9th and December 14th BOD samples upstream of Lake Springfield in James River (Crighton Beach) were 26.0 mg/L and 4.4 mg/L, respectively.

Bathymetry and Sediment Data

Bathymetric survey and sediment profiling of the lake, discussed herein, indicate that the lake is relatively shallow outside of the historic James River channel, with varying sediment thicknesses. The majority of the lake ranges between 4.0 to 6.0 feet of water outside of the historic James River channel, which hugs the southern shoreline of the lake (**Figure 2**). The historic James River channel exhibited water depths between 6.0 to 12.0 feet, although in some areas depths of up to 22.0 feet were observed.

Sediment thickness varied throughout the lake, likely as a result of the geomorphology of the historic James River channel (**Figure 3**). Depositional areas were observed approximately 500 feet upstream of the dam across the entire lake, where sediment thicknesses ranged from 2.0 to 6.4 feet. There is also a large depositional area near the center of the mapped area, where aquatic macrophytes and shallow water are present, with sediment thickness of 1.5 to 2.3 feet thick.

Some portions of the lake were not traversed via boat due to insufficient water depth and the presence of aquatic vegetation, which compromises the equipment used to collect these data. Therefore, water depth and sediment thickness data described above were interpolated in GIS.

Of the sediment samples collected, none had detections above the laboratory reporting limits for pesticides, PCBs, PAHs, or semi-volatile organics. Commonly detected above laboratory reporting limits were physical, metals, and nutrients parameters. It is important to note that the sediment Ponar sampling method collects more recently deposited sediments (i.e. top 6 inches) and that while these constituents were not detected at the top of the sediment profile, they could be present at lower horizons. Based on the sediment profiling data discussed above, sediment thicknesses were generally over 6.0 inches throughout the lake. A sediment data table including the analytical methods, reporting limits, and laboratory results are included as part of this Appendix.

Based on the sediment profiling data discussed above, sediment thicknesses were generally over 6.0 inches throughout the lake. A sediment data table including the analytical methods, reporting limits, and laboratory results are included as Attachment X.

Field Data Collection, Methodology and Results

Metals were detected in most lake sediment samples and the upland background sample. Metals analyses included silver, arsenic, barium, cadmium, mercury (dissolved), nickel, lead, selenium, zinc, chromium, and copper. **Table 1** below summarizes the range of metals concentration detected above laboratory reporting limits within Lake Springfield compared to the upland background soils. Location 8 in Lake Springfield is commonly associated with the lowest metals concentrations and below upland background concentrations, and locations 1 (single Ponar), 5 and 6 are commonly associated with the highest metals concentration. Lake Springfield nutrient concentrations are similarly distributed with previously described metals concentration. Sediment sampling location 1 is near the former cooling water discharge and locations 5 and 6 are along the historic James River channel.

The U.S. EPA has not yet established federal guidelines for toxic chemicals in lake sediments. However, MDNR assesses waterbodies using an approach developed by D. McDonald et.al (2000), which assesses the synergistic effects of multiple metals on aquatic life by developing a “probable effects concentration quotient” (PEC-Q) for streams. The PEC-Q indicates the likelihood that that metals concentration in a waterbody would have a negative effect on aquatic life, with values exceeding 0.5 indicating toxicity to sensitive aquatic life and 0.75 indicating impairment of the waterbody. PEC-Q is determined by calculating a geomean across all samples and comparing to PEC values from peer reviewed literature.

MDNR considered arsenic, cadmium, chromium, copper, mercury, lead, zinc, and nickel, all in their total forms, during a recent investigation at nearby Wilson Creek. Using these parameters across all samples and the same PECs as MDNR, the PEC-Q at Lake Springfield is 0.19, which indicates that the lake is not causing toxicity to aquatic life based on the samples collected. In addition, Lake Springfield sediment metals concentrations were well below the Missouri Tier 1 Risk Based Target Levels for residential silty soils ingestion pathway prescribed in Appendix B of *Missouri Risk-Based Corrective Action Technical Guidance*.

Field Data Collection, Methodology and Results

Table 1: Lake Springfield Detected Metals Concentration Ranges Compared to Upland Background Soils (mg/kg dry)

Parameter	Maximum		Minimum		Upland Soils Concentration	Tier 1 RBTL
	Location	Conc.	Location	Conc.		
Barium	5 and 6	137	8	11	109	1.56E+0
Chromium	1	24.6	8	7.0	16.8	1.17E+05
Copper	1	54.5	8	1.5	10.9	3.13E+03
Lead	5	36.7	8	ND	18.7	NA
Nickel	5	16.8	8	2.0	11.4	1.56E+03
Zinc	6	136.0	8	14.4	48.2	2.35E+04
Nitrate/Nitrite	1	1.3	ML	ND	3.3	NA
Total Phosphorus	3	530	8	210	290	NA
TKN	5	3,600	8	390	1,800	NA
Total Organic Carbon	9	7,790	8	4,430	9,770	NA
Particle Size*	6	92	8	44	76	NA
Solids Moisture*	1	63	8	47	21	NA
Total Solids*	5	31	8	55	82	NA

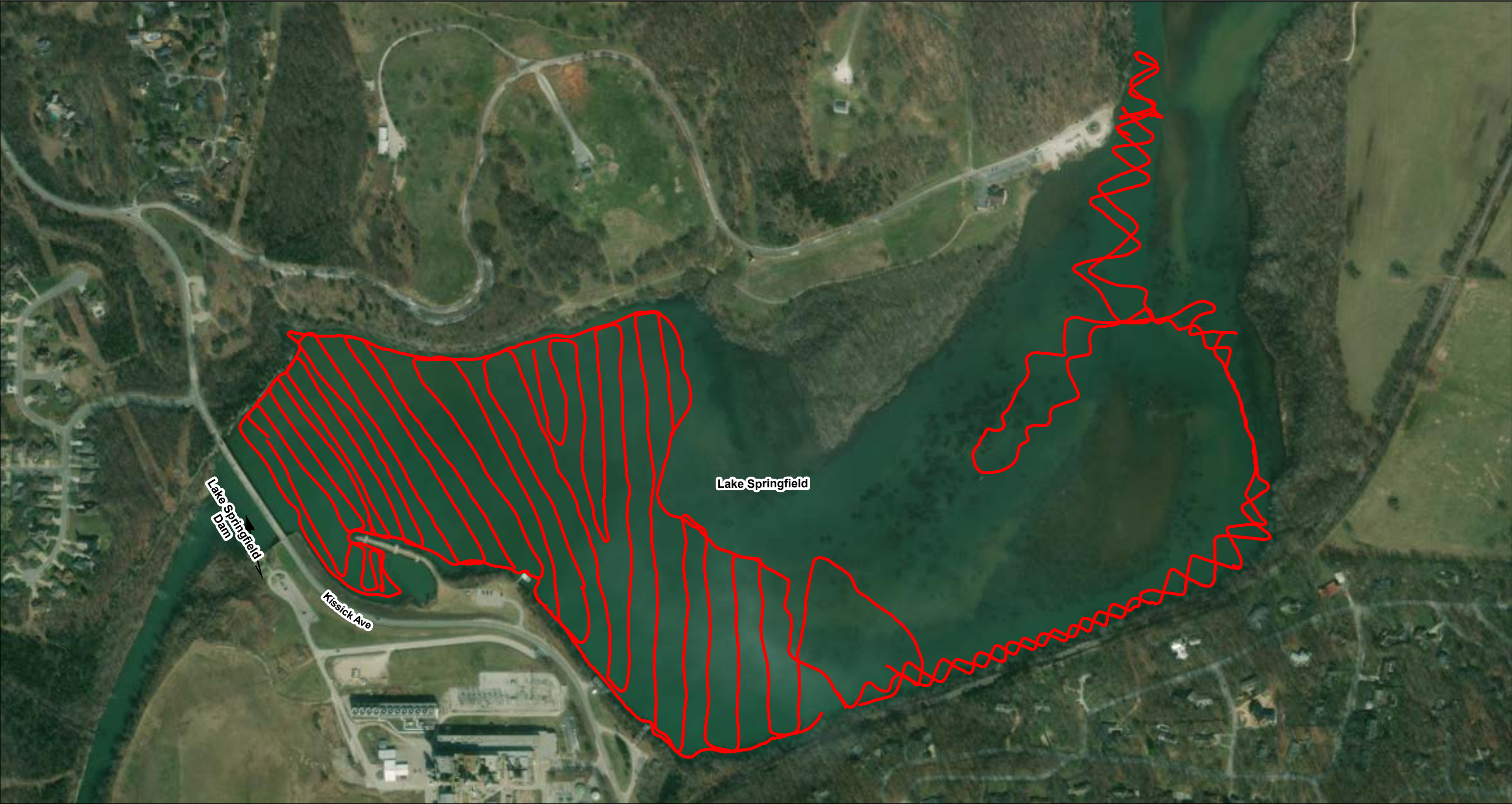
Notes: Conc. = concentration; RBCA = risk based target levels residential land use silty soils ingestion pathway; concentrations in mg/kg unless otherwise noted; ND = non-detect; ML = multiple locations; * = %.

This planning efforts must consider the existing condition of the lake, contributing pollutant sources, and current/future regulatory designated uses and attainment of those uses. Altering the existing lake or the immediate surroundings has the potential to impact the attainment of an existing uses or create new beneficial uses to Lake Springfield. To assess future opportunities for the Lake Springfield Plan, Geosyntec has prepared a Data Gap Assessment Matrix (**Table 2**). This matrix has been designed to provide decision makers with information to assess whether or not a planning option would impact the lake's designated uses, and if so, what data collection efforts are recommended prior to undertaking a given planning option.

Table 2: Data gap assessment matrix

Item of Concern	Key Water Quality Standards	Useful Existing Data	Data Gap	Data Gap Priority*	Timing
<i>E. Coli</i>	WBC-A and WBC-B threshold criteria	Upstream and downstream snapshot monitoring and MDNR James River data	Recreational season bacterial monitoring	High	Minimum 1 year, recommend 2 years to assess potential future WBC-A use or expanded WBC-B uses
Chlorophyll-a	Lake numeric nutrient criteria	SLAP and LMVP	More robust sampling frequency during recreational season	Medium	Minimum 1 year, recommend 2 years to assess existing impairment seasonally
Sediment at Depth	N/A, consider disposal requirements	N/A	Legacy sediment chemistry	High	Prior to dredging, disposal, or disturbance of sediments
Fish Tissue	HHP criteria	MDC 2017	Recent fish tissue data	Medium	To assess DHSS fish consumption advisory currently. Previous report from 5 years ago. Sediment data showed low PCBs in surface sediments
Fish Passage	NFPP	N/A	Understand benefits and gauge agency interest of re-establishing fish passage	Low	As Lake Planning efforts develop, based on public input.
Algal Toxins	Future promulgation of USEPA standards	SLAP and LMVP	More robust sampling frequency during recreational season	Low	Minimum 1 year, recommend 2 years to assess existing impairment seasonally

* A rating of High indicates data suggested for collection prior to initiating further planning efforts. Medium indicates data that would aid in planning efforts, but it not essential to protecting existing or new uses. Low indicates a data gap that could be filled if planning efforts and public involvement indicate concern or interest in a specific development option.



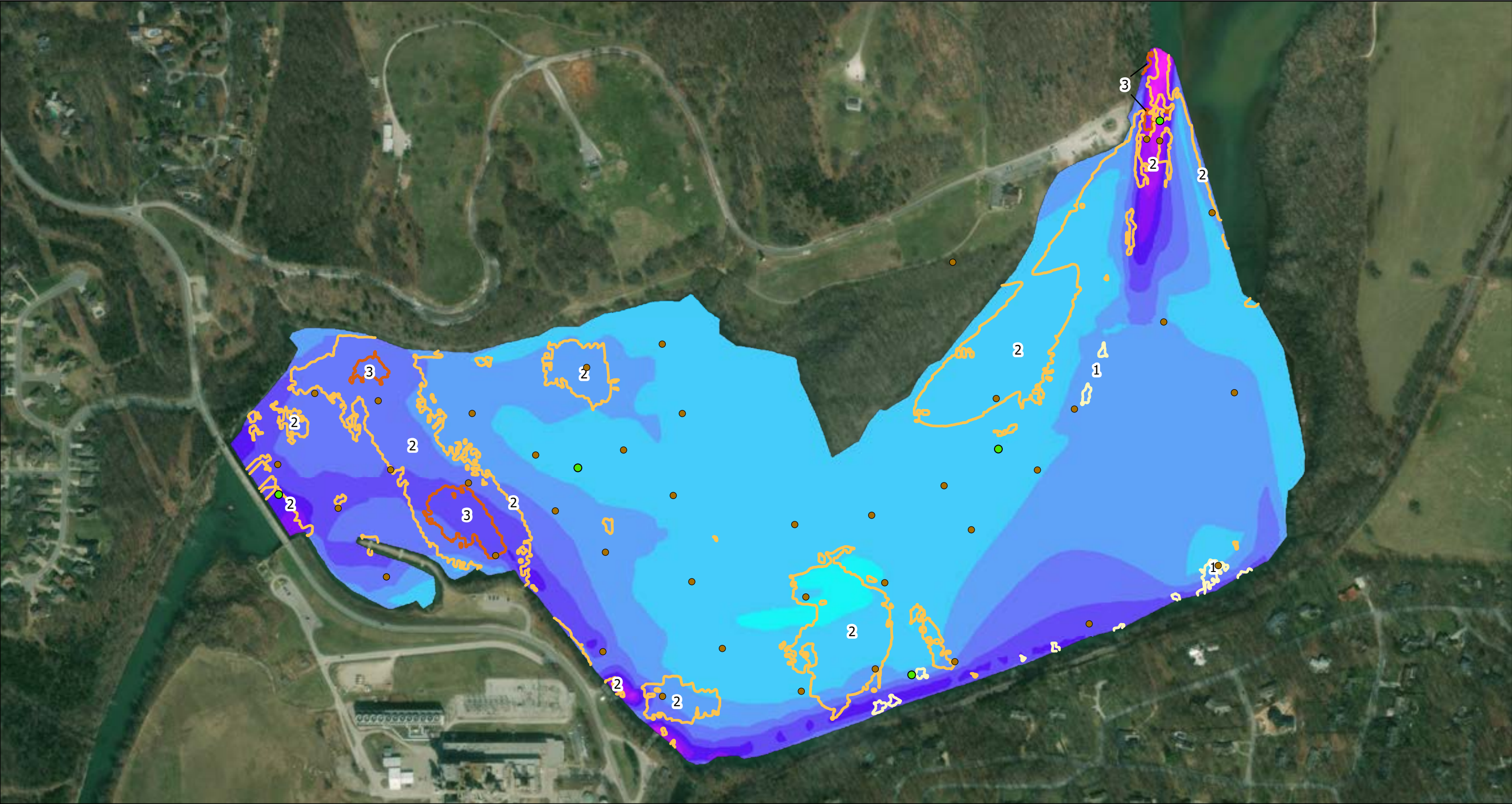
Legend

- Flight Path

0 250 500 1,000 Feet

N

Lake Springfield Bathymetric Flight Path	
Lake Springfield, MO	
 Geosyntec consultants	Figure 1
St. Louis, MO	February 2023



Legend

● Water Quality Sample

● Sediment Sample

Sediment Thickness (ft)

1

2

3

Lake Bathymetry (ft)

≤1120

≤1122

≤1124

≤1126

≤1128

≤1130

≤1132

≤1134

≤1136

≤1138

≤1140

0 250 500 1,000 Feet

N

**Lake Springfield Dam
Data Collection**

Lake Springfield, MO

Geosyntec
consultants

Figure
2

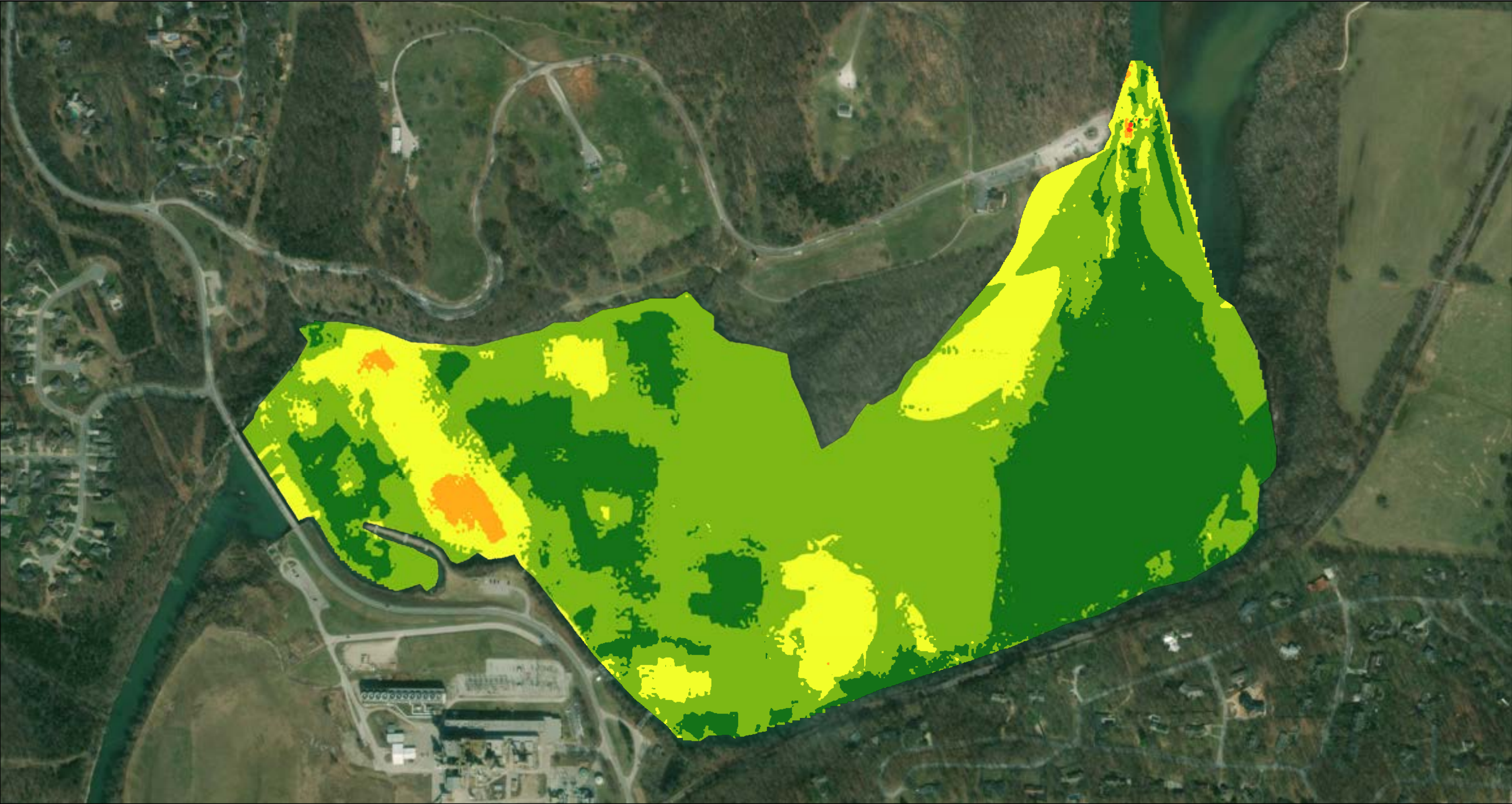
St. Louis, MO

February 2023

P:\GIS\GISProjects\MOW5628 - Lake Springfield\Projects\2022(1214)\LakeMap.aprx\2023(0127) Depth & Thickness 2/15/2023 12:28 PM (avandermus)

C074

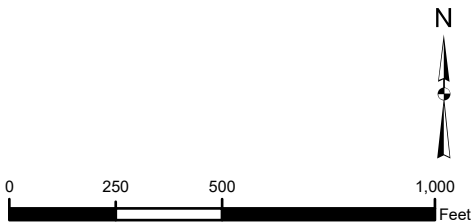
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Legend
Sediment Thickness (ft)

- ≤1.5
- ≤2.0
- ≤3.0
- ≤4.0
- ≤14

Sediment Volume (CY)	Sediment Volume (ac-ft)
476,755	295.5



**Lake Springfield
Sediment Thickness**

Lake Springfield, MO

Geosyntec
consultants

St. Louis, MO

February 2023

Figure
3

Date: January 11, 2023

To: Olivia Hough, City of Springfield
Dan Hedrick, City Utilities
Steve Prange, Crawford Murphy and Tilly

Copies to: Jason Clark, Crawford Murphy and Tilly

From: Priya Iyengar, Geosyntec Consultants

Subject: Water Quality Data Submittal

Geosyntec Consultants (Geosyntec) collected water quality grab samples on November 9th, 17th and December 14th from the Lake Springfield at 5 locations. Of the 5 locations, 3 were in the lake, one was upstream of the lake at Crighton Beach Access, and one was immediately downstream of the Lake Springfield Dam. Quality assurance/quality control samples were also collected, including a field duplicate and a field blank. Collected samples were delivered to Pace Analytical Services LLC on the same day to analyze for the following water quality parameters:

1. Ammonia, Nitrogen, Total
2. Biological Oxygen Demand (BOD)
3. Chlorophyll-a
4. Nitrate/Nitrite-N
5. Total Phosphorus
6. Phosphorous-ortho as P
7. Solids – total suspended solids (TSS)
8. Total Kjeldahl Nitrogen (TKN)
9. Total Nitrogen

Lab results from Pace Lab along with the compiled results prepared by Geosyntec are attached here for reference and use. It should be noted that a detailed review of these results is in progress by Geosyntec and will be documented in a future report. In addition to the water quality samples, Geosyntec also collected sediment samples and delivered to Pace Labs in Hazelwood, Missouri on December 15, 2023 and is still awaiting results. If you have any questions regarding the compiled data, please contact Mike Hogan at (636) 812-0821.

Cover Letter

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Attachments:

- Compiled Water Quality Data Sheets prepared by Geosyntec
- Copies of Lab Results from Pace Analytic Services LLC

Lake Springfield Water Quality Data from 11/9, 11/17, and 12/14

Sample Name	Sample Location	Date	Analyte	Result	Reporting Limit	Units	Qualifier	Method	Dilutution
LS-CB-01	James R. Crighton Access	11/09/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-JR-01	James R. below dam	11/09/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-01-01	L. Springfield near dam	11/09/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-02-01	L. Springfield-mid lake	11/09/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-03-01	L. Springfield marsh	11/09/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-FB-01	Field Blank (DI Water)	11/09/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-DUP-01	James R. below dam	11/09/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-JR-02	James R. below dam	11/17/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-CB-02	James R. Crighton Access	11/17/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-CB-03	James R. Crighton Access	12/14/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-JR-03	James R. below dam	12/14/2022	Ammonia, nitrogen, Total	0.3	0.3	mg/L	<	OIA/PAI-DK03 & EPA 350.1 REV 2	1
LS-CB-01	James R. Crighton Access	11/09/2022	BOD	26	4	mg/L	Mbod	SM 5210B 2001	1
LS-JR-01	James R. below dam	11/09/2022	BOD	4	4	mg/L	<	SM 5210B 2001	1
LS-01-01	L. Springfield near dam	11/09/2022	BOD	4	4	mg/L	<	SM 5210B 2001	1
LS-02-01	L. Springfield-mid lake	11/09/2022	BOD	4	4	mg/L	<	SM 5210B 2001	1
LS-03-01	L. Springfield marsh	11/09/2022	BOD	4	4	mg/L	<	SM 5210B 2001	1
LS-FB-01	Field Blank (DI Water)	11/09/2022	BOD	4	4	mg/L	<	SM 5210B 2001	1
LS-DUP-01	James R. below dam	11/09/2022	BOD	4	4	mg/L	<	SM 5210B 2001	1
LS-JR-02	James R. below dam	11/17/2022	BOD	4	4	mg/L	<	SM 5210B	1
LS-CB-02	James R. Crighton Access	11/17/2022	BOD	4	4	mg/L	<	SM 5210B	1
LS-CB-03	James R. Crighton Access	12/14/2022	BOD	4.4	4	mg/L		SM 5210B	1
LS-JR-03	James R. below dam	12/14/2022	BOD	4	4	mg/L	<	SM 5210B	1
LS-DUP-01	James R. below dam	11/09/2022	Chlorophyll a	2.7	1	mg/m3		SM 10200H	1
LS-CB-01	James R. Crighton Access	11/09/2022	Chlorophyll a	2.1	1	mg/m3		SM 10200H	1
LS-JR-01	James R. below dam	11/09/2022	Chlorophyll a	5	1	mg/m3		SM 10200H	1
LS-01-01	L. Springfield near dam	11/09/2022	Chlorophyll a	2.8	1	mg/m3		SM 10200H	1
LS-02-01	L. Springfield-mid lake	11/09/2022	Chlorophyll a	1	1	mg/m3	<	SM 10200H	1
LS-03-01	L. Springfield marsh	11/09/2022	Chlorophyll a	1	1	mg/m3	<	SM 10200H	1
LS-FB-01	Field Blank (DI Water)	11/09/2022	Chlorophyll a	1	1	mg/m3	<	SM 10200H	1
LS-JR-02	James R. below dam	11/17/2022	Chlorophyll a	6.8	1	mg/m3		SM 10200H	1
LS-CB-02	James R. Crighton Access	11/17/2022	Chlorophyll a	1.7	1	mg/m3		SM 10200H	1
LS-DUP-01	James R. below dam	11/09/2022	Nitrate/Nitrite-N	0.49	0.02	mg/L		EPA 353.2 REV 2	1
LS-CB-01	James R. Crighton Access	11/09/2022	Nitrate/Nitrite-N	1.1	0.02	mg/L		EPA 353.2 REV 2	1

Qualifiers: < = result below method reporting limit, Mbod = test replicates show more than 30% between high and low values

C078

Lake Springfield Water Quality Data from 11/9, 11/17, and 12/14

LS-JR-01	James R. below dam	11/09/2022	Nitrate/Nitrite-N	0.48	0.02	mg/L		EPA 353.2 REV 2	1
LS-01-01	L. Springfield near dam	11/09/2022	Nitrate/Nitrite-N	0.46	0.02	mg/L		EPA 353.2 REV 2	1
LS-02-01	L. Springfield-mid lake	11/09/2022	Nitrate/Nitrite-N	0.54	0.02	mg/L		EPA 353.2 REV 2	1
LS-03-01	L. Springfield marsh	11/09/2022	Nitrate/Nitrite-N	0.65	0.02	mg/L		EPA 353.2 REV 2	1
LS-FB-01	Field Blank (DI Water)	11/09/2022	Nitrate/Nitrite-N	0.02	0.02	mg/L	<	EPA 353.2 REV 2	1
LS-JR-02	James R. below dam	11/17/2022	Nitrate/Nitrite-N	0.83	0.2	mg/L		EPA 353.2 REV 2	10
LS-CB-02	James R. Crighton Access	11/17/2022	Nitrate/Nitrite-N	1.1	0.2	mg/L		EPA 353.2 REV 2	10
LS-CB-03	James R. Crighton Access	12/14/2022	Nitrate/Nitrite-N	2.6	0.1	mg/L		EPA 353.2 REV 2	5
LS-JR-03	James R. below dam	12/14/2022	Nitrate/Nitrite-N	2.5	0.1	mg/L		EPA 353.2 REV 2	5
LS-DUP-01	James R. below dam	11/09/2022	Phosphorus	1	1	mg/L	<	EPA 200.8 REV 5.4	10
LS-CB-01	James R. Crighton Access	11/09/2022	Phosphorus	1	1	mg/L	<	EPA 200.8 REV 5.4	10
LS-JR-01	James R. below dam	11/09/2022	Phosphorus	1	1	mg/L	<	EPA 200.8 REV 5.4	10
LS-01-01	L. Springfield near dam	11/09/2022	Phosphorus	1	1	mg/L	<	EPA 200.8 REV 5.4	10
LS-02-01	L. Springfield-mid lake	11/09/2022	Phosphorus	1	1	mg/L	<	EPA 200.8 REV 5.4	10
LS-03-01	L. Springfield marsh	11/09/2022	Phosphorus	1	1	mg/L	<	EPA 200.8 REV 5.4	10
LS-FB-01	Field Blank (DI Water)	11/09/2022	Phosphorus	1	1	mg/L	<	EPA 200.8 REV 5.4	10
LS-JR-02	James R. below dam	11/17/2022	Phosphorus	0.05	0.05	mg/L	<	EPA 200.7 REV 4.4	1
LS-CB-02	James R. Crighton Access	11/17/2022	Phosphorus	0.05	0.05	mg/L	<	EPA 200.7 REV 4.4	1
LS-CB-03	James R. Crighton Access	12/14/2022	Phosphorus	0.05	0.05	mg/L	<	EPA 200.7 REV 4.4	1
LS-JR-03	James R. below dam	12/14/2022	Phosphorus	0.05	0.05	mg/L	<	EPA 200.7 REV 4.4	1
LS-DUP-01	James R. below dam	11/09/2022	Phosphorus - ortho as P	0.02	0.02	mg/L	<	SM 4500P E 1999	1
LS-CB-01	James R. Crighton Access	11/09/2022	Phosphorus - ortho as P	0.02	0.02	mg/L	<	SM 4500P E 1999	1
LS-JR-01	James R. below dam	11/09/2022	Phosphorus - ortho as P	0.02	0.02	mg/L	<	SM 4500P E 1999	1
LS-01-01	L. Springfield near dam	11/09/2022	Phosphorus - ortho as P	0.02	0.02	mg/L	<	SM 4500P E 1999	1
LS-02-01	L. Springfield-mid lake	11/09/2022	Phosphorus - ortho as P	0.02	0.02	mg/L	<	SM 4500P E 1999	1
LS-03-01	L. Springfield marsh	11/09/2022	Phosphorus - ortho as P	0.02	0.02	mg/L	<	SM 4500P E 1999	1
LS-FB-01	Field Blank (DI Water)	11/09/2022	Phosphorus - ortho as P	0.02	0.02	mg/L	<	SM 4500P E 1999	1
LS-CB-03	James R. Crighton Access	12/14/2022	Phosphorus - ortho as P	0.038	0.02	mg/L		SM 4500P E 1999	1
LS-JR-03	James R. below dam	12/14/2022	Phosphorus - ortho as P	0.02	0.02	mg/L	<	SM 4500P E 1999	1
LS-DUP-01	James R. below dam	11/09/2022	Solids - total suspended solids (TSS)	9.6	4	mg/L		SM 2540 D 1997	1
LS-CB-01	James R. Crighton Access	11/09/2022	Solids - total suspended solids (TSS)	4	4	mg/L	<	SM 2540 D 1997	1
LS-JR-01	James R. below dam	11/09/2022	Solids - total suspended solids (TSS)	11	4	mg/L		SM 2540 D 1997	1
LS-01-01	L. Springfield near dam	11/09/2022	Solids - total suspended solids (TSS)	4.8	4	mg/L		SM 2540 D 1997	1
LS-02-01	L. Springfield-mid lake	11/09/2022	Solids - total suspended solids (TSS)	6.4	4	mg/L		SM 2540 D 1997	1

Qualifiers: < = result below method reporting limit, Mbod = test replicates show more than 30% between high and low values

C079

Lake Springfield Water Quality Data from 11/9, 11/17, and 12/14

LS-03-01	L. Springfield marsh	11/09/2022	Solids - total suspended solids (TSS)	4.4	4	mg/L		SM 2540 D 1997	1
LS-FB-01	Field Blank (DI Water)	11/09/2022	Solids - total suspended solids (TSS)	4	4	mg/L	<	SM 2540 D 1997	1
LS-JR-02	James R. below dam	11/17/2022	Solids - total suspended solids (TSS)	4.8	4	mg/L		SM 2540D	1
LS-CB-02	James R. Crighton Access	11/17/2022	Solids - total suspended solids (TSS)	4	4	mg/L	<	SM 2540D	1
LS-CB-03	James R. Crighton Access	12/14/2022	Solids - total suspended solids (TSS)	16	4	mg/L		SM 2540D	1
LS-JR-03	James R. below dam	12/14/2022	Solids - total suspended solids (TSS)	10	4	mg/L		SM 2540D	1
LS-DUP-01	James R. below dam	11/09/2022	Total Kjeldahl Nitrogen (TKN)	1.2	1	mg/L		OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-CB-01	James R. Crighton Access	11/09/2022	Total Kjeldahl Nitrogen (TKN)	1	1	mg/L	<	OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-JR-01	James R. below dam	11/09/2022	Total Kjeldahl Nitrogen (TKN)	1	1	mg/L	<	OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-01-01	L. Springfield near dam	11/09/2022	Total Kjeldahl Nitrogen (TKN)	1.2	1	mg/L		OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-02-01	L. Springfield-mid lake	11/09/2022	Total Kjeldahl Nitrogen (TKN)	1.2	1	mg/L		OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-03-01	L. Springfield marsh	11/09/2022	Total Kjeldahl Nitrogen (TKN)	1.2	1	mg/L		OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-FB-01	Field Blank (DI Water)	11/09/2022	Total Kjeldahl Nitrogen (TKN)	1.2	1	mg/L		OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-JR-02	James R. below dam	11/17/2022	Total Kjeldahl Nitrogen (TKN)	1	1	mg/L	<	OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-CB-02	James R. Crighton Access	11/17/2022	Total Kjeldahl Nitrogen (TKN)	1	1	mg/L	<	OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-CB-03	James R. Crighton Access	12/14/2022	Total Kjeldahl Nitrogen (TKN)	1	1	mg/L	<	OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-JR-03	James R. below dam	12/14/2022	Total Kjeldahl Nitrogen (TKN)	1	1	mg/L	<	OIA/PAI-DK03 & EPA 351.2 REV 2	1
LS-DUP-01	James R. below dam	11/09/2022	Total Nitrogen	1.6	1	mg/L		Calculated	1
LS-CB-01	James R. Crighton Access	11/09/2022	Total Nitrogen	1.1	1	mg/L		Calculated	1
LS-JR-01	James R. below dam	11/09/2022	Total Nitrogen	1	1	mg/L	<	Calculated	1
LS-01-01	L. Springfield near dam	11/09/2022	Total Nitrogen	1.6	1	mg/L		Calculated	1
LS-02-01	L. Springfield-mid lake	11/09/2022	Total Nitrogen	1.7	1	mg/L		Calculated	1
LS-03-01	L. Springfield marsh	11/09/2022	Total Nitrogen	1.8	1	mg/L		Calculated	1
LS-FB-01	Field Blank (DI Water)	11/09/2022	Total Nitrogen	1.2	1	mg/L		Calculated	1
LS-JR-02	James R. below dam	11/17/2022	Total Nitrogen	1	1	mg/L	<	Calculated	10
LS-CB-02	James R. Crighton Access	11/17/2022	Total Nitrogen	1.1	1	mg/L		Calculated	10
LS-CB-03	James R. Crighton Access	12/14/2022	Total Nitrogen	2.6	1	mg/L		Calculated	5
LS-JR-03	James R. below dam	12/14/2022	Total Nitrogen	2.5	1	mg/L		Calculated	5

Qualifiers: < = result below method reporting limit, Mbod = test replicates show more than 30% between high and low values

C080



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

December 05, 2022

Cody Luebbering
Geosyntec consultants_Chesterfield
1 McBride and Sons Center Drive Suite 202
Chesterfield, MO 63005

RE: GEOSYNTEC LAKE SPRINGFIELD MO

Dear Cody Luebbering:

Please find enclosed the analytical results for the **7** sample(s) the laboratory received on **11/10/22 10:30 am** and logged in under work order **FK02298**. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise . We are always trying to improve our customer service and we welcome you to contact the Director of Client Services, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Gail Schindler

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order FK02298

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



ANALYTICAL RESULTS

Sample: FK02298-01

Name: LS-CB-01

Matrix: Surface Water - Grab

Sampled: 11/09/22 06:45

Received: 11/10/22 10:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
BOD	26	mg/L	Mbod	11/10/22 16:41	1	4.0	11/10/22 16:41	BLR/CRD	SM 5210B 2001
Solids - total suspended solids (TSS)	< 4.0	mg/L		11/11/22 09:24	1	4.0	11/11/22 11:23	CPS	SM 2540 D 1997
Total Nitrogen	1.1	mg/L		11/15/22 12:08	1	1.0	11/16/22 16:55	nwt	Calculated - See Notes
Microbiology - PIA									
Chlorophyll a	2.1	mg/m3		11/10/22 16:30	1	1.0	11/18/22 16:00	SDW	SM 10200H*
Nutrients - PIA									
Ammonia-N	< 0.30	mg/L		11/17/22 11:53	1	0.30	11/17/22 11:53	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	1.1	mg/L		11/11/22 09:20	1	0.020	11/11/22 09:20	CRS1	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	< 1.0	mg/L		11/15/22 12:08	1	1.0	11/16/22 16:55	nwt	OIA/PAI-DK03 & EPA 351.2 REV 2
Soluble Nutrients - PIA									
Phosphorus - ortho as P	< 0.020	mg/L		11/10/22 16:46	1	0.020	11/10/22 17:24	CGL	SM 4500P E 1999
Total Metals - PIA									
Phosphorus	< 1.0	mg/L		11/15/22 09:06	10	1.0	11/16/22 15:58	KMC	EPA 200.8 REV 5.4*



ANALYTICAL RESULTS

Sample: FK02298-02

Name: LS-JR-01

Matrix: Surface Water - Grab

Sampled: 11/09/22 07:25

Received: 11/10/22 10:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
BOD	< 4.0	mg/L		11/10/22 16:41	1	4.0	11/10/22 16:41	BLR/CRD	SM 5210B 2001
Solids - total suspended solids (TSS)	11	mg/L		11/11/22 09:24	1	4.0	11/11/22 11:23	CPS	SM 2540 D 1997
Total Nitrogen	< 1.0	mg/L		11/15/22 12:08	1	1.0	11/16/22 16:57	nwt	Calculated - See Notes
Microbiology - PIA									
Chlorophyll a	5.0	mg/m3		11/10/22 16:30	1	1.0	11/18/22 16:00	SDW	SM 10200H*
Nutrients - PIA									
Ammonia-N	< 0.30	mg/L		11/17/22 11:59	1	0.30	11/17/22 11:59	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	0.48	mg/L		11/11/22 10:07	1	0.020	11/11/22 10:07	CRS1	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	< 1.0	mg/L		11/15/22 12:08	1	1.0	11/16/22 16:57	nwt	OIA/PAI-DK03 & EPA 351.2 REV 2
Soluble Nutrients - PIA									
Phosphorus - ortho as P	< 0.020	mg/L		11/10/22 16:46	1	0.020	11/10/22 17:26	CGL	SM 4500P E 1999
Total Metals - PIA									
Phosphorus	< 1.0	mg/L		11/15/22 09:06	10	1.0	11/16/22 16:02	KMC	EPA 200.8 REV 5.4*



ANALYTICAL RESULTS

Sample: FK02298-03

Name: LS-01-01

Matrix: Surface Water - Grab

Sampled: 11/09/22 08:45

Received: 11/10/22 10:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
BOD	< 4.0	mg/L		11/10/22 16:41	1	4.0	11/10/22 16:41	BLR/CRD	SM 5210B 2001
Solids - total suspended solids (TSS)	4.8	mg/L		11/11/22 09:24	1	4.0	11/11/22 11:23	CPS	SM 2540 D 1997
Total Nitrogen	1.6	mg/L		11/15/22 13:37	1	1.0	11/18/22 09:47	NWT	Calculated - See Notes
Microbiology - PIA									
Chlorophyll a	2.8	mg/m3		11/10/22 16:30	1	1.0	11/18/22 16:00	SDW	SM 10200H*
Nutrients - PIA									
Ammonia-N	< 0.30	mg/L		11/17/22 12:01	1	0.30	11/17/22 12:01	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	0.46	mg/L		11/11/22 09:24	1	0.020	11/11/22 09:24	CRS1	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	1.2	mg/L		11/15/22 13:37	1	1.0	11/18/22 09:47	NWT	OIA/PAI-DK03 & EPA 351.2 REV 2
Soluble Nutrients - PIA									
Phosphorus - ortho as P	< 0.020	mg/L		11/10/22 16:46	1	0.020	11/10/22 17:27	CGL	SM 4500P E 1999
Total Metals - PIA									
Phosphorus	< 1.0	mg/L		11/15/22 09:06	10	1.0	11/16/22 16:17	KMC	EPA 200.8 REV 5.4*



ANALYTICAL RESULTS

Sample: FK02298-04

Name: LS-02-01

Matrix: Surface Water - Grab

Sampled: 11/09/22 09:00

Received: 11/10/22 10:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
BOD	< 4.0	mg/L		11/10/22 16:46	1	4.0	11/10/22 16:46	BLR/CRD	SM 5210B 2001
Solids - total suspended solids (TSS)	6.4	mg/L		11/11/22 09:24	1	4.0	11/11/22 11:23	CPS	SM 2540 D 1997
Total Nitrogen	1.7	mg/L		11/15/22 13:37	1	1.0	11/18/22 09:52	NWT	Calculated - See Notes
Microbiology - PIA									
Chlorophyll a	< 1.0	mg/m3		11/10/22 16:30	1	1.0	11/18/22 16:00	SDW	SM 10200H*
Nutrients - PIA									
Ammonia-N	< 0.30	mg/L		11/17/22 12:02	1	0.30	11/17/22 12:02	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	0.54	mg/L		11/11/22 09:25	1	0.020	11/11/22 09:25	CRS1	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	1.2	mg/L		11/15/22 13:37	1	1.0	11/18/22 09:52	NWT	OIA/PAI-DK03 & EPA 351.2 REV 2
Soluble Nutrients - PIA									
Phosphorus - ortho as P	< 0.020	mg/L		11/10/22 16:46	1	0.020	11/10/22 17:30	CGL	SM 4500P E 1999
Total Metals - PIA									
Phosphorus	< 1.0	mg/L		11/15/22 09:06	10	1.0	11/16/22 16:21	KMC	EPA 200.8 REV 5.4*



ANALYTICAL RESULTS

Sample: FK02298-05

Name: LS-03-01

Matrix: Surface Water - Grab

Sampled: 11/09/22 09:10

Received: 11/10/22 10:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
BOD	< 4.0	mg/L		11/10/22 16:46	1	4.0	11/10/22 16:46	BLR/CRD	SM 5210B 2001
Solids - total suspended solids (TSS)	4.4	mg/L		11/11/22 09:24	1	4.0	11/11/22 11:23	CPS	SM 2540 D 1997
Total Nitrogen	1.8	mg/L		11/15/22 13:37	1	1.0	11/18/22 09:53	NWT	Calculated - See Notes
<u>Microbiology - PIA</u>									
Chlorophyll a	< 1.0	mg/m3		11/10/22 16:30	1	1.0	11/18/22 16:00	SDW	SM 10200H*
<u>Nutrients - PIA</u>									
Ammonia-N	< 0.30	mg/L		11/17/22 12:04	1	0.30	11/17/22 12:04	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	0.65	mg/L		11/11/22 09:26	1	0.020	11/11/22 09:26	CRS1	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	1.2	mg/L		11/15/22 13:37	1	1.0	11/18/22 09:53	NWT	OIA/PAI-DK03 & EPA 351.2 REV 2
<u>Soluble Nutrients - PIA</u>									
Phosphorus - ortho as P	< 0.020	mg/L		11/10/22 16:46	1	0.020	11/10/22 17:30	CGL	SM 4500P E 1999
<u>Total Metals - PIA</u>									
Phosphorus	< 1.0	mg/L		11/15/22 09:06	10	1.0	11/16/22 16:25	KMC	EPA 200.8 REV 5.4*



ANALYTICAL RESULTS

Sample: FK02298-06

Name: LS-FB-01

Matrix: Surface Water - Grab

Sampled: 11/09/22 09:30

Received: 11/10/22 10:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
BOD	< 4.0	mg/L		11/10/22 16:46	1	4.0	11/10/22 16:46	BLR/CRD	SM 5210B 2001
Solids - total suspended solids (TSS)	< 4.0	mg/L		11/11/22 09:24	1	4.0	11/11/22 11:23	CPS	SM 2540 D 1997
Total Nitrogen	1.2	mg/L		11/15/22 13:37	1	1.0	11/18/22 09:55	NWT	Calculated - See Notes
<u>Microbiology - PIA</u>									
Chlorophyll a	< 1.0	mg/m3		11/10/22 16:30	1	1.0	11/18/22 16:00	SDW	SM 10200H*
<u>Nutrients - PIA</u>									
Ammonia-N	< 0.30	mg/L		11/17/22 12:05	1	0.30	11/17/22 12:05	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	< 0.020	mg/L		11/11/22 09:27	1	0.020	11/11/22 09:27	CRS1	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	1.2	mg/L		11/15/22 13:37	1	1.0	11/18/22 09:55	NWT	OIA/PAI-DK03 & EPA 351.2 REV 2
<u>Soluble Nutrients - PIA</u>									
Phosphorus - ortho as P	< 0.020	mg/L		11/10/22 16:46	1	0.020	11/10/22 17:31	CGL	SM 4500P E 1999
<u>Total Metals - PIA</u>									
Phosphorus	< 1.0	mg/L		11/15/22 09:06	10	1.0	11/16/22 16:28	KMC	EPA 200.8 REV 5.4*



ANALYTICAL RESULTS

Sample: FK02298-07

Name: LS-DUP-01

Matrix: Surface Water - Grab

Sampled: 11/09/22 09:30

Received: 11/10/22 10:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
BOD	< 4.0	mg/L		11/10/22 10:32	1	4.0	11/10/22 16:49	BLR/CRD	SM 5210B 2001
Solids - total suspended solids (TSS)	9.6	mg/L		11/11/22 09:24	1	4.0	11/11/22 11:23	CPS	SM 2540 D 1997
Total Nitrogen	1.6	mg/L		11/15/22 13:37	1	1.0	11/18/22 09:56	NWT	Calculated - See Notes
Microbiology - PIA									
Chlorophyll a	2.7	mg/m3		11/10/22 16:30	1	1.0	11/18/22 16:00	SDW	SM 10200H*
Nutrients - PIA									
Ammonia-N	< 0.30	mg/L		11/17/22 12:07	1	0.30	11/17/22 12:07	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	0.49	mg/L		11/11/22 09:33	1	0.020	11/11/22 09:33	CRS1	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	1.2	mg/L		11/15/22 13:37	1	1.0	11/18/22 09:56	NWT	OIA/PAI-DK03 & EPA 351.2 REV 2
Soluble Nutrients - PIA									
Phosphorus - ortho as P	< 0.020	mg/L		11/10/22 16:46	1	0.020	11/10/22 17:32	CGL	SM 4500P E 1999
Total Metals - PIA									
Phosphorus	< 1.0	mg/L		11/15/22 09:06	10	1.0	11/16/22 16:32	KMC	EPA 200.8 REV 5.4*



NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

Mbod Test replicates show more than 30% difference between high and low values

Gail J Schindler

Certified by: Gail Schindler, Project Manager



[illegible]



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

December 30, 2022

Cody Luebbering
Geosyntec consultants_Chesterfield
1 McBride and Sons Center Drive Suite 202
Chesterfield, MO 63005

RE: MOW5628

Dear Cody Luebbering:

Please find enclosed the analytical results for the **2** sample(s) the laboratory received on **11/17/22 2:38 pm** and logged in under work order **FK03573**. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise . We are always trying to improve our customer service and we welcome you to contact the Director of Client Services, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

A handwritten signature in cursive script that reads 'Gail Schindler'.

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order FK03573

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



ANALYTICAL RESULTS

Sample: FK03573-01

Name: LS-JR-02

Matrix: Surface Water - Composite

Sampled: 11/17/22 13:40

Received: 11/17/22 14:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
Total Nitrogen	< 1.0	mg/L		12/01/22 18:20	10	1.0	12/02/22 11:29	NWT	Calculated - See Notes
<u>General Chemistry - SPMO</u>									
BOD	< 4.0	mg/L		11/18/22 13:50	1	4.0	11/18/22 13:50	JCA	SM 5210B*
Solids - total suspended solids (TSS)	4.8	mg/L		11/18/22 15:34	1	4.0	11/18/22 15:34	LCB	SM 2540D*
<u>Microbiology - PIA</u>									
Chlorophyll a	6.8	mg/m3		11/18/22 11:20	1	1.0	11/23/22 14:30	SDW	SM 10200H*
<u>Nutrients - PIA</u>									
Ammonia-N	< 0.30	mg/L		11/23/22 12:38	1	0.30	11/23/22 12:38	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	0.83	mg/L		12/01/22 18:20	10	0.20	12/02/22 11:29	WJM	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	< 1.0	mg/L		11/21/22 10:06	1	1.0	11/23/22 16:27	NWT	OIA/PAI-DK03 & EPA 351.2 REV 2
<u>Total Metals - PIA</u>									
Phosphorus	< 0.050	mg/L		11/28/22 08:15	1	0.050	11/28/22 16:10	TJJ	EPA 200.7 REV 4.4



ANALYTICAL RESULTS

Sample: FK03573-02

Name: LS-CB-02

Matrix: Surface Water - Composite

Sampled: 11/17/22 14:05

Received: 11/17/22 14:38

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
Total Nitrogen	1.1	mg/L		12/01/22 18:20	10	1.0	12/02/22 11:30	NWT	Calculated - See Notes
<u>General Chemistry - SPMO</u>									
BOD	< 4.0	mg/L		11/18/22 13:50	1	4.0	11/18/22 13:50	JCA	SM 5210B*
Solids - total suspended solids (TSS)	< 4.0	mg/L		11/18/22 15:34	1	4.0	11/18/22 15:34	LCB	SM 2540D*
<u>Microbiology - PIA</u>									
Chlorophyll a	1.7	mg/m3		11/18/22 11:20	1	1.0	11/23/22 14:30	SDW	SM 10200H*
<u>Nutrients - PIA</u>									
Ammonia-N	< 0.30	mg/L		11/23/22 12:40	1	0.30	11/23/22 12:40	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	1.1	mg/L		12/01/22 18:20	10	0.20	12/02/22 11:30	WJM	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	< 1.0	mg/L		11/21/22 10:06	1	1.0	11/23/22 16:32	NWT	OIA/PAI-DK03 & EPA 351.2 REV 2
<u>Total Metals - PIA</u>									
Phosphorus	< 0.050	mg/L		11/28/22 08:15	1	0.050	11/28/22 16:13	TJJ	EPA 200.7 REV 4.4



NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Gail Schindler



Certified by: Gail Schindler, Project Manager

Gensynke Consultants

CLIENT		PROJECT LOCATION		PROJECT NUMBER		PROJECT LOCATION		PURCHASE ORDER #		ANALYSIS REQUESTED		REMARKS	
1		2		3		4		5		6		7	
Lake Springfield 2009 E. McCarty St., Suite 1 Jefferson City MO 65101 Mike Hogan		MOW5628 573-499-5443 Joshua Horne		Springfield, MO mhogan@gnosyninc.com		DATE COLLECTED 11-17-22 TIME COLLECTED 1340		DATE SHIPPED 11-17-22 TIME SHIPPED 1438		Nitrate plus nitrite Total Kjeldahl Nitrogen Ammonia Total Phosphorus Dissolved Reactive Phosphorus BOD5 and TSS		Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times	
CITY STATE ZIP CONTACT PERSON		PHONE NUMBER PHONE EMAIL PHONE # IF DIFFERENT FROM ABOVE		DATE COLLECTED 11-17-22 TIME COLLECTED 1340		DATE SHIPPED 11-17-22 TIME SHIPPED 1438		ANALYSIS REQUESTED Nitrate plus nitrite Total Kjeldahl Nitrogen Ammonia Total Phosphorus Dissolved Reactive Phosphorus BOD5 and TSS		REMARKS Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times			
SAMPLE DESCRIPTION LS-JR-02 LS-CB-02		DATE COLLECTED 11-17-22 TIME COLLECTED 1340		DATE SHIPPED 11-17-22 TIME SHIPPED 1438		ANALYSIS REQUESTED Nitrate plus nitrite Total Kjeldahl Nitrogen Ammonia Total Phosphorus Dissolved Reactive Phosphorus BOD5 and TSS		REMARKS Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times					
SAMPLE PRESERVATION CODES: 1-HCL 2-H2SO4 3-HNO3 4-NAOH 5-NA2S2O3 6-UNPRESERVED 7-OTHER		DATE COLLECTED 11-17-22 TIME COLLECTED 1340		DATE SHIPPED 11-17-22 TIME SHIPPED 1438		ANALYSIS REQUESTED Nitrate plus nitrite Total Kjeldahl Nitrogen Ammonia Total Phosphorus Dissolved Reactive Phosphorus BOD5 and TSS		REMARKS Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times					
TURNAROUND TIME REQUESTED (PLEASE CIRCLE) NORMAL RUSH		DATE COLLECTED 11-17-22 TIME COLLECTED 1340		DATE SHIPPED 11-17-22 TIME SHIPPED 1438		ANALYSIS REQUESTED Nitrate plus nitrite Total Kjeldahl Nitrogen Ammonia Total Phosphorus Dissolved Reactive Phosphorus BOD5 and TSS		REMARKS Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times					
EMAIL IF DIFFERENT FROM ABOVE:		DATE COLLECTED 11-17-22 TIME COLLECTED 1340		DATE SHIPPED 11-17-22 TIME SHIPPED 1438		ANALYSIS REQUESTED Nitrate plus nitrite Total Kjeldahl Nitrogen Ammonia Total Phosphorus Dissolved Reactive Phosphorus BOD5 and TSS		REMARKS Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times					
RELINQUISHED BY: (SIGNATURE) DATE 11-17-22 TIME 1438		RECEIVED BY: (SIGNATURE) DATE 11-17-22 TIME 1438		DATE COLLECTED 11-17-22 TIME COLLECTED 1340		DATE SHIPPED 11-17-22 TIME SHIPPED 1438		ANALYSIS REQUESTED Nitrate plus nitrite Total Kjeldahl Nitrogen Ammonia Total Phosphorus Dissolved Reactive Phosphorus BOD5 and TSS					
RELINQUISHED BY: (SIGNATURE) DATE 11-17-22 TIME 1438		RECEIVED BY: (SIGNATURE) DATE 11-17-22 TIME 1438		DATE COLLECTED 11-17-22 TIME COLLECTED 1340		DATE SHIPPED 11-17-22 TIME SHIPPED 1438		ANALYSIS REQUESTED Nitrate plus nitrite Total Kjeldahl Nitrogen Ammonia Total Phosphorus Dissolved Reactive Phosphorus BOD5 and TSS					
RELINQUISHED BY: (SIGNATURE) DATE 11-17-22 TIME 1438		RECEIVED BY: (SIGNATURE) DATE 11-17-22 TIME 1438		DATE COLLECTED 11-17-22 TIME COLLECTED 1340		DATE SHIPPED 11-17-22 TIME SHIPPED 1438		ANALYSIS REQUESTED Nitrate plus nitrite Total Kjeldahl Nitrogen Ammonia Total Phosphorus Dissolved Reactive Phosphorus BOD5 and TSS					

SUBCONTRACT ORDER**Transfer Chain of Custody****Pace Analytical Services, LLC****FK03573**ARH
11-18-22**SENDING LABORATORY**PDC Laboratories, Inc.
1805 West Sunset Street
Springfield, MO 65807
(417) 864-8924**RECEIVING LABORATORY**Pace Analytical Services, LLC - Peoria
2231 W Altorfer Dr
Peoria, IL 61615
(309) 692-9688**Sample: FK03573-01**
Name: LS-JR-02**Sampled: 11/17/22 13:40**
Matrix: Surface Water
Preservative: H2SO4, cool <6

Analysis	Due	Expires	Comments
Ammonia GD	12/01/22 16:00	12/15/22 13:40	
Chlor a	12/01/22 16:00	12/08/22 13:40	
Environmental Fee - Liquid	12/01/22 16:00	03/17/23 13:40	
NO3 + NO2	12/01/22 16:00	12/15/22 13:40	
P 200.7 WWTot	12/01/22 16:00	05/16/23 13:40	
Sample Disposal Fee	12/01/22 16:00	03/17/23 13:40	
TKN GD	12/01/22 16:00	12/15/22 13:40	

Sample: FK03573-02
Name: LS-CB-02**Sampled: 11/17/22 14:05**
Matrix: Surface Water
Preservative: H2SO4, cool <6

Analysis	Due	Expires	Comments
Ammonia GD	12/01/22 16:00	12/15/22 14:05	
Chlor a	12/01/22 16:00	12/08/22 14:05	
Environmental Fee - Liquid	12/01/22 16:00	03/17/23 14:05	
NO3 + NO2	12/01/22 16:00	12/15/22 14:05	
P 200.7 WWTot	12/01/22 16:00	05/16/23 14:05	
Sample Disposal Fee	12/01/22 16:00	03/17/23 14:05	
TKN GD	12/01/22 16:00	12/15/22 14:05	

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
FK03573

Please email results to Gail Schindler at gail.schindler@pacelabs.com

Date Shipped: 11-17-22 Total # of Containers: 6 Sample Origin (State): MO PO #: —
Turn-Around Time Requested ☒ NORMAL ☐ RUSH Date Results Needed: —

<u>Stacy Wolf</u>	<u>1600</u> <u>11-17-22</u>			Sample Temperature Upon Receipt <u>3.1</u> °C
Relinquished By	Date/Time	Received By	Date/Time	Sample(s) Received on Ice ☒ or N
				Proper Bottles Received in Good Condition ☒ or N
				Bottles Filled with Adequate Volume ☒ or N
				Samples Received Within Hold Time ☒ or N
				Date/Time Taken From Sample Bottle Y or ☒ N
<u>Stacy Wolf</u>	<u>11-17-22</u>	<u>[Signature]</u>	<u>11/18/22 10:15</u>	
Relinquished By	Date/Time	Received By	Date/Time	



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

December 30, 2022

Cody Luebbering
Geosyntec consultants_Chesterfield
1 McBride and Sons Center Drive Suite 202
Chesterfield, MO 63005

RE: MOW5628

Dear Cody Luebbering:

Please find enclosed the analytical results for the **2** sample(s) the laboratory received on **12/14/22 1:51 pm** and logged in under work order **FL02779**. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise . We are always trying to improve our customer service and we welcome you to contact the Director of Client Services, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

A handwritten signature in cursive script that reads 'Gail Schindler'.

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order FL02779

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



ANALYTICAL RESULTS

Sample: FL02779-01

Name: LS-CB-03

Matrix: Surface Water - Grab

Sampled: 12/14/22 13:10

Received: 12/14/22 13:51

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
Total Nitrogen	2.6	mg/L		12/16/22 11:49	5	1.0	12/22/22 10:39	NWT	Calculated - See Notes
<u>General Chemistry - SPMO</u>									
BOD	4.4	mg/L		12/14/22 17:05	1	4.0	12/14/22 17:05	LCB	SM 5210B*
Solids - total suspended solids (TSS)	16	mg/L		12/16/22 16:20	1	4.0	12/16/22 16:20	JCA	SM 2540D*
<u>Nutrients - PIA</u>									
Ammonia-N	< 0.30	mg/L		12/21/22 14:39	1	0.30	12/21/22 14:39	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	2.6	mg/L		12/16/22 11:16	5	0.10	12/16/22 11:16	CRS1	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	< 1.0	mg/L		12/16/22 11:49	1	1.0	12/22/22 10:39	NWT	OIA/PAI-DK03 & EPA 351.2 REV 2
<u>Soluble Nutrients - PIA</u>									
Phosphorus - ortho as P	0.038	mg/L		12/15/22 17:05	1	0.020	12/15/22 17:34	ROJ	SM 4500P E 1999
<u>Total Metals - PIA</u>									
Phosphorus	< 0.050	mg/L		12/20/22 08:38	1	0.050	12/27/22 15:26	TJJ	EPA 200.7 REV 4.4



ANALYTICAL RESULTS

Sample: FL02779-02

Name: LS-JR-03

Matrix: Surface Water - Grab

Sampled: 12/14/22 12:40

Received: 12/14/22 13:51

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>General Chemistry - PIA</u>									
Total Nitrogen	2.5	mg/L		12/16/22 11:49	5	1.0	12/22/22 10:41	NWT	Calculated - See Notes
<u>General Chemistry - SPMO</u>									
BOD	< 4.0	mg/L		12/14/22 17:05	1	4.0	12/14/22 17:05	LCB	SM 5210B*
Solids - total suspended solids (TSS)	10	mg/L		12/16/22 16:20	1	4.0	12/16/22 16:20	JCA	SM 2540D*
<u>Nutrients - PIA</u>									
Ammonia-N	< 0.30	mg/L		12/21/22 14:41	1	0.30	12/21/22 14:41	NWT	OIA/PAI-DK03 & EPA 350.1 REV 2
Nitrate/Nitrite-N	2.5	mg/L		12/16/22 11:17	5	0.10	12/16/22 11:17	CRS1	EPA 353.2 REV 2
Total Kjeldahl Nitrogen (TKN)	< 1.0	mg/L		12/16/22 11:49	1	1.0	12/22/22 10:41	NWT	OIA/PAI-DK03 & EPA 351.2 REV 2
<u>Soluble Nutrients - PIA</u>									
Phosphorus - ortho as P	< 0.020	mg/L		12/15/22 17:05	1	0.020	12/15/22 17:36	ROJ	SM 4500P E 1999
<u>Total Metals - PIA</u>									
Phosphorus	< 0.050	mg/L		12/20/22 08:38	1	0.050	12/27/22 15:40	TJJ	EPA 200.7 REV 4.4



NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050



Certified by: Gail Schindler, Project Manager

Geosyntec Consultants

ALL HIGHLIGHTED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

CLIENT ADDRESS 2009 E. McCarty St., Suite 1 Jefferson City MO 65101 CONTACT PERSON Mike Hogan		PROJECT LOCATION PROJECT NUMBER MOW5628 PHONE NUMBER 573-499-5443 E-MAIL mhogan@geosyntec.com		PROJECT LOCATION Springfield, MO		PURCHASE ORDER # DATE SHIPPED		ANALYSIS REQUESTED Nitrate plus nitrite Ammonia Total Kjeldahl Nitrogen Dissolved Reactive Phosphorus BOD5 and TSS		FOR LAB USE ONLY LOGIN # <u>FL02779</u> LOGGED BY: <u>SNW</u> CLIENT: PROJECT: PROJ. MGR.: CUSTODY SEAL #					
SAMPLE DESCRIPTION (SAMPLE DESCRIPTION AS IT WILL APPEAR ON THE ANALYTICAL REPORT) LS-CB-03 LS-JR-03		DATE COLLECTED 12-14-22 12-14-22		TIME COLLECTED 1310 1240		SAMPLE TYPE X X X X		MATRIX TYPE Surface Water Surface Water Surface Water Surface Water		BOTTLE COUNT 4 4		PHES CODE 2, 3, 6 2, 3, 6 2, 3, 6 2, 3, 6		REMARKS Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times Note 48 hr. hold times Each Site: 1-P, 1L, Vap 1-P, 500ml Dia 1-P, 250ml H2J04 1-P, 250ml HNO3	
CHEMICAL PRESERVATION CODES: 1 - HCL 2 - H2SO4 3 - HNO3 4 - NAOH 5 - NA2S2O3 6 - UNPRESERVED 7 - OTHER															
TURNAROUND TIME REQUESTED (PLEASE CIRCLE) NORMAL RUSH RUSH RESULTS VIA (PLEASE CIRCLE) EMAIL PHONE EMAIL IF DIFFERENT FROM ABOVE: PHONE # IF DIFFERENT FROM ABOVE:															
RELINQUISHED BY: (SIGNATURE) [Signature]		DATE 12-14-22 TIME 1349		RECEIVED BY: (SIGNATURE) [Signature]		DATE 12-14-22 TIME 1351		COMMENTS: (FOR LAB USE ONLY)		FOR LAB USE ONLY SAMPLE TEMPERATURE UPON RECEIPT TEMPERATURE CUN ID CHILL PROCESS STARTED PRIOR TO RECEIPT SAMPLE(S) RECEIVED ON ICE SAMPLE ACCEPTANCE NONCONFORMANT REPORT IS NEEDED DATE AND TIME TAKEN FROM SAMPLE BOTTLE					

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
FL02779

ABH
12-15-22

SENDING LABORATORY

PDC Laboratories, Inc.
1805 West Sunset Street
Springfield, MO 65807
(417) 864-8924

RECEIVING LABORATORY

Pace Analytical Services, LLC - Peoria
2231 W Altorfer Dr
Peoria, IL 61615
(309) 692-9688

Sample: FL02779-01
Name: LS-CB-03

Sampled: 12/14/22 13:10
Matrix: Surface Water
Preservative: H2SO4, cool <6

Analysis	Due	Expires	Comments
Ammonia GD	12/27/22 16:00	01/11/23 13:10	
Environmental Fee - Liquid	12/27/22 16:00	04/13/23 13:10	
NO3 + NO2	12/27/22 16:00	01/11/23 13:10	
P 200.7 WWTot	12/27/22 16:00	06/12/23 13:10	
PO4 ortho-P Sol	12/27/22 16:00	12/16/22 13:10	- Short Hold
Sample Disposal Fee	12/27/22 16:00	04/13/23 13:10	
TKN GD	12/27/22 16:00	01/11/23 13:10	

Sample: FL02779-02
Name: LS-JR-03

Sampled: 12/14/22 12:40
Matrix: Surface Water
Preservative: H2SO4, cool <6

Analysis	Due	Expires	Comments
Ammonia GD	12/27/22 16:00	01/11/23 12:40	
Environmental Fee - Liquid	12/27/22 16:00	04/13/23 12:40	
NO3 + NO2	12/27/22 16:00	01/11/23 12:40	
P 200.7 WWTot	12/27/22 16:00	06/12/23 12:40	
PO4 ortho-P Sol	12/27/22 16:00	12/16/22 12:40	- Short Hold
Sample Disposal Fee	12/27/22 16:00	04/13/23 12:40	
TKN GD	12/27/22 16:00	01/11/23 12:40	

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
FL02779

Please email results to Gail Schindler at gail.schindler@pacelabs.com

Date Shipped: 12-14-22 Total # of Containers: 6 Sample Origin (State): MO PO #: —
Turn-Around Time Requested ☒ NORMAL ☐ RUSH Date Results Needed: —

<u>Stacey Wolf</u>	<u>12-14-22</u>			Sample Temperature Upon Receipt	<u>1.9</u> °C
Relinquished By	Date/Time	Received By	Date/Time	Sample(s) Received on Ice	☒ or N
				Proper Bottles Received in Good Condition	☒ or N
				Bottles Filled with Adequate Volume	☒ or N
				Samples Received Within Hold Time	☒ or N
				Date/Time Taken From Sample Bottle	Y or ☒ N
		<u>Vanna Wagner</u>	<u>12-15-22</u>		
			<u>1050</u>		
Relinquished By	Date/Time	Received By	Date/Time		



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

January 10, 2023

Cody Luebbering
Geosyntec consultants_Chesterfield
1 McBride and Sons Center Drive Suite 202
Chesterfield, MO 63005

RE: GEOSYNTEC LAKE SPRINGFIELD SEDIMENT

Dear Cody Luebbering:

Please find enclosed the analytical results for the **11** sample(s) the laboratory received on **12/15/22 5:14 pm** and logged in under work order **FL03235**. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise . We are always trying to improve our customer service and we welcome you to contact the Director of Client Services, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Gail Schindler

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order FL03235

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



ANALYTICAL RESULTS

Sample: FL03235-01

Name: 1

Matrix: Sediment - Grab

Sampled: 12/12/22 07:00

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	7240 B cn	mg/kg			1	300			SM 5310C 2000
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Sample: FL03235-02

Name: 2

Matrix: Sediment - Composite

Sampled: 12/12/22 07:49

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	6920 B cn	mg/kg			1	300			SM 5310C 2000
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Sample: FL03235-03

Name: 3

Matrix: Sediment - Composite

Sampled: 12/12/22 08:38

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	6050 B cn	mg/kg			1	300			SM 5310C 2000
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Sample: FL03235-04

Name: 4

Matrix: Sediment - Composite

Sampled: 12/12/22 09:28

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	6470	mg/kg			1	300			SM 5310C 2000
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ANALYTICAL RESULTS

Sample: FL03235-05

Name: 5

Matrix: Sediment - Composite

Sampled: 12/12/22 10:10

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	6830	mg/kg			1	300			SM 5310C 2000
----------------------------	------	-------	--	--	---	-----	--	--	---------------

Sample: FL03235-06

Name: 6

Matrix: Sediment - Composite

Sampled: 12/12/22 12:16

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	6180	mg/kg			1	300			SM 5310C 2000
----------------------------	------	-------	--	--	---	-----	--	--	---------------

Sample: FL03235-07

Name: 9

Matrix: Sediment - Composite

Sampled: 12/12/22 11:33

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
-----------	--------	------	-----------	----------	----------	-----	----------	---------	--------

General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	7790	mg/kg			1	300			SM 5310C 2000
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Sample: FL03235-08

Name: 7

Matrix: Sediment - Composite

Sampled: 12/12/22 13:20

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	6380	mg/kg			1	300			SM 5310C 2000
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ANALYTICAL RESULTS

Sample: FL03235-09

Name: 8

Matrix: Sediment - Composite

Sampled: 12/12/22 14:24

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	4430	mg/kg			1	300			SM 5310C 2000
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Sample: FL03235-10

Name: 10

Matrix: Sediment - Grab

Sampled: 12/12/22 15:30

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	9770	mg/kg			1	300			SM 5310C 2000
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Sample: FL03235-11

Name: 13

Matrix: Sediment

Sampled: 12/12/22 00:00

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
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General Chemistry - Eurofins Eaton Analytical, Inc. - Lancaster, PA

Total Organic Carbon (TOC)	6780	mg/kg			1	300			SM 5310C 2000
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ANALYTICAL RESULTS



ANALYTICAL RESULTS

Sample: FL03235-01

Name: 1

Matrix: Sediment - Grab

Sampled: 12/12/22 07:00

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	84	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified*
Solids - total solids (TS)	45	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	63	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	1.3	mg/kg dry		12/30/22 11:28	1	0.45	12/30/22 11:28	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	380	mg/kg dry		12/20/22 17:37	1	11	12/21/22 11:01	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	2500	mg/kg dry		01/03/23 15:01	1	110	01/03/23 15:01	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Alpha-BHC	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Beta-BHC	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Delta-BHC	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
gamma-BHC (Lindane)	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Alpha-Chlordane	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
gamma-Chlordane	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Chlordane (technical)	< 329	ug/kg dry		12/20/22 09:22	1	329	12/28/22 20:49	SBG	EPA 8081A
4,4'-DDD	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
4,4'-DDE	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
4,4'-DDT	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/29/22 10:06	SBG	EPA 8081A
Dieldrin	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Endosulfan I	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Endosulfan II	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Endosulfan sulfate	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Endrin	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Endrin aldehyde	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Endrin ketone	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/29/22 10:06	SBG	EPA 8081A
Heptachlor	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/29/22 10:06	SBG	EPA 8081A
Heptachlor epoxide	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/28/22 20:49	SBG	EPA 8081A
Methoxychlor	< 22.0	ug/kg dry		12/20/22 09:22	1	22.0	12/29/22 10:06	SBG	EPA 8081A
Toxaphene	< 878	ug/kg dry		12/20/22 09:22	1	878	12/29/22 10:06	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-01

Name: 1

Matrix: Sediment - Grab

Sampled: 12/12/22 07:00

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 440	ug/kg dry		12/20/22 09:22	1	440	12/29/22 10:06	SBG	EPA 8082
Aroclor 1221	< 440	ug/kg dry		12/20/22 09:22	1	440	12/29/22 10:06	SBG	EPA 8082
Aroclor 1232	< 440	ug/kg dry		12/20/22 09:22	1	440	12/29/22 10:06	SBG	EPA 8082
Aroclor 1242	< 440	ug/kg dry		12/20/22 09:22	1	440	12/29/22 10:06	SBG	EPA 8082
Aroclor 1248	< 440	ug/kg dry		12/20/22 09:22	1	440	12/29/22 10:06	SBG	EPA 8082
Aroclor 1254	< 440	ug/kg dry		12/20/22 09:22	1	440	12/29/22 10:06	SBG	EPA 8082
Aroclor 1260	< 440	ug/kg dry		12/20/22 09:22	1	440	12/29/22 10:06	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Acenaphthylene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Anthracene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Benzo(a)anthracene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Benzo(b)fluoranthene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Benzo(k)fluoranthene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Benzo(a)pyrene	< 0.800	mg/kg dry	Mrl	12/19/22 06:12	1	0.800	12/19/22 17:07	SCI	EPA 8270C
Chrysene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 0.800	mg/kg dry	Mrl	12/19/22 06:12	1	0.800	12/19/22 17:07	SCI	EPA 8270C
Fluoranthene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Fluorene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Naphthalene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Phenanthrene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
Pyrene	< 4.00	mg/kg dry		12/19/22 06:12	1	4.00	12/19/22 17:07	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.0892	mg/kg dry		12/16/22 14:17	1	0.0892	12/19/22 14:39	KAM	SW 7471
Arsenic	< 9.78	mg/kg dry		12/19/22 16:32	1	9.78	12/20/22 14:28	DAS	EPA 6010B
Barium	90.4	mg/kg dry	Xa	12/19/22 16:32	1	1.96	12/20/22 14:28	DAS	EPA 6010B
Cadmium	< 0.978	mg/kg dry		12/19/22 16:32	1	0.978	12/20/22 14:28	DAS	EPA 6010B
Chromium	24.6	mg/kg dry	X	12/22/22 08:36	1	0.500	12/23/22 10:00	DAS	EPA 6010B
Copper	54.5	mg/kg dry	X	12/22/22 08:36	1	0.500	12/23/22 10:00	DAS	EPA 6010B
Lead	22.1	mg/kg dry		12/19/22 16:32	1	7.82	12/20/22 14:28	DAS	EPA 6010B
Nickel	11.7	mg/kg dry		12/19/22 16:32	1	1.96	12/20/22 14:28	DAS	EPA 6010B



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ANALYTICAL RESULTS

Sample: FL03235-01

Name: 1

Matrix: Sediment - Grab

Sampled: 12/12/22 07:00

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 7.82	mg/kg dry		12/19/22 16:32	1	7.82	12/20/22 14:28	DAS	EPA 6010B
Silver	< 0.978	mg/kg dry		12/19/22 16:32	1	0.978	12/20/22 14:28	DAS	EPA 6010B
Zinc	84.5	mg/kg dry	Xa	12/19/22 16:32	1	3.91	12/20/22 14:28	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-02

Name: 2

Matrix: Sediment - Composite

Sampled: 12/12/22 07:49

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	88	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified*
Solids - total solids (TS)	39	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	61	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	1.1	mg/kg dry		12/30/22 11:29	1	0.52	12/30/22 11:29	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	430	mg/kg dry		12/20/22 17:37	1	13	12/21/22 11:02	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	2500	mg/kg dry		01/03/23 15:02	1	130	01/03/23 15:02	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Alpha-BHC	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Beta-BHC	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Delta-BHC	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
gamma-BHC (Lindane)	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Alpha-Chlordane	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
gamma-Chlordane	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Chlordane (technical)	< 389	ug/kg dry		12/20/22 09:22	1	389	12/28/22 21:12	SBG	EPA 8081A
4,4'-DDD	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
4,4'-DDE	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
4,4'-DDT	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/29/22 10:32	SBG	EPA 8081A
Dieldrin	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Endosulfan I	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Endosulfan II	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Endosulfan sulfate	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Endrin	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Endrin aldehyde	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Endrin ketone	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/29/22 10:32	SBG	EPA 8081A
Heptachlor	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/29/22 10:32	SBG	EPA 8081A
Heptachlor epoxide	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/28/22 21:12	SBG	EPA 8081A
Methoxychlor	< 26.0	ug/kg dry		12/20/22 09:22	1	26.0	12/29/22 10:32	SBG	EPA 8081A
Toxaphene	< 1040	ug/kg dry		12/20/22 09:22	1	1040	12/29/22 10:32	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-02

Name: 2

Matrix: Sediment - Composite

Sampled: 12/12/22 07:49

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 519	ug/kg dry		12/20/22 09:22	1	519	12/29/22 10:32	SBG	EPA 8082
Aroclor 1221	< 519	ug/kg dry		12/20/22 09:22	1	519	12/29/22 10:32	SBG	EPA 8082
Aroclor 1232	< 519	ug/kg dry		12/20/22 09:22	1	519	12/29/22 10:32	SBG	EPA 8082
Aroclor 1242	< 519	ug/kg dry		12/20/22 09:22	1	519	12/29/22 10:32	SBG	EPA 8082
Aroclor 1248	< 519	ug/kg dry		12/20/22 09:22	1	519	12/29/22 10:32	SBG	EPA 8082
Aroclor 1254	< 519	ug/kg dry		12/20/22 09:22	1	519	12/29/22 10:32	SBG	EPA 8082
Aroclor 1260	< 519	ug/kg dry		12/20/22 09:22	1	519	12/29/22 10:32	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Acenaphthylene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Anthracene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Benzo(a)anthracene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Benzo(b)fluoranthene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Benzo(k)fluoranthene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Benzo(a)pyrene	< 0.913	mg/kg dry	Mrl	12/19/22 06:12	1	0.913	12/19/22 17:38	SCI	EPA 8270C
Chrysene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 0.913	mg/kg dry	Mrl	12/19/22 06:12	1	0.913	12/19/22 17:38	SCI	EPA 8270C
Fluoranthene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Fluorene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Naphthalene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Phenanthrene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
Pyrene	< 4.56	mg/kg dry		12/19/22 06:12	1	4.56	12/19/22 17:38	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.0962	mg/kg dry		12/16/22 14:17	1	0.0962	12/19/22 14:39	KAM	SW 7471
Arsenic	< 11.2	mg/kg dry		12/19/22 16:32	1	11.2	12/20/22 14:46	DAS	EPA 6010B
Barium	127	mg/kg dry		12/19/22 16:32	1	2.24	12/20/22 14:46	DAS	EPA 6010B
Cadmium	< 1.12	mg/kg dry		12/19/22 16:32	1	1.12	12/20/22 14:46	DAS	EPA 6010B
Chromium	20.6	mg/kg dry		12/19/22 16:32	1	1.12	12/20/22 14:46	DAS	EPA 6010B
Copper	34.2	mg/kg dry		12/19/22 16:32	1	1.12	12/20/22 14:46	DAS	EPA 6010B
Lead	31.5	mg/kg dry		12/19/22 16:32	1	8.95	12/20/22 14:46	DAS	EPA 6010B
Nickel	16.0	mg/kg dry		12/19/22 16:32	1	2.24	12/20/22 14:46	DAS	EPA 6010B



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ANALYTICAL RESULTS

Sample: FL03235-02

Name: 2

Matrix: Sediment - Composite

Sampled: 12/12/22 07:49

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 8.95	mg/kg dry		12/19/22 16:32	1	8.95	12/20/22 14:46	DAS	EPA 6010B
Silver	< 1.12	mg/kg dry		12/19/22 16:32	1	1.12	12/20/22 14:46	DAS	EPA 6010B
Zinc	113	mg/kg dry		12/19/22 16:32	1	4.48	12/20/22 14:46	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-03

Name: 3

Matrix: Sediment - Composite

Sampled: 12/12/22 08:38

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	91	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified* SM 2540G*
Solids - total solids (TS)	36	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	58	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	0.66	mg/kg dry		12/30/22 10:24	1	0.56	12/30/22 10:24	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	530	mg/kg dry		12/20/22 17:37	1	14	12/21/22 11:02	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	2800	mg/kg dry		01/03/23 15:03	1	140	01/03/23 15:03	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Alpha-BHC	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Beta-BHC	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Delta-BHC	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
gamma-BHC (Lindane)	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Alpha-Chlordane	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
gamma-Chlordane	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Chlordane (technical)	< 413	ug/kg dry		12/20/22 09:22	1	413	12/28/22 21:36	SBG	EPA 8081A
4,4'-DDD	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
4,4'-DDE	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
4,4'-DDT	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/29/22 11:23	SBG	EPA 8081A
Dieldrin	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Endosulfan I	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Endosulfan II	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Endosulfan sulfate	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Endrin	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Endrin aldehyde	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Endrin ketone	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/29/22 11:23	SBG	EPA 8081A
Heptachlor	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/29/22 11:23	SBG	EPA 8081A
Heptachlor epoxide	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/28/22 21:36	SBG	EPA 8081A
Methoxychlor	< 27.6	ug/kg dry		12/20/22 09:22	1	27.6	12/29/22 11:23	SBG	EPA 8081A
Toxaphene	< 1100	ug/kg dry		12/20/22 09:22	1	1100	12/29/22 11:23	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-03

Name: 3

Matrix: Sediment - Composite

Sampled: 12/12/22 08:38

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 552	ug/kg dry		12/20/22 09:22	1	552	12/29/22 11:23	SBG	EPA 8082
Aroclor 1221	< 552	ug/kg dry		12/20/22 09:22	1	552	12/29/22 11:23	SBG	EPA 8082
Aroclor 1232	< 552	ug/kg dry		12/20/22 09:22	1	552	12/29/22 11:23	SBG	EPA 8082
Aroclor 1242	< 552	ug/kg dry		12/20/22 09:22	1	552	12/29/22 11:23	SBG	EPA 8082
Aroclor 1248	< 552	ug/kg dry		12/20/22 09:22	1	552	12/29/22 11:23	SBG	EPA 8082
Aroclor 1254	< 552	ug/kg dry		12/20/22 09:22	1	552	12/29/22 11:23	SBG	EPA 8082
Aroclor 1260	< 552	ug/kg dry		12/20/22 09:22	1	552	12/29/22 11:23	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Acenaphthylene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Anthracene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Benzo(a)anthracene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Benzo(b)fluoranthene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Benzo(k)fluoranthene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Benzo(a)pyrene	< 0.992	mg/kg dry	Mrl	12/19/22 06:12	1	0.992	12/19/22 18:09	SCI	EPA 8270C
Chrysene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 0.992	mg/kg dry	Mrl	12/19/22 06:12	1	0.992	12/19/22 18:09	SCI	EPA 8270C
Fluoranthene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Fluorene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Naphthalene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Phenanthrene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
Pyrene	< 4.96	mg/kg dry		12/19/22 06:12	1	4.96	12/19/22 18:09	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.0998	mg/kg dry		12/16/22 14:17	1	0.0998	12/19/22 14:39	KAM	SW 7471
Arsenic	< 13.2	mg/kg dry		12/19/22 16:32	1	13.2	12/20/22 14:49	DAS	EPA 6010B
Barium	128	mg/kg dry		12/19/22 16:32	1	2.63	12/20/22 14:49	DAS	EPA 6010B
Cadmium	< 1.32	mg/kg dry		12/19/22 16:32	1	1.32	12/20/22 14:49	DAS	EPA 6010B
Chromium	19.7	mg/kg dry		12/19/22 16:32	1	1.32	12/20/22 14:49	DAS	EPA 6010B
Copper	27.9	mg/kg dry		12/19/22 16:32	1	1.32	12/20/22 14:49	DAS	EPA 6010B
Lead	33.1	mg/kg dry		12/19/22 16:32	1	10.5	12/20/22 14:49	DAS	EPA 6010B
Nickel	14.9	mg/kg dry		12/19/22 16:32	1	2.63	12/20/22 14:49	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-03

Name: 3

Matrix: Sediment - Composite

Sampled: 12/12/22 08:38

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 10.5	mg/kg dry		12/19/22 16:32	1	10.5	12/20/22 14:49	DAS	EPA 6010B
Silver	< 1.32	mg/kg dry		12/19/22 16:32	1	1.32	12/20/22 14:49	DAS	EPA 6010B
Zinc	124	mg/kg dry		12/19/22 16:32	1	5.27	12/20/22 14:49	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-04

Name: 4

Matrix: Sediment - Composite

Sampled: 12/12/22 09:28

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	89	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified* SM 2540G*
Solids - total solids (TS)	44	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	56	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	0.56	mg/kg dry		12/30/22 10:24	1	0.46	12/30/22 10:24	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	230	mg/kg dry		12/20/22 17:37	1	11	12/21/22 11:03	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	2200	mg/kg dry		01/03/23 15:09	1	110	01/03/23 15:09	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Alpha-BHC	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Beta-BHC	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Delta-BHC	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
gamma-BHC (Lindane)	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Alpha-Chlordane	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
gamma-Chlordane	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Chlordane (technical)	< 335	ug/kg dry		12/20/22 09:22	1	335	12/28/22 21:59	SBG	EPA 8081A
4,4'-DDD	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
4,4'-DDE	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
4,4'-DDT	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/29/22 11:48	SBG	EPA 8081A
Dieldrin	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Endosulfan I	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Endosulfan II	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Endosulfan sulfate	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Endrin	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Endrin aldehyde	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Endrin ketone	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/29/22 11:48	SBG	EPA 8081A
Heptachlor	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/29/22 11:48	SBG	EPA 8081A
Heptachlor epoxide	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/28/22 21:59	SBG	EPA 8081A
Methoxychlor	< 22.4	ug/kg dry		12/20/22 09:22	1	22.4	12/29/22 11:48	SBG	EPA 8081A
Toxaphene	< 894	ug/kg dry		12/20/22 09:22	1	894	12/29/22 11:48	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-04

Name: 4

Matrix: Sediment - Composite

Sampled: 12/12/22 09:28

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 448	ug/kg dry		12/20/22 09:22	1	448	12/29/22 11:48	SBG	EPA 8082
Aroclor 1221	< 448	ug/kg dry		12/20/22 09:22	1	448	12/29/22 11:48	SBG	EPA 8082
Aroclor 1232	< 448	ug/kg dry		12/20/22 09:22	1	448	12/29/22 11:48	SBG	EPA 8082
Aroclor 1242	< 448	ug/kg dry		12/20/22 09:22	1	448	12/29/22 11:48	SBG	EPA 8082
Aroclor 1248	< 448	ug/kg dry		12/20/22 09:22	1	448	12/29/22 11:48	SBG	EPA 8082
Aroclor 1254	< 448	ug/kg dry		12/20/22 09:22	1	448	12/29/22 11:48	SBG	EPA 8082
Aroclor 1260	< 448	ug/kg dry		12/20/22 09:22	1	448	12/29/22 11:48	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Acenaphthylene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Anthracene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Benzo(a)anthracene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Benzo(b)fluoranthene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Benzo(k)fluoranthene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Benzo(a)pyrene	< 0.801	mg/kg dry	Mrl	12/19/22 06:12	1	0.801	12/19/22 18:40	SCI	EPA 8270C
Chrysene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 0.801	mg/kg dry	Mrl	12/19/22 06:12	1	0.801	12/19/22 18:40	SCI	EPA 8270C
Fluoranthene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Fluorene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Naphthalene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Phenanthrene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
Pyrene	< 4.01	mg/kg dry		12/19/22 06:12	1	4.01	12/19/22 18:40	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.0915	mg/kg dry		12/21/22 12:09	1	0.0915	12/21/22 15:18	BCH	SW 7471
Arsenic	< 10.8	mg/kg dry		12/19/22 16:32	1	10.8	12/20/22 14:51	DAS	EPA 6010B
Barium	91.0	mg/kg dry		12/19/22 16:32	1	2.16	12/20/22 14:51	DAS	EPA 6010B
Cadmium	< 1.08	mg/kg dry		12/19/22 16:32	1	1.08	12/20/22 14:51	DAS	EPA 6010B
Chromium	16.3	mg/kg dry		12/19/22 16:32	1	1.08	12/20/22 14:51	DAS	EPA 6010B
Copper	23.6	mg/kg dry		12/19/22 16:32	1	1.08	12/20/22 14:51	DAS	EPA 6010B
Lead	22.2	mg/kg dry		12/19/22 16:32	1	8.63	12/20/22 14:51	DAS	EPA 6010B
Nickel	12.0	mg/kg dry		12/19/22 16:32	1	2.16	12/20/22 14:51	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-04

Name: 4

Matrix: Sediment - Composite

Sampled: 12/12/22 09:28

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 8.63	mg/kg dry		12/19/22 16:32	1	8.63	12/20/22 14:51	DAS	EPA 6010B
Silver	< 1.08	mg/kg dry		12/19/22 16:32	1	1.08	12/20/22 14:51	DAS	EPA 6010B
Zinc	88.3	mg/kg dry		12/19/22 16:32	1	4.32	12/20/22 14:51	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-05

Name: 5

Matrix: Sediment - Composite

Sampled: 12/12/22 10:10

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	86	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified* SM 2540G*
Solids - total solids (TS)	31	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	55	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	< 0.64	mg/kg dry		12/30/22 10:28	1	0.64	12/30/22 10:28	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	460	mg/kg dry		12/20/22 17:37	1	16	12/21/22 11:09	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	3600	mg/kg dry		01/03/23 15:10	1	160	01/03/23 15:10	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Alpha-BHC	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Beta-BHC	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Delta-BHC	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
gamma-BHC (Lindane)	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Alpha-Chlordane	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
gamma-Chlordane	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Chlordane (technical)	< 479	ug/kg dry		12/20/22 09:22	1	479	12/28/22 22:22	SBG	EPA 8081A
4,4'-DDD	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
4,4'-DDE	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
4,4'-DDT	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/29/22 12:13	SBG	EPA 8081A
Dieldrin	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Endosulfan I	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Endosulfan II	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Endosulfan sulfate	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Endrin	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Endrin aldehyde	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Endrin ketone	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/29/22 12:13	SBG	EPA 8081A
Heptachlor	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/29/22 12:13	SBG	EPA 8081A
Heptachlor epoxide	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/28/22 22:22	SBG	EPA 8081A
Methoxychlor	< 32.0	ug/kg dry		12/20/22 09:22	1	32.0	12/29/22 12:13	SBG	EPA 8081A
Toxaphene	< 1280	ug/kg dry		12/20/22 09:22	1	1280	12/29/22 12:13	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-05

Name: 5

Matrix: Sediment - Composite

Sampled: 12/12/22 10:10

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 640	ug/kg dry		12/20/22 09:22	1	640	12/29/22 12:13	SBG	EPA 8082
Aroclor 1221	< 640	ug/kg dry		12/20/22 09:22	1	640	12/29/22 12:13	SBG	EPA 8082
Aroclor 1232	< 640	ug/kg dry		12/20/22 09:22	1	640	12/29/22 12:13	SBG	EPA 8082
Aroclor 1242	< 640	ug/kg dry		12/20/22 09:22	1	640	12/29/22 12:13	SBG	EPA 8082
Aroclor 1248	< 640	ug/kg dry		12/20/22 09:22	1	640	12/29/22 12:13	SBG	EPA 8082
Aroclor 1254	< 640	ug/kg dry		12/20/22 09:22	1	640	12/29/22 12:13	SBG	EPA 8082
Aroclor 1260	< 640	ug/kg dry		12/20/22 09:22	1	640	12/29/22 12:13	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Acenaphthylene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Anthracene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Benzo(a)anthracene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Benzo(b)fluoranthene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Benzo(k)fluoranthene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Benzo(a)pyrene	< 1.14	mg/kg dry	Mrl	12/19/22 06:12	1	1.14	12/19/22 19:11	SCI	EPA 8270C
Chrysene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 1.14	mg/kg dry	Mrl	12/19/22 06:12	1	1.14	12/19/22 19:11	SCI	EPA 8270C
Fluoranthene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Fluorene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Naphthalene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Phenanthrene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
Pyrene	< 5.71	mg/kg dry		12/19/22 06:12	1	5.71	12/19/22 19:11	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.107	mg/kg dry		12/21/22 12:09	1	0.107	12/21/22 15:18	BCH	SW 7471
Arsenic	< 14.8	mg/kg dry		12/19/22 16:32	1	14.8	12/20/22 14:54	DAS	EPA 6010B
Barium	137	mg/kg dry		12/19/22 16:32	1	2.97	12/20/22 14:54	DAS	EPA 6010B
Cadmium	< 1.48	mg/kg dry		12/19/22 16:32	1	1.48	12/20/22 14:54	DAS	EPA 6010B
Chromium	22.5	mg/kg dry		12/19/22 16:32	1	1.48	12/20/22 14:54	DAS	EPA 6010B
Copper	24.8	mg/kg dry		12/19/22 16:32	1	1.48	12/20/22 14:54	DAS	EPA 6010B
Lead	36.7	mg/kg dry		12/19/22 16:32	1	11.9	12/20/22 14:54	DAS	EPA 6010B
Nickel	16.8	mg/kg dry		12/19/22 16:32	1	2.97	12/20/22 14:54	DAS	EPA 6010B



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ANALYTICAL RESULTS

Sample: FL03235-05

Name: 5

Matrix: Sediment - Composite

Sampled: 12/12/22 10:10

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 11.9	mg/kg dry		12/19/22 16:32	1	11.9	12/20/22 14:54	DAS	EPA 6010B
Silver	< 1.48	mg/kg dry		12/19/22 16:32	1	1.48	12/20/22 14:54	DAS	EPA 6010B
Zinc	131	mg/kg dry		12/19/22 16:32	1	5.94	12/20/22 14:54	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-06

Name: 6

Matrix: Sediment - Composite

Sampled: 12/12/22 12:16

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	92	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified*
Solids - total solids (TS)	35	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	54	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	< 0.57	mg/kg dry		12/30/22 10:29	1	0.57	12/30/22 10:29	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	230	mg/kg dry		12/20/22 17:37	1	14	12/21/22 11:10	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	2400	mg/kg dry	Q3	01/03/23 15:11	1	140	01/03/23 15:11	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Alpha-BHC	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Beta-BHC	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Delta-BHC	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
gamma-BHC (Lindane)	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Alpha-Chlordane	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
gamma-Chlordane	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Chlordane (technical)	< 411	ug/kg dry		12/20/22 09:22	1	411	12/28/22 22:46	SBG	EPA 8081A
4,4'-DDD	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
4,4'-DDE	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
4,4'-DDT	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/29/22 12:39	SBG	EPA 8081A
Dieldrin	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Endosulfan I	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Endosulfan II	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Endosulfan sulfate	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Endrin	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Endrin aldehyde	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Endrin ketone	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/29/22 12:39	SBG	EPA 8081A
Heptachlor	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/29/22 12:39	SBG	EPA 8081A
Heptachlor epoxide	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/28/22 22:46	SBG	EPA 8081A
Methoxychlor	< 27.4	ug/kg dry		12/20/22 09:22	1	27.4	12/29/22 12:39	SBG	EPA 8081A
Toxaphene	< 1100	ug/kg dry		12/20/22 09:22	1	1100	12/29/22 12:39	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-06

Name: 6

Matrix: Sediment - Composite

Sampled: 12/12/22 12:16

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 549	ug/kg dry		12/20/22 09:22	1	549	12/29/22 12:39	SBG	EPA 8082
Aroclor 1221	< 549	ug/kg dry		12/20/22 09:22	1	549	12/29/22 12:39	SBG	EPA 8082
Aroclor 1232	< 549	ug/kg dry		12/20/22 09:22	1	549	12/29/22 12:39	SBG	EPA 8082
Aroclor 1242	< 549	ug/kg dry		12/20/22 09:22	1	549	12/29/22 12:39	SBG	EPA 8082
Aroclor 1248	< 549	ug/kg dry		12/20/22 09:22	1	549	12/29/22 12:39	SBG	EPA 8082
Aroclor 1254	< 549	ug/kg dry		12/20/22 09:22	1	549	12/29/22 12:39	SBG	EPA 8082
Aroclor 1260	< 549	ug/kg dry		12/20/22 09:22	1	549	12/29/22 12:39	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Acenaphthylene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Anthracene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Benzo(a)anthracene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Benzo(b)fluoranthene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Benzo(k)fluoranthene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Benzo(a)pyrene	< 1.02	mg/kg dry	Mrl	12/19/22 06:12	1	1.02	12/19/22 19:42	SCI	EPA 8270C
Chrysene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 1.02	mg/kg dry	Mrl	12/19/22 06:12	1	1.02	12/19/22 19:42	SCI	EPA 8270C
Fluoranthene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Fluorene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Naphthalene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Phenanthrene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
Pyrene	< 5.08	mg/kg dry		12/19/22 06:12	1	5.08	12/19/22 19:42	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.114	mg/kg dry		12/21/22 12:09	1	0.114	12/21/22 15:18	BCH	SW 7471
Arsenic	< 11.8	mg/kg dry		12/19/22 16:32	1	11.8	12/20/22 14:56	DAS	EPA 6010B
Barium	137	mg/kg dry		12/19/22 16:32	1	2.36	12/20/22 14:56	DAS	EPA 6010B
Cadmium	< 1.18	mg/kg dry		12/19/22 16:32	1	1.18	12/20/22 14:56	DAS	EPA 6010B
Chromium	22.1	mg/kg dry		12/19/22 16:32	1	1.18	12/20/22 14:56	DAS	EPA 6010B
Copper	20.7	mg/kg dry		12/19/22 16:32	1	1.18	12/20/22 14:56	DAS	EPA 6010B
Lead	34.9	mg/kg dry		12/19/22 16:32	1	9.46	12/20/22 14:56	DAS	EPA 6010B
Nickel	16.7	mg/kg dry		12/19/22 16:32	1	2.36	12/20/22 14:56	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-06

Name: 6

Matrix: Sediment - Composite

Sampled: 12/12/22 12:16

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 9.46	mg/kg dry		12/19/22 16:32	1	9.46	12/20/22 14:56	DAS	EPA 6010B
Silver	< 1.18	mg/kg dry		12/19/22 16:32	1	1.18	12/20/22 14:56	DAS	EPA 6010B
Zinc	136	mg/kg dry		12/19/22 16:32	1	4.73	12/20/22 14:56	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-07

Name: 9

Matrix: Sediment - Composite

Sampled: 12/12/22 11:33

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	88	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified*
Solids - total solids (TS)	39	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	53	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	< 0.52	mg/kg dry		12/30/22 10:30	1	0.52	12/30/22 10:30	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	390	mg/kg dry		12/20/22 17:37	1	13	12/21/22 11:11	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	580	mg/kg dry		01/06/23 12:33	1	130	01/06/23 12:33	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Alpha-BHC	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Beta-BHC	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Delta-BHC	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
gamma-BHC (Lindane)	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Alpha-Chlordane	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
gamma-Chlordane	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Chlordane (technical)	< 373	ug/kg dry		12/20/22 09:22	1	373	12/28/22 23:09	SBG	EPA 8081A
4,4'-DDD	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
4,4'-DDE	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
4,4'-DDT	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/29/22 13:04	SBG	EPA 8081A
Dieldrin	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Endosulfan I	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Endosulfan II	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Endosulfan sulfate	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Endrin	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Endrin aldehyde	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Endrin ketone	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/29/22 13:04	SBG	EPA 8081A
Heptachlor	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/29/22 13:04	SBG	EPA 8081A
Heptachlor epoxide	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/28/22 23:09	SBG	EPA 8081A
Methoxychlor	< 24.9	ug/kg dry		12/20/22 09:22	1	24.9	12/29/22 13:04	SBG	EPA 8081A
Toxaphene	< 996	ug/kg dry		12/20/22 09:22	1	996	12/29/22 13:04	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-07

Name: 9

Matrix: Sediment - Composite

Sampled: 12/12/22 11:33

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 499	ug/kg dry		12/20/22 09:22	1	499	12/29/22 13:04	SBG	EPA 8082
Aroclor 1221	< 499	ug/kg dry		12/20/22 09:22	1	499	12/29/22 13:04	SBG	EPA 8082
Aroclor 1232	< 499	ug/kg dry		12/20/22 09:22	1	499	12/29/22 13:04	SBG	EPA 8082
Aroclor 1242	< 499	ug/kg dry		12/20/22 09:22	1	499	12/29/22 13:04	SBG	EPA 8082
Aroclor 1248	< 499	ug/kg dry		12/20/22 09:22	1	499	12/29/22 13:04	SBG	EPA 8082
Aroclor 1254	< 499	ug/kg dry		12/20/22 09:22	1	499	12/29/22 13:04	SBG	EPA 8082
Aroclor 1260	< 499	ug/kg dry		12/20/22 09:22	1	499	12/29/22 13:04	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Acenaphthylene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Anthracene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Benzo(a)anthracene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Benzo(b)fluoranthene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Benzo(k)fluoranthene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Benzo(a)pyrene	< 0.888	mg/kg dry	Mrl	12/19/22 06:12	1	0.888	12/19/22 20:13	SCI	EPA 8270C
Chrysene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 0.888	mg/kg dry	Mrl	12/19/22 06:12	1	0.888	12/19/22 20:13	SCI	EPA 8270C
Fluoranthene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Fluorene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Naphthalene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Phenanthrene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
Pyrene	< 4.44	mg/kg dry		12/19/22 06:12	1	4.44	12/19/22 20:13	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.0961	mg/kg dry		12/21/22 12:09	1	0.0961	12/21/22 15:18	BCH	SW 7471
Arsenic	< 11.2	mg/kg dry		12/19/22 16:32	1	11.2	12/20/22 14:59	DAS	EPA 6010B
Barium	109	mg/kg dry		12/19/22 16:32	1	2.24	12/20/22 14:59	DAS	EPA 6010B
Cadmium	< 1.12	mg/kg dry		12/19/22 16:32	1	1.12	12/20/22 14:59	DAS	EPA 6010B
Chromium	18.1	mg/kg dry		12/19/22 16:32	1	1.12	12/20/22 14:59	DAS	EPA 6010B
Copper	15.2	mg/kg dry		12/19/22 16:32	1	1.12	12/20/22 14:59	DAS	EPA 6010B
Lead	30.4	mg/kg dry		12/19/22 16:32	1	8.95	12/20/22 14:59	DAS	EPA 6010B
Nickel	14.8	mg/kg dry		12/19/22 16:32	1	2.24	12/20/22 14:59	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-07

Name: 9

Matrix: Sediment - Composite

Sampled: 12/12/22 11:33

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 8.95	mg/kg dry		12/19/22 16:32	1	8.95	12/20/22 14:59	DAS	EPA 6010B
Silver	< 1.12	mg/kg dry		12/19/22 16:32	1	1.12	12/20/22 14:59	DAS	EPA 6010B
Zinc	124	mg/kg dry		12/19/22 16:32	1	4.47	12/20/22 14:59	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-08

Name: 7

Matrix: Sediment - Composite

Sampled: 12/12/22 13:20

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	66	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified*
Solids - total solids (TS)	41	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	50	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	< 0.49	mg/kg dry		12/30/22 10:31	1	0.49	12/30/22 10:31	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	310	mg/kg dry		12/20/22 17:37	1	12	12/21/22 11:11	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	510	mg/kg dry		01/06/23 12:34	1	120	01/06/23 12:34	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Alpha-BHC	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Beta-BHC	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Delta-BHC	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
gamma-BHC (Lindane)	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Alpha-Chlordane	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
gamma-Chlordane	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Chlordane (technical)	< 341	ug/kg dry		12/20/22 09:22	1	341	12/28/22 23:33	SBG	EPA 8081A
4,4'-DDD	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
4,4'-DDE	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
4,4'-DDT	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/29/22 13:30	SBG	EPA 8081A
Dieldrin	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Endosulfan I	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Endosulfan II	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Endosulfan sulfate	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Endrin	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Endrin aldehyde	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Endrin ketone	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/29/22 13:30	SBG	EPA 8081A
Heptachlor	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/29/22 13:30	SBG	EPA 8081A
Heptachlor epoxide	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/28/22 23:33	SBG	EPA 8081A
Methoxychlor	< 22.8	ug/kg dry		12/20/22 09:22	1	22.8	12/29/22 13:30	SBG	EPA 8081A
Toxaphene	< 910	ug/kg dry		12/20/22 09:22	1	910	12/29/22 13:30	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-08

Name: 7

Matrix: Sediment - Composite

Sampled: 12/12/22 13:20

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 456	ug/kg dry		12/20/22 09:22	1	456	12/29/22 13:30	SBG	EPA 8082
Aroclor 1221	< 456	ug/kg dry		12/20/22 09:22	1	456	12/29/22 13:30	SBG	EPA 8082
Aroclor 1232	< 456	ug/kg dry		12/20/22 09:22	1	456	12/29/22 13:30	SBG	EPA 8082
Aroclor 1242	< 456	ug/kg dry		12/20/22 09:22	1	456	12/29/22 13:30	SBG	EPA 8082
Aroclor 1248	< 456	ug/kg dry		12/20/22 09:22	1	456	12/29/22 13:30	SBG	EPA 8082
Aroclor 1254	< 456	ug/kg dry		12/20/22 09:22	1	456	12/29/22 13:30	SBG	EPA 8082
Aroclor 1260	< 456	ug/kg dry		12/20/22 09:22	1	456	12/29/22 13:30	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Acenaphthylene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Anthracene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Benzo(a)anthracene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Benzo(b)fluoranthene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Benzo(k)fluoranthene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Benzo(a)pyrene	< 0.146	mg/kg dry	Mrl	12/22/22 10:49	1	0.146	12/23/22 15:22	SCI	EPA 8270C
Chrysene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 0.146	mg/kg dry	Mrl	12/22/22 10:49	1	0.146	12/23/22 15:22	SCI	EPA 8270C
Fluoranthene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Fluorene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Naphthalene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Phenanthrene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
Pyrene	< 0.731	mg/kg dry		12/22/22 10:49	1	0.731	12/23/22 15:22	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.0903	mg/kg dry		12/21/22 12:09	1	0.0903	12/21/22 15:18	BCH	SW 7471
Arsenic	< 10.2	mg/kg dry		12/19/22 16:32	1	10.2	12/20/22 15:01	DAS	EPA 6010B
Barium	83.1	mg/kg dry		12/19/22 16:32	1	2.03	12/20/22 15:01	DAS	EPA 6010B
Cadmium	< 1.02	mg/kg dry		12/19/22 16:32	1	1.02	12/20/22 15:01	DAS	EPA 6010B
Chromium	16.2	mg/kg dry		12/19/22 16:32	1	1.02	12/20/22 15:01	DAS	EPA 6010B
Copper	14.3	mg/kg dry		12/19/22 16:32	1	1.02	12/20/22 15:01	DAS	EPA 6010B
Lead	24.1	mg/kg dry		12/19/22 16:32	1	8.12	12/20/22 15:01	DAS	EPA 6010B
Nickel	11.1	mg/kg dry		12/19/22 16:32	1	2.03	12/20/22 15:01	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-08

Name: 7

Matrix: Sediment - Composite

Sampled: 12/12/22 13:20

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 8.12	mg/kg dry		12/19/22 16:32	1	8.12	12/20/22 15:01	DAS	EPA 6010B
Silver	< 1.02	mg/kg dry		12/19/22 16:32	1	1.02	12/20/22 15:01	DAS	EPA 6010B
Zinc	88.3	mg/kg dry		12/19/22 16:32	1	4.06	12/20/22 15:01	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-09

Name: 8

Matrix: Sediment - Composite

Sampled: 12/12/22 14:24

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	44	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified*
Solids - total solids (TS)	55	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	47	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	< 0.36	mg/kg dry		12/30/22 10:32	1	0.36	12/30/22 10:32	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	210	mg/kg dry		12/20/22 17:37	1	9.0	12/21/22 11:12	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	390	mg/kg dry		01/06/23 12:35	1	90	01/06/23 12:35	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Alpha-BHC	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Beta-BHC	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Delta-BHC	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
gamma-BHC (Lindane)	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Alpha-Chlordane	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
gamma-Chlordane	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Chlordane (technical)	< 245	ug/kg dry		12/20/22 09:22	1	245	12/28/22 23:56	SBG	EPA 8081A
4,4'-DDD	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
4,4'-DDE	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
4,4'-DDT	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/29/22 13:55	SBG	EPA 8081A
Dieldrin	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Endosulfan I	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Endosulfan II	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Endosulfan sulfate	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Endrin	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Endrin aldehyde	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Endrin ketone	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/29/22 13:55	SBG	EPA 8081A
Heptachlor	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/29/22 13:55	SBG	EPA 8081A
Heptachlor epoxide	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/28/22 23:56	SBG	EPA 8081A
Methoxychlor	< 16.4	ug/kg dry		12/20/22 09:22	1	16.4	12/29/22 13:55	SBG	EPA 8081A
Toxaphene	< 655	ug/kg dry		12/20/22 09:22	1	655	12/29/22 13:55	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-09

Name: 8

Matrix: Sediment - Composite

Sampled: 12/12/22 14:24

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 328	ug/kg dry		12/20/22 09:22	1	328	12/29/22 13:55	SBG	EPA 8082
Aroclor 1221	< 328	ug/kg dry		12/20/22 09:22	1	328	12/29/22 13:55	SBG	EPA 8082
Aroclor 1232	< 328	ug/kg dry		12/20/22 09:22	1	328	12/29/22 13:55	SBG	EPA 8082
Aroclor 1242	< 328	ug/kg dry		12/20/22 09:22	1	328	12/29/22 13:55	SBG	EPA 8082
Aroclor 1248	< 328	ug/kg dry		12/20/22 09:22	1	328	12/29/22 13:55	SBG	EPA 8082
Aroclor 1254	< 328	ug/kg dry		12/20/22 09:22	1	328	12/29/22 13:55	SBG	EPA 8082
Aroclor 1260	< 328	ug/kg dry		12/20/22 09:22	1	328	12/29/22 13:55	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Acenaphthylene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Anthracene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Benzo(a)anthracene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Benzo(b)fluoranthene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Benzo(k)fluoranthene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Benzo(a)pyrene	< 0.108	mg/kg dry	Mrl	12/22/22 10:49	1	0.108	12/23/22 17:26	SCI	EPA 8270C
Chrysene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 0.108	mg/kg dry	Mrl	12/22/22 10:49	1	0.108	12/23/22 17:26	SCI	EPA 8270C
Fluoranthene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Fluorene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Naphthalene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Phenanthrene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
Pyrene	< 0.542	mg/kg dry		12/22/22 10:49	1	0.542	12/23/22 17:26	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.0645	mg/kg dry		12/21/22 12:09	1	0.0645	12/21/22 15:18	BCH	SW 7471
Arsenic	< 8.36	mg/kg dry		12/19/22 16:32	1	8.36	12/20/22 15:04	DAS	EPA 6010B
Barium	11.0	mg/kg dry		12/19/22 16:32	1	1.67	12/20/22 15:04	DAS	EPA 6010B
Cadmium	< 0.836	mg/kg dry		12/19/22 16:32	1	0.836	12/20/22 15:04	DAS	EPA 6010B
Chromium	6.98	mg/kg dry		12/19/22 16:32	1	0.836	12/20/22 15:04	DAS	EPA 6010B
Copper	1.52	mg/kg dry		12/19/22 16:32	1	0.836	12/20/22 15:04	DAS	EPA 6010B
Lead	< 6.69	mg/kg dry		12/19/22 16:32	1	6.69	12/20/22 15:04	DAS	EPA 6010B
Nickel	2.00	mg/kg dry		12/19/22 16:32	1	1.67	12/20/22 15:04	DAS	EPA 6010B



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ANALYTICAL RESULTS

Sample: FL03235-09

Name: 8

Matrix: Sediment - Composite

Sampled: 12/12/22 14:24

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 6.69	mg/kg dry		12/19/22 16:32	1	6.69	12/20/22 15:04	DAS	EPA 6010B
Silver	< 0.836	mg/kg dry		12/19/22 16:32	1	0.836	12/20/22 15:04	DAS	EPA 6010B
Zinc	14.4	mg/kg dry		12/19/22 16:32	1	3.34	12/20/22 15:04	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-10

Name: 10

Matrix: Sediment - Grab

Sampled: 12/12/22 15:30

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	76	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified*
Solids - total solids (TS)	82	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	21	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	3.3	mg/kg dry	Q1	12/30/22 10:33	1	0.25	12/30/22 10:33	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	290	mg/kg dry		12/20/22 17:37	1	6.1	12/21/22 11:13	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	1800	mg/kg dry		01/06/23 12:36	1	61	01/06/23 12:36	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Alpha-BHC	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Beta-BHC	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Delta-BHC	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
gamma-BHC (Lindane)	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Alpha-Chlordane	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
gamma-Chlordane	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Chlordane (technical)	< 30.7	ug/kg dry		12/20/22 09:22	1	30.7	12/29/22 00:20	SBG	EPA 8081A
4,4'-DDD	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
4,4'-DDE	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
4,4'-DDT	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 14:21	SBG	EPA 8081A
Dieldrin	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Endosulfan I	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Endosulfan II	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Endosulfan sulfate	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Endrin	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Endrin aldehyde	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Endrin ketone	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 14:21	SBG	EPA 8081A
Heptachlor	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 14:21	SBG	EPA 8081A
Heptachlor epoxide	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 00:20	SBG	EPA 8081A
Methoxychlor	< 2.05	ug/kg dry		12/20/22 09:22	1	2.05	12/29/22 14:21	SBG	EPA 8081A
Toxaphene	< 81.8	ug/kg dry		12/20/22 09:22	1	81.8	12/29/22 14:21	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-10

Name: 10

Matrix: Sediment - Grab

Sampled: 12/12/22 15:30

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 40.9	ug/kg dry		12/20/22 09:22	1	40.9	12/29/22 14:21	SBG	EPA 8082
Aroclor 1221	< 40.9	ug/kg dry		12/20/22 09:22	1	40.9	12/29/22 14:21	SBG	EPA 8082
Aroclor 1232	< 40.9	ug/kg dry		12/20/22 09:22	1	40.9	12/29/22 14:21	SBG	EPA 8082
Aroclor 1242	< 40.9	ug/kg dry		12/20/22 09:22	1	40.9	12/29/22 14:21	SBG	EPA 8082
Aroclor 1248	< 40.9	ug/kg dry		12/20/22 09:22	1	40.9	12/29/22 14:21	SBG	EPA 8082
Aroclor 1254	< 40.9	ug/kg dry		12/20/22 09:22	1	40.9	12/29/22 14:21	SBG	EPA 8082
Aroclor 1260	< 40.9	ug/kg dry		12/20/22 09:22	1	40.9	12/29/22 14:21	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Acenaphthylene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Anthracene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Benzo(a)anthracene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Benzo(b)fluoranthene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Benzo(k)fluoranthene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Benzo(a)pyrene	< 0.0736	mg/kg dry	Mrl	12/22/22 10:49	1	0.0736	12/23/22 15:53	SCI	EPA 8270C
Chrysene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 0.0736	mg/kg dry	Mrl	12/22/22 10:49	1	0.0736	12/23/22 15:53	SCI	EPA 8270C
Fluoranthene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Fluorene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Naphthalene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Phenanthrene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
Pyrene	< 0.368	mg/kg dry		12/22/22 10:49	1	0.368	12/23/22 15:53	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.0423	mg/kg dry		12/21/22 12:09	1	0.0423	12/21/22 15:18	BCH	SW 7471
Arsenic	6.22	mg/kg dry		12/19/22 16:32	1	5.38	12/20/22 15:06	DAS	EPA 6010B
Barium	109	mg/kg dry		12/19/22 16:32	1	1.08	12/20/22 15:06	DAS	EPA 6010B
Cadmium	< 0.538	mg/kg dry		12/19/22 16:32	1	0.538	12/20/22 15:06	DAS	EPA 6010B
Chromium	16.8	mg/kg dry		12/19/22 16:32	1	0.538	12/20/22 15:06	DAS	EPA 6010B
Copper	10.9	mg/kg dry		12/19/22 16:32	1	0.538	12/20/22 15:06	DAS	EPA 6010B
Lead	18.7	mg/kg dry		12/19/22 16:32	1	4.30	12/20/22 15:06	DAS	EPA 6010B
Nickel	11.4	mg/kg dry		12/19/22 16:32	1	1.08	12/20/22 15:06	DAS	EPA 6010B



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

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ANALYTICAL RESULTS

Sample: FL03235-10

Name: 10

Matrix: Sediment - Grab

Sampled: 12/12/22 15:30

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 4.30	mg/kg dry		12/19/22 16:32	1	4.30	12/20/22 15:06	DAS	EPA 6010B
Silver	< 0.538	mg/kg dry		12/19/22 16:32	1	0.538	12/20/22 15:06	DAS	EPA 6010B
Zinc	48.2	mg/kg dry		12/19/22 16:32	1	2.15	12/20/22 15:06	DAS	EPA 6010B



ANALYTICAL RESULTS

Sample: FL03235-11

Name: 13

Matrix: Sediment

Sampled: 12/12/22 00:00

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Particle Size	88	%	H	12/21/22 10:52	1	0.50	12/21/22 10:52	CRD	ASTM D1140 Modified*
Solids - total solids (TS)	43	%		12/16/22 14:08	1	0.050	12/16/22 14:36	HRF	SM 2540G*
General Chemistry - STL									
Solids - moisture	54	%		12/16/22 17:58	1	0.050	12/19/22 14:33	RSB	SM 2540B 1991*
Nutrients - PIA									
Nitrate/Nitrite-N	< 0.46	mg/kg dry		12/30/22 10:35	1	0.46	12/30/22 10:35	CRS1	EPA 353.2 REV 2
Phosphorus - total as P	380	mg/kg dry		12/20/22 17:37	1	12	12/21/22 11:13	CRS1	SM 4500P F 1999*
Total Kjeldahl Nitrogen (TKN)	960	mg/kg dry		01/06/23 12:37	1	120	01/06/23 12:37	TTH	EPA 351.2 REV 2*
Pesticides - STL									
Aldrin	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Alpha-BHC	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Beta-BHC	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Delta-BHC	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
gamma-BHC (Lindane)	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Alpha-Chlordane	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
gamma-Chlordane	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Chlordane (technical)	< 57.8	ug/kg dry		12/20/22 09:22	1	57.8	12/29/22 01:54	SBG	EPA 8081A
4,4'-DDD	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
4,4'-DDE	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
4,4'-DDT	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 14:46	SBG	EPA 8081A
Dieldrin	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Endosulfan I	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Endosulfan II	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Endosulfan sulfate	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Endrin	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Endrin aldehyde	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Endrin ketone	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 14:46	SBG	EPA 8081A
Heptachlor	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 14:46	SBG	EPA 8081A
Heptachlor epoxide	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 01:54	SBG	EPA 8081A
Methoxychlor	< 3.86	ug/kg dry		12/20/22 09:22	1	3.86	12/29/22 14:46	SBG	EPA 8081A
Toxaphene	< 154	ug/kg dry		12/20/22 09:22	1	154	12/29/22 14:46	SBG	EPA 8081A



ANALYTICAL RESULTS

Sample: FL03235-11

Name: 13

Matrix: Sediment

Sampled: 12/12/22 00:00

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Polychlorinated Biphenyls (PCBs) - STL</u>									
Aroclor 1016	< 77.0	ug/kg dry		12/20/22 09:22	1	77.0	12/29/22 14:46	SBG	EPA 8082
Aroclor 1221	< 77.0	ug/kg dry		12/20/22 09:22	1	77.0	12/29/22 14:46	SBG	EPA 8082
Aroclor 1232	< 77.0	ug/kg dry		12/20/22 09:22	1	77.0	12/29/22 14:46	SBG	EPA 8082
Aroclor 1242	< 77.0	ug/kg dry		12/20/22 09:22	1	77.0	12/29/22 14:46	SBG	EPA 8082
Aroclor 1248	< 77.0	ug/kg dry		12/20/22 09:22	1	77.0	12/29/22 14:46	SBG	EPA 8082
Aroclor 1254	< 77.0	ug/kg dry		12/20/22 09:22	1	77.0	12/29/22 14:46	SBG	EPA 8082
Aroclor 1260	< 77.0	ug/kg dry		12/20/22 09:22	1	77.0	12/29/22 14:46	SBG	EPA 8082
<u>Semivolatile Organics - STL</u>									
Acenaphthene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Acenaphthylene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Anthracene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Benzo(a)anthracene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Benzo(b)fluoranthene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Benzo(k)fluoranthene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Benzo(g,h,i)perylene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Benzo(a)pyrene	< 0.139	mg/kg dry	Mrl	12/22/22 10:49	1	0.139	12/23/22 16:24	SCI	EPA 8270C
Chrysene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Dibenzo(a,h)anthracene	< 0.139	mg/kg dry	Mrl	12/22/22 10:49	1	0.139	12/23/22 16:24	SCI	EPA 8270C
Fluoranthene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Fluorene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Indeno(1,2,3-cd)pyrene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Naphthalene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Phenanthrene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
Pyrene	< 0.694	mg/kg dry		12/22/22 10:49	1	0.694	12/23/22 16:24	SCI	EPA 8270C
<u>Total Metals - STL</u>									
Mercury	< 0.0857	mg/kg dry		12/21/22 12:09	1	0.0857	12/21/22 15:18	BCH	SW 7471
Arsenic	< 9.80	mg/kg dry		12/19/22 16:32	1	9.80	12/20/22 15:19	DAS	EPA 6010B
Barium	92.5	mg/kg dry		12/19/22 16:32	1	1.96	12/20/22 15:19	DAS	EPA 6010B
Cadmium	< 0.980	mg/kg dry		12/19/22 16:32	1	0.980	12/20/22 15:19	DAS	EPA 6010B
Chromium	16.1	mg/kg dry		12/19/22 16:32	1	0.980	12/20/22 15:19	DAS	EPA 6010B
Copper	16.6	mg/kg dry		12/19/22 16:32	1	0.980	12/20/22 15:19	DAS	EPA 6010B
Lead	25.2	mg/kg dry		12/19/22 16:32	1	7.84	12/20/22 15:19	DAS	EPA 6010B
Nickel	11.4	mg/kg dry		12/19/22 16:32	1	1.96	12/20/22 15:19	DAS	EPA 6010B



Pace Analytical Services, LLC

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ANALYTICAL RESULTS

Sample: FL03235-11

Name: 13

Matrix: Sediment

Sampled: 12/12/22 00:00

Received: 12/15/22 17:14

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 7.84	mg/kg dry		12/19/22 16:32	1	7.84	12/20/22 15:19	DAS	EPA 6010B
Silver	< 0.980	mg/kg dry		12/19/22 16:32	1	0.980	12/20/22 15:19	DAS	EPA 6010B
Zinc	96.2	mg/kg dry		12/19/22 16:32	1	3.92	12/20/22 15:19	DAS	EPA 6010B



NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

- H Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.
- Mrl Reporting limit set between LOQ and MDL
- Q1 Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- Q3 Matrix Spike/Matrix Spike Duplicate both failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
- X Inconsistent results among multiple preps, highest result reported.
- Xa MS/D recovery outside acceptance criteria. Matrix interference, verified by post digestion spike

Gail G Schindler

Certified by: Gail Schindler, Project Manager





ANALYTICAL REPORT

PREPARED FOR

Attn: Gail Schindler
PDC (Pace) Laboratories, Inc.
2231 W. Altorfer Drive
Peoria, Illinois 61615

Generated 12/30/2022 5:07:33 PM

JOB DESCRIPTION

FL03235

JOB NUMBER

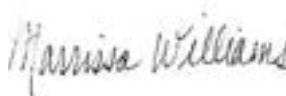
410-109774-1

Eurofins Lancaster Laboratories Environment Testing, LLC

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
12/30/2022 5:07:33 PM

Authorized for release by
Marrissa Williams, Project Manager
Marrissa.Williams@et.eurofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

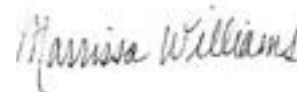
- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
 - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Definitions/Glossary

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Job ID: 410-109774-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Narrative

Job Narrative 410-109774-1

Receipt

The samples were received on 12/20/2022 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C

General Chemistry

Method Lloyd_Kahn: The method blank for analytical batch 410-329874 contained a hit above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Client Sample ID: FL03235-01

Lab Sample ID: 410-109774-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	7240	B cn	300	100	mg/Kg	1		Lloyd Kahn	Total/NA

Client Sample ID: FL03235-02

Lab Sample ID: 410-109774-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	6920	B cn	300	100	mg/Kg	1		Lloyd Kahn	Total/NA

Client Sample ID: FL03235-03

Lab Sample ID: 410-109774-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	6050	B cn	300	100	mg/Kg	1		Lloyd Kahn	Total/NA

Client Sample ID: FL03235-04

Lab Sample ID: 410-109774-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	6470		300	100	mg/Kg	1		Lloyd Kahn	Total/NA

Client Sample ID: FL03235-05

Lab Sample ID: 410-109774-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	6830		300	100	mg/Kg	1		Lloyd Kahn	Total/NA

Client Sample ID: FL03235-06

Lab Sample ID: 410-109774-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	6180		300	100	mg/Kg	1		Lloyd Kahn	Total/NA

Client Sample ID: FL03235-07

Lab Sample ID: 410-109774-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	7790		300	100	mg/Kg	1		Lloyd Kahn	Total/NA

Client Sample ID: FL03235-08

Lab Sample ID: 410-109774-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	6380		300	100	mg/Kg	1		Lloyd Kahn	Total/NA

Client Sample ID: FL03235-09

Lab Sample ID: 410-109774-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	4430		300	100	mg/Kg	1		Lloyd Kahn	Total/NA

Client Sample ID: FL03235-10

Lab Sample ID: 410-109774-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	9770		300	100	mg/Kg	1		Lloyd Kahn	Total/NA

Client Sample ID: FL03235-11

Lab Sample ID: 410-109774-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	6780		300	100	mg/Kg	1		Lloyd Kahn	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

Client Sample Results

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Client Sample ID: FL03235-01

Lab Sample ID: 410-109774-1

Date Collected: 12/12/22 07:00

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	7240	B cn	300	100	mg/Kg			12/22/22 03:25	1
Percent Moisture (EPA Moisture)	60.0		1.0	1.0	%			12/20/22 11:26	1
Percent Solids (EPA Moisture)	40.0		1.0	1.0	%			12/20/22 11:26	1

Client Sample ID: FL03235-02

Lab Sample ID: 410-109774-2

Date Collected: 12/12/22 07:49

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	6920	B cn	300	100	mg/Kg			12/22/22 03:37	1
Percent Moisture (EPA Moisture)	59.4		1.0	1.0	%			12/20/22 11:26	1
Percent Solids (EPA Moisture)	40.6		1.0	1.0	%			12/20/22 11:26	1

Client Sample ID: FL03235-03

Lab Sample ID: 410-109774-3

Date Collected: 12/12/22 08:38

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	6050	B cn	300	100	mg/Kg			12/22/22 03:50	1
Percent Moisture (EPA Moisture)	57.5		1.0	1.0	%			12/20/22 12:54	1
Percent Solids (EPA Moisture)	42.5		1.0	1.0	%			12/20/22 12:54	1

Client Sample ID: FL03235-04

Lab Sample ID: 410-109774-4

Date Collected: 12/12/22 09:28

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	6470		300	100	mg/Kg			12/22/22 04:29	1
Percent Moisture (EPA Moisture)	52.2		1.0	1.0	%			12/20/22 12:54	1
Percent Solids (EPA Moisture)	47.8		1.0	1.0	%			12/20/22 12:54	1

Client Sample ID: FL03235-05

Lab Sample ID: 410-109774-5

Date Collected: 12/12/22 10:10

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	6830		300	100	mg/Kg			12/22/22 04:41	1
Percent Moisture (EPA Moisture)	54.4		1.0	1.0	%			12/20/22 12:54	1
Percent Solids (EPA Moisture)	45.6		1.0	1.0	%			12/20/22 12:54	1

Client Sample Results

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Client Sample ID: FL03235-06

Lab Sample ID: 410-109774-6

Date Collected: 12/12/22 12:16

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	6180		300	100	mg/Kg			12/22/22 04:54	1
Percent Moisture (EPA Moisture)	50.9		1.0	1.0	%			12/20/22 12:54	1
Percent Solids (EPA Moisture)	49.1		1.0	1.0	%			12/20/22 12:54	1

Client Sample ID: FL03235-07

Lab Sample ID: 410-109774-7

Date Collected: 12/12/22 11:33

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	7790		300	100	mg/Kg			12/22/22 05:07	1
Percent Moisture (EPA Moisture)	49.7		1.0	1.0	%			12/20/22 12:54	1
Percent Solids (EPA Moisture)	50.3		1.0	1.0	%			12/20/22 12:54	1

Client Sample ID: FL03235-08

Lab Sample ID: 410-109774-8

Date Collected: 12/12/22 13:20

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	6380		300	100	mg/Kg			12/22/22 05:20	1
Percent Moisture (EPA Moisture)	49.9		1.0	1.0	%			12/20/22 12:54	1
Percent Solids (EPA Moisture)	50.1		1.0	1.0	%			12/20/22 12:54	1

Client Sample ID: FL03235-09

Lab Sample ID: 410-109774-9

Date Collected: 12/12/22 14:24

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	4430		300	100	mg/Kg			12/22/22 05:33	1
Percent Moisture (EPA Moisture)	37.5		1.0	1.0	%			12/20/22 12:54	1
Percent Solids (EPA Moisture)	62.5		1.0	1.0	%			12/20/22 12:54	1

Client Sample ID: FL03235-10

Lab Sample ID: 410-109774-10

Date Collected: 12/12/22 15:30

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	9770		300	100	mg/Kg			12/22/22 05:45	1
Percent Moisture (EPA Moisture)	27.8		1.0	1.0	%			12/20/22 12:54	1
Percent Solids (EPA Moisture)	72.2		1.0	1.0	%			12/20/22 12:54	1

Client Sample Results

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Client Sample ID: FL03235-11

Lab Sample ID: 410-109774-11

Date Collected: 12/12/22 00:00

Matrix: Solid

Date Received: 12/20/22 09:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA Lloyd Kahn)	6780		300	100	mg/Kg			12/22/22 05:58	1
Percent Moisture (EPA Moisture)	52.3		1.0	1.0	%			12/20/22 12:54	1
Percent Solids (EPA Moisture)	47.7		1.0	1.0	%			12/20/22 12:54	1

QC Sample Results

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Method: Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 410-329874/33

Matrix: Solid

Analysis Batch: 329874

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	107.3	J	300	100	mg/Kg			12/22/22 00:26	1

Lab Sample ID: MB 410-329874/5

Matrix: Solid

Analysis Batch: 329874

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		300	100	mg/Kg			12/21/22 18:31	1

Lab Sample ID: MB 410-329874/61

Matrix: Solid

Analysis Batch: 329874

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		300	100	mg/Kg			12/22/22 06:24	1

Lab Sample ID: LCS 410-329874/32

Matrix: Solid

Analysis Batch: 329874

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	4690	3433		mg/Kg		73	36 - 163

Lab Sample ID: LCS 410-329874/4

Matrix: Solid

Analysis Batch: 329874

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	4690	3741		mg/Kg		80	36 - 163

QC Association Summary

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

General Chemistry

Analysis Batch: 328986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-109774-1	FL03235-01	Total/NA	Solid	Moisture	
410-109774-2	FL03235-02	Total/NA	Solid	Moisture	

Analysis Batch: 329031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-109774-3	FL03235-03	Total/NA	Solid	Moisture	
410-109774-4	FL03235-04	Total/NA	Solid	Moisture	
410-109774-5	FL03235-05	Total/NA	Solid	Moisture	
410-109774-6	FL03235-06	Total/NA	Solid	Moisture	
410-109774-7	FL03235-07	Total/NA	Solid	Moisture	
410-109774-8	FL03235-08	Total/NA	Solid	Moisture	
410-109774-9	FL03235-09	Total/NA	Solid	Moisture	
410-109774-10	FL03235-10	Total/NA	Solid	Moisture	
410-109774-11	FL03235-11	Total/NA	Solid	Moisture	

Analysis Batch: 329874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-109774-1	FL03235-01	Total/NA	Solid	Lloyd Kahn	
410-109774-2	FL03235-02	Total/NA	Solid	Lloyd Kahn	
410-109774-3	FL03235-03	Total/NA	Solid	Lloyd Kahn	
410-109774-4	FL03235-04	Total/NA	Solid	Lloyd Kahn	
410-109774-5	FL03235-05	Total/NA	Solid	Lloyd Kahn	
410-109774-6	FL03235-06	Total/NA	Solid	Lloyd Kahn	
410-109774-7	FL03235-07	Total/NA	Solid	Lloyd Kahn	
410-109774-8	FL03235-08	Total/NA	Solid	Lloyd Kahn	
410-109774-9	FL03235-09	Total/NA	Solid	Lloyd Kahn	
410-109774-10	FL03235-10	Total/NA	Solid	Lloyd Kahn	
410-109774-11	FL03235-11	Total/NA	Solid	Lloyd Kahn	
MB 410-329874/33	Method Blank	Total/NA	Solid	Lloyd Kahn	
MB 410-329874/5	Method Blank	Total/NA	Solid	Lloyd Kahn	
MB 410-329874/61	Method Blank	Total/NA	Solid	Lloyd Kahn	
LCS 410-329874/32	Lab Control Sample	Total/NA	Solid	Lloyd Kahn	
LCS 410-329874/4	Lab Control Sample	Total/NA	Solid	Lloyd Kahn	

Lab Chronicle

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Client Sample ID: FL03235-01

Lab Sample ID: 410-109774-1

Date Collected: 12/12/22 07:00

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 03:25
Total/NA	Analysis	Moisture		1	328986	UVJN	ELLE	12/20/22 11:26

Client Sample ID: FL03235-02

Lab Sample ID: 410-109774-2

Date Collected: 12/12/22 07:49

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 03:37
Total/NA	Analysis	Moisture		1	328986	UVJN	ELLE	12/20/22 11:26

Client Sample ID: FL03235-03

Lab Sample ID: 410-109774-3

Date Collected: 12/12/22 08:38

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 03:50
Total/NA	Analysis	Moisture		1	329031	UVJN	ELLE	12/20/22 12:54

Client Sample ID: FL03235-04

Lab Sample ID: 410-109774-4

Date Collected: 12/12/22 09:28

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 04:29
Total/NA	Analysis	Moisture		1	329031	UVJN	ELLE	12/20/22 12:54

Client Sample ID: FL03235-05

Lab Sample ID: 410-109774-5

Date Collected: 12/12/22 10:10

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 04:41
Total/NA	Analysis	Moisture		1	329031	UVJN	ELLE	12/20/22 12:54

Client Sample ID: FL03235-06

Lab Sample ID: 410-109774-6

Date Collected: 12/12/22 12:16

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 04:54
Total/NA	Analysis	Moisture		1	329031	UVJN	ELLE	12/20/22 12:54

Lab Chronicle

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Client Sample ID: FL03235-07

Lab Sample ID: 410-109774-7

Date Collected: 12/12/22 11:33

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 05:07
Total/NA	Analysis	Moisture		1	329031	UVJN	ELLE	12/20/22 12:54

Client Sample ID: FL03235-08

Lab Sample ID: 410-109774-8

Date Collected: 12/12/22 13:20

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 05:20
Total/NA	Analysis	Moisture		1	329031	UVJN	ELLE	12/20/22 12:54

Client Sample ID: FL03235-09

Lab Sample ID: 410-109774-9

Date Collected: 12/12/22 14:24

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 05:33
Total/NA	Analysis	Moisture		1	329031	UVJN	ELLE	12/20/22 12:54

Client Sample ID: FL03235-10

Lab Sample ID: 410-109774-10

Date Collected: 12/12/22 15:30

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 05:45
Total/NA	Analysis	Moisture		1	329031	UVJN	ELLE	12/20/22 12:54

Client Sample ID: FL03235-11

Lab Sample ID: 410-109774-11

Date Collected: 12/12/22 00:00

Matrix: Solid

Date Received: 12/20/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	329874	P684	ELLE	12/22/22 05:58
Total/NA	Analysis	Moisture		1	329031	UVJN	ELLE	12/20/22 12:54

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200027	01-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Lloyd Kahn		Solid	Total Organic Carbon
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Method	Method Description	Protocol	Laboratory
Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	ELLE
Moisture	Percent Moisture	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: PDC (Pace) Laboratories, Inc.
Project/Site: FL03235

Job ID: 410-109774-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-109774-1	FL03235-01	Solid	12/12/22 07:00	12/20/22 09:20
410-109774-2	FL03235-02	Solid	12/12/22 07:49	12/20/22 09:20
410-109774-3	FL03235-03	Solid	12/12/22 08:38	12/20/22 09:20
410-109774-4	FL03235-04	Solid	12/12/22 09:28	12/20/22 09:20
410-109774-5	FL03235-05	Solid	12/12/22 10:10	12/20/22 09:20
410-109774-6	FL03235-06	Solid	12/12/22 12:16	12/20/22 09:20
410-109774-7	FL03235-07	Solid	12/12/22 11:33	12/20/22 09:20
410-109774-8	FL03235-08	Solid	12/12/22 13:20	12/20/22 09:20
410-109774-9	FL03235-09	Solid	12/12/22 14:24	12/20/22 09:20
410-109774-10	FL03235-10	Solid	12/12/22 15:30	12/20/22 09:20
410-109774-11	FL03235-11	Solid	12/12/22 00:00	12/20/22 09:20

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235



410-109774 Chain of Custody

SENDING LABORATORY:

Pace Analytical Services, LLC
2231 West Altorfer Drive
Peoria, IL 61615
Phone: (309) 692-9688
Fax: (309) 692-9689
Project Manager: Gail Schindler

RECEIVING LABORATORY:

Eurofins Eaton Analytical, Inc. - Lancaster, PA
2425 New Holland Pike
Lancaster, PA 17601
Phone: (717) 656-2300
Fax:

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-01	Solid	Sampled: 12/12/22 07:00		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 07:00		30 g plastic
Containers Supplied:	①			
Sample ID: FL03235-02	Solid	Sampled: 12/12/22 07:49		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 07:49		30 g plastic
Containers Supplied:	①			
Sample ID: FL03235-03	Solid	Sampled: 12/12/22 08:38		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 08:38		30 g plastic
Containers Supplied:	①			
Sample ID: FL03235-04	Solid	Sampled: 12/12/22 09:28		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 09:28		30 g plastic
Containers Supplied:	①			
Sample ID: FL03235-05	Solid	Sampled: 12/12/22 10:10		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 10:10		30 g plastic
Containers Supplied:	①			
Sample ID: FL03235-06	Solid	Sampled: 12/12/22 12:16		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 12:16		30 g plastic
Containers Supplied:	①			

Released By Date 12/13/22 1210

Received By Date 12/20/22 0920

Released By _____ Date _____

Received By _____

mb

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-07	Solid	Sampled: 12/12/22 11:33		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 11:33		30 g plastic
Containers Supplied:	①			
Sample ID: FL03235-08	Solid	Sampled: 12/12/22 13:20		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 13:20		30 g plastic
Containers Supplied:	①			
Sample ID: FL03235-09	Solid	Sampled: 12/12/22 14:24		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 14:24		30 g plastic
Containers Supplied:	①			
Sample ID: FL03235-10	Solid	Sampled: 12/12/22 15:30		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 15:30		30 g plastic
Containers Supplied:	①			
Sample ID: FL03235-11	Solid	Sampled: 12/12/22 00:00		On cart is soil cooler
01-TOC - Total Organic Carbon	12/29/22 16:00	01/09/23 00:00		30 g plastic
Containers Supplied:	①			

Released By	<u>EDM 12/12/22 1210</u>	Date		Received By	<u>[Signature]</u>	Date	
Released By	<u>[Signature]</u>	Date		Received By	<u>[Signature]</u>	Date	<u>12/20/22 0920</u>

Login Sample Receipt Checklist

Client: PDC (Pace) Laboratories, Inc.

Job Number: 410-109774-1

Login Number: 109774

List Number: 1

Creator: Ballard, Megan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace $>6\text{mm}$ in diameter (none, if from WV)?	N/A	

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

SENDING LABORATORY:

Pace Analytical Services, LLC
2231 West Altorfer Drive
Peoria, IL 61615
Phone: (309) 692-9688
Fax: (309) 692-9689
Project Manager: Gail Schindler

RECEIVING LABORATORY:

Pace Analytical Services, LLC - Hazelwood
944 Anglum Road
Hazelwood, MO 63042
Phone: (314) 432-0550
Fax: -

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-01	Solid	Sampled: 12/12/22 07:00		
04-Solids-MOIST	12/29/22 16:00	12/19/22 07:00		1 g
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 07:00		1 g
06-M8270C PNA	12/29/22 16:00	12/26/22 07:00		30 g
06-M8082	12/29/22 16:00	12/26/22 07:00		30 g
06-M8081	12/29/22 16:00	12/26/22 07:00		30 g
04-TKN GD	12/29/22 16:00	01/09/23 07:00		
04-Se 6010 Tot	12/29/22 16:00	06/10/23 07:00		
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 07:00		
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 07:00		
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 07:00		
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 07:00		
04-As 6010 Tot	12/29/22 16:00	06/10/23 07:00		
04-Metals Prep charge	12/29/22 16:00	04/11/23 07:00		
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 07:00		
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 07:00		
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 07:00		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 07:00		
04-Hg solids	12/29/22 16:00	01/09/23 07:00		

Containers Supplied: 8 4

Released By

Date

Received By

Date

Released By

Date

Received By

Date

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-02	Solid	Sampled: 12/12/22 07:49		
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 07:49		
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 07:49		
06-M8082	12/29/22 16:00	12/26/22 07:49		30 g
06-M8081	12/29/22 16:00	12/26/22 07:49		30 g
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 07:49		
04-TKN GD	12/29/22 16:00	01/09/23 07:49		
04-Solids-MOIST	12/29/22 16:00	12/19/22 07:49		1 g
04-Se 6010 Tot	12/29/22 16:00	06/10/23 07:49		
06-M8270C PNA	12/29/22 16:00	12/26/22 07:49		30 g
04-As 6010 Tot	12/29/22 16:00	06/10/23 07:49		
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 07:49		
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 07:49		1 g
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 07:49		
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 07:49		
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 07:49		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 07:49		
04-Hg solids	12/29/22 16:00	01/09/23 07:49		
04-Metals Prep charge	12/29/22 16:00	04/11/23 07:49		
Containers Supplied (5)				

<i>E. A. New</i> Released By	12/15/22 18:07 Date	<i>Jim</i> Received By	12-16 720 Date
<i>Jim</i> Released By	12-16 1030 Date	<i>Jim Clark</i> Received By	12/14/22 Date

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-03	Solid	Sampled: 12/12/22 08:38		
04-Hg solids	12/29/22 16:00	01/09/23 08:38		
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 08:38		
06-M8082	12/29/22 16:00	12/26/22 08:38		30 g
06-M8081	12/29/22 16:00	12/26/22 08:38		30 g
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 08:38		
04-TKN GD	12/29/22 16:00	01/09/23 08:38		
04-Solids-MOIST	12/29/22 16:00	12/19/22 08:38		1 g
04-Se 6010 Tot	12/29/22 16:00	06/10/23 08:38		
06-M8270C PNA	12/29/22 16:00	12/26/22 08:38		30 g
04-As 6010 Tot	12/29/22 16:00	06/10/23 08:38		
04-Metals Prep charge	12/29/22 16:00	04/11/23 08:38		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 08:38		
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 08:38		
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 08:38		
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 08:38		
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 08:38		
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 08:38		1 g
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 08:38		
Containers Supplied: (5)				

Released By: <i>[Signature]</i> Date: 12/15/22 18:17	Received By: <i>[Signature]</i> Date: 12-16/20	Released By: <i>[Signature]</i> Date: 12/16/20	Received By: <i>[Signature]</i> Date: 12/16/20
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SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-04	Solid	Sampled: 12/12/22 09:28		
06-M8081	12/29/22 16:00	12/26/22 09:28		30 g
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 09:28		
04-TKN GD	12/29/22 16:00	01/09/23 09:28		
04-Solids-MOIST	12/29/22 16:00	12/19/22 09:28		1 g
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 09:28		
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 09:28		
06-M8082	12/29/22 16:00	12/26/22 09:28		30 g
04-As 6010 Tot	12/29/22 16:00	06/10/23 09:28		
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 09:28		
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 09:28		1 g
06-M8270C PNA	12/29/22 16:00	12/26/22 09:28		30 g
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 09:28		
04-Se 6010 Tot	12/29/22 16:00	06/10/23 09:28		
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 09:28		
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 09:28		
04-Metals Prep charge	12/29/22 16:00	04/11/23 09:28		
04-Hg solids	12/29/22 16:00	01/09/23 09:28		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 09:28		
Containers Supplied: <i>(S)</i>				

ERD 12/15/22 18:17 *MMW* 12-16 720
 Released By _____ Date _____ Received By _____ Date _____
MMW 12-16 7030 *Joe Clark* 12/16/22
 Released By _____ Date _____ Received By _____ Date _____

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-05	Solid	Sampled: 12/12/22 10:10		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 10:10		
04-Solids-MOIST	12/29/22 16:00	12/19/22 10:10		1 g
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 10:10		
04-Metals Prep charge	12/29/22 16:00	04/11/23 10:10		
06-M8270C PNA	12/29/22 16:00	12/26/22 10:10		30 g
06-M8082	12/29/22 16:00	12/26/22 10:10		30 g
06-M8081	12/29/22 16:00	12/26/22 10:10		30 g
04-TKN GD	12/29/22 16:00	01/09/23 10:10		
04-Sc 6010 Tot	12/29/22 16:00	06/10/23 10:10		
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 10:10		
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 10:10		
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 10:10		
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 10:10		
04-As 6010 Tot	12/29/22 16:00	06/10/23 10:10		
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 10:10		1 g
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 10:10		
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 10:10		
04-Hg solids	12/29/22 16:00	01/09/23 10:10		
Containers Supplied: ⑤				

Released By: <u>Ed Kraw</u> <u>12/15/22</u> <u>1817</u> Date: <u>12-16</u> Released By: <u>Jul W</u> <u>1030</u> Date:	Received By: <u>Jul W</u> <u>12-16</u> <u>720</u> Date: <u>12/16/22</u> Received By: <u>Joe Clark</u> Date:
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SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-06	Solid	Sampled: 12/12/22 12:16		
04-Hg solids	12/29/22 16:00	01/09/23 12:16		
06-M8270C PNA	12/29/22 16:00	12/26/22 12:16		30 g
06-M8082	12/29/22 16:00	12/26/22 12:16		30 g
06-M8081	12/29/22 16:00	12/26/22 12:16		30 g
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 12:16		
04-TKN GD	12/29/22 16:00	01/09/23 12:16		
04-Solids-MOIST	12/29/22 16:00	12/19/22 12:16		1 g
04-Se 6010 Tot	12/29/22 16:00	06/10/23 12:16		
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 12:16		
04-Metals Prep charge	12/29/22 16:00	04/11/23 12:16		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 12:16		
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 12:16		1 g
04-As 6010 Tot	12/29/22 16:00	06/10/23 12:16		
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 12:16		
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 12:16		
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 12:16		
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 12:16		
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 12:16		
Containers Supplied <u>(5)</u>				

Released By <u>Ed Shaw</u> Date <u>12/15/22 18:17</u> Released By <u>[Signature]</u> Date <u>12-15-20</u>	Received By <u>[Signature]</u> Date <u>12-16-20</u> Received By <u>Joe Clark</u> Date <u>12/16/22</u>
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SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-07	Solid	Sampled: 12/12/22 11:33		
06-M8081	12/29/22 16:00	12/26/22 11:33		30 g
06-M8082	12/29/22 16:00	12/26/22 11:33		30 g
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 11:33		1 g
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 11:33		
04-As 6010 Tot	12/29/22 16:00	06/10/23 11:33		
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 11:33		
06-M8270C PNA	12/29/22 16:00	12/26/22 11:33		30 g
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 11:33		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 11:33		
04-Hg solids	12/29/22 16:00	01/09/23 11:33		
04-Metals Prep charge	12/29/22 16:00	04/11/23 11:33		
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 11:33		
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 11:33		
04-Se 6010 Tot	12/29/22 16:00	06/10/23 11:33		
04-Solids-MOIST	12/29/22 16:00	12/19/22 11:33		1 g
04-TKN GD	12/29/22 16:00	01/09/23 11:33		
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 11:33		
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 11:33		
Containers Supplied <i>(5)</i>				

Released By

Date

Received By

Date

Released By

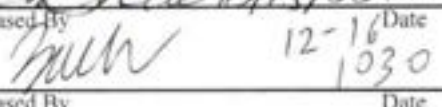
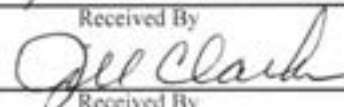
Date

Received By

Date

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-08	Solid	Sampled: 12/12/22 13:20		
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 13:20		
04-Se 6010 Tot	12/29/22 16:00	06/10/23 13:20		
04-Solids-MOIST	12/29/22 16:00	12/19/22 13:20		1 g
04-TKN GD	12/29/22 16:00	01/09/23 13:20		
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 13:20		
06-M8270C PNA	12/29/22 16:00	12/26/22 13:20		30 g
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 13:20		
06-M8082	12/29/22 16:00	12/26/22 13:20		30 g
06-M8081	12/29/22 16:00	12/26/22 13:20		30 g
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 13:20		1 g
04-Metals Prep charge	12/29/22 16:00	04/11/23 13:20		
04-As 6010 Tot	12/29/22 16:00	06/10/23 13:20		
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 13:20		
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 13:20		
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 13:20		
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 13:20		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 13:20		
04-Hg solids	12/29/22 16:00	01/09/23 13:20		
Containers Supplied: (5)				

Released By 	Date 12/15/22	Received By 	Date 12/16/22
Released By 	Date 12/16/22	Received By 	Date 12/16/22

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-09	Solid	Sampled: 12/12/22 14:24		
04-Metals Prep charge	12/29/22 16:00	04/11/23 14:24		
04-Se 6010 Tot	12/29/22 16:00	06/10/23 14:24		
06-M8270C PNA	12/29/22 16:00	12/26/22 14:24		30 g
06-M8082	12/29/22 16:00	12/26/22 14:24		30 g
06-M8081	12/29/22 16:00	12/26/22 14:24		30 g
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 14:24		
04-TKN GD	12/29/22 16:00	01/09/23 14:24		
04-Solids-MOIST	12/29/22 16:00	12/19/22 14:24		1 g
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 14:24		1 g
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 14:24		
04-Hg solids	12/29/22 16:00	01/09/23 14:24		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 14:24		
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 14:24		
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 14:24		
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 14:24		
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 14:24		
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 14:24		
04-As 6010 Tot	12/29/22 16:00	06/10/23 14:24		
Containers Supplied: <u>(5)</u>				

Released By

Date

Received By

Date

Released By

Date

Received By

Date

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-10	Solid	Sampled: 12/12/22 15:30		
04-Se 6010 Tot	12/29/22 16:00	06/10/23 15:30		
04-Solids-MOIST	12/29/22 16:00	12/19/22 15:30		1 g
06-M8270C PNA	12/29/22 16:00	12/26/22 15:30		30 g
04-TKN GD	12/29/22 16:00	01/09/23 15:30		
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 15:30		
06-M8082	12/29/22 16:00	12/26/22 15:30		30 g
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 15:30		
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 15:30		
06-M8081	12/29/22 16:00	12/26/22 15:30		30 g
04-Metals Prep charge	12/29/22 16:00	04/11/23 15:30		
04-Hg solids	12/29/22 16:00	01/09/23 15:30		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 15:30		
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 15:30		
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 15:30		
04-As 6010 Tot	12/29/22 16:00	06/10/23 15:30		
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 15:30		1 g
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 15:30		
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 15:30		

Containers Supplied:

Released By: *[Signature]* Date: 12/15/22 18:17

Released By: *[Signature]* Date: 12-16 1030

Received By: *[Signature]* Date: 12-16 720

Received By: *[Signature]* Date: 12/16/22

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-11	Solid	Sampled: 12/12/22 00:00		
06-M8082	12/29/22 16:00	12/26/22 00:00		30 g
04-Pb 6010 Tot	12/29/22 16:00	06/10/23 00:00		
04-Se 6010 Tot	12/29/22 16:00	06/10/23 00:00		
04-Solids-MOIST	12/29/22 16:00	12/19/22 00:00		1 g
04-TKN GD	12/29/22 16:00	01/09/23 00:00		
04-Ni 6010 Tot	12/29/22 16:00	06/10/23 00:00		
06-M8081	12/29/22 16:00	12/26/22 00:00		30 g
04-Cd 6010 Tot	12/29/22 16:00	06/10/23 00:00		
04-Zn 6010 Tot	12/29/22 16:00	06/10/23 00:00		
04-Metals Prep charge	12/29/22 16:00	04/11/23 00:00		
04-Hg solids	12/29/22 16:00	01/09/23 00:00		
04-Environmental Fee - Solid	12/29/22 16:00	04/11/23 00:00		
04-Cr 6010 Tot	12/29/22 16:00	06/10/23 00:00		
04-Ba 6010 Tot	12/29/22 16:00	06/10/23 00:00		
04-As 6010 Tot	12/29/22 16:00	06/10/23 00:00		
04-Ag 6010 Tot	12/29/22 16:00	06/10/23 00:00		1 g
06-M8270C PNA	12/29/22 16:00	12/26/22 00:00		30 g
04-Cu 6010 Tot	12/29/22 16:00	06/10/23 00:00		

Containers Supplied:

Released By

Date

Received By

Date

Released By

Date

Received By

Date

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

ACH
12-20-22

SENDING LABORATORY:

Pace Analytical Services, LLC
2231 West Altorfer Drive
Peoria, IL 61615
Phone: (309) 692-9688
Fax: (309) 692-9689
Project Manager: Gail Schindler

RECEIVING LABORATORY:

Pace Analytical Services, LLC - Peoria
2231 W Altorfer Dr
Peoria, IL 61615
Phone: (309) 692-9688
Fax: (309) 692-9689

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-01	Solid	Sampled: 12/12/22 07:00		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 07:00		
Containers Supplied:				
Sample ID: FL03235-02	Solid	Sampled: 12/12/22 07:49		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 07:49		
Containers Supplied:				
Sample ID: FL03235-03	Solid	Sampled: 12/12/22 08:38		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 08:38		
Containers Supplied:				
Sample ID: FL03235-04	Solid	Sampled: 12/12/22 09:28		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 09:28		
Containers Supplied:				
Sample ID: FL03235-05	Solid	Sampled: 12/12/22 10:10		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 10:10		
Containers Supplied:				
Sample ID: FL03235-06	Solid	Sampled: 12/12/22 12:16		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 12:16		
Containers Supplied:				

Released By

Released By

Date

Date

Received By

Received By

Date

Date

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-07	Solid	Sampled:12/12/22 11:33		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 11:33		
Containers Supplied:				
Sample ID: FL03235-08	Solid	Sampled:12/12/22 13:20		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 13:20		
Containers Supplied:				
Sample ID: FL03235-09	Solid	Sampled:12/12/22 14:24		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 14:24		
Containers Supplied:				
Sample ID: FL03235-10	Solid	Sampled:12/12/22 15:30		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 15:30		
Containers Supplied:				
Sample ID: FL03235-11	Solid	Sampled:12/12/22 00:00		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 00:00		
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-07	Solid	Sampled:12/12/22 11:33		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 11:33		
Containers Supplied:				
Sample ID: FL03235-08	Solid	Sampled:12/12/22 13:20		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 13:20		
Containers Supplied:				
Sample ID: FL03235-09	Solid	Sampled:12/12/22 14:24		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 14:24		
Containers Supplied:				
Sample ID: FL03235-10	Solid	Sampled:12/12/22 15:30		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 15:30		
Containers Supplied:				
Sample ID: FL03235-11	Solid	Sampled:12/12/22 00:00		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 00:00		
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER
Pace Analytical Services, LLC
FL03235

AFH
12-20-22

SENDING LABORATORY:

Pace Analytical Services, LLC
2231 West Altorfer Drive
Peoria, IL 61615
Phone: (309) 692-9688
Fax: (309) 692-9689
Project Manager: Gail Schindler

RECEIVING LABORATORY:

Pace Analytical Services, LLC - Peoria
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Peoria, IL 61615
Phone: (309) 692-9688
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Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: FL03235-01	Solid	Sampled: 12/12/22 07:00		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 07:00		
Containers Supplied:				
Sample ID: FL03235-02	Solid	Sampled: 12/12/22 07:49		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 07:49		
Containers Supplied:				
Sample ID: FL03235-03	Solid	Sampled: 12/12/22 08:38		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 08:38		
Containers Supplied:				
Sample ID: FL03235-04	Solid	Sampled: 12/12/22 09:28		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 09:28		
Containers Supplied:				
Sample ID: FL03235-05	Solid	Sampled: 12/12/22 10:10		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 10:10		
Containers Supplied:				
Sample ID: FL03235-06	Solid	Sampled: 12/12/22 12:16		On cart is soil cooler
TKN	12/29/22 16:00	01/09/23 12:16		
Containers Supplied:				

Released By

Released By

Date

Date

Received By

Received By

Date

Date

APPENDIX B

Visual Inspection Photograph log

LAKE SPRINGFIELD DAM – DECEMBER 2022 INSPECTION

Photographic Record

Client: City Utility

Project Number: MOW5628

Site Name: Lake Springfield Dam

Site Location: Springfield, MO

Photograph 1

Date: 12/1/2022

Direction: North

Comments:

Concrete spillway from the downstream side. Concrete piers and bridge on top of are shown too from the south side of the dam.



Photograph 2

Date: 12/1/2022

Direction: South

Comments:

Penstock pipe entrance on the upstream side of the embankment dam.



LAKE SPRINGFIELD DAM – DECEMBER 2022 INSPECTION
Photographic Record

Client: City Utility

Project Number: MOW5628

Site Name: Lake Springfield Dam

Site Location: Springfield, MO

Photograph 3

Date: 12/1/2022

Direction: Northwest

Comments:

North side of the bridge and its pier shown supported directly by the existing bedrock.



Photograph 4

Date: 12/1/2022

Direction: West

Comments:

Accumulated debris on the upstream side of the concrete spillway.



LAKE SPRINGFIELD DAM – DECEMBER 2022 INSPECTION

Photographic Record

Client: City Utility

Project Number: MOW5628

Site Name: Lake Springfield Dam

Site Location: Springfield, MO

Photograph 5

Date: 12/1/2022

Direction: West

Comments: General picture of the dam, spillway, and road taken from the peninsula in Lake Springfield.



Photograph 6

Date: 12/1/2022

Direction: Northeast

Comments: Dam/Bridge concrete abutment on the south side of the structure. Some erosion is observed adjacent to the abutment.



LAKE SPRINGFIELD DAM – DECEMBER 2022 INSPECTION

Photographic Record

Client: City Utility

Project Number: MOW5628

Site Name: Lake Springfield Dam

Site Location: Springfield, MO

Photograph 7

Date: 12/1/2022

Direction: Southeast

Comments: Downstream side of embankment dam. Good vegetation and no erosion/cracks/settlement were observed.



Photograph 8

Date: 12/1/2022

Direction: West

Comments: Upstream side of embankment dam. Erosion and vegetation were observed within the riprap armor.



LAKE SPRINGFIELD DAM – DECEMBER 2022 INSPECTION

Photographic Record

Client: City Utility

Project Number: MOW5628

Site Name: Lake Springfield Dam

Site Location: Springfield, MO

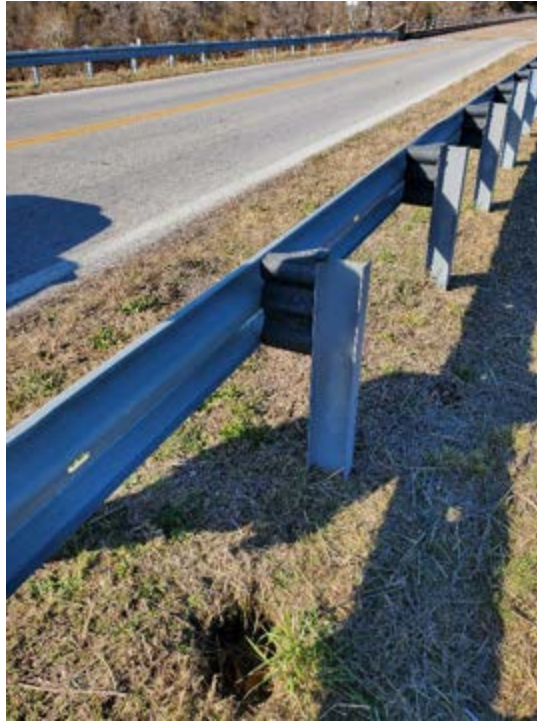
Photograph 9

Date: 12/1/2022

Direction:

Comments:

Post holes from a previous guardrail were observed on the crest of the earth embankment.



Photograph 10

Date: 12/1/2022

Direction: West

Comments:

Upstream side of peninsula with minor erosion observed.



LAKE SPRINGFIELD DAM – DECEMBER 2022 INSPECTION

Photographic Record

Client: City Utility

Project Number: MOW5628

Site Name: Lake Springfield Dam

Site Location: Springfield, MO

Photograph 11

Date: 12/1/2022

Direction:

Comments:

Downstream side of the dam access stairs. Minor erosion observed around the concrete stairs. Maintenance required for stairs.



Photograph 12

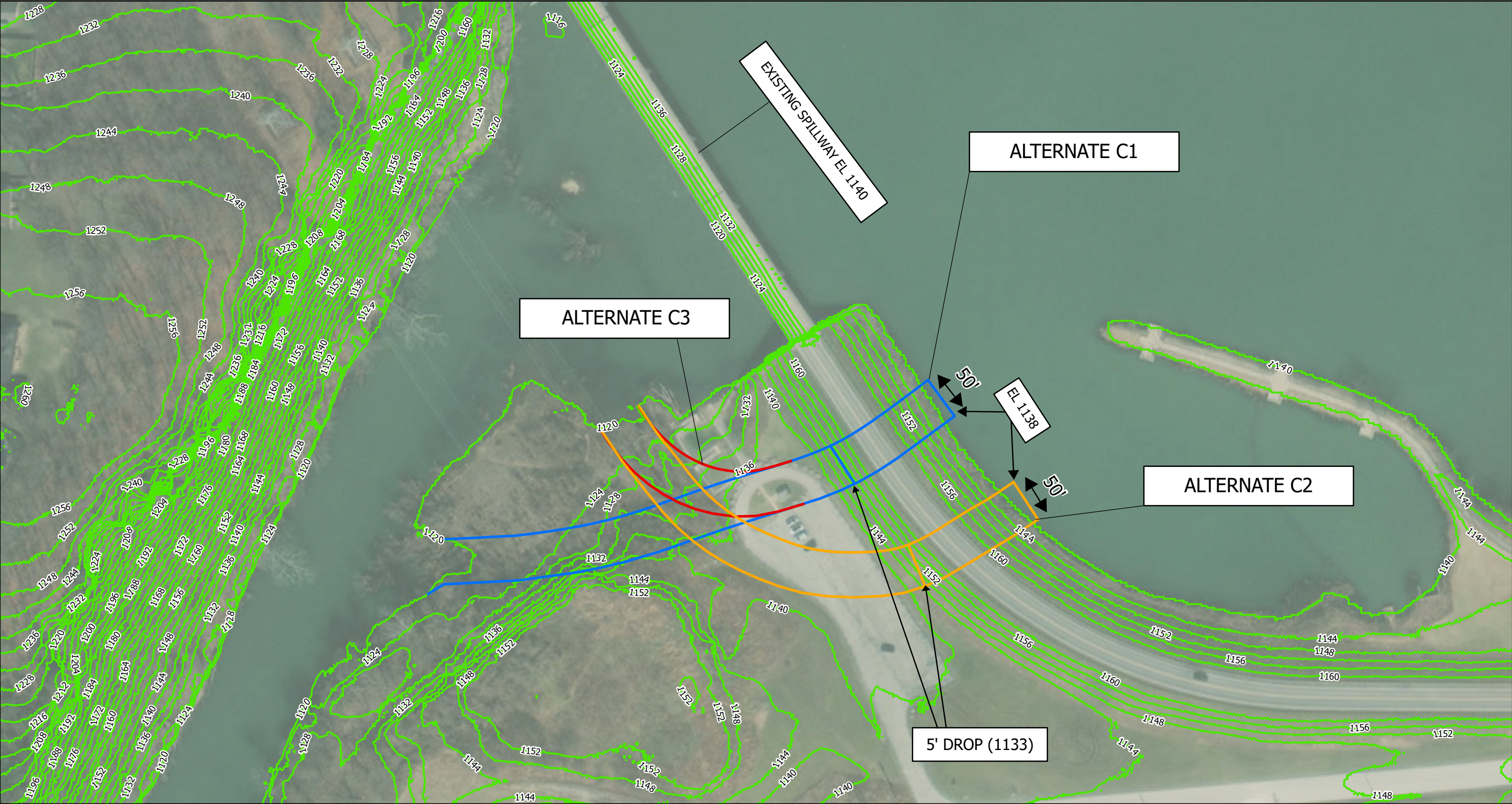
Date: 12/1/2022

Direction: East

Comments:

Upstream side of the embankment dam shows that maintenance is required to clear vegetation and replace eroded riprap within the upstream armor.





Legend

Contours 4ft

Alternate

- C1
- C2
- C3

*Note: Orthometric elevations were determined for all points using the National Geodetic Vertical Datum of 1929 (NGVD29).

NAVD88 = NGDV29 + 0.449 (ft)

0 50 100 200 Feet

N

Earthen Dam Modification	
Lake Springfield, MO	
Geosyntec consultants	Figure 4
St. Louis, MO	February 2023

ACCESS AND MOBILITY

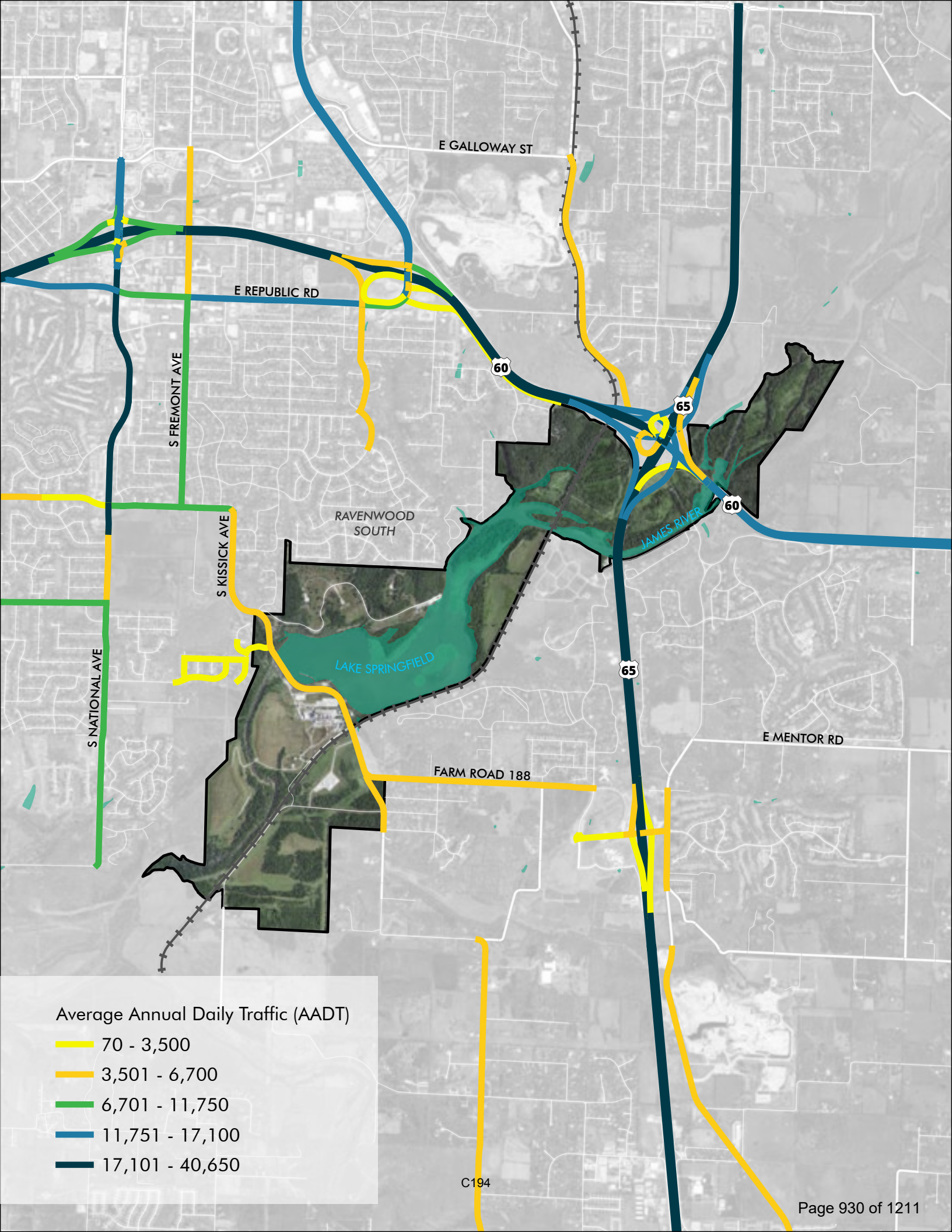
CIRCULATIONS & ACCESS CONCEPTS LEGEND

-  Improved/new vehicular & street connection
-  New bike/ped connection
-  Improved intersection/gateway opportunity
-  Multimodal connection hub

Legend

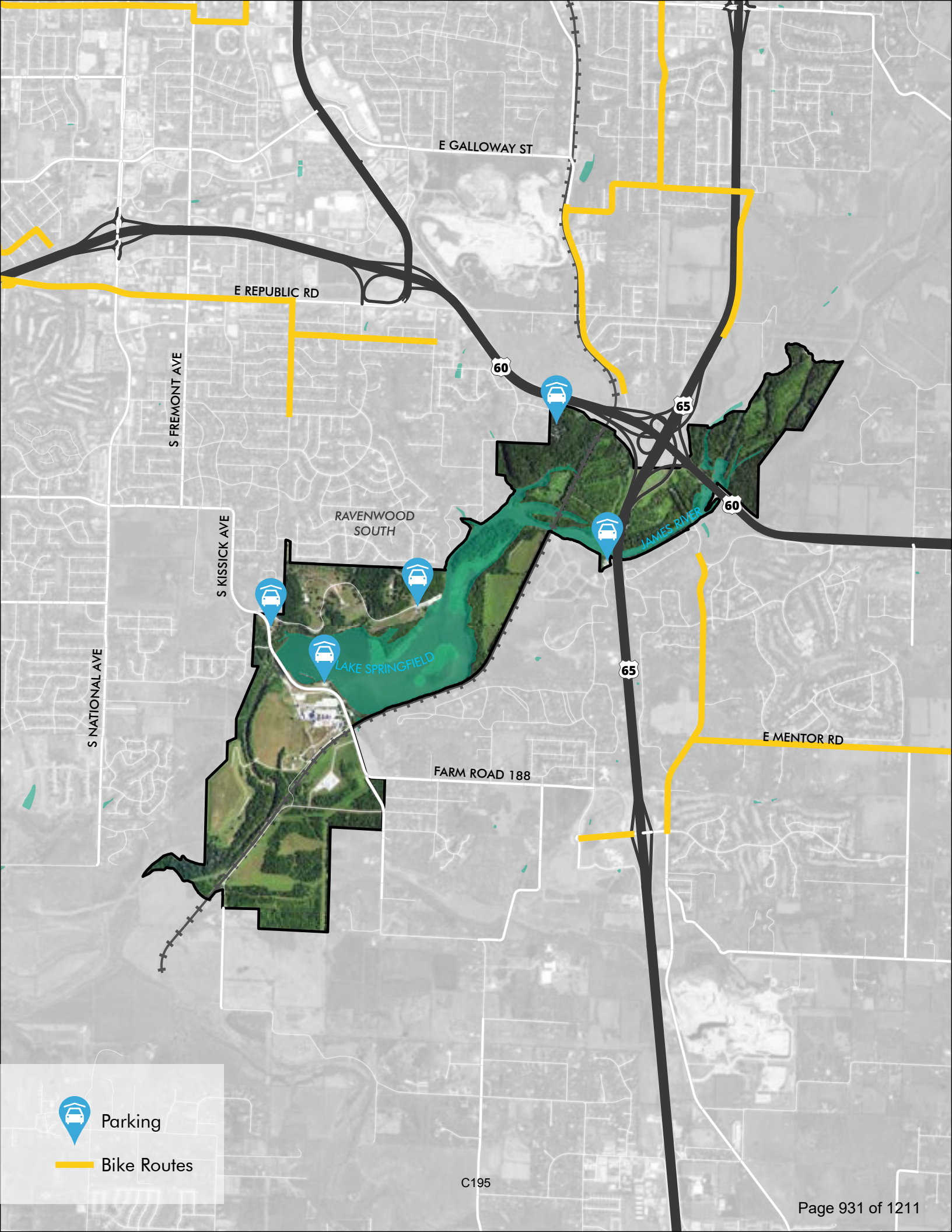
-  Parking
-  Vehicular Access Points
-  Bike Routes
-  Greene County East-West Arterial Concept
-  Springfield East-West Arterial Concept
-  Railroad
-  Springfield Municipal Boundary
-  Lake Springfield Subarea Boundary
-  Parks
-  Bodies of Water



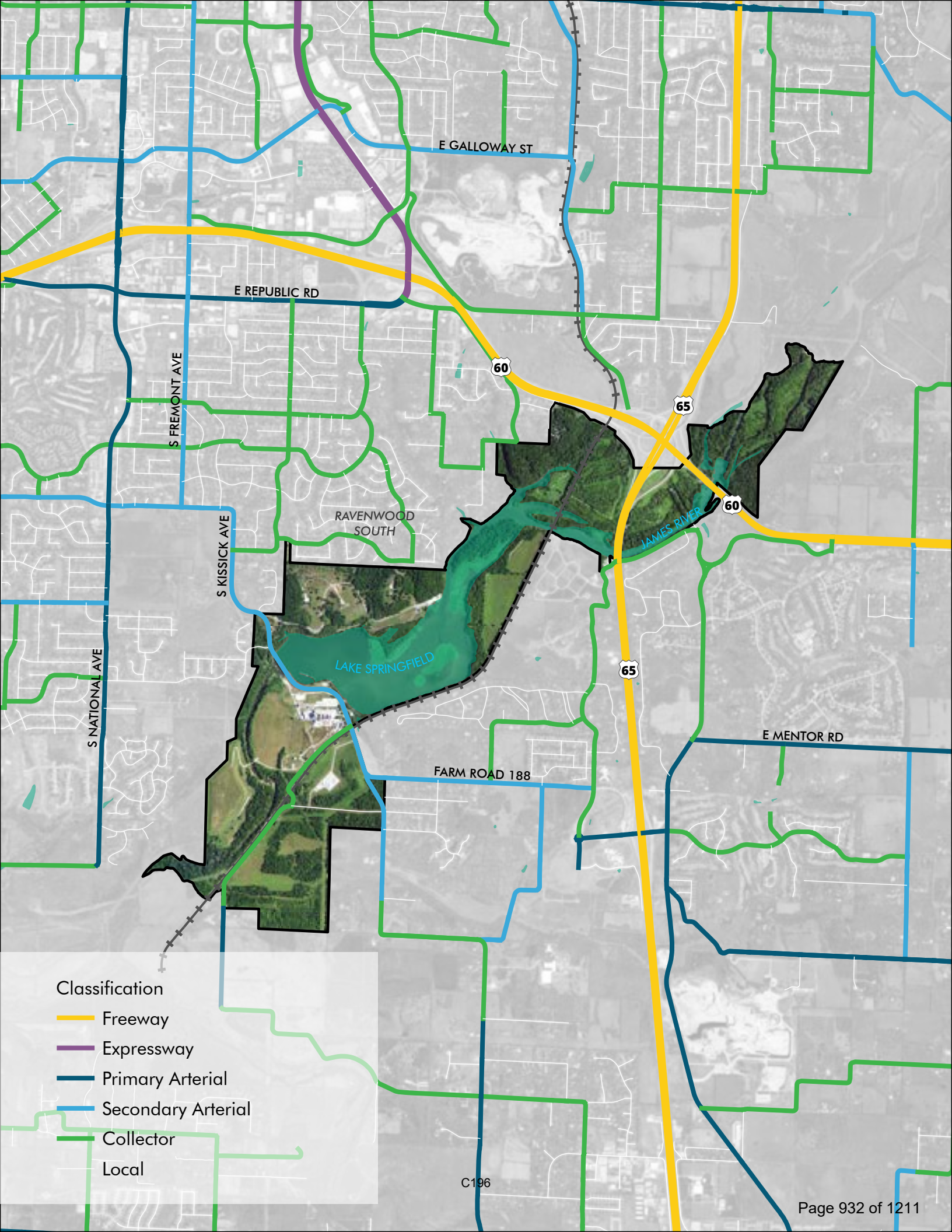


Average Annual Daily Traffic (AADT)

- 70 - 3,500
- 3,501 - 6,700
- 6,701 - 11,750
- 11,751 - 17,100
- 17,101 - 40,650

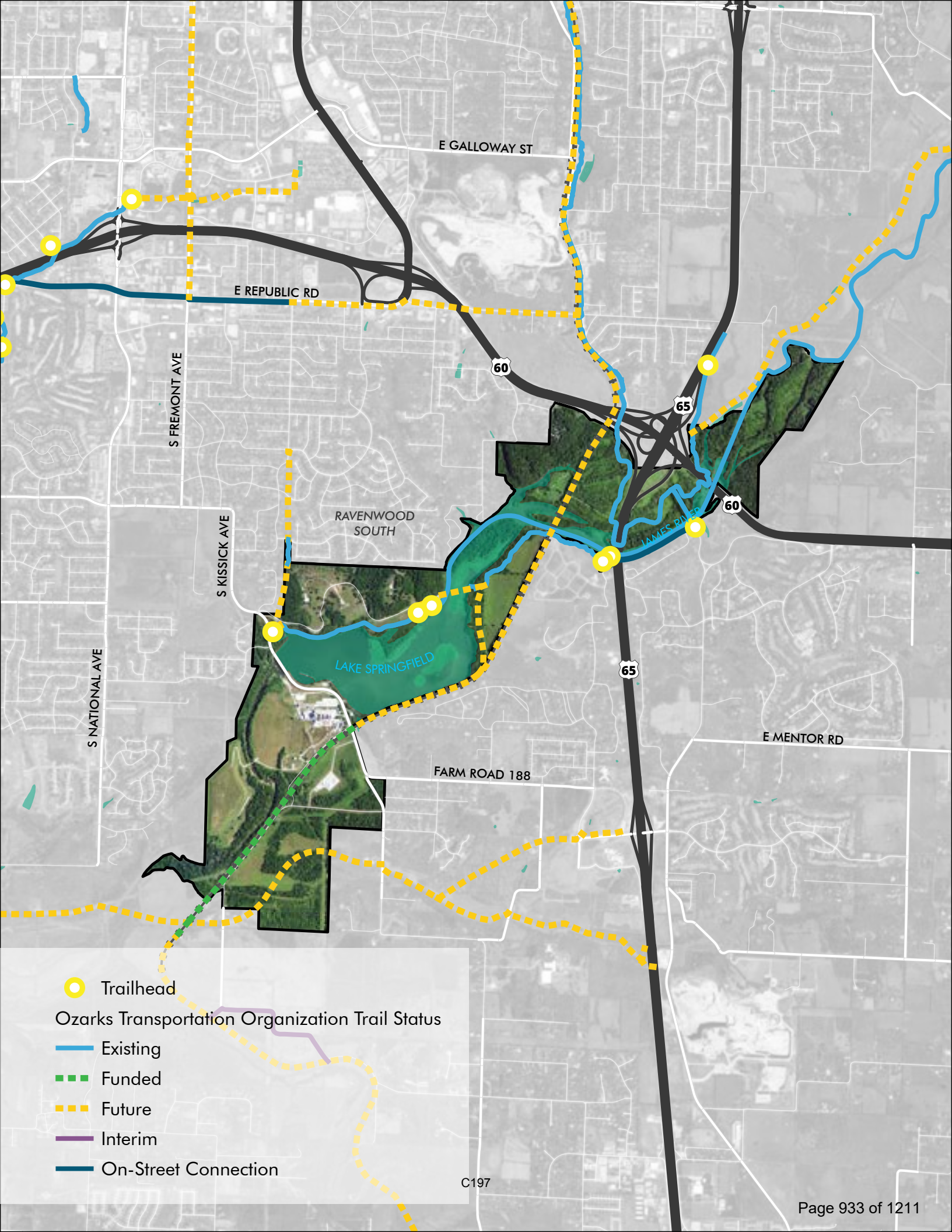


-  Parking
-  Bike Routes



Classification

- Freeway
- Expressway
- Primary Arterial
- Secondary Arterial
- Collector
- Local



Trailhead

Ozarks Transportation Organization Trail Status

Existing

Funded

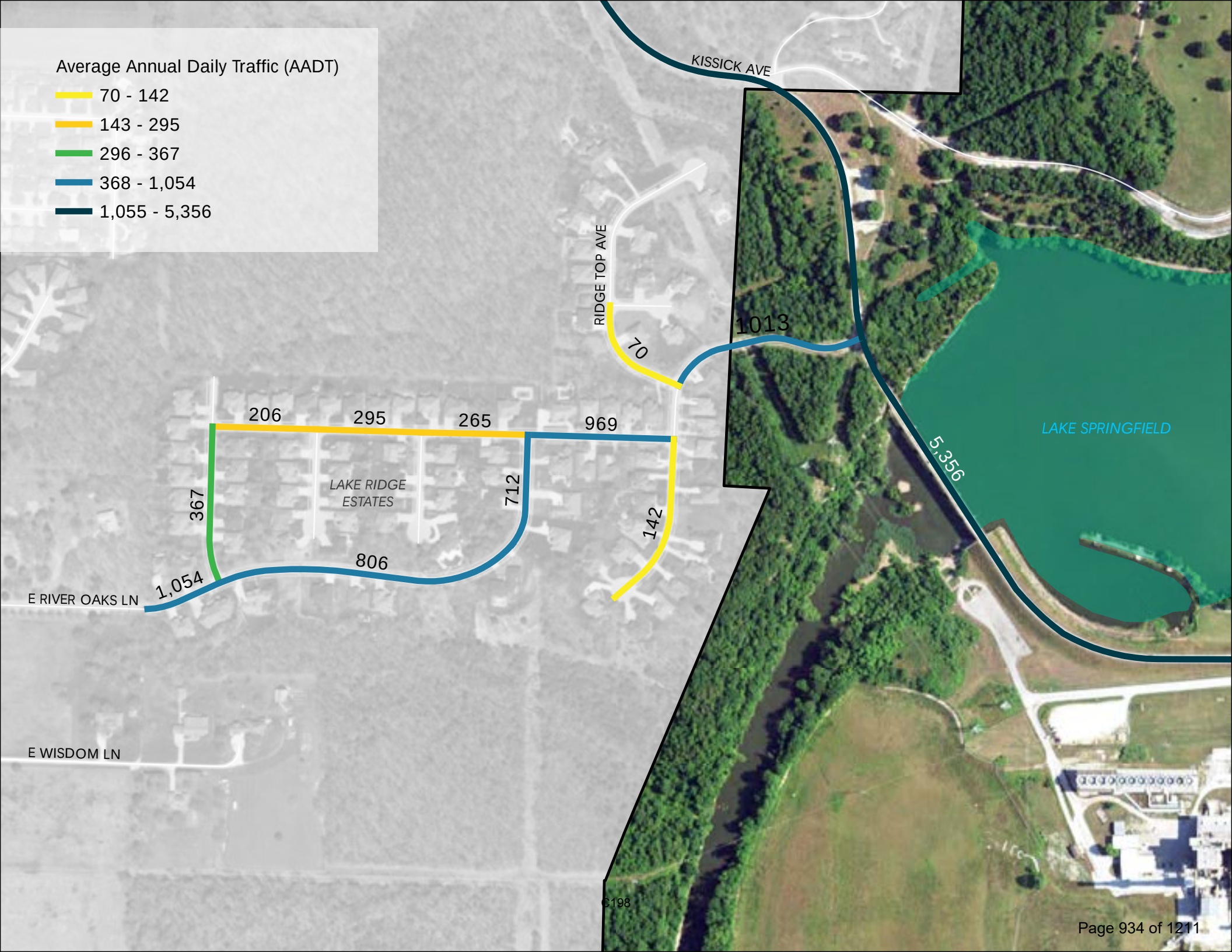
Future

Interim

On-Street Connection

Average Annual Daily Traffic (AADT)

- 70 - 142
- 143 - 295
- 296 - 367
- 368 - 1,054
- 1,055 - 5,356



Transportation & Mobility

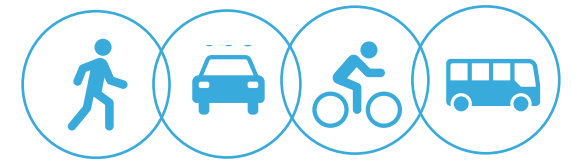


**Public Works Meeting
Friday, 8/18. 2023**



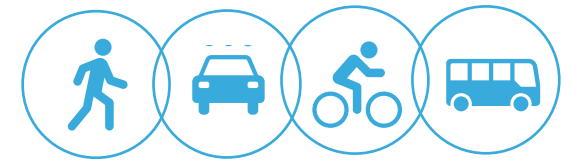
C199

Today:



- **Review project goals – transportation related**
- **Existing conditions**
- **Proposed planning scenarios**
 - **Lake zones**
 - **Project Identity**
 - **Ozark Experience (option 1)**
 - **Recreation (option 2)**
- **Transportation Improvements**
 - **Estimated vehicles per day**
 - **Transportation Scenarios**

Transportation & Mobility Goals



GOAL:

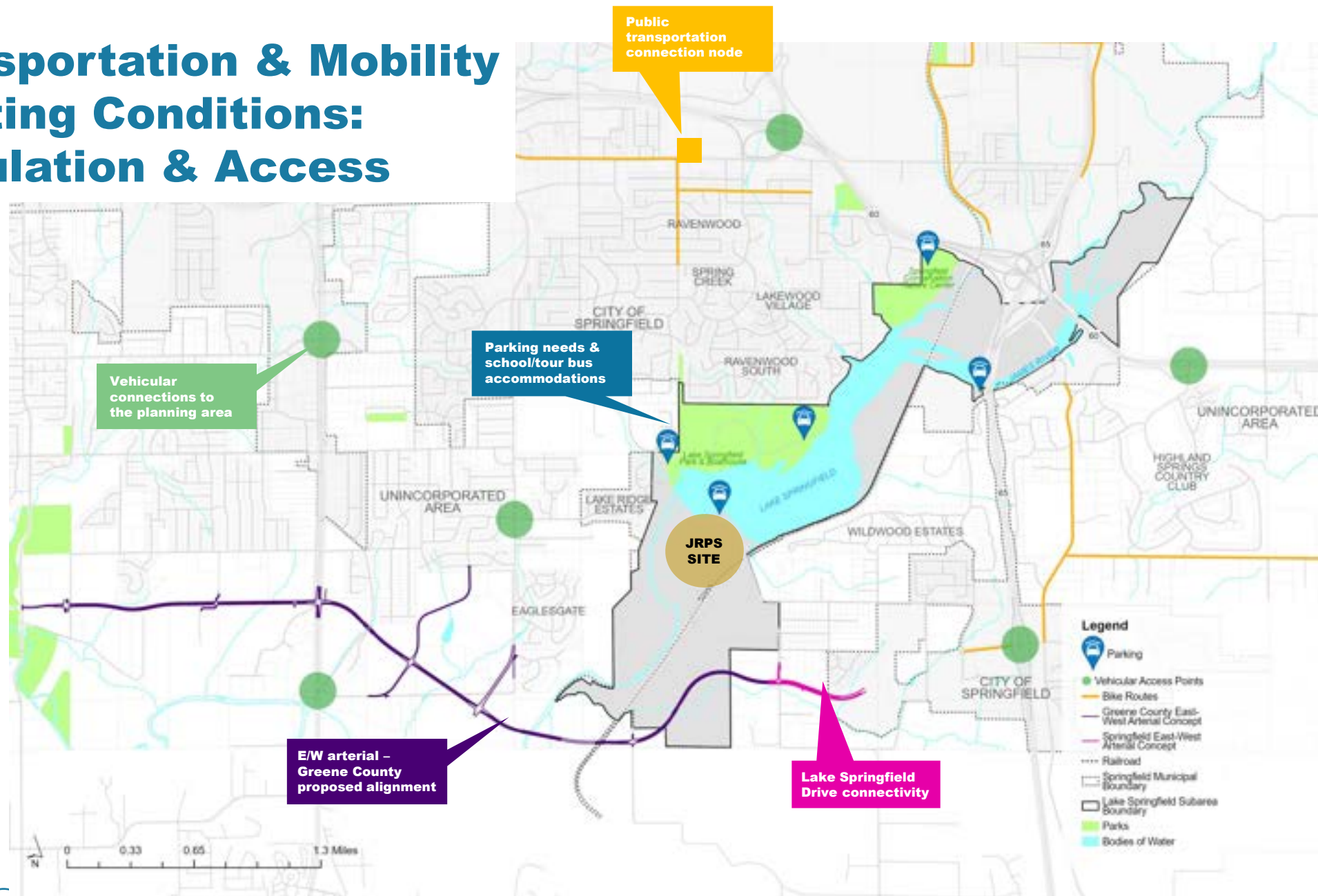
Focus on Transportation enhancements that are accessible and equitable to Lake Springfield and the surrounding communities

AREAS OF FOCUS:

- **Vehicular connections & access (roadway improvements)**
- **Bike/ped connectivity & safety (trails, sidewalks, etc.)**
- **Boat ramp access**
- **Public transportation**
- **Parking**
- **Cross-lake connectivity**
- **E/W connection (Lake Springfield Drive)**

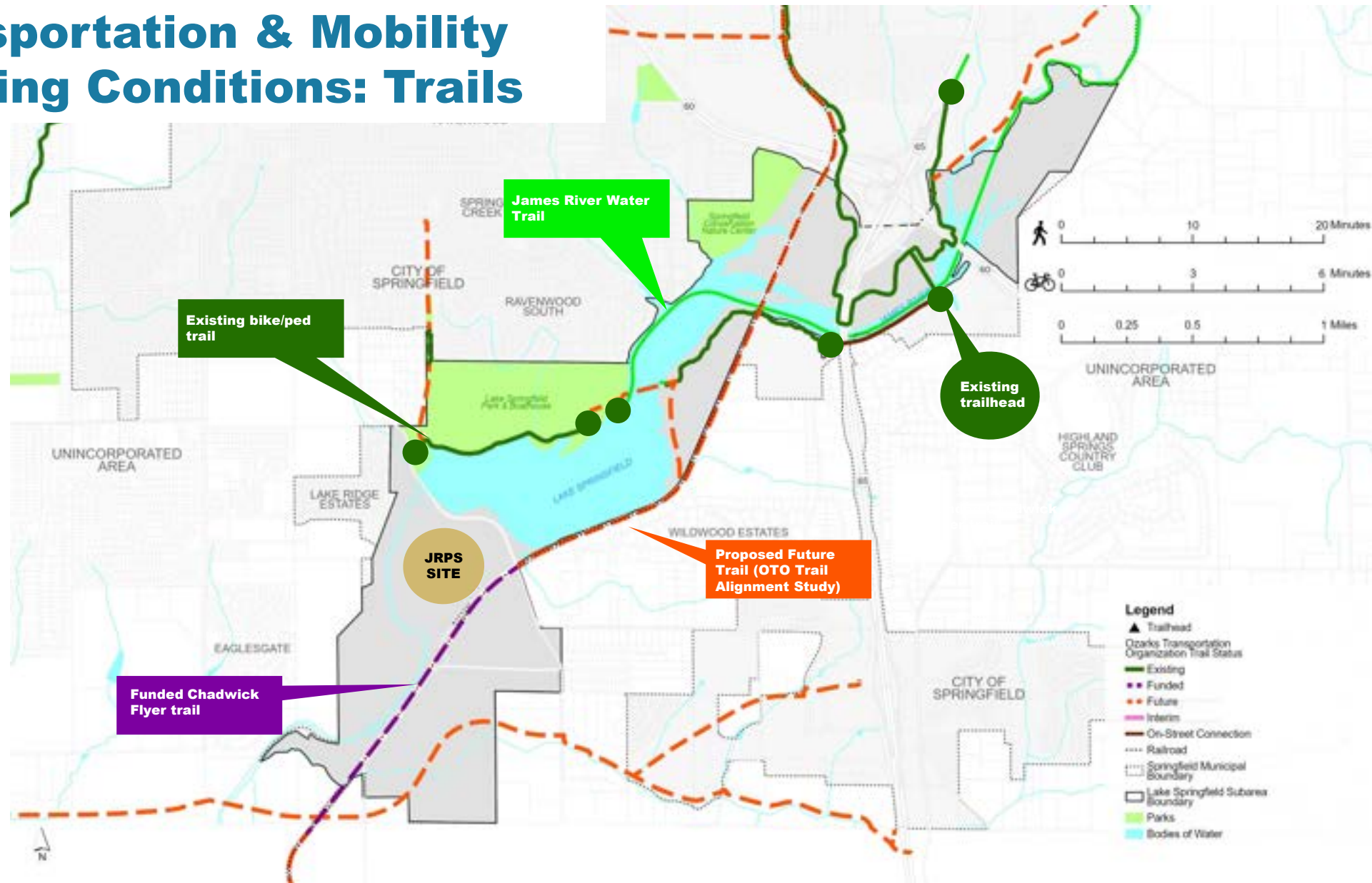
Transportation & Mobility

Existing Conditions: Circulation & Access



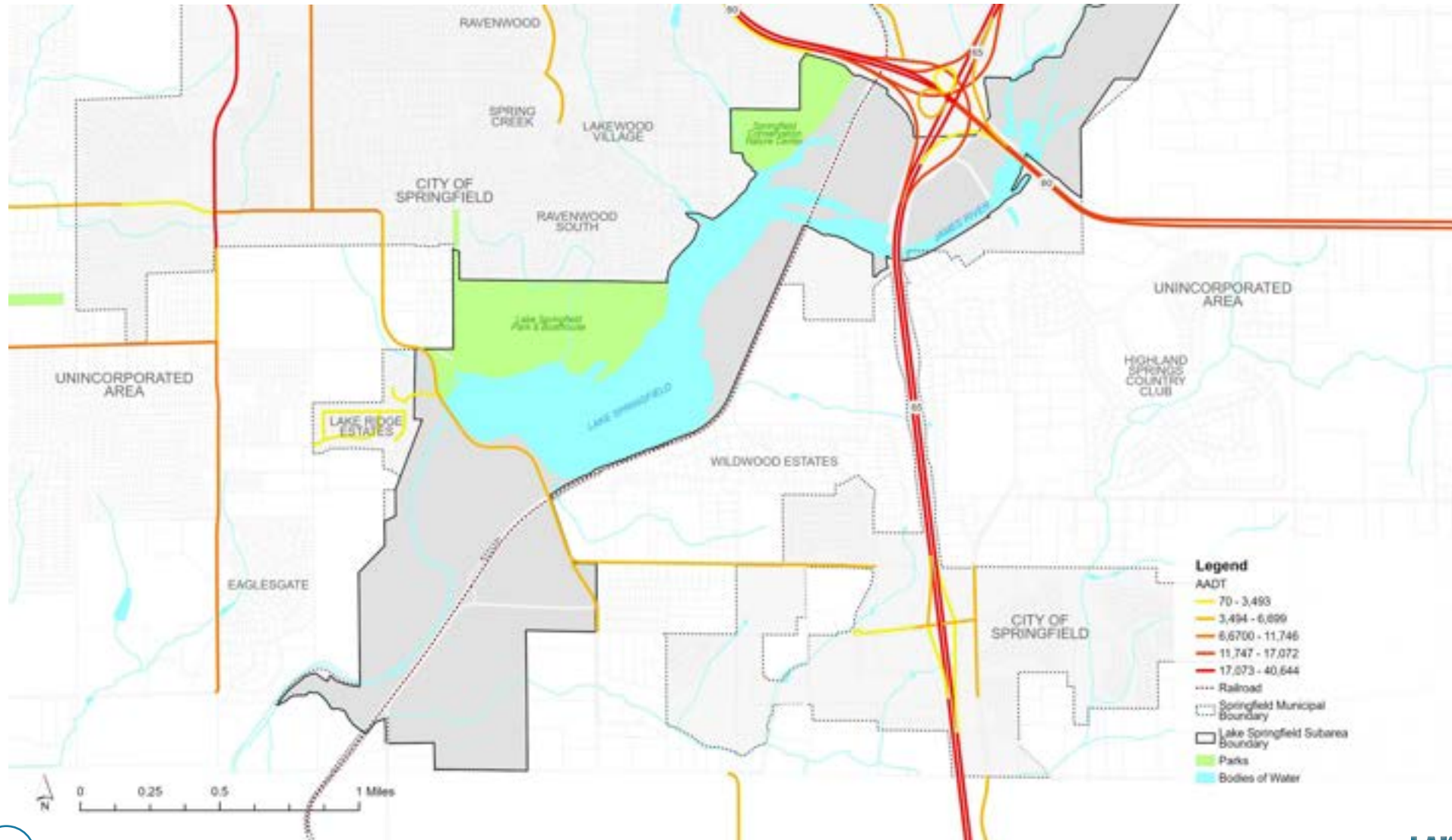
Transportation & Mobility

Existing Conditions: Trails



Transportation & Mobility

Existing Conditions: Lake Ridge Estates

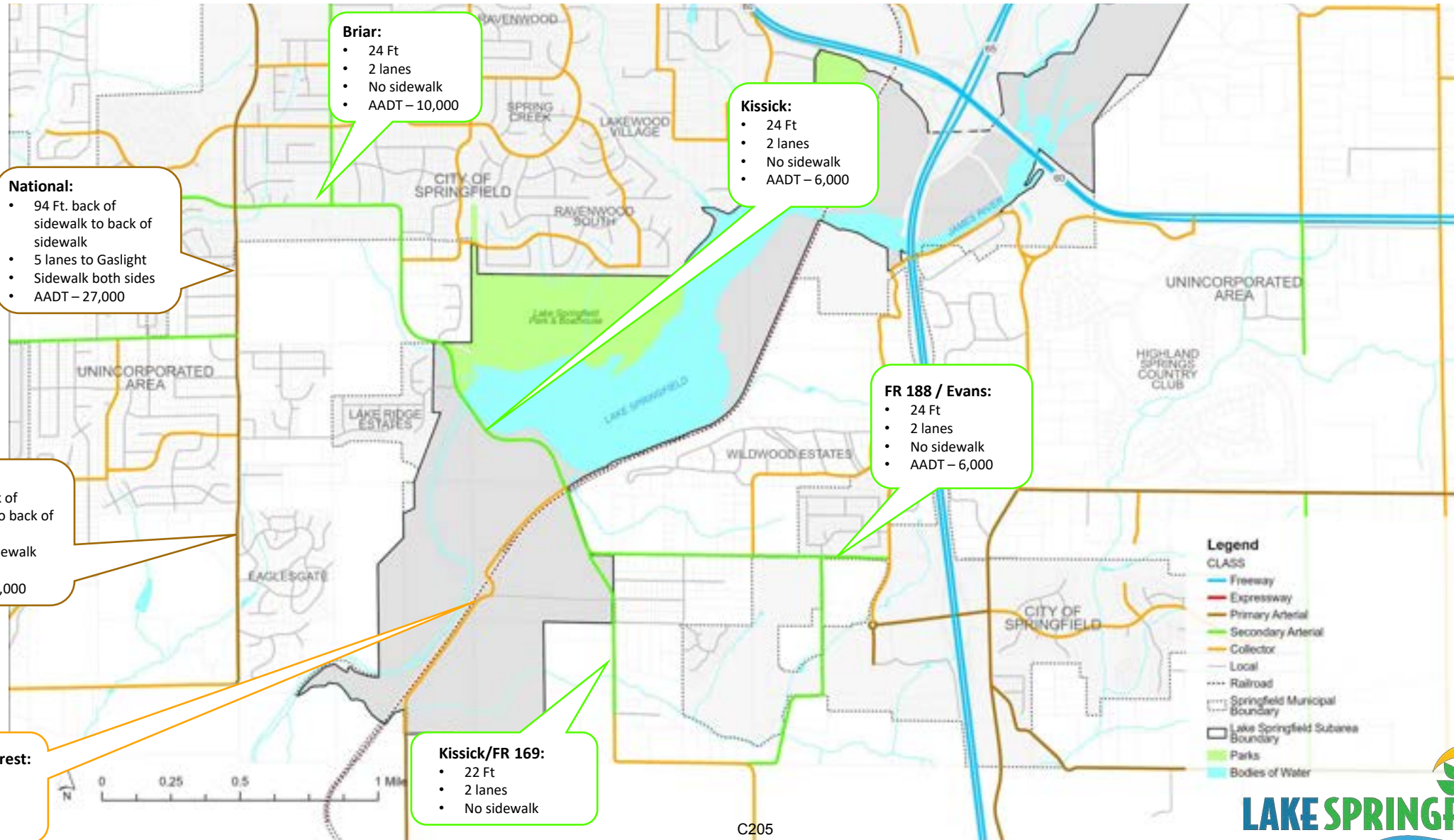


C204



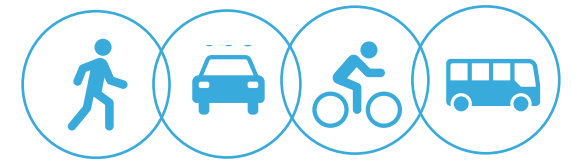
Transportation & Mobility

Existing Conditions: Current Roadway Sections



Proposed Planning Scenarios

Lake Zones



North - Access and Connectivity

Lake - "Ozark Experience"

- wetland with boardwalks and education
- maintain channel and limited open water
- explore connections to power station
- Dam (DNR) - concrete remain and modify earthen dam for bypass

Park - "Ozark Experience"

- Retreat with Cultural Center / Camp
- Bridge Access over James River
- Expanded Trails and Water Access

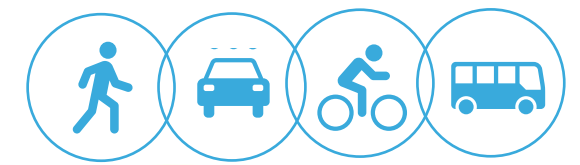
Power Plant - consolidate to two options

- Entertainment District
- Ozark Experience with Conference Center or Indoor Recreation

South Activity - consolidate to two options

- Conference Center /small Adventure Recreation (Entertainment PP)
- Adventure Park - scale of amenities and focus

Proposed Planning Scenarios

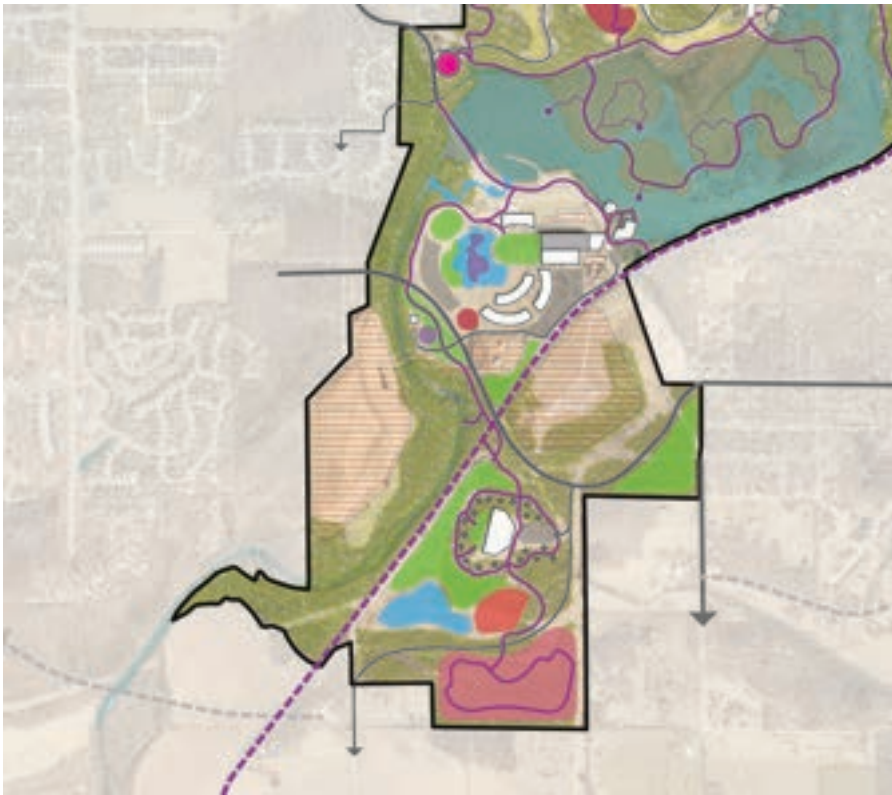
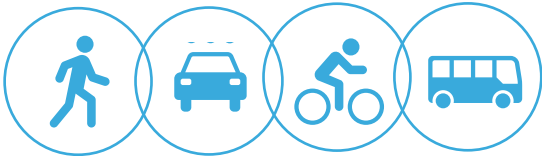


Project Identity = **Gateway to the Ozarks**

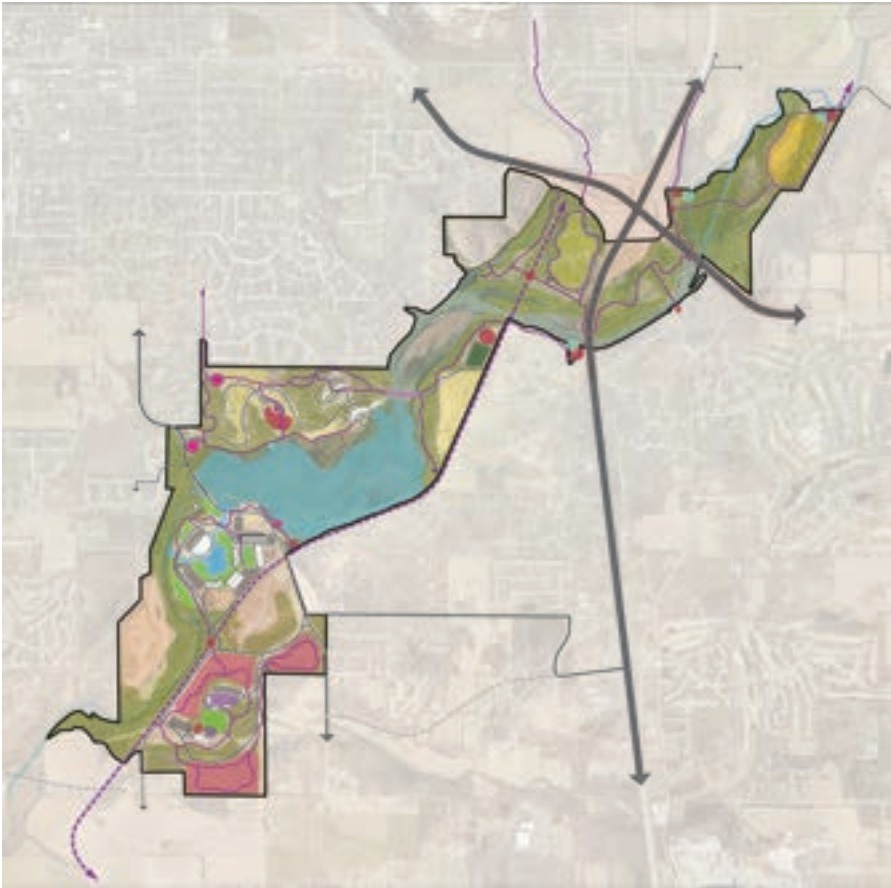
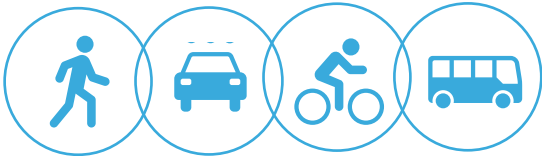


C207

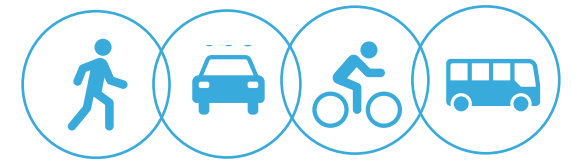
Proposed Planning Scenarios



Proposed Planning Scenarios

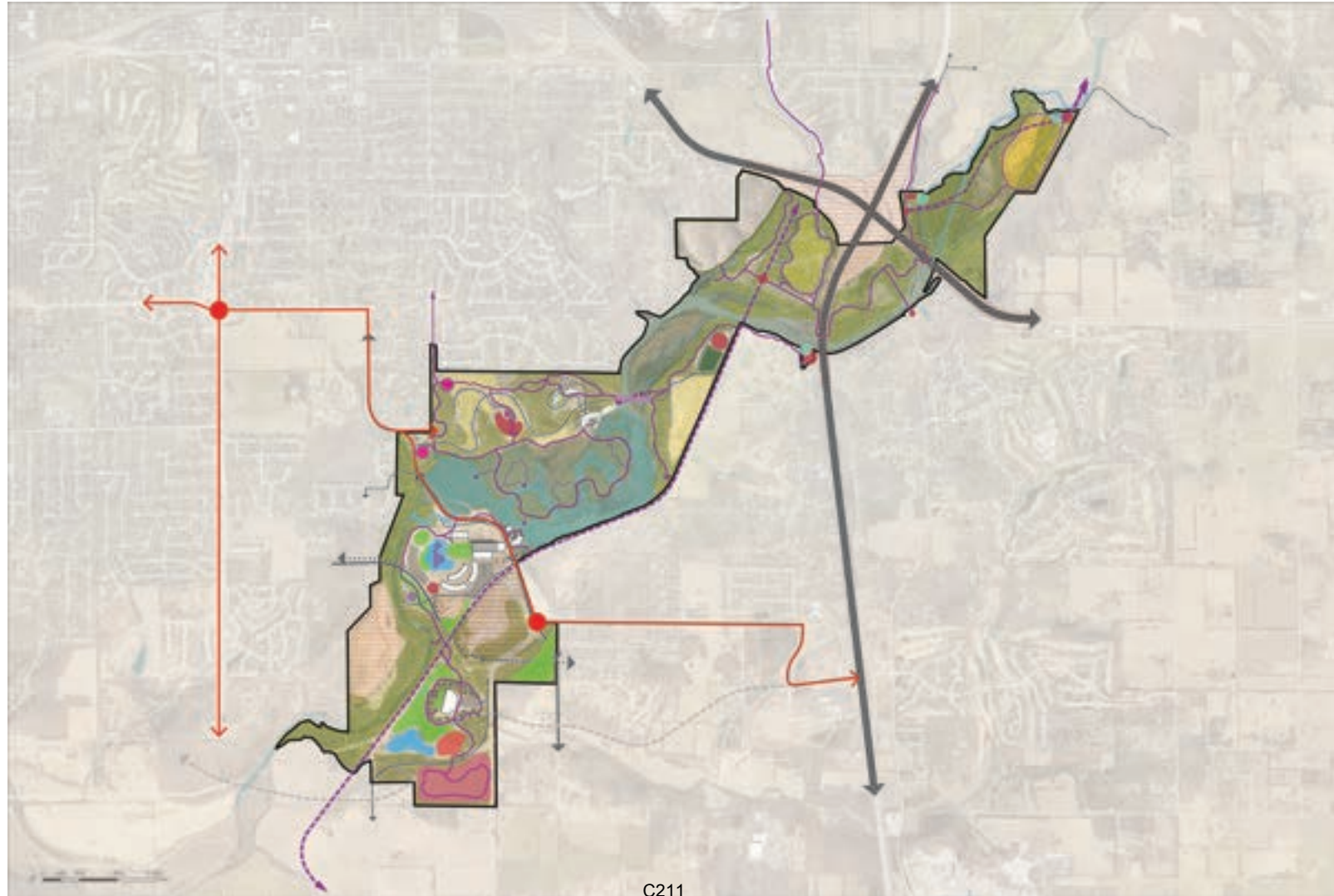
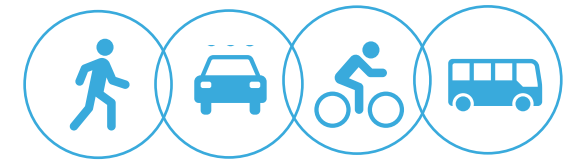


Transportation Improvements



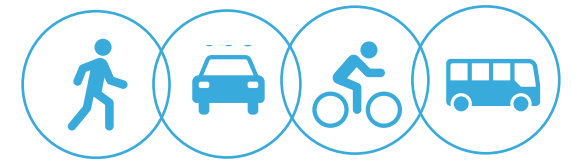
- **Major Trip generators:**
 - Power Plant
 - South Activity Area
- **North, Lake & Park zones remain largely the same in terms of expanded vehicular trips**
- **Proposed scenario trip generation**
 - 20,000 trips/day
 - 2,000 peak hour
- **Necessary Improvements in current conditions:**
 - Doable on roadways as they stand today, with minor improvements (turn lanes, intersection improvements)
 - Challenges in looking at turn lanes for vehicular entry
 - Entry points need to be considered (parking, gateways, etc.)
 - Values & priorities for mobility within the lake planning area

Transportation Improvements Proposed – As is



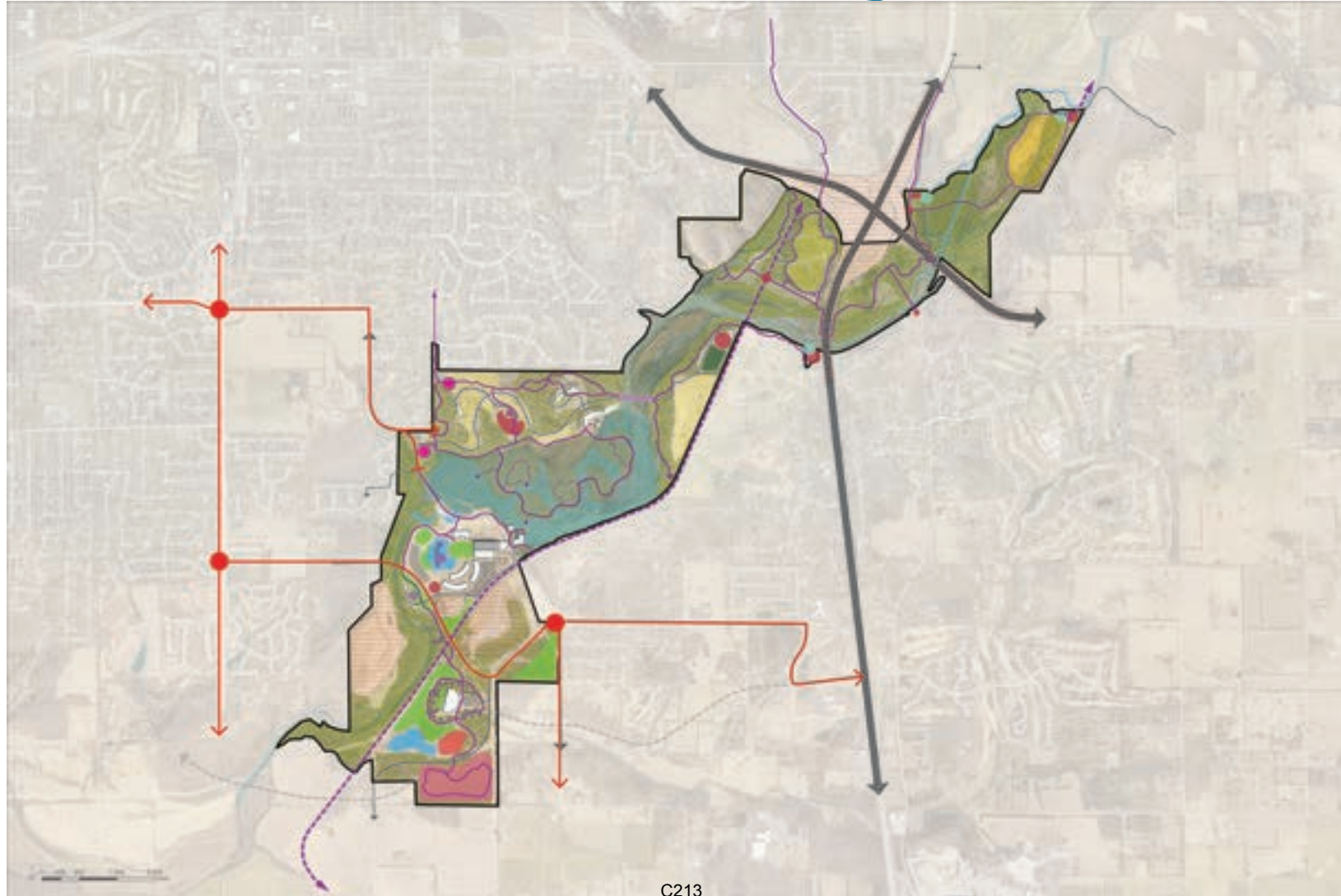
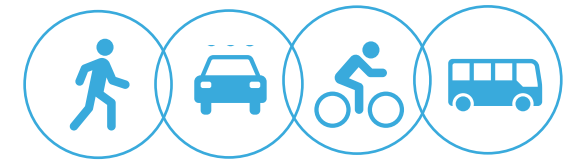
C211

Transportation Improvements Proposed



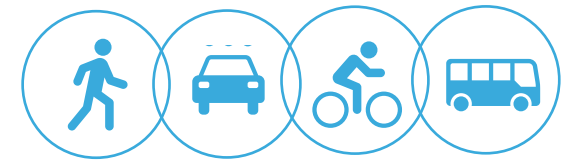
- **Option 1**
 - Remain as is
 - Improvements to Briar, Kissick, FR 188
 - Need to consider parking, vehicular entry/gateway locations, bike & pedestrian connectivity, safety for all modes in conflict zones
 - Impact on existing road network and communities – roadway functional but quality of life impacts on local neighbors

Transportation Improvements Proposed – Southwest Gateway



C213

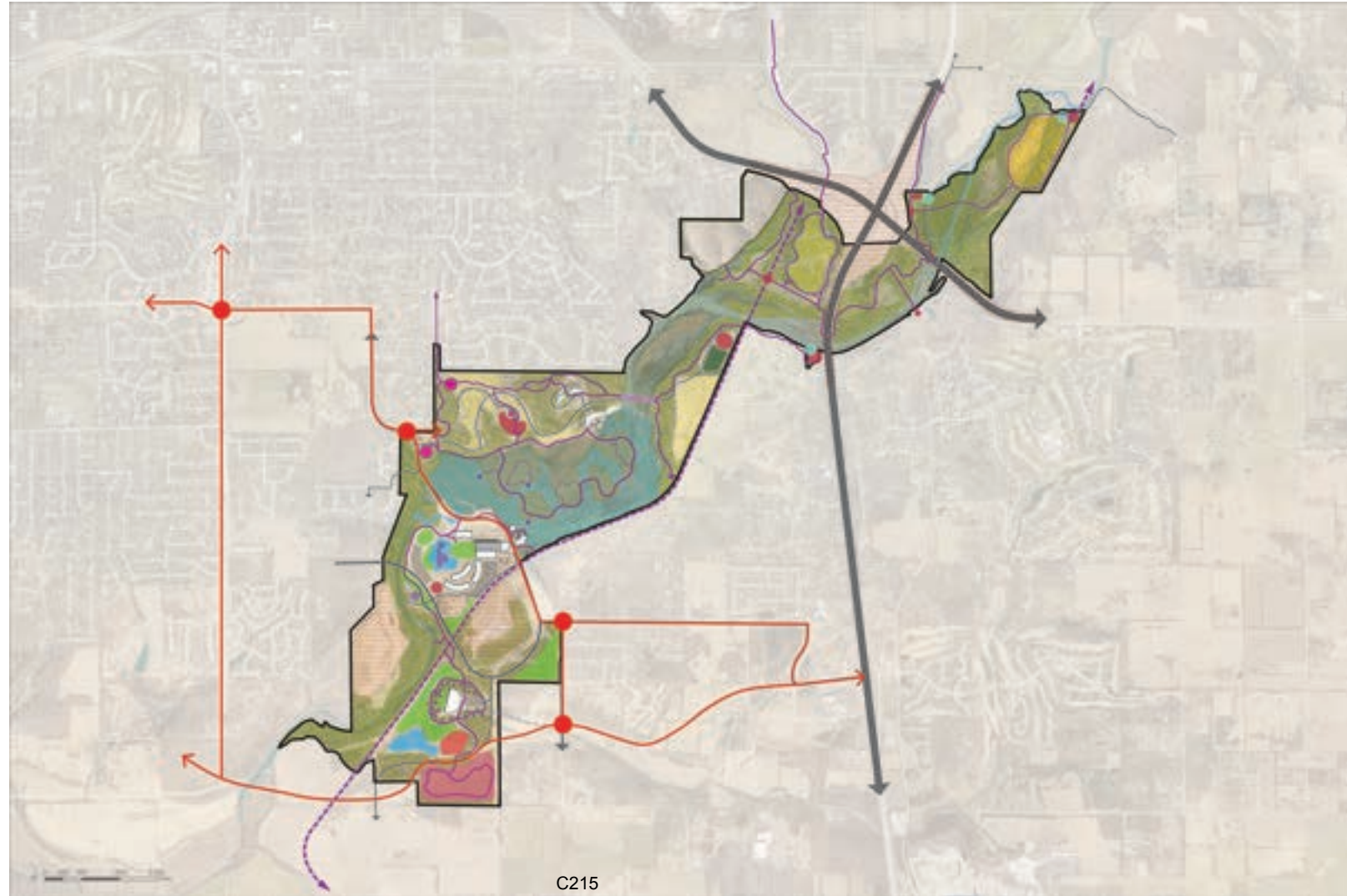
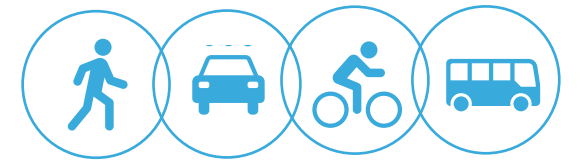
Transportation Improvements Proposed



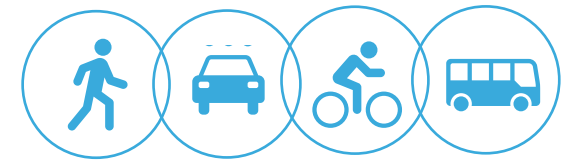
- **Option 2**
 - New road from National to south of power plant site, connects to FR 188
 - Kissick closed to vehicular traffic
 - Need to consider, parking, Chadwick flyer separation, vehicular entry/gateway locations, bike/ped connectivity
 - Connection (cars, foot bike) from Boathouse to Powerplant Site

Transportation Improvements

Proposed – EW Arterial – existing entry on Kissick



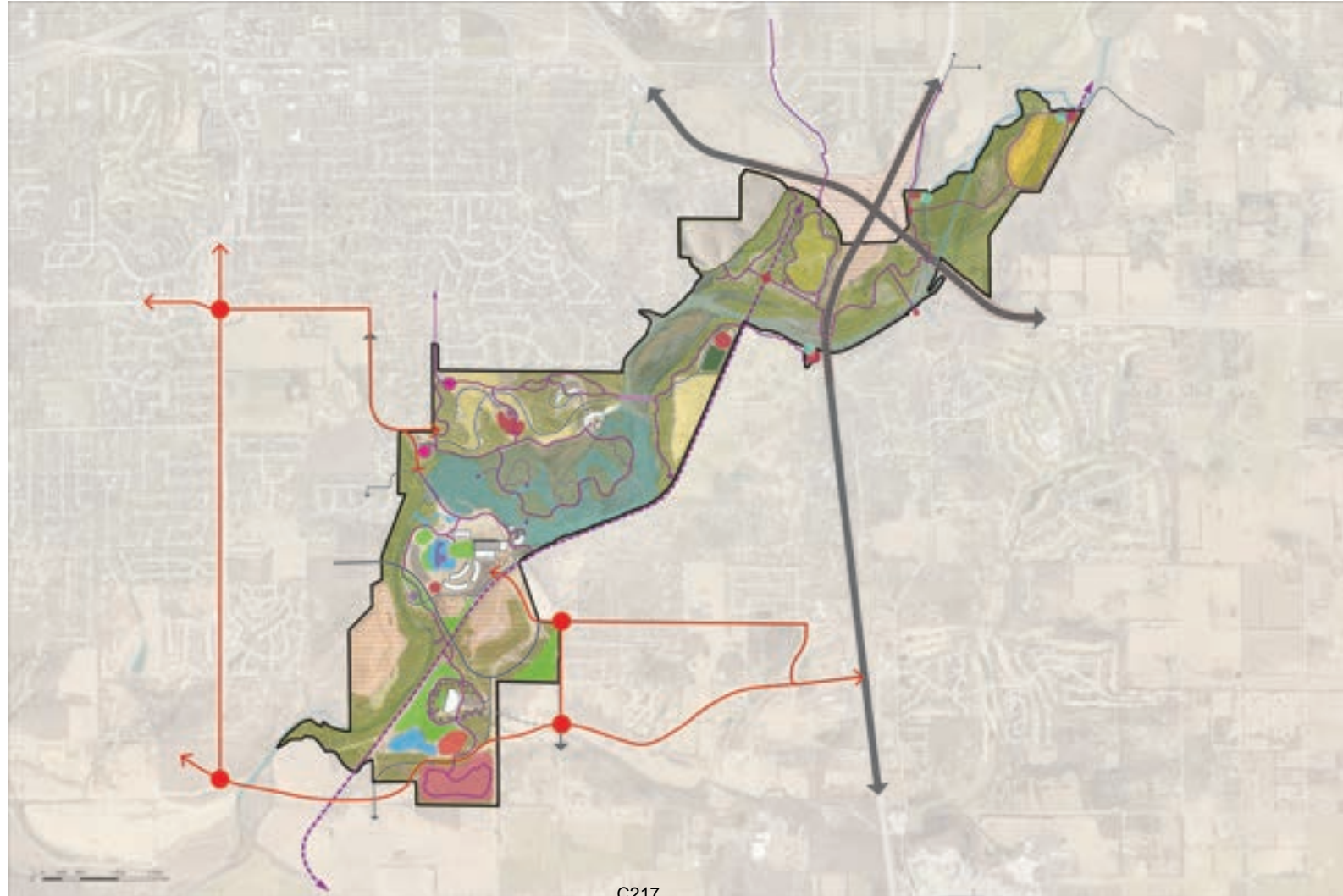
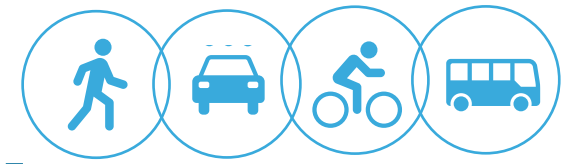
Transportation Improvements Proposed



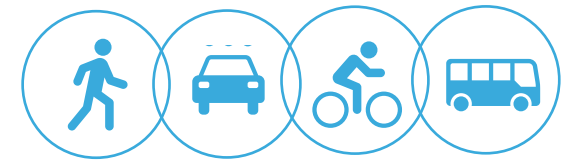
- **Option 3a**
 - Remain as is with addition of E/W arterial
 - Improvements to Briar, Kissick, FR 188
 - Priority of EW arterial E. of National
 - Funding for EW Arterial
 - JRPS Site entry locations that make the most sense
 - Need to consider parking, vehicular entry/gateway locations, bike & pedestrian connectivity, safety for all modes in conflict zones

Transportation Improvements

Proposed – EW Arterial – Kissick closed to cars



Transportation Improvements Proposed



- **Option 3b**
 - Addition of E/W arterial & Kissick closed to vehicular traffic
 - Improvements to Briar
 - Priority of EW arterial E. of National
 - Funding for EW Arterial
 - JRPS Site entry locations that make the most sense
 - Need to consider parking, vehicular entry/gateway locations, bike & pedestrian connectivity, safety for all modes in conflict zones

An aerial photograph of the Lake Springfield area, showing the lake's shoreline, surrounding residential and commercial developments, and green spaces. The text is overlaid in the center of the image.

Lake Springfield

July 26, 2023

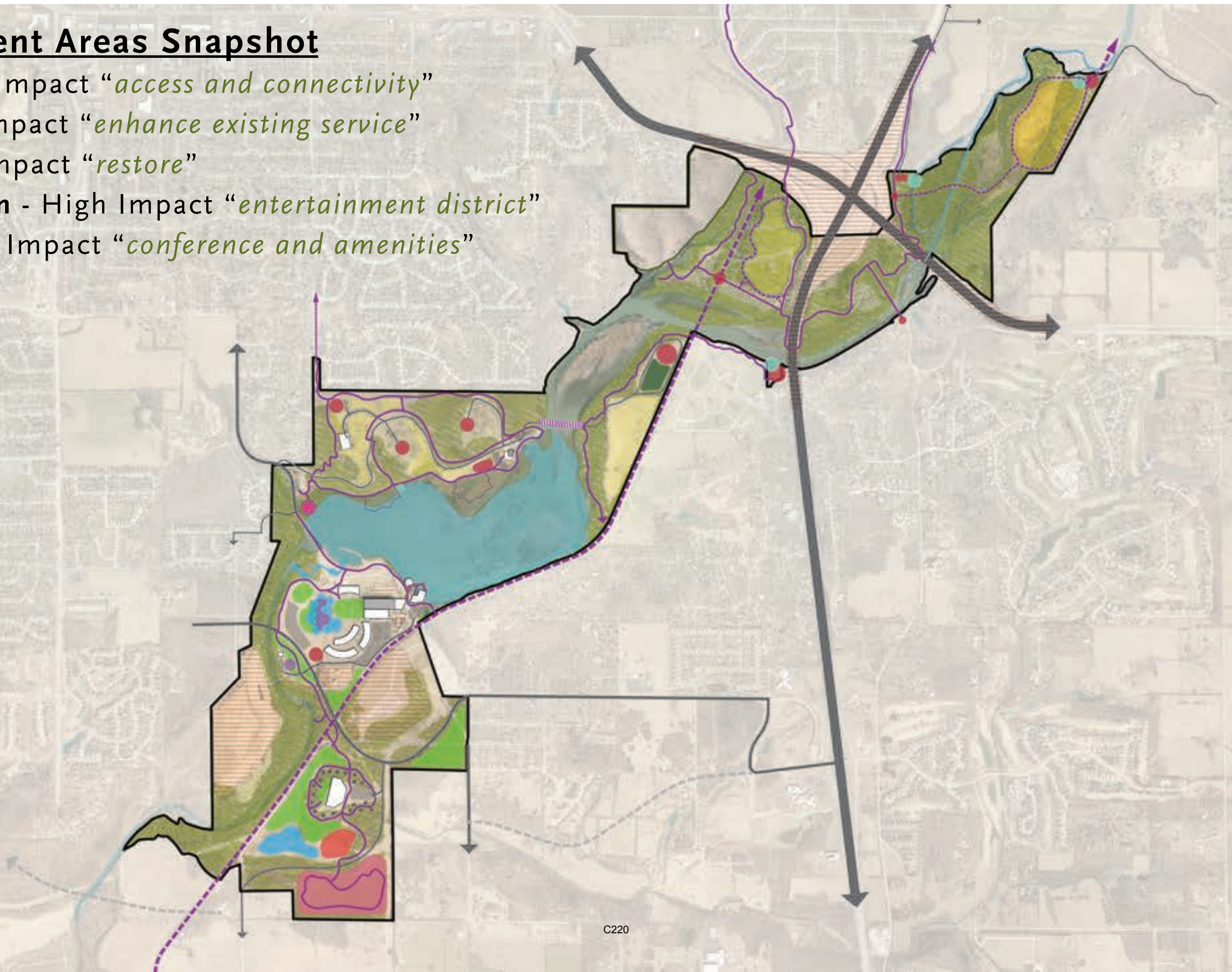
Land-Use Concepts



LAND-USE CONCEPT - ENTERTAINMENT

Development Areas Snapshot

- North - Low Impact “*access and connectivity*”
- Park - Low Impact “*enhance existing service*”
- Lake - Low Impact “*restore*”
- Power Station - High Impact “*entertainment district*”
- South - High Impact “*conference and amenities*”



LAND-USE CONCEPT - OZARK EXPERIENCE

Development Areas Snapshot

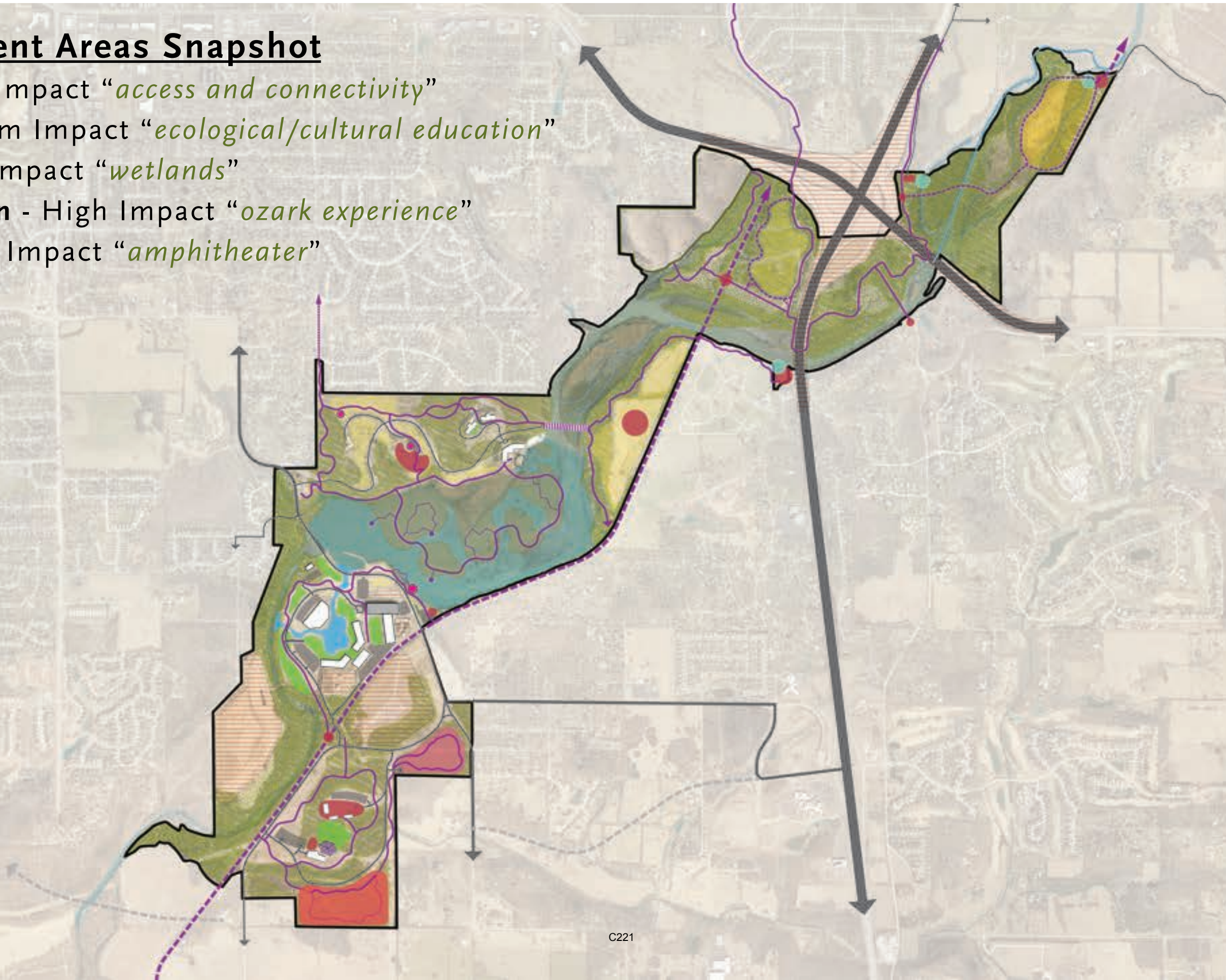
North - Low Impact “*access and connectivity*”

Park - Medium Impact “*ecological/cultural education*”

Lake - High Impact “*wetlands*”

Power Station - High Impact “*ozark experience*”

South - High Impact “*amphitheater*”



LAND-USE CONCEPT - RECREATION

Development Areas Snapshot

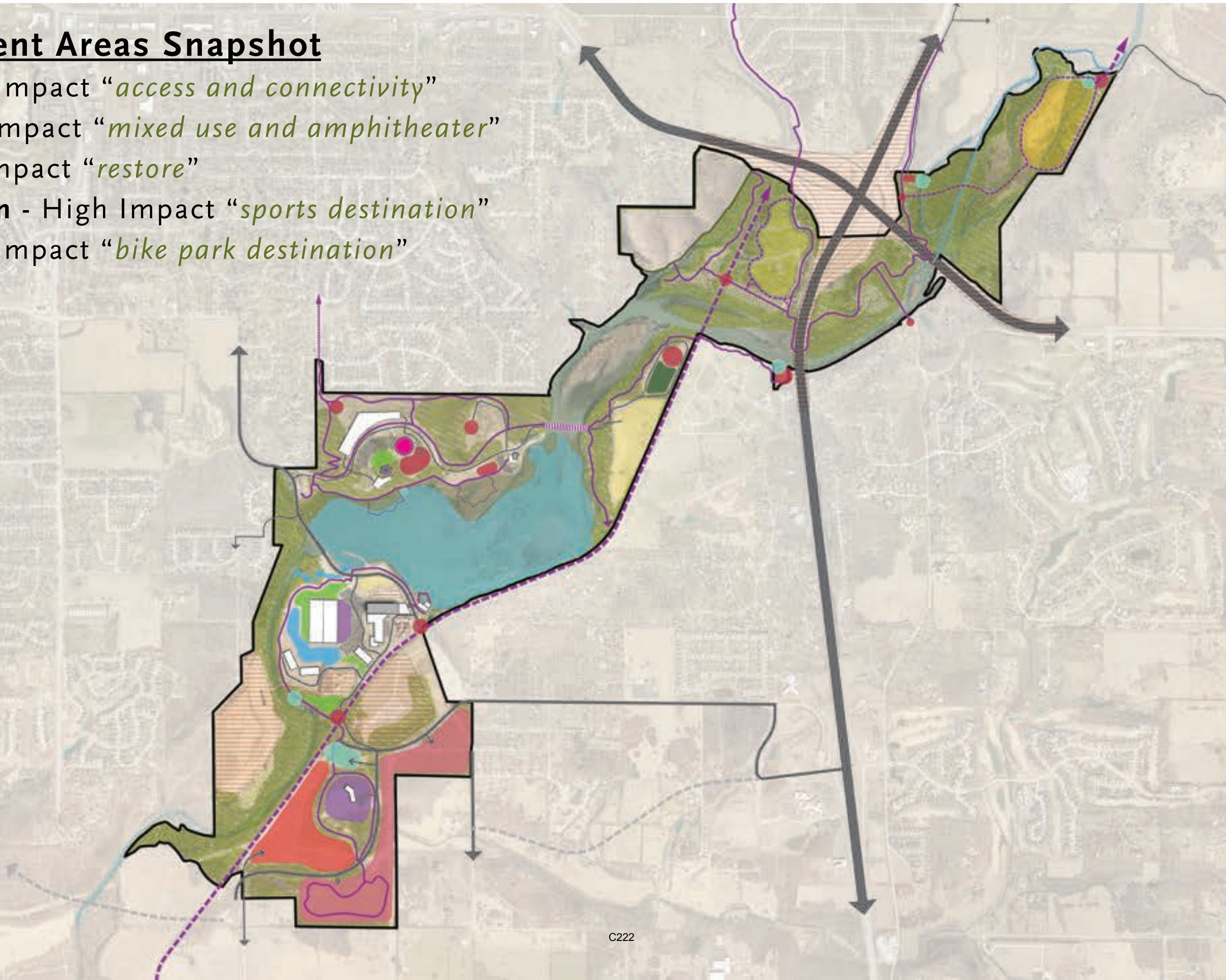
North - Low Impact “*access and connectivity*”

Park - High Impact “*mixed use and amphitheater*”

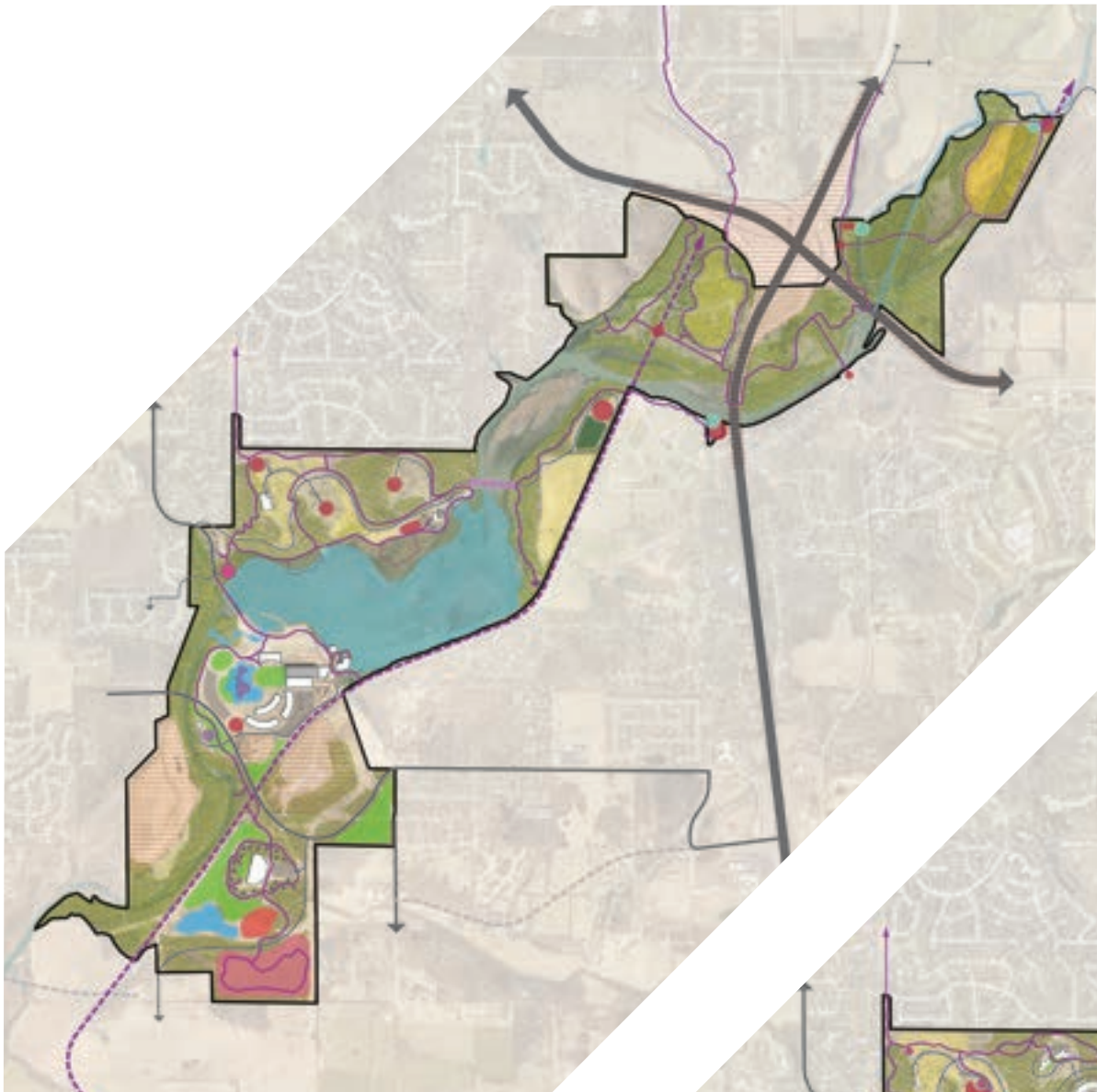
Lake - Low Impact “*restore*”

Power Station - High Impact “*sports destination*”

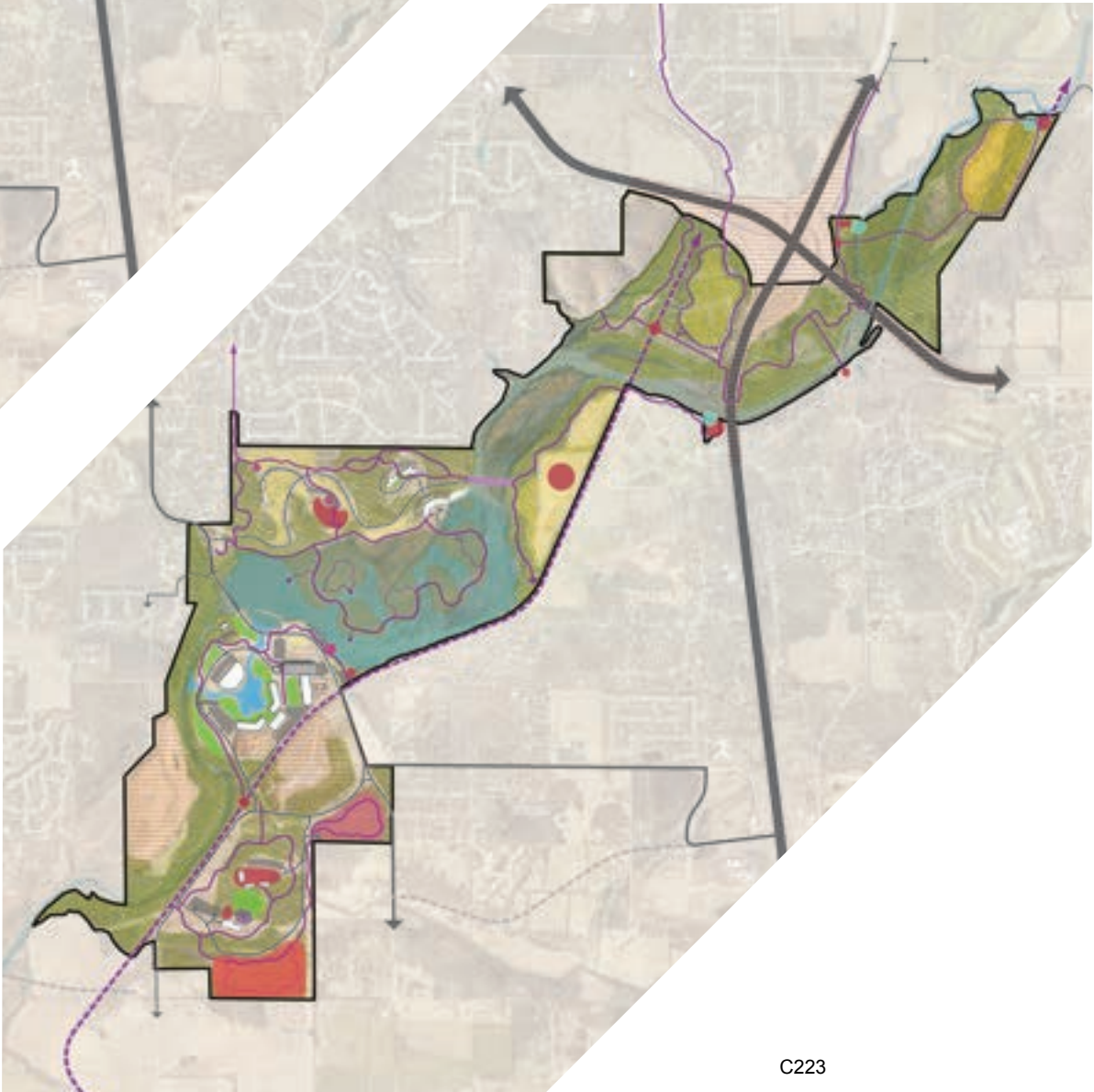
South - Low Impact “*bike park destination*”



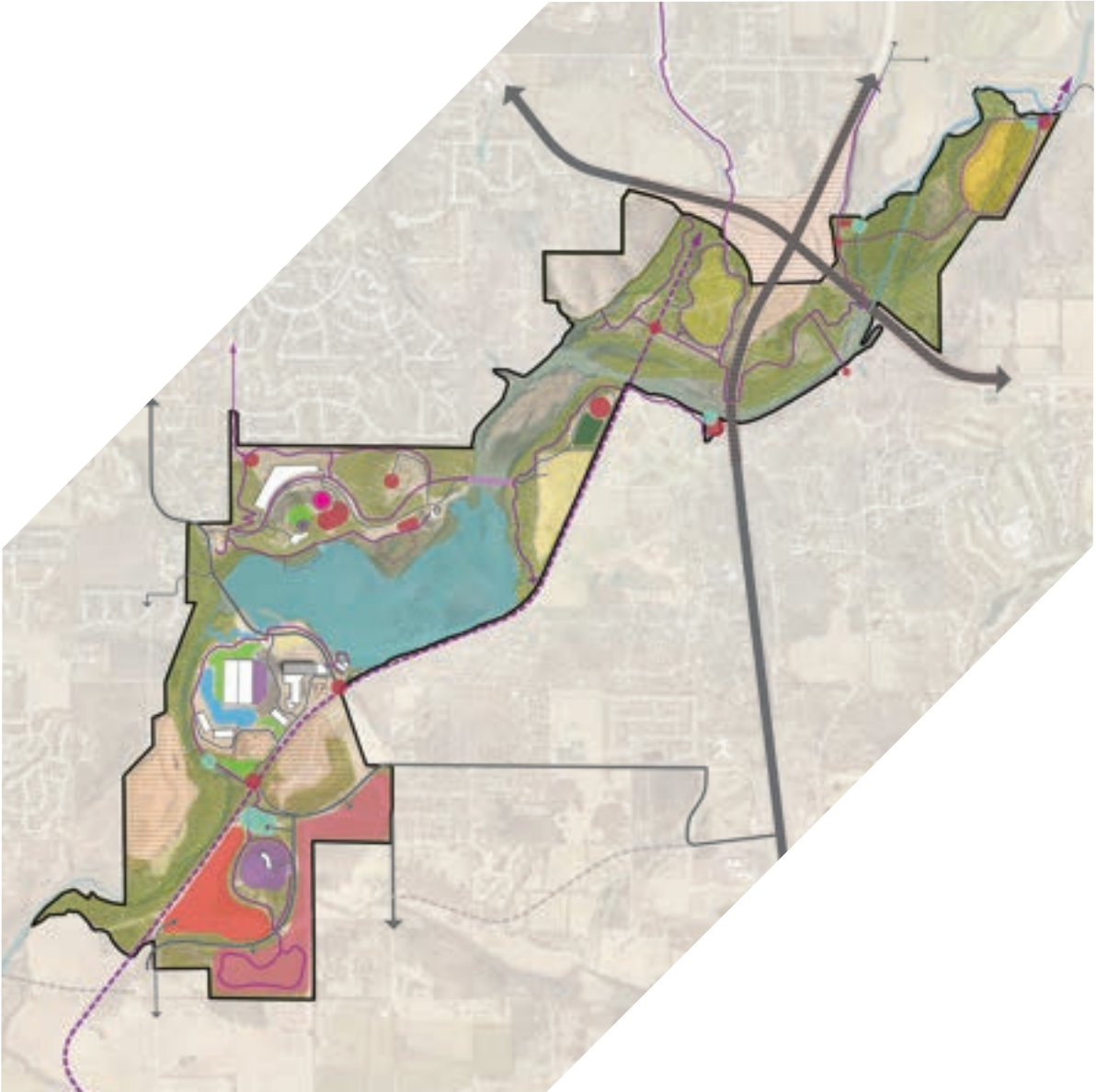
LAND-USE CONCEPTS



01

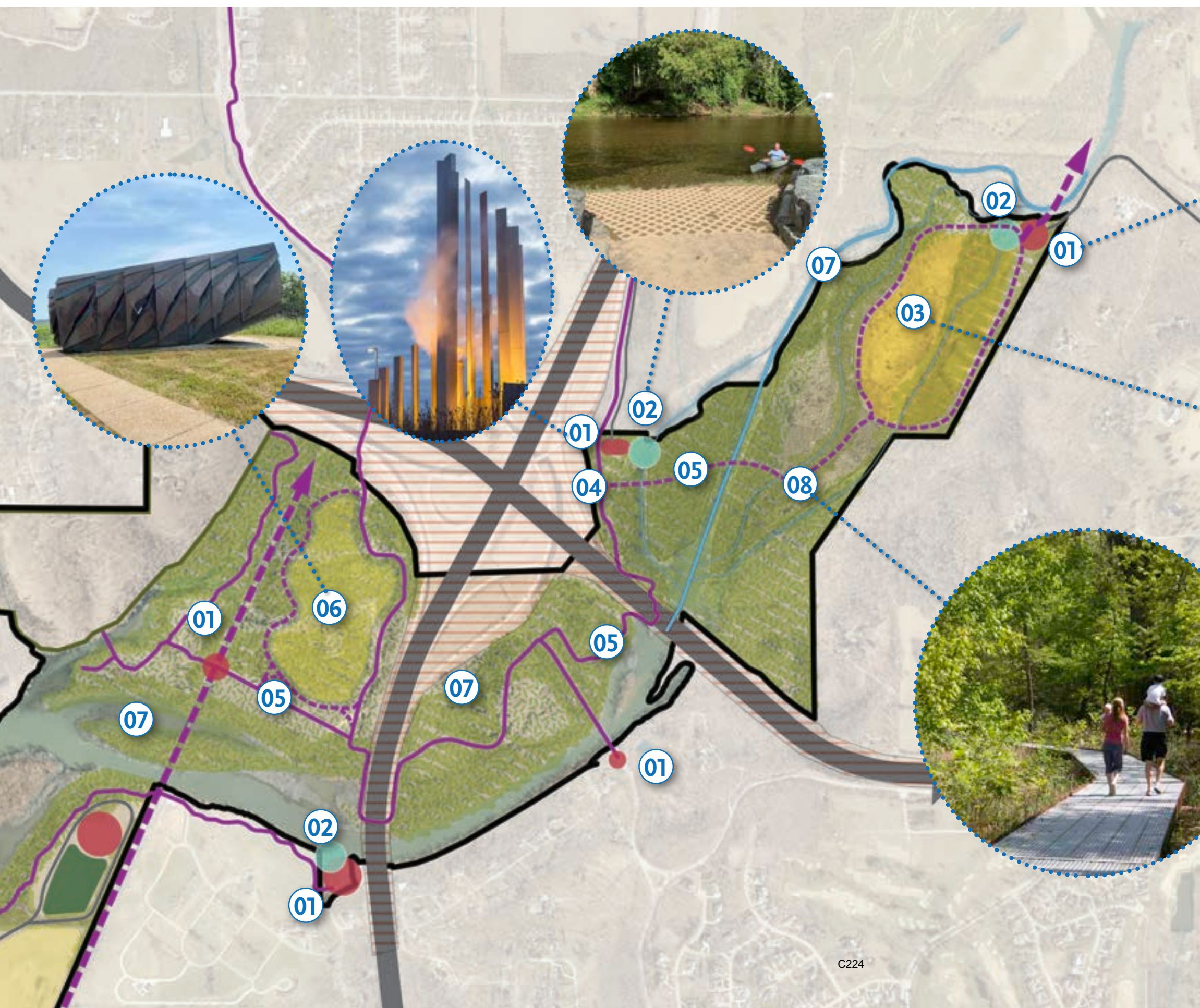


02



03

NORTH - ACCESS AND CONNECTIVITY



01	Entry/Trailhead
02	River Access
03	Floodplain Loop Trail
04	Monument Signage
05	Paved Trail
06	Bird Habitat Meadow
07	Wetland Restoration
08	Wetland Boardwalk / Trail

PARK & LAKE - ENTERTAINMENT



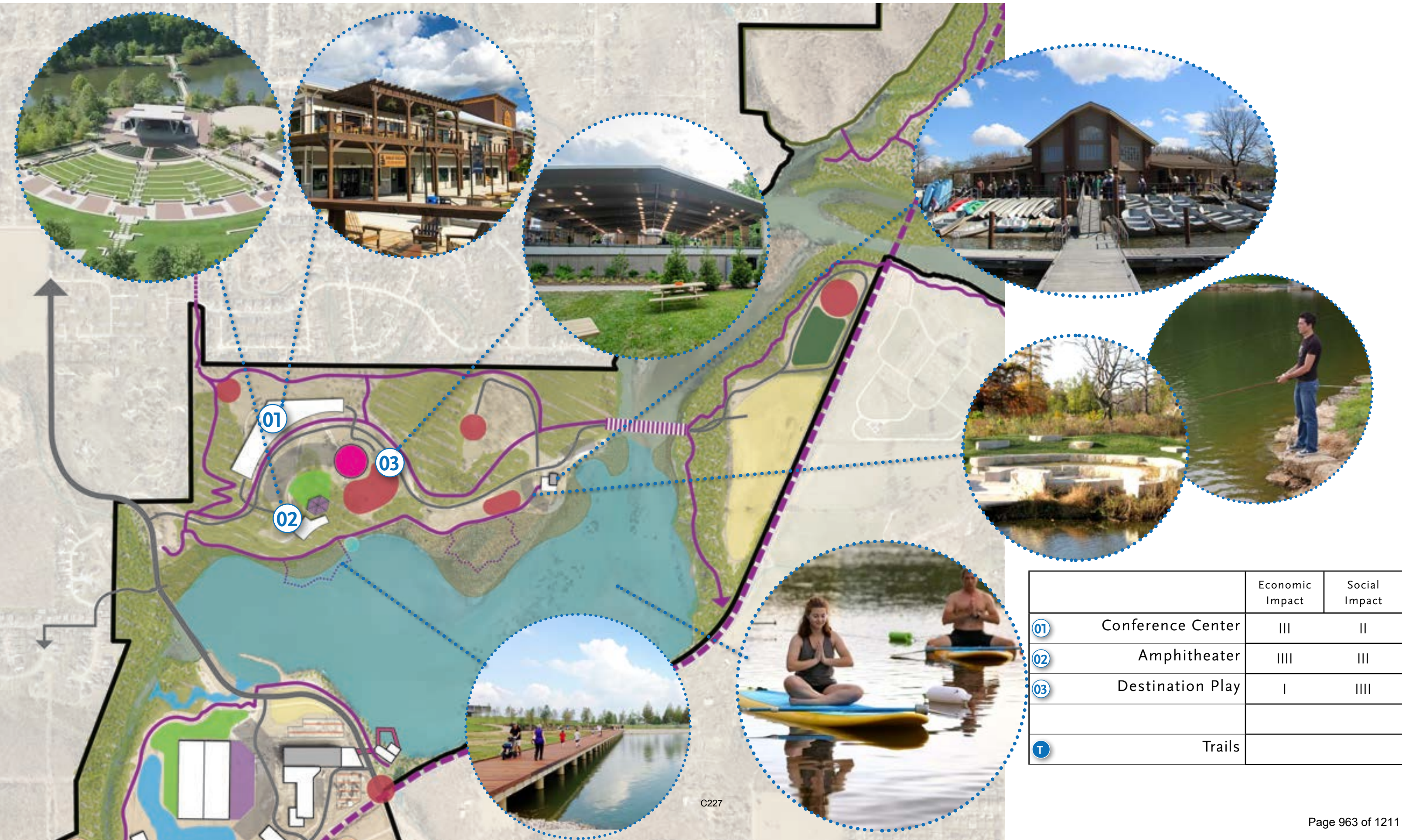
		Economic Impact	Social Impact
01	Pavilion	I	III
02	Destination Play	I	IIII
03	Expanded Boat House	III	III
04	Overlook	I	II
05	Culture Camp	III	II
T	Trails		

PARK & LAKE - OZARK EXPERIENCE



		Economic Impact	Social Impact
01	Destination Play	III	IIII
02	Lodge/Camp	III	III
03	New Eco Center	I	III
04	Marina	I	IIII
T	Trails		

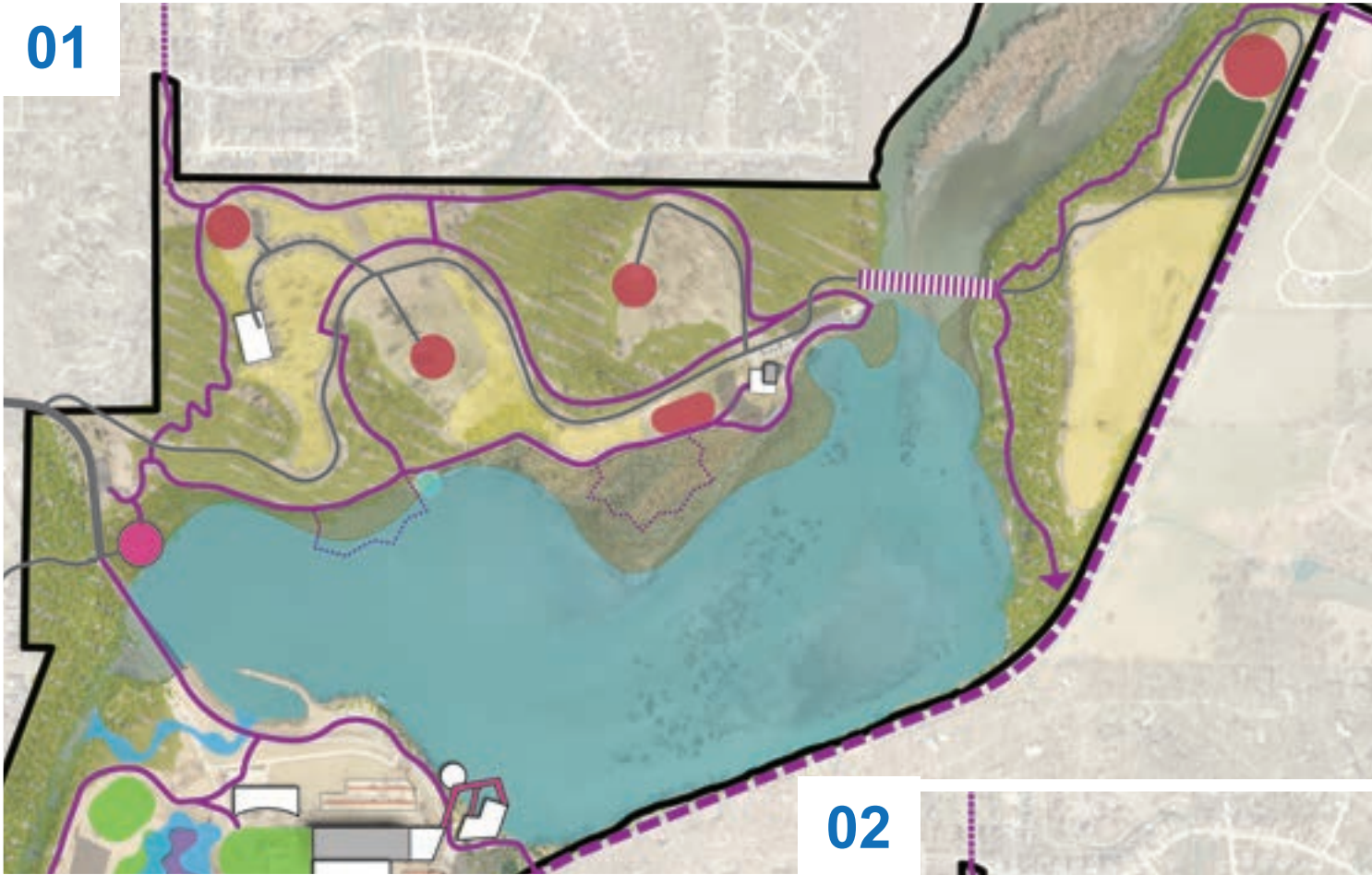
PARK & LAKE - RECREATION



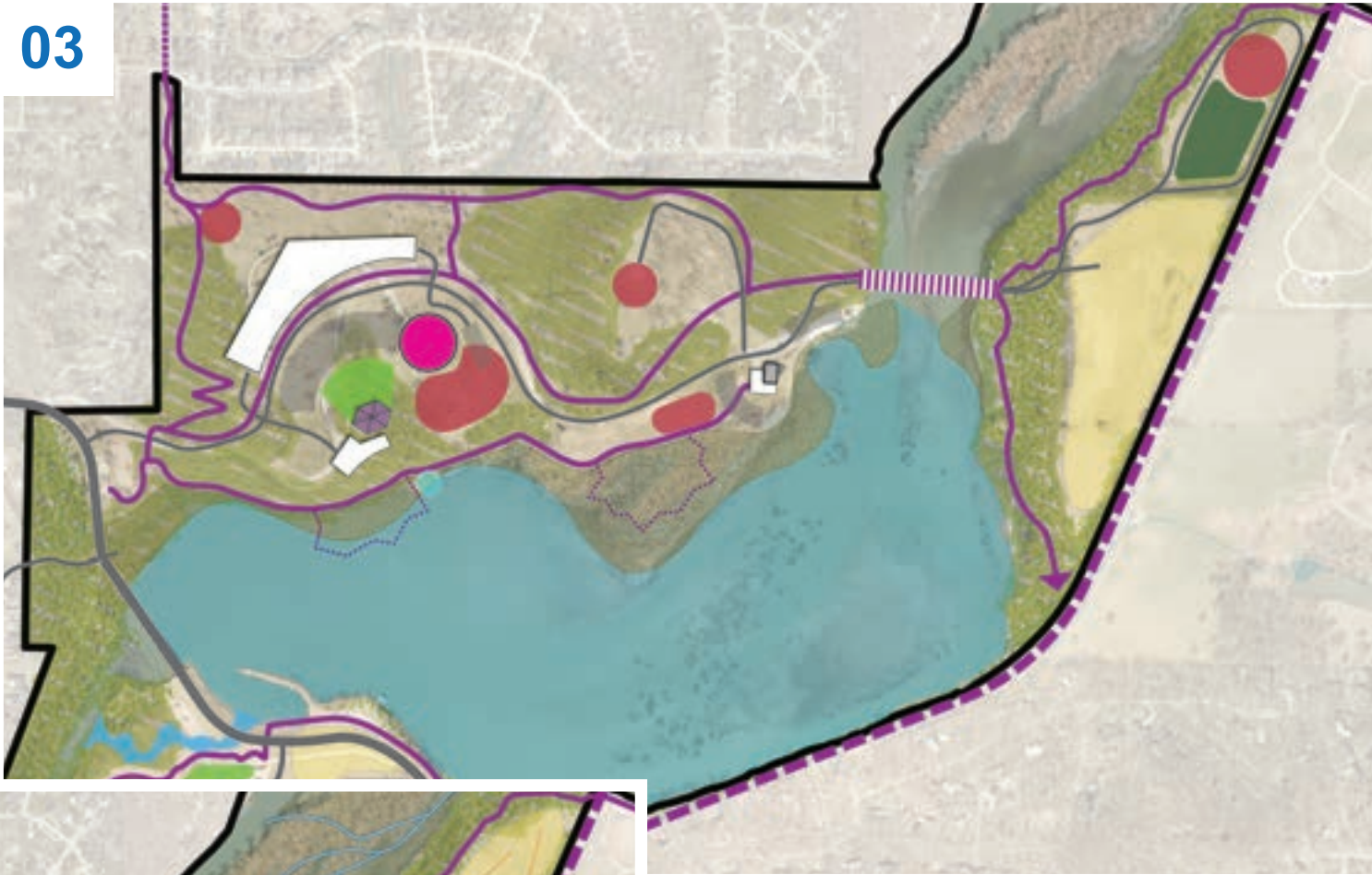
		Economic Impact	Social Impact
01	Conference Center	III	II
02	Amphitheater	IIII	III
03	Destination Play	I	IIII
T	Trails		

LAND-USE CONCEPT - LAKE

01



03



02



C228

SOUTH - ENTERTAINMENT



		Economic Impact	Social Impact
01	Mixed Use Bldg	II	II
02	Mixed Use Bldg	II	II
03	Entertainment Bldg	II	II
04	Mixed Use Bldg	II	II
05	Power Plant + Addition		
06	Restaurant/Overlook	III	III
07	Water/Adven. Play Area	IIII	IIII
08	Shelter/Hosp Bldg	I	IIII
09	Destination Play	I	IIII
10	Event Lawn	I	IIII
11	Dam Bypass		
12	Conference Center	III	II
13	Amenity Area	I	IIII
14	Cabins/Yurts	II	II
15	Destination Play	I	IIII
16	Bike Park/Adventure Amenity	III	III
17	Trailhead		
T	Trails		
A1	Kissick - Ped only		
A2	EW connect to National		
A3	Crenshaw - Closed		
A4	EW Arterial - As Planned		

Note: Future phase to include conference center/hotel

SOUTH - OZARK EXPERIENCE



		Economic Impact	Social Impact
01	Conference Center	III	II
02	Hotel/Apartments	I	I
03	Mixed Use o2 (PER LEVEL)	II	II
04	Mixed Use o3 (PER LEVEL)	II	II
05	Power Plant + Addition	?	?
06	Event Lawn	I	III
07	Restaurant/ River Access	III	III
08	Water Play	III	III
09	Adventure Play	I	III
10	Amphitheater	III	III
11	Plaza Space	I	III
12	Food Truck/Amenity Space	I	III
13	Bike Park	III	III
14	Camping South	I	II
15			
16			
17			
T	Trails		
A1	Kissick - Ped only		
A2	EW connect to National		
A3	Crenshaw - Closed		
A4	EW Arterial - As Planned		

SOUTH - RECREATION



		Economic Impact	Social Impact
01	Indoor Sports	IIII	IIII
02	Outdoor Courts/Activity Space	IIII	IIII
03	Power Plant	?	?
04	Hotel (PP Expansion)	IIII	II
05	Mixed Use 01	II	II
06	Mixed Use 02	II	II
07	Hotel 02	I	I
08	Adventure Play	IIII	IIII
09	Restaurant/Overlook	IIII	IIII
10	Dam Bypass		
11	Water Play	IIII	IIII
12	River Access	I	III
13	RV Camping	II	II
14	Destination Play	I	IIII
15	Events Bldg	II	III
16	Bike Park	III	III
17			
T	Trails		
A1	Kissick - Ped only**		
A2	Reroute Ridgecrest/ PP Access/ to National		
A3	Crenshaw - Closed		
A4	EW Arterial - Reroute		

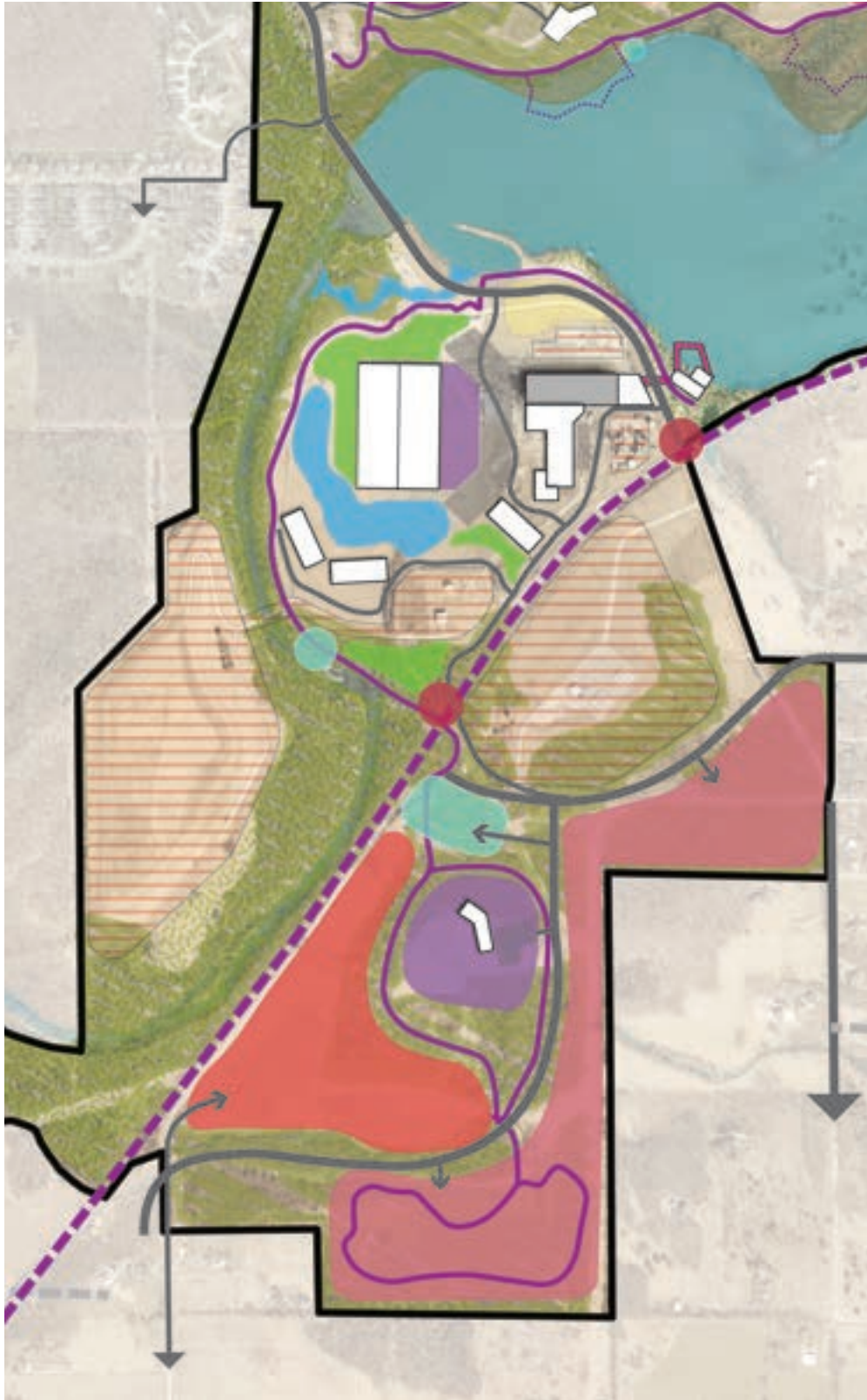
LAND-USE CONCEPT - SOUTH



01

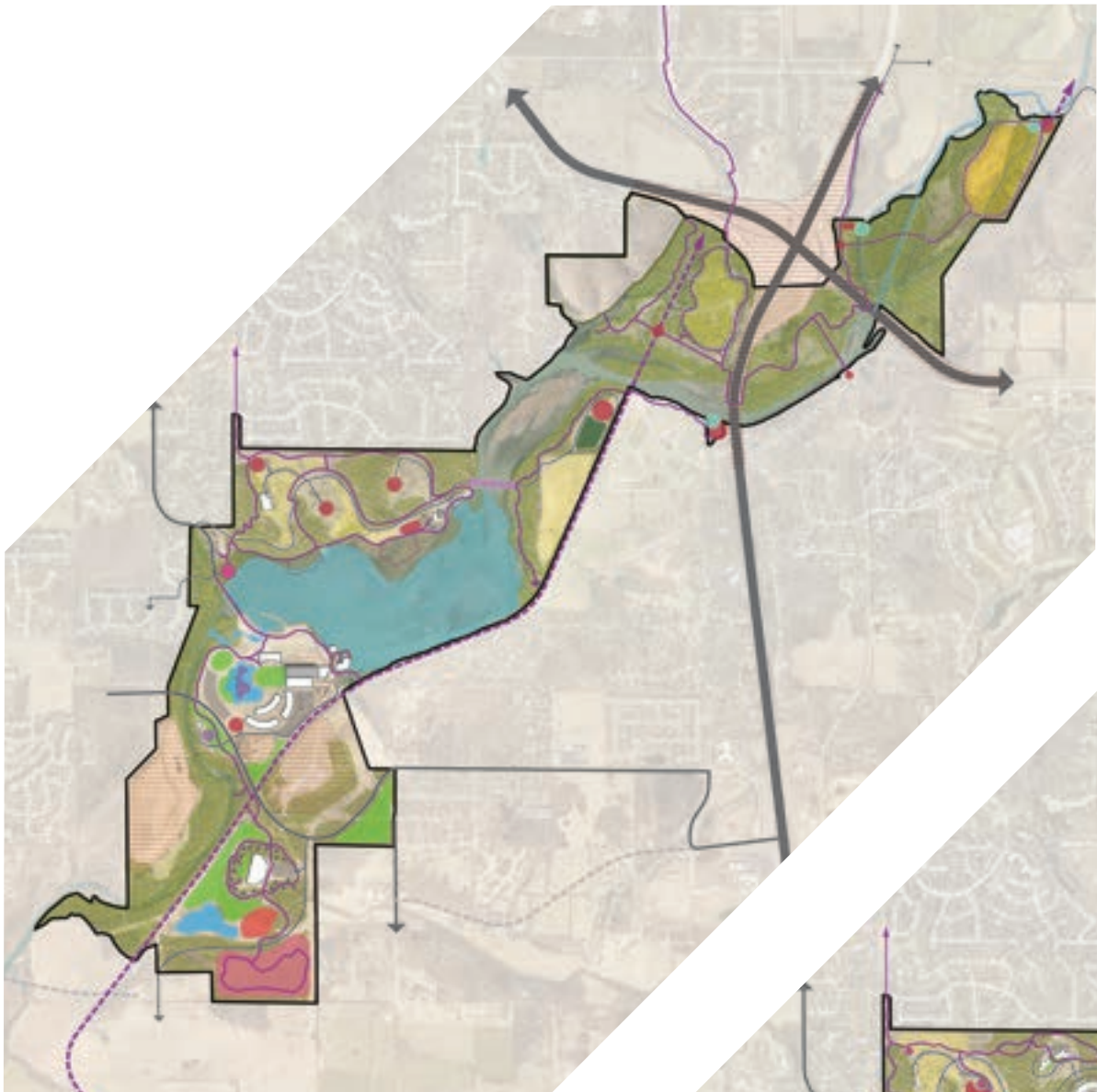


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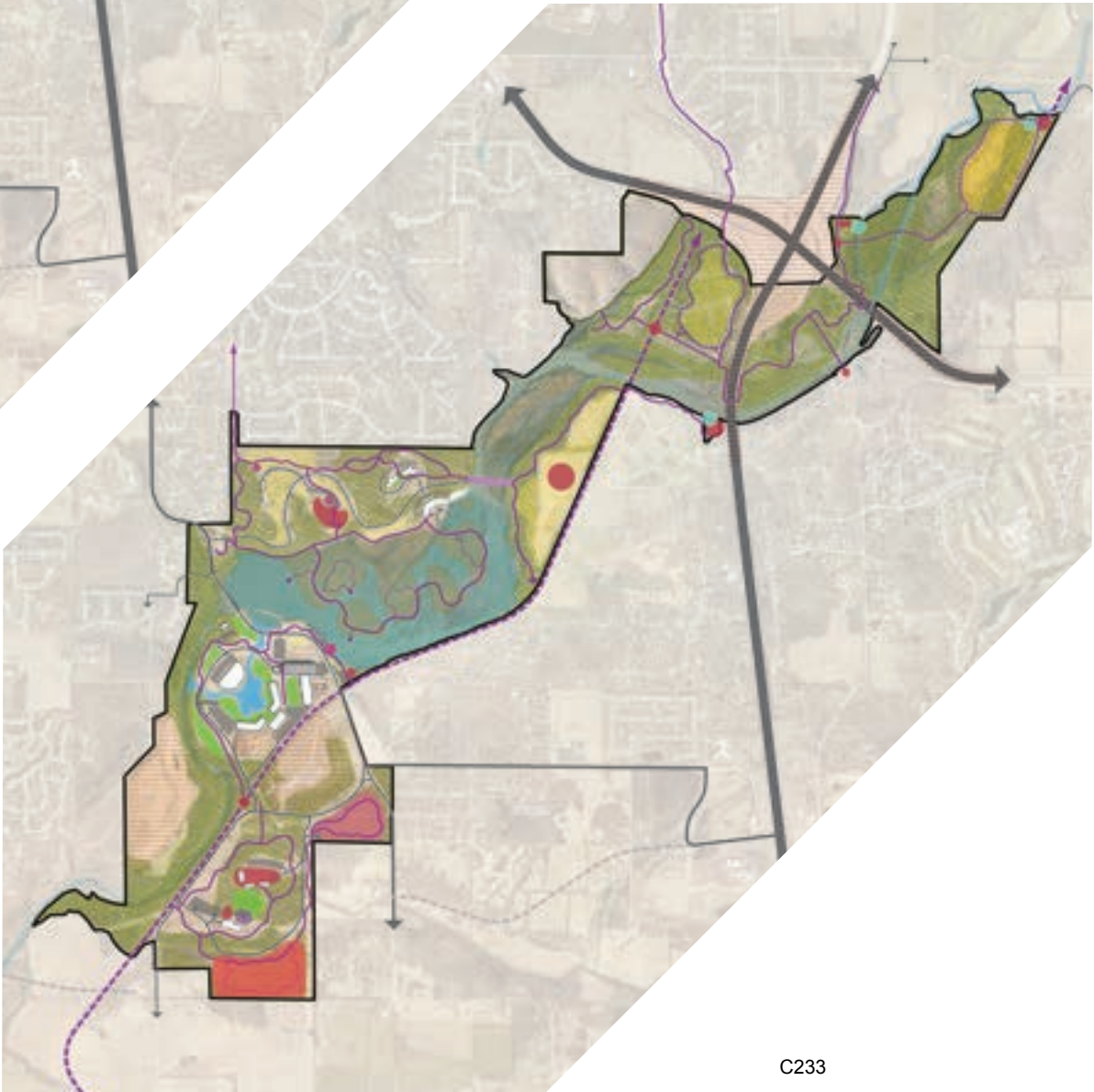


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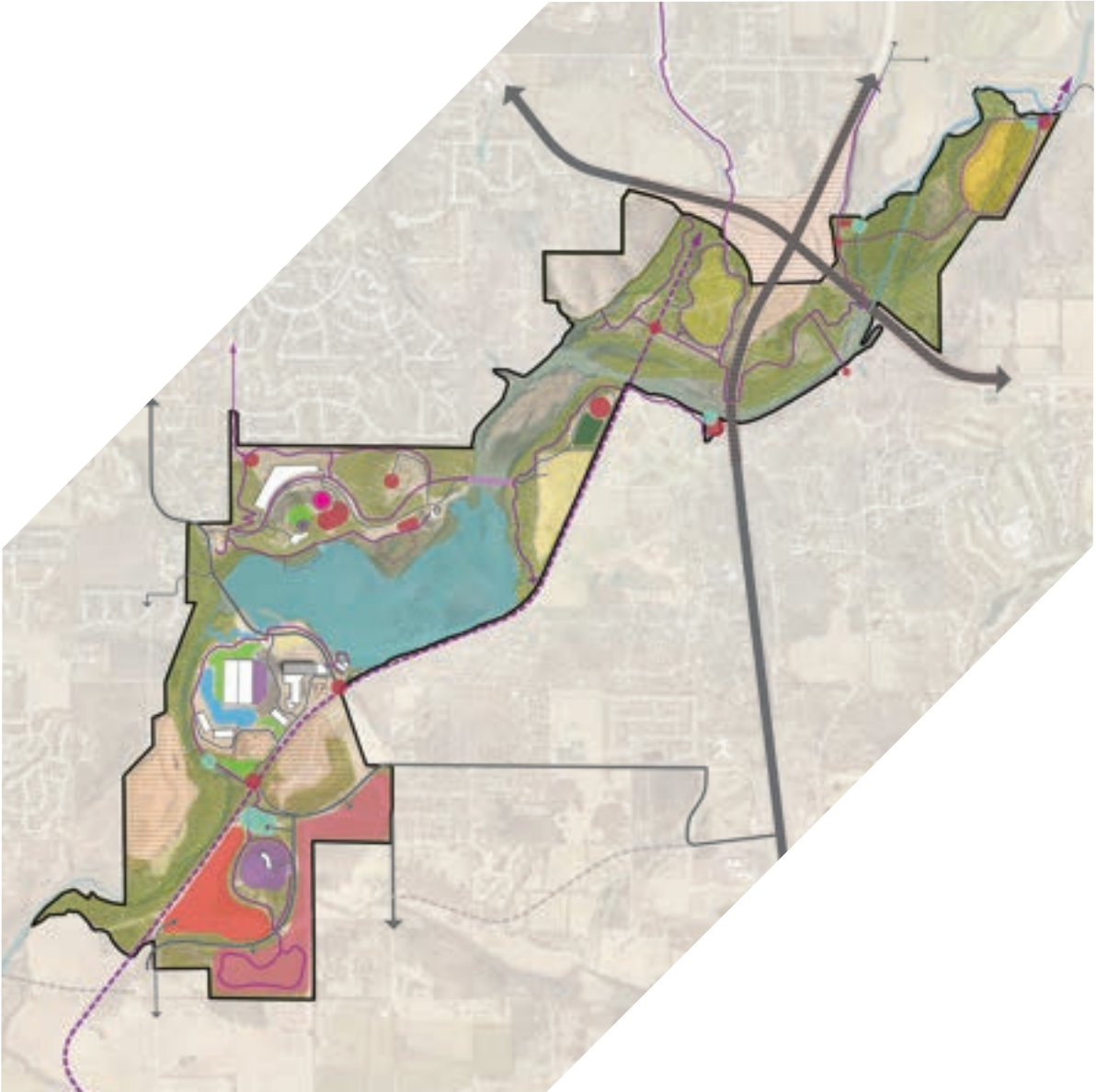
LAND-USE CONCEPTS



01

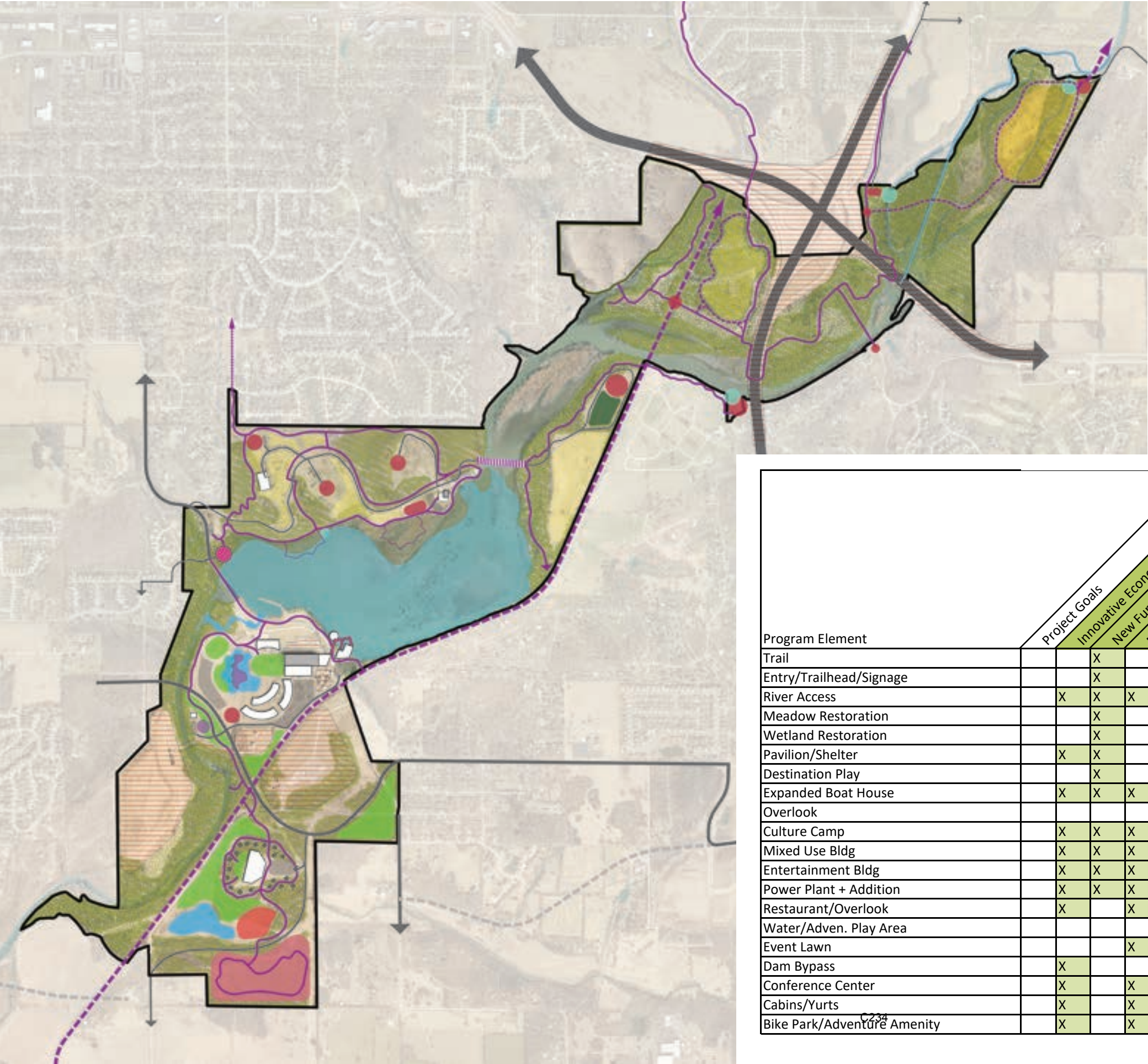


02



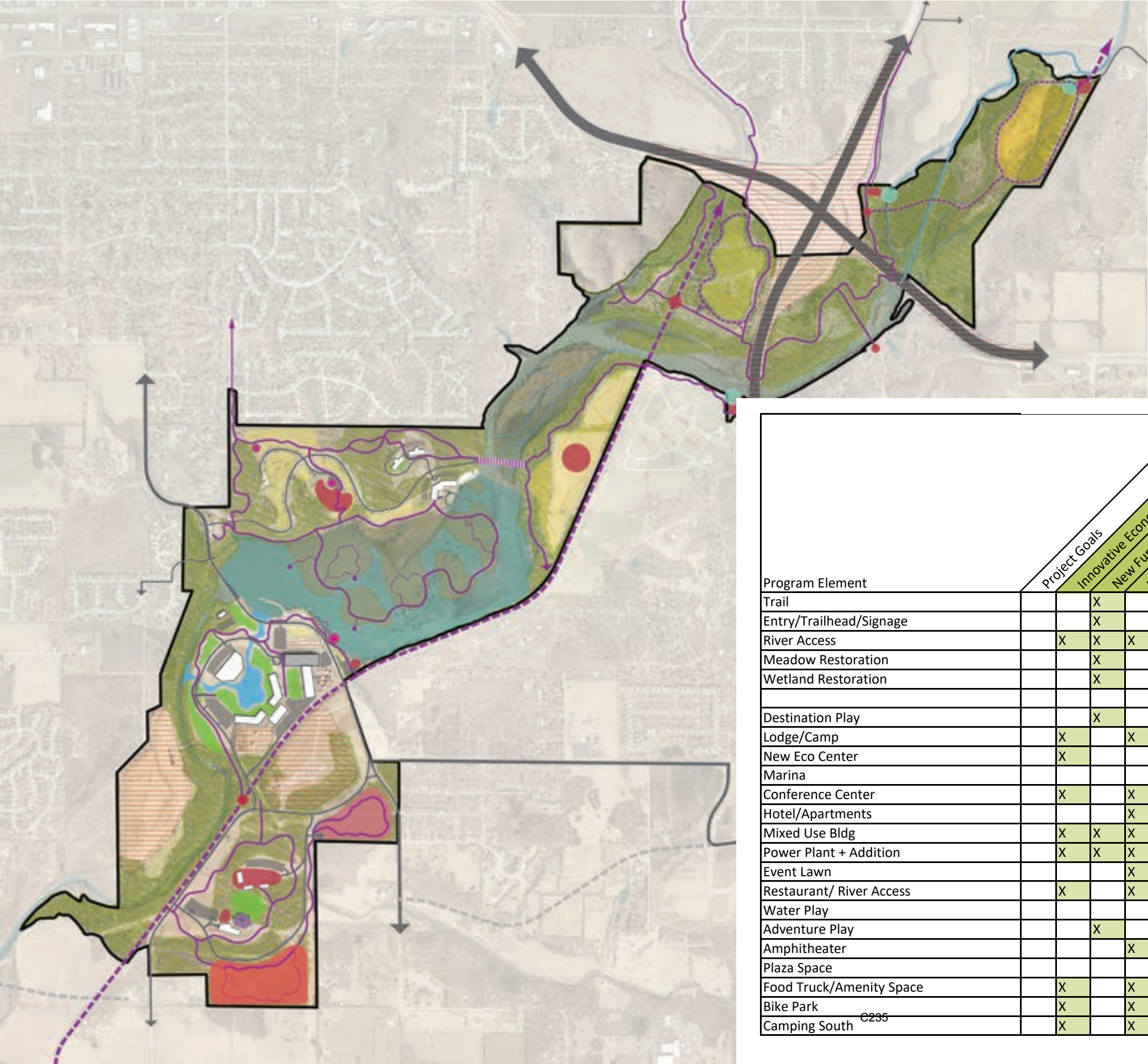
03

LAND-USE CONCEPT ENTERTAINMENT



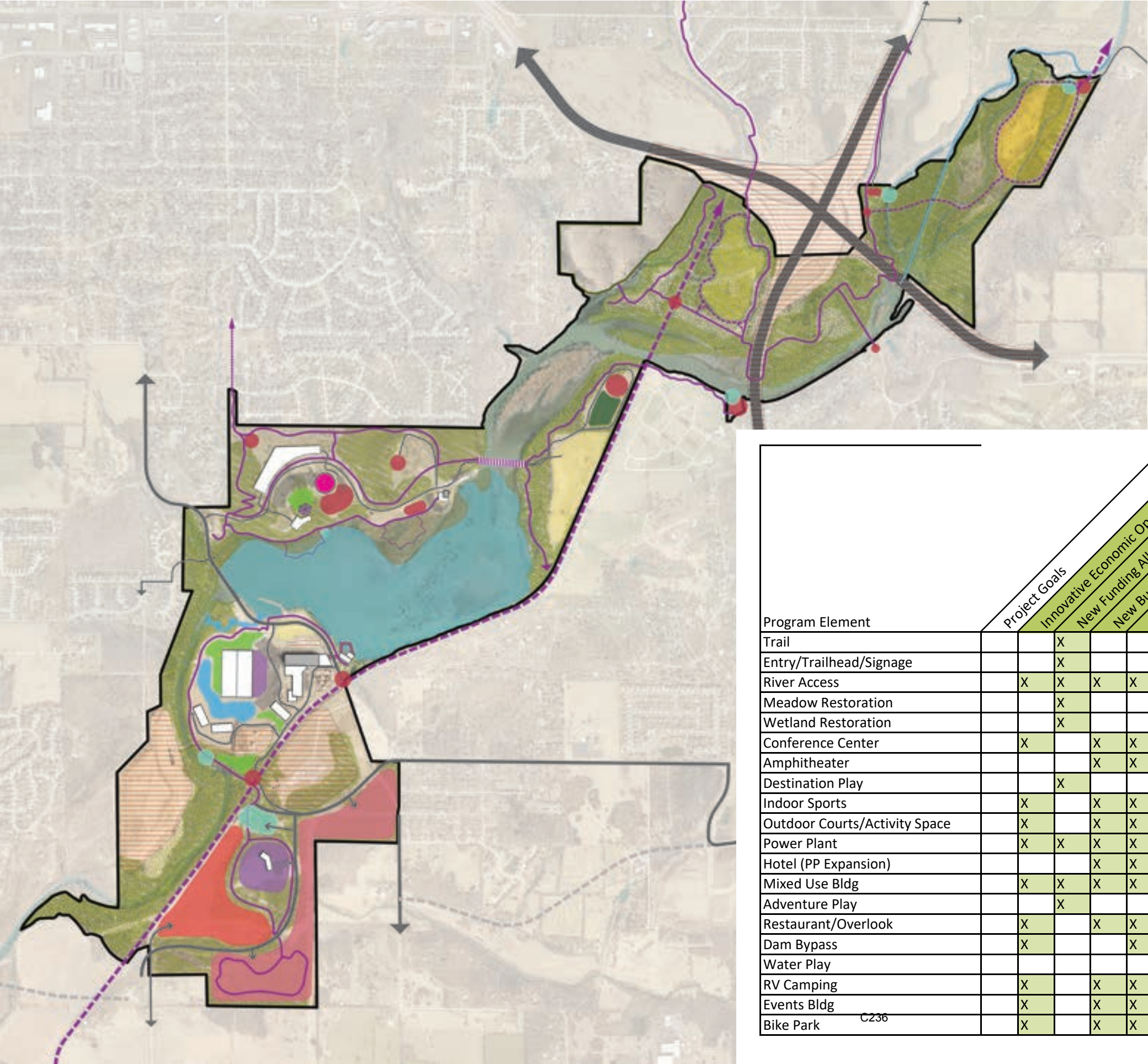
Program Element	Project Goals	Innovative Economic Opportunities	New Funding Allocations	New Business Development	Attract Private Investment	Resilient Job Creation	New/Green Infrastructure	Sustainable Water Quality	Appealing Outdoor Amenities	Identity - "Basecamp of the Ozarks"	Unique Adaptive Reuse Opportunities	Access/Multi-modal Transportation	Water Access for Recreation	Elevate the Quality of Life	Regional Draw
Trail		X			X	X		X	X		X	X		X	X
Entry/Trailhead/Signage		X			X	X		X	X		X			X	
River Access	X	X	X	X	X		X	X	X		X	X	X	X	X
Meadow Restoration		X			X	X	X		X				X		
Wetland Restoration		X			X	X	X	X	X		X		X	X	X
Pavilion/Shelter	X	X		X	X			X	X				X	X	
Destination Play		X				X		X	X	X	X		X	X	
Expanded Boat House	X	X	X	X	X			X	X	X	X		X	X	X
Overlook								X	X	X				X	
Culture Camp	X	X	X	X	X			X	X	X	X			X	X
Mixed Use Bldg	X	X	X	X	X				X	X	X				X
Entertainment Bldg	X	X	X	X	X			X	X	X	X			X	X
Power Plant + Addition	X	X	X	X	X			X	X	X	X			X	X
Restaurant/Overlook	X		X	X	X			X							X
Water/Adven. Play Area					X	X	X	X	X		X		X	X	X
Event Lawn			X	X	X			X	X						X
Dam Bypass	X			X	X	X	X	X	X		X		X		X
Conference Center	X		X	X	X										X
Cabins/Yurts	X		X	X	X			X	X	X	X			v	X
Bike Park/Adventure Amenity	X		X	X	X			X	X		X			X	X

LAND-USE CONCEPT OZARK EXPERIENCE



Program Element	Project Goals														
	Innovative Economic Opportunities	New Funding Allocations	New Business Development	Attract Private Investment	Resilient Job Creation	New/Green Infrastructure	Sustainable Water Quality	Appealing Outdoor Quality	Identity - "Basecamp of the Ozarks"	Unique Adaptive Amenities	Innovative Reuse Opportunities	Access/Multi-modal Transportation	Water Access for Recreation	Elevate the Quality of Life	Regional Draw
Trail	X			X	X		X	X		X	X		X	X	
Entry/Trailhead/Signage	X			X	X		X	X			X		X		
River Access	X	X	X	X	X		X	X		X	X	X	X	X	
Meadow Restoration		X			X	X	X		X				X		
Wetland Restoration		X			X	X	X	X		X		X	X	X	
Destination Play		X				X		X	X	X			X	X	
Lodge/Camp	X		X	X	X			X	X	X			X	X	
New Eco Center	X				X			X	X					X	
Marina				X		X	X	X		X	X	X	X	X	
Conference Center	X		X	X	X									X	
Hotel/Apartments			X	X	X			X					X	X	
Mixed Use Bldg	X	X	X	X	X			X	X	X				X	
Power Plant + Addition	X	X	X	X	X			X	X	X			X	X	
Event Lawn			X	X	X			X	X					X	
Restaurant/ River Access	X		X	X	X			X				X		X	
Water Play					X	X	X	X		X		X	X	X	
Adventure Play		X				X		X	X	X			X	X	
Amphitheater			X	X				X	X					X	
Plaza Space				X	X			X	X		X			X	X
Food Truck/Amenity Space	X		X	X	X			X	X					X	
Bike Park	X		X	X	X			X	X		X			X	X
Camping South	X		X	X	X			X	X	X	X			X	X

LAND-USE CONCEPT RECREATION

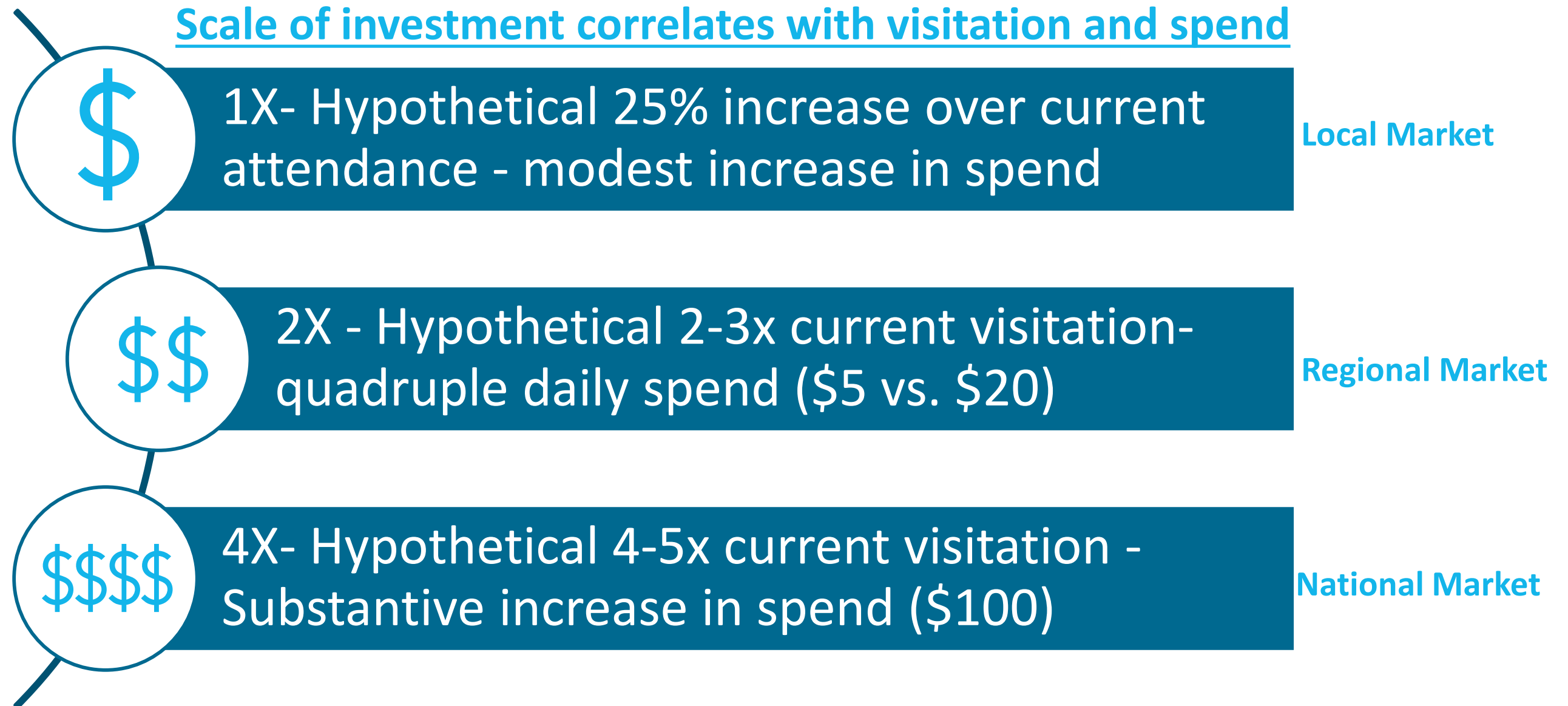


Program Element	Project Goals															
	Innovative Economic Opportunities	New Funding Allocations	New Business Development	Attract Private Investment	Resilient Job Creation	New/Green Infrastructure	Sustainable Water Quality	Appealing Outdoor Amenities	Identity - "Basecamp of the Ozarks"	Unique Adaptive Reuse Opportunities	Access/Multi-modal Transportation	Water Access for Recreation	Elevate the Quality of Life	Regional Draw		
Trail		X			X	X		X	X		X	X		X	X	
Entry/Trailhead/Signage		X			X	X		X	X			X		X		
River Access	X	X	X	X	X		X	X	X		X	X	X	X	X	
Meadow Restoration		X			X	X	X		X				X			
Wetland Restoration		X			X	X	X	X	X		X		X	X	X	
Conference Center	X		X	X	X										X	
Amphitheater			X	X			X	X							X	
Destination Play		X				X		X	X	X	X			X	X	
Indoor Sports	X		X	X	X			X	X		X				X	
Outdoor Courts/Activity Space	X		X	X	X			X	X		X				X	
Power Plant	X	X	X	X	X			X	X	X	X			X	X	
Hotel (PP Expansion)			X	X	X			X						X	X	
Mixed Use Bldg	X	X	X	X	X			X	X	X					X	
Adventure Play		X				X		X	X	X	X			X	X	
Restaurant/Overlook	X		X	X	X			X							X	
Dam Bypass	X			X	X	X	X	X	X		X		X		X	
Water Play					X	X	X	X	X		X		X	X	X	
RV Camping	X		X	X	X			X	X	X	X			X	X	
Events Bldg	X		X	X	X			X							X	
Bike Park	X		X	X	X			X	X		X			X	X	

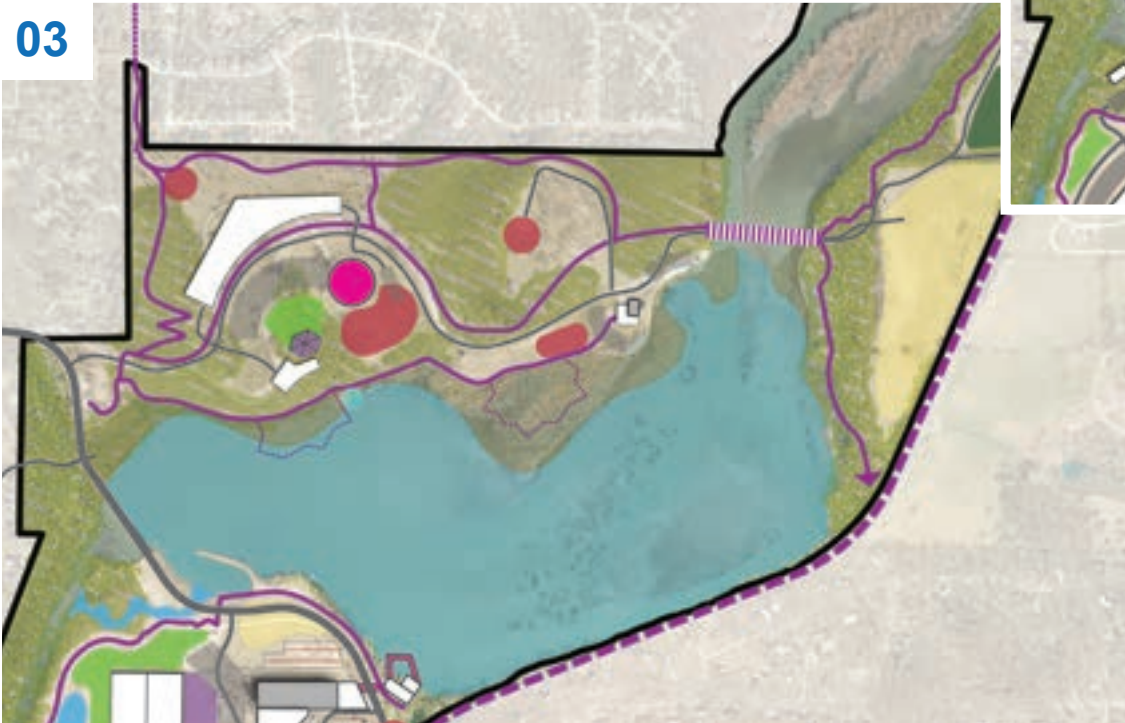
LAKE SPRINGFIELD PROGRAMMING HIERARCHY

Level of Investment

Scale of investment correlates with visitation and spend



LAND-USE CONCEPT - LAKE



PARK	Economic Impact	Social Impact	
Option 01			
Pavilion	●	●●●	
Destination Play	●	●●●●	
Expanded Boat House	●●●	●●●	
Overlook	●	●●	
Culture Camp	●●●	●●	
TOTAL	9	14	23
Option 02			
Destination Play	●	●●●●	
Lodge/Camp	●●●	●●	
New Eco Center	●	●●●	
Marina	●	●●●	
TOTAL	6	12	18
Option 03			
Conference Center	●●●	●●	
Amphitheater	●●●●	●●●	
Destination Play	●	●●●●	
TOTAL	8	9	17

LAND-USE CONCEPT - POWER PLANT



POWER STATION

	Economic Impact	Social Impact
--	-----------------	---------------

Option 01

1 Mixed Use 01 (PER LEVEL)	●●	●●
2 Mixed Use 02 (PER LEVEL)	●●	●●
3 Entertainment (PER LEVEL)	●●	●●
4 Mixed Use 04 (PER LEVEL)	●●	●●
5 Power Plant + Addition	?	?
6 Adventure Play Area	●●●●	●●●●
7 Shelter/Hosp Bldg	●	●●●●
8 Destination Play	●	●●●●
9 Event Lawn	●	●●●●
TOTAL	15	24

Option 02

1 Conference Center (PER LEVEL)	●●●	●●
2 Hotel/Apartments*	●	●
3 Mixed Use 02 (PER LEVEL)	●●	●●
4 Mixed Use 03 (PER LEVEL)	●●	●●
5 Power Plant + Addition	?	?
6 Event Lawn	●	●●●●
7 Restaurant/River Access	●●●	●●●
TOTAL	12	14

*future phase

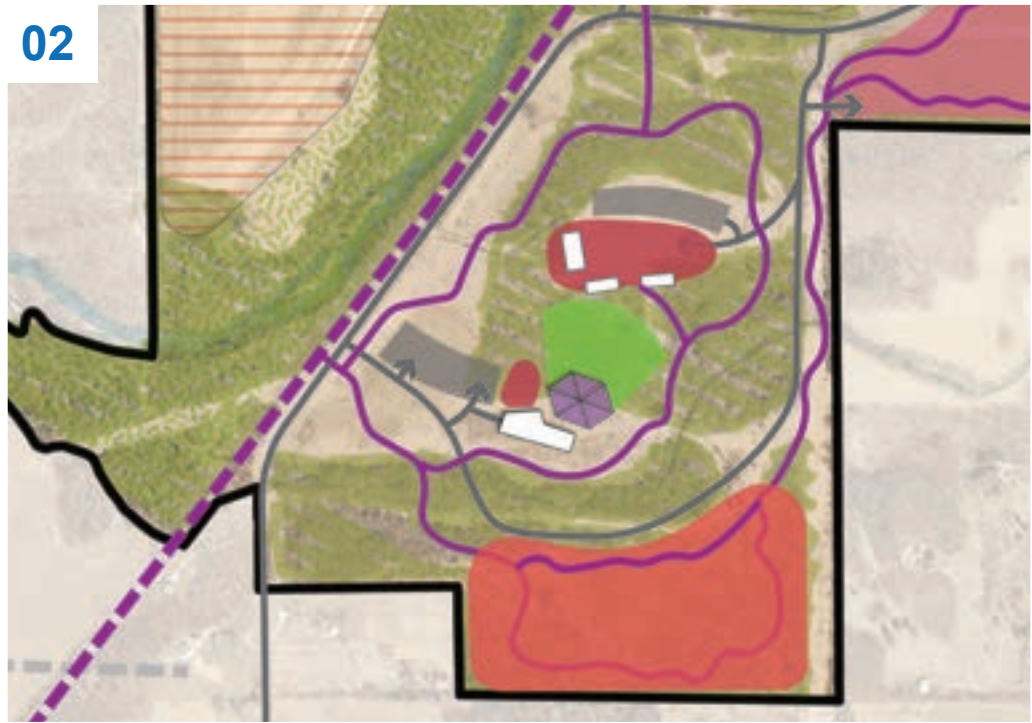
Option 03

1 Indoor Sports	●●●●	●●●●
2 Outdoor Courts/Activity Space	●●●●	●●●●
3 Power Plant	?	?
4 Hotel (PP Expansion)	●●●●	●●
5 Mixed Use 01	●●	●●
6 Mixed Use 02	●●	●●
7 Hotel 02*	●	●
8 Adventure Play	●●●●	●●●●
9 Restaurant/Overlook	●●●●	●●●●

TOTAL	25	23
-------	----	----

*future phase

LAND-USE CONCEPT - SOUTH



SOUTH END	Economic Impact	Social Impact	
Option 01			
1 Conference Center	● ● ●	● ●	25
2 Amenity Area	●	● ● ● ●	
3 Cabins/Yurts	● ●	● ●	
4 Destination Play	●	● ● ● ●	
5 Bike Park/Adventure Amentity	● ● ●	● ● ●	
TOTAL	10	15	
Option 02			
1 River Access	●	● ● ●	26
2 RV Camping (West)	● ●	● ●	
3 Camping (East)	●	●	
4 Destination Play	●	● ● ● ●	
5 Events Bldg	● ●	● ● ●	
6 Bike Park	● ● ●	● ● ●	
TOTAL	10	16	
Option 03			
1 Amphitheater	● ● ● ●	● ● ●	21
2 Plaza Space	●	● ● ●	
3 Food Truck/Amenity Space	●	● ● ●	
4 Camping North	●	● ●	
5 Camping South	●	● ●	
TOTAL	8	13	

Johnson Consulting – Case Studies

Introduction

To understand the market opportunity for the Lake Springfield site, the team reviewed several case study profiles on a variety of different land uses that exist in comparable markets. Full case study reviews are included in a technical appendix at the end of this plan.

The following profiles were analyzed:

- Active and Passive Recreational Parks
 - Origins Park – Jeffersonville, Indiana
 - Forest Park – St. Louis, Missouri
- Reclaimed Mills & Power Plants
 - Optimist Hall – Charlotte, North Carolina
 - Falls Park – Sioux Falls, South Dakota
 - Hollywood Sports – Bellflower, California
- Outdoor Recreation Resort
 - Greylock Glen Resort – Adams, Massachusetts
 - Camp Aramoni – Tonica, Illinois
- Multi-Purpose Event Centers
 - CenterPlace Regional Event Center – Spokane Valley, Washington
 - The Gathering Place & River Parks – Tulsa, Oklahoma
 - Gumbo Limbo Nature Center – Boca Raton, Florida
 - The Grand Experience & RecPlex – West Des Moines, Iowa
- Casinos
 - Harrah’s Cherokee Casino – Maggie Valley, North Carolina
 - Mohegan Sun – Uncasville, Connecticut

The case studies present information about each use, as well as market comparisons to Springfield. The goal of these reviews was to present both visionary options to what might work within the Springfield community, as well as understand realistic impacts to proposed ideas.

Additionally, using case studies for the second public meeting gave public participants a chance to see real ideas of what they could be when fully implemented.

The following profiles outline information on programming, operations, size, and character of spaces, demand profile, and other characteristics and key attributes will be summarized. Below are the 5 types of land uses.

Land Uses

- Active and Passive Recreational Parks
 - Origins Park – Jeffersonville, Indiana
 - Forest Park – St. Louis, Missouri
- Reclaimed Mills & Power Plants
 - Optimist Hall – Charlotte, North Carolina
 - Falls Park – Sioux Falls, South Dakota
 - Hollywood Sports – Bellflower, California
- Outdoor Recreation Resort
 - Greylock Glen Resort – Adams, Massachusetts
 - Camp Aramoni – Tonica, Illinois
- Multi-Purpose Event Centers
 - CenterPlace Regional Event Center – Spokane Valley, Washington
 - The Gathering Place & River Parks – Tulsa, Oklahoma
 - Gumbo Limbo Nature Center – Boca Raton, Florida
 - The Grand Experience & RecPlex – West Des Moines, Iowa
- Casinos
 - Harrah’s Cherokee Casino – Maggie Valley, North Carolina
 - Mohegan Sun – Uncasville, Connecticut

Active & Passive Recreational Parks

ORIGIN PARK – JEFFERSONVILLE, INDIANA

Origin Park is a proposed, unique, urban park set in over 400 acres on the north shore of the Ohio River where people can relax, explore, and enjoy the amenities offered around the park. With 1.2 million people within a 30-minute drive, the location of this park is unmatched. The park plan features an outdoor adventure center, an event center, a tree house, a base camp lawn for community programming, two pavilions, a children’s play area, a sledding hill, and other greenspaces including trails and meadows, including the 2.8-mile infinity loop trail. The first phase of the plan focuses on the southeast quadrant of the site, about one-third of the master plan, and includes the River Arts House, ravine bridge, the event center and lawn, an event pavilion, the Mill Creek overlook, trails, and Silver Creek paddling access. The River House building will eventually become an artist studio, but will first serve as the headquarters for

the River Heritage Conservancy. In an article published in September 2022, the Executive Director of the park reported that they want to provide a complete park experience in the first phase that includes all necessary amenities, and states they are unsure of the timeline but hope to have the park completed in the next 10 to 15 years.

Similar to Lake Springfield, there is a low-head dam on Silver Creek that will need to be removed to safely utilize the waterway, but the City is appealing the removal. The City wants to ensure the removal of the dam will not damage surrounding ecosystems. The park team reports that the removal of the dam would improve safety for paddlers and enhance wildlife along the creek.

43_OriginPark

FOREST PARK – ST. LOUIS, MISSOURI

Forest Park is a 1,326-acre public park located in western St. Louis. Opened in 1876, Forest Park hosted several historical events such as the Louisiana Purchase Exposition of 1904 and the 1904 Summer Olympics, and now serves as a civic center. The park, known as the “Heart of St. Louis,” features the St. Louis Zoo, the St. Louis Art Museum, the Missouri History Museum, and the St. Louis Science Center. Over the last couple of decades, the park has undergone a \$100M restoration through a public-private partnership. Founded in 1986, Forest Park Forever is a private nonprofit conservancy that works in partnership with the City of St. Louis and the Department of Parks, Recreation, and Forestry to restore, maintain, and sustain Forest Park. In 2017, the organization raised \$139M for park restoration projections. Forest Park is also supported by private donors, including its 7,000 members and 1,100 volunteers. In addition to the museums and landmarks, the park is also home to The Muny, officially known as the Municipal Theatre Association of St. Louis, the Jewel Box (pictured below), a 7,500 SF greenhouse, Turtle Park, Dwight Davis Tennis Center, the Boathouse, the Dennis and Judith Jones Visitor and Education Center, the Steinberg Skating Rink, the World’s Fair Pavilion, a golf course, and more, in addition to the plentiful greenspace and water features.

Forest Park is owned and operated by the City of St. Louis and attracts 13 million visitors each year, making it the sixth most visited urban park in the United States. There are a total of 10 entrances around the border of the park, allowing for easy accessibility. People can come and visit the cultural institutions, utilize the trails, relax in the plentiful green space, or attend one of the festivals or events occurring on a weekly basis. Several venues, both indoor and outdoor, are available for private event rentals as well.

44_ForestPark

45_ForestPark

Reclaimed Mills & Power Plants

OPTIMIST HALL – CHARLOTTE, NORTH CAROLINA

Previously Highland Park Gingham Mill and Highland Park Mill #1, Optimist Hall was originally home to Charlotte's largest textile mill, built in 1891, and was in operation until 2015. In 2016, White Point Paces Partners purchased the property with the vision of an adaptive reuse project. The project transformed into Charlotte's first food hall, which opened in 2019 and also provides modern office space available for lease and a home for Duke's Energy Innovation Center.

Optimist Hall is a 147,000 SF building that features retail and restaurant tenants ranging from authentic cuisine and crafted cocktails to local artisans. The food hall is open 7 days a week and hosts public events throughout the year and weekly specials such as live music and Taco Tuesday. Currently, space is not available for private event rentals, but on-site restaurants may offer rental opportunities within their spaces.

The venue is accessible by car, rail, bike, scooter, or even walking as the hall is located off of Charlotte's multi-use rail trail. This redevelopment project transformed a turn-of-the-century textile mill into a mixed-use development that appeals to employers, employees, retailers, and customers alike. Optimist Hall maintained the original industrial character while providing a modern amenity to the Charlotte region.

46_OptimistHall

47_OptimistHall

48_OptimistHall

FALLS PARK – SIOUX FALLS, SOUTH DAKOTA

This public park is 128 acres located just north of downtown Sioux Falls, along the Big Sioux River. An average of 7,400 hallows on water drop 100 feet over the course of the Falls each second. The Falls, first visited by Native Americans, has been the center of recreation and industry since the founding of the city of Sioux Falls in 1856. The park includes a café, an observation tower, and the remains of an old mill. There are also picnic shelters with electricity, bike trail access, a visitor center, historic displays, sculptures, playgrounds, and walking paths. Forest Park is also the home to local and regional attractions such as the Falls Park Farmer's Market and the Stockyards Ag Experience.

The Stockyards Ag Experience Plaza and Barn transformed from what history suggests was an old dairy/creamery operation, is a museum and learning center meant to communicate the story of agriculture in the economy and society and showcase the impact it has had on the region.

The Queen Bee Mill is a ruined mill complex located in Falls Park. The mill was built in 1880 and could process 1200 barrels of grain per day and was connected to all five city rail lines. Unfortunately, the business could not meet capacity and the mill closed two years after opening due to bankruptcy. The building eventually became a warehouse until it was destroyed in 1956 in a fire. The building foundations and the grain elevator are all that remain on site and the landmark was added to the National Register of Historic Places in 1984.

49_FallsPark

50_FallsPark

HOLLYWOOD SPORTS – BELLFLOWER, CALIFORNIA

Hollywood Sports is a paintball, airsoft, laser tag, BMX, Futsal, and Rockwall theme park spread over 28 acres, centrally located to Los Angeles in the city of Bellflower. The paintball fields are made and designed from actual movie sets from such classics as Starship Troopers, The Haunting, Saving Private Ryan, Godzilla, Supernova, and Water World. This case study was included as an alternative for an adaptive reuse project for the decommissioned power plant at Lake Springfield. Hollywood Sports Park also features a pro shop, a sports bar and restaurant, as well as a banquet space for private events with a maximum capacity of 200 guests.

This venue is attractive to all ages for events such as birthday parties family outings to corporate events. An attraction such as this would not only provide an option for the use of the power plant at Lake Springfield, it would add to the destination for locals and tourists alike. Paintball and similar venues are also great options for groups, such as tour groups or camping groups already coming to Lake Springfield. Also, as paintball parks are typically privately owned, this could open up opportunities for a public-private partnership for the City of Springfield.

51_HollywoodSports

52_HollywoodSports

Outdoor Recreation Resort

GREYLOCK GLEN RESORT – ADAMS, MASSACHUSETTS

Today, Greylock Glen is full of beautiful scenery that highlights the natural environment and has numerous outdoor recreational activities. In the coming years, the site is planned to be enhanced by adding educational programs, camping, an outdoor amphitheater, an event space, and more while preserving natural and scenic resources. Most recently, the Commonwealth of Massachusetts fully funded the Greylock Glen Outdoor Center, and construction began in 2022.

Greylock Glen encompasses 1,063 acres of fields, wetlands, ponds, trails, and an 18-hole golf course. The Greylock Glen Resort will provide a new visitor experience to a new outdoor recreation destination through sustainable development. New activities include educational programming, biking, bird watching,

camping, concerts, dining, festivals, films, hiking, hunting, ice skating, skiing, rock climbing, and other passive and active recreational activities.

The master plan concept includes a trail system, a 140-site four-season campground, the Thunderbolt Lodge and Conference Center with 170 guest rooms that will support full-service meeting events, an amphitheater, an environmental art garden, and the 10,000 SF outdoor center, shown below, that is currently under construction.

53_GreylockGlen

54_GreylockGlen

CAMP ARAMONI – TONICA, ILLINOIS

Camp Aramoni is a family-owned boutique campground located on a 96-acre site in Tonica, Illinois. Once home to Ristokrat Clay Products Company, a former brickyard, was restored by a husband and wife team with the help of their family and local partners, creating a glamping destination in the Midwest. The Ristokrat Clay Products Company opened in 1870 and closed in 1981, leaving a profound impact on the community. Most of the site was bulldozed, but the remaining structures have since been restored with the construction of Camp Aramoni, including kilns, a blacksmith shop, and railroad tracks. Camp Aramoni has incorporated historical elements throughout the site. The camp itself is named after the Vermilion River, originally known as the Aramoni, used by the Miami-Illinois Native Americans.

The main draw to Camp Aramoni is the upscale camping. There are 11 safari-style tents that guests can choose from, each inspired by native Illinois wildflowers. Each tent can accommodate 2-6 guests and includes air conditioning, heat, a private bathroom, a mini fridge, a personal firepit, and more. Guests can experience nature in luxury with inclusive meals and activities on-site. The Barn offers space for dining and relaxing and is also home to the site's General Store, Gertie's.

Bricks and Stones is the historical event space at Camp Aramoni. The 150-year-old building has been preserved and renovated and now serves as a venue for weddings, corporate retreats, and large outdoor functions. With a total occupancy of 48 in the tents, this is a unique locale for intimate weddings and other private events.

55_Aramoni

56_Aramoni

Multi-Purpose Event Centers

CENTERPLACE REGIONAL EVENT CENTER – SPOKANE VALLEY, WASHINGTON

The CenterPlace Regional Event Center is located on the west side of the Spokane River, just south of Mirabeau Point Park. Downtown Spokane is about 11 miles west of CenterPlace. In 2003, an Interlocal

Agreement for the development of what is now the CenterPlace, and two other regional destinations, was approved. The agreement helped to gather the resources to construct the three regional projects.

The venue is currently owned and operated by the City of Spokane Valley. CenterPlace offers 54,000 SF of conference space, including two banquet rooms, a 100-seat auditorium, and other meeting spaces. There are also three large outdoor spaces, often used for ceremonies and receptions. While this is a popular venue for private events such as weddings, there are numerous community events hosted on-site as well. For example, there are community festivals, food truck events, and outdoor vendor markets. In 2022, there were a total of 820 hosted at CenterPlace.

Spokane Valley offers recreational activities, retail shopping, and restaurants within a short distance of CenterPlace. However, there are only two hotels located within a ½-mile radius of CenterPlace, totaling 192 rooms, likely due to the majority of urban density being located in Spokane, rather than Spokane Valley.

57_Centerplace

58_Centerplace

59_Centerplace

THE GATHERING PLACE & RIVER PARKS – TULSA, OKLAHOMA

Voted Best New Attraction in 2019 and USA Today's Best City Park in 2021, The Gathering Place is a 66.5-acre park along the Arkansas River that was funded by over 80 corporate and philanthropic organizations – the largest privately funded park project in the United States. Construction began in 2014 and the park, designed by opened in 2018. Once Phase II and Phase III are complete, the Gathering Place will be 100 acres in total. The main features of the park include five sports courts, a skate park, a swing hill, gardens, multifunctional lawns for events or relaxation, a pond for boating, a 5-acre playground, public art, the Discovery Lab, Mist Mountain, Williams Lodge, which is home to cafes, indoor event spaces, restrooms, and other amenities, and lastly the ONEOK Boathouse. The Boathouse is a central event venue in the community fit for corporate events and social gatherings. The three-level, 21,000 SF ONEOK Boathouse is home to the Vista at the Boathouse, offering a seasonal menu based on park activities. Visitors can also rent kayaks, canoes, and pedal boats for free on the first floor. In addition to the event hall, the boathouse also serves as an administrative office for the park. Accessibility is a landmark of this project. The park is built to full ADA compliance, offers sensory processing support, and is completely free including educational activities and a full week of family-friendly programming over Spring Break. Visitors can also download the Gathering Place App for free to find daily activities, schedules, maps, and more.

The Gathering Place is situated just north of the Tulsa River Parks. River Parks offers 26 miles of asphalt trails that weave past gathering areas, playgrounds, fountains, and sculptures. Outdoor events occur throughout the year such as concerts, festivals, and athletic competitions. Visitors can also take advantage of seasonal recreational activities such as fishing, rowing, kayaking, disc golf, and hiking. River Parks was established as a public-private partnership in 1974, with Tulsa County and the City of Tulsa providing the majority of operational funding, supplemented by private benefactors.

*60_Gathering**61_Gathering***GUMBO LIMBO NATURE CENTER – BOCA RATON, FLORIDA**

The Gumbo Limbo Environmental Complex, commonly known as the Gumbo Limbo Nature Center, is a nature center operated by the City of Boca Raton in conjunction with the Gumbo Limbo Coastal Stewards and the Greater Boca Raton Beach and Park District. Gumbo Limbo sits on 20 acres of protected barrier island between the Intracoastal Waterway and the Atlantic Ocean. The name of the center comes from the Bursera Simaruba tree, commonly known as gumbo limbo, which is abundant in the park.

The center has free admission and includes an indoor museum, small aquariums, and a gift shop. Outside, there are several larger aquariums, a boardwalk trail through adjacent woods, and a garden designed for butterfly observation. There are organized events at the nature center as well, such as sea turtle observation during nesting season. The nature center is also home to a research facility for Florida Atlantic University's Department of Biological Sciences. Research is focused on turtles, sharks, and seagrass. Visitors can view the facility and speak with researchers. The nature center has other educational opportunities as well such as scholarships, internships, and virtual learning options.

*62_Gumbo**63_Gumbo***THE GRAND EXPERIENCE & RECPLEX – WEST DES MOINES, IOWA**

West Des Moines, Iowa recently opened a \$62M sports complex covering 66 acres, the MidAmerican Energy Company RecPlex. The facility features a 150,000 SF corporate-sponsored turf and hardcourt fieldhouse, 2 indoor ice arenas, 20,000 SF of exhibit space, and 30,000 SF of additional meeting and programming space. The fieldhouse can be set up for three basketball courts or six volleyball courts. There is also a fourth multi-purpose court, pickleball courts, warm-up and batting cage area, and a 3,500 SF Esports Center. The Esports center can be used for gaming, private parties, and can be used as a computer lab for classes. The RecPlex opened in early 2022 and was fully booked out in the first year, with a projected \$3.1M in revenues for the first year of operation.

Across the street from the RecPlex, a planned development dubbed "The Grand Experience" will add a 405-room hotel, an indoor/outdoor waterpark, a family entertainment center, a conference center, and a parking garage. Ancillary development will also include a residential district and an entertainment district. The Grand Experience will be a product of a public-private partnership with a private developer and the City of West Des Moines. With both the RecPlex and The Grand Experience within the same node, the City of West Des Moines will be able to offer a complete destination package at this recreation and entertainment hub.

64_WDM

65_WDM

Casinos

HARRAH'S CHEROKEE CASINO RESORT – MAGGIE VALLEY, NORTH CAROLINA

Harrah's Cherokee Casino Resort is a casino and hotel on the Qualla Boundary in Cherokee, NC owned by the Eastern Band of Cherokee Indians (EBCI) and operated by Caesars Entertainment. Harrah's Cherokee Casino Resort offers luxury hotel accommodations, excitement at the casino, celebrity chef restaurants, world-class golf, shows and events, bowling, arcade games, shopping, pools, a spa, and more, all while taking in the sights of the Great Smoky Mountains. The 1,800-room upscale hotel is attached to the casino and offers over 121,000 SF of conference and event space throughout the property, capable of hosting over 3,000 guests. The 150,000 SF casino itself provides a classic casino experience with a 90' Sportsbook screen, 3,000 slots, and over 160 table games.

Since its opening in 1997, the site has undergone a number of renovations. Most recently, the fourth renovation costing \$250M added the fourth hotel tower with 725 rooms, a new 2-story lobby, pool, fitness center, and the 83,000 SF convention center and ballroom. This latest renovation made the hotel the largest in North Carolina.

The casino greatly improved the living standards on the Qualla Boundary including a new school, a hospital, public housing, and upgrades to public safety services such as police, fire, and EMS. Additionally, a portion of the casino's revenues is distributed directly to all members of the EBCI as a form of basic income. In 2012 when the casino began offering live table games, officials reported that an estimated 500 new jobs were created due to the table games. Numbers provided by the tribe's Office of Budget & Finance show that gaming revenue from Harrah's totaled more than \$393 million in 2018.

66_Harrah

67_Harrah

MOHEGAN SUN CASINO & RESORT – UNCASVILLE, CONNECTICUT

Located on the Thames River on the Mohegan Reservation, created by the Mohegan Tribe of Connecticut, is Mohegan Sun, sitting on 240 acres. This national destination includes two casinos, a family entertainment center, two spas, 375,000 SF of meeting facilities, major entertainment venues including an arena and a comedy club, 130,000 SF of retail, over 45 bars and restaurants, 2 indoor pools, a seasonal golf course, and more. The 145,000 SF Earth Expo & Convention Center and the 10,000-seat Mohegan Sun Arena are both on-site, providing large event space from conferences to concerts to WNBA games. There is also the 300-seat Wolf Den and a 350-seat Cabaret Theatre. The casinos boast more than 300 table games, nearly 400 slot machines, a state-of-the-art Poker Room, and over 300,000 SF of gaming. Mohegan Sun has also partnered with FanDuel Sportsbook for sports betting, complemented by 39 betting kiosks on-site, in addition to the 140' video wall streaming games at all times located in Casino of the Earth.

As of 2022, Mohegan Sun was voted “Best Casino Hotel” for the fifth year in a row. The two-tower hotel features 1,563 luxury guest rooms with over 175 suites and 5 hospitality suites. At the end of the 2018 fiscal year, it was reported that Mohegan Sun’s net revenue was \$1.07 billion. An article published in October 2022 reports that Mohegan Sun delivers more than \$2.2 billion in local economic activity to Connecticut.

68_Mohegan

69_Mohegan



REIMAGINE

THE INTERSECTION OF NATURE, RECREATION, &
ECONOMIC DEVELOPMENT

Lake Springfield Plan Acceptance

Springfield City Council
April 8, 2024



TODAY

- ✓ Plan Goals
- ✓ Plan timeline
- ✓ Public Engagement
- ✓ About the Plan: Executive Summary, The Vision, Creating the Plan
- ✓ About the Plan: Discipline Chapters
- ✓ Next Steps

Plan Acknowledgements



Hatch





Plan Goals

PLAN GOALS

1. Attract Innovative **Economic Development & Resilient Job Creation** within the study area that complements Regional Vision and Priorities
2. Develop a strategy for **Sustainable Water Quality & Green Infrastructure** Improvements
3. Establish an **Adaptive Reuse Strategy** for the James River Power Station

PLAN GOALS

4. Focus on **Transportation Enhancements** that are accessible and equitable to Lake Springfield and the surrounding communities
5. Embrace **Active and Passive Recreational Opportunities** as a Regional Economic Development Catalyst
6. Engage the Community in a way that is inclusive of a **Diverse and Multi-cultural Perspective**



Plan Timeline



Lake Springfield area identified as redevelopment opportunity area in the Comprehensive Plan.



2021



EARLY FUNDING

U.S. Dept. of Commerce Economic Develoement Administration (EDA) awards \$800K to fund a redevelopment plan for the Lake SGF area. Grant is matched by \$200K from Hatch Foundation, City Utilities and City of Springfield for a total of \$1M.

GETTING STARTED

Crawford, Murphy & Tilly selected through competitive bidding process. Formation of Community Advisory Team (CAT) and Technical Advisory Team (TAT). Stakeholder groups identified.



2022



RESEARCH

CMT Performs Market Research

PUBLIC ENGAGEMENT

Public Meeting and Survey. Engagements with stakeholder groups, CAT and TAT.



DAM & WATER QUALITY ANALYSIS

CMT and subconsultant Geosyntec perform hydrology assessments.



2023



PUBLIC ENGAGEMENT

Public Meeting and Survey. Continued engagements with stakeholder groups, CAT and TAT.

ACTIVITIES & AMENITIES

CMT presents findings on recreational potential.



VISION

CMT presents vision based on public engagements and research.



ECONOMIC IMPACT

CMT presents findings on economic development potential.



LAND USE PLAN

PUBLIC ENGAGEMENT

Public Meeting and Survey. First opportunity for feedback on Land Use Plan. Continued engagements with stakeholder groups, CAT and TAT.



PUBLIC REVIEW

Additional opportunities for feedback.



ADOPTION



2024

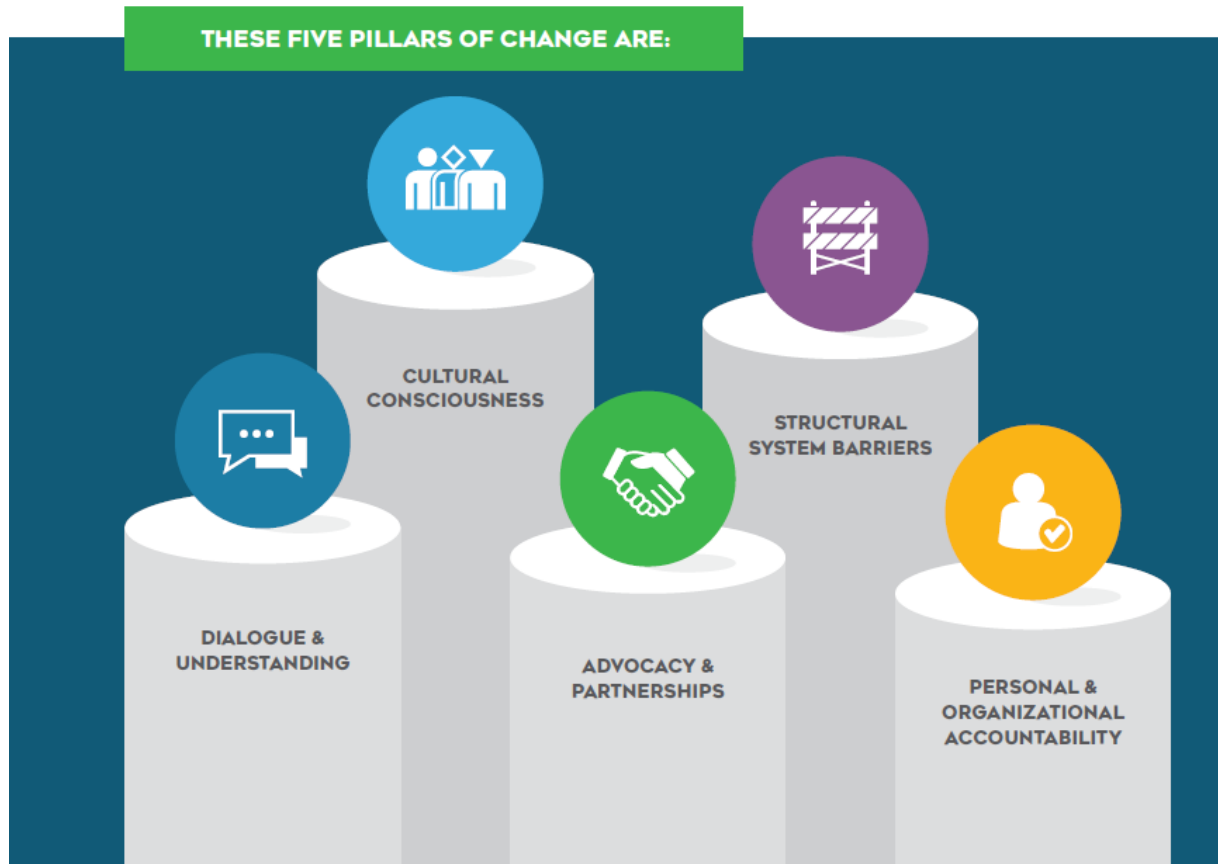
A scenic view of a river flowing under a bridge, surrounded by lush green trees. The text "Public Engagement" is overlaid in the center. The bridge has a white railing with blue wavy patterns. The river is calm, reflecting the sky and the surrounding foliage. In the distance, another bridge is visible through the trees. The sky is blue with some light clouds.

Public Engagement

Community Collaboration

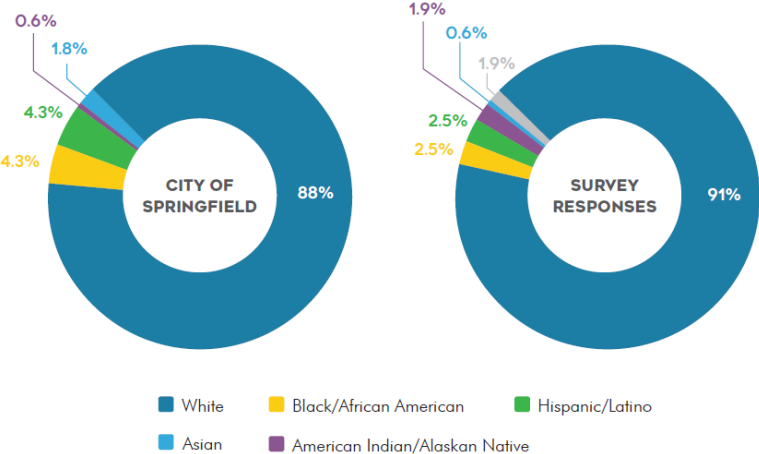
- ✓ 1,000+ people participated in the process
- ✓ 70 distinct engagement touchpoints
- ✓ Core team, advisory teams (community & technical), public meetings, online platform & survey, focus group meetings, stakeholder meetings & presentation, community & public relations
- ✓ Listening → visioning → refining

DIVERSE & INCLUSIVE ENGAGEMENT

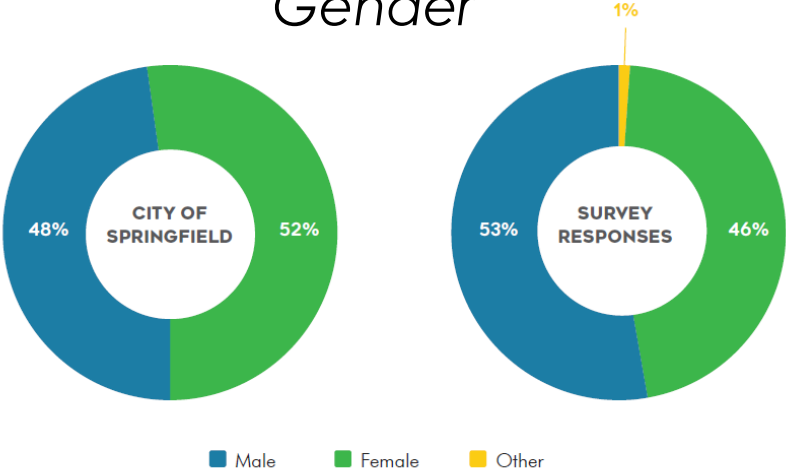


Survey Response Breakdown

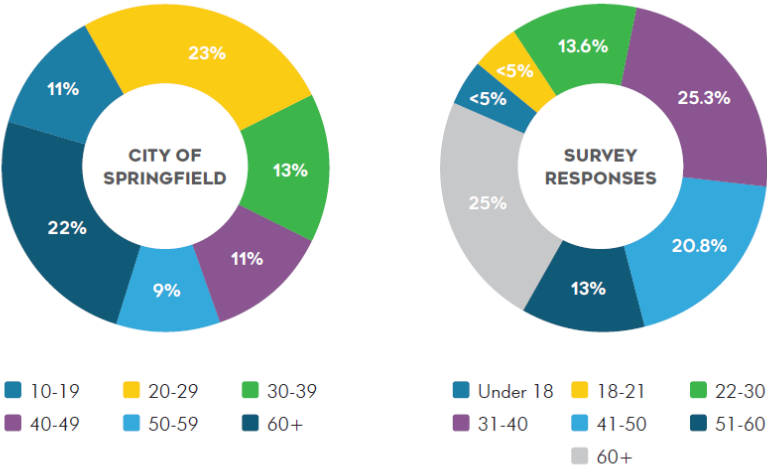
Race/Ethnicity



Gender

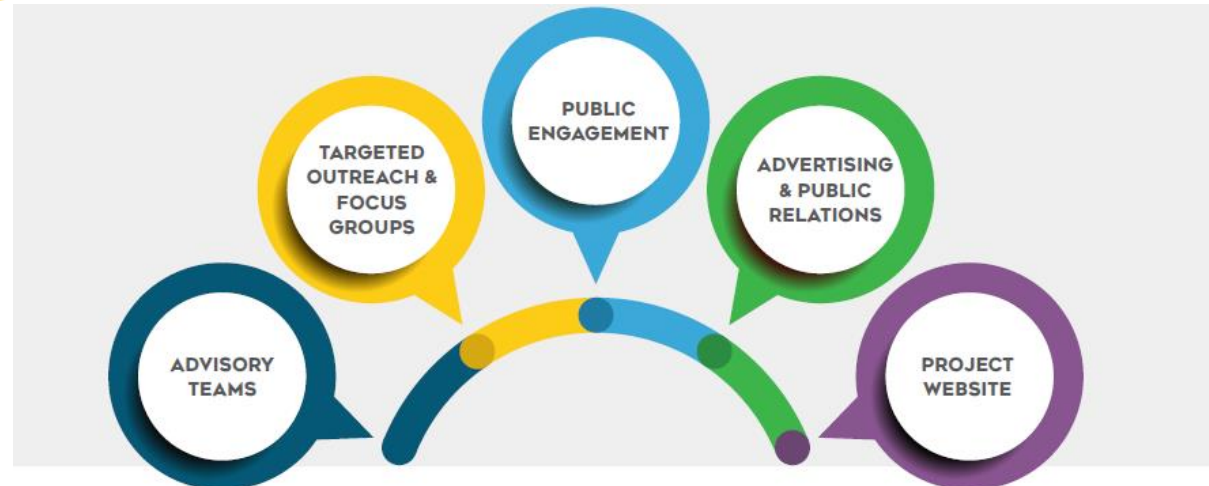
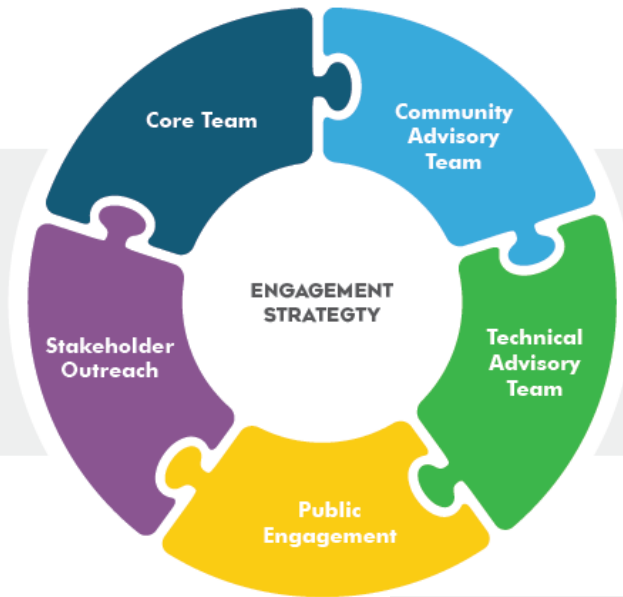


Age



*Reported age breakdown does not match exactly with options on Lake Springfield survey

Engagement Strategy







About the Plan:

Executive Summary, The Vision, Creating the Plan

C O N T E N T S

01

EXECUTIVE SUMMARY

PAGE 1

02

THE VISION

PAGE 15

03

CREATING THE PLAN

PAGE 65

04

TECHNICAL REPORT

PAGE 122 - Hydraulics & Water Quality

PAGE 132 - Transportation

PAGE 154 - Land Use & Programming

PAGE 177 - Economic Development

05

IMPLEMENTATION

PAGE 241

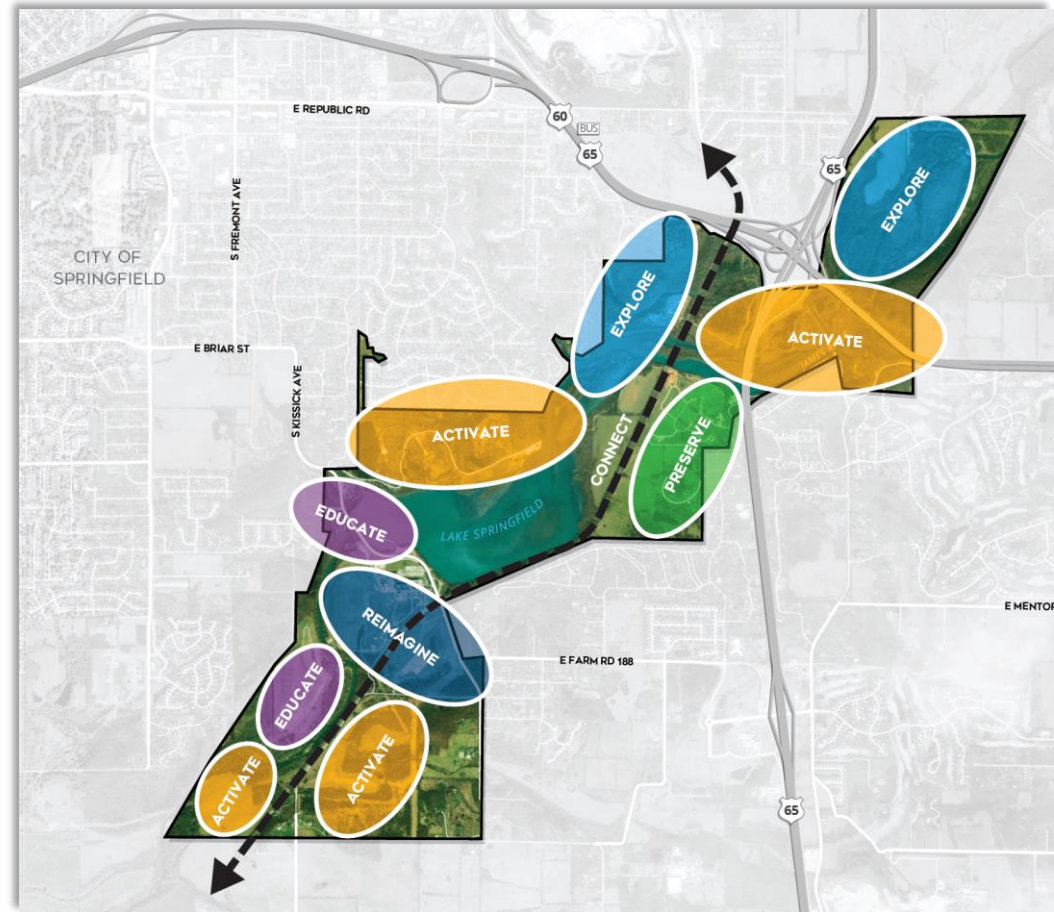
06

APPENDICES

PAGE 256

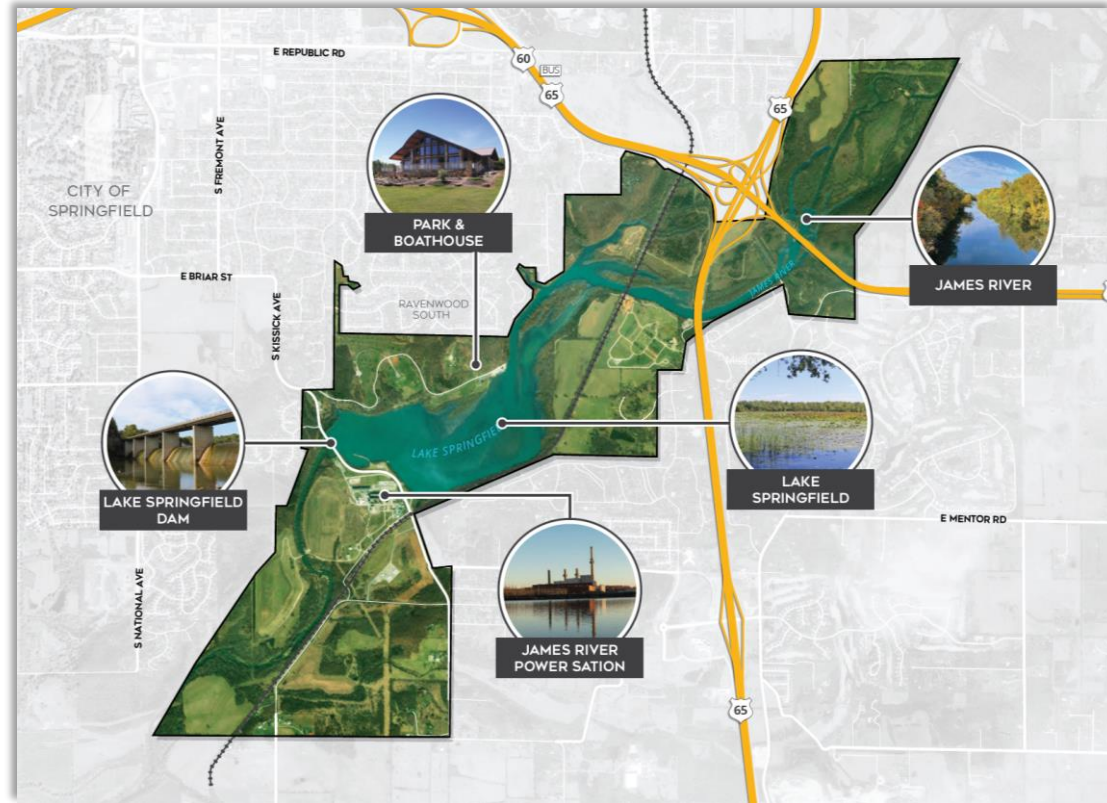
Executive Summary

- Position Lake Springfield planning effort within local planning context & departmental missions
- Setting the stage for the vision of the 1,000-acre planning site
- Outlining plan goals identified within the EDA grant
- How to read the document

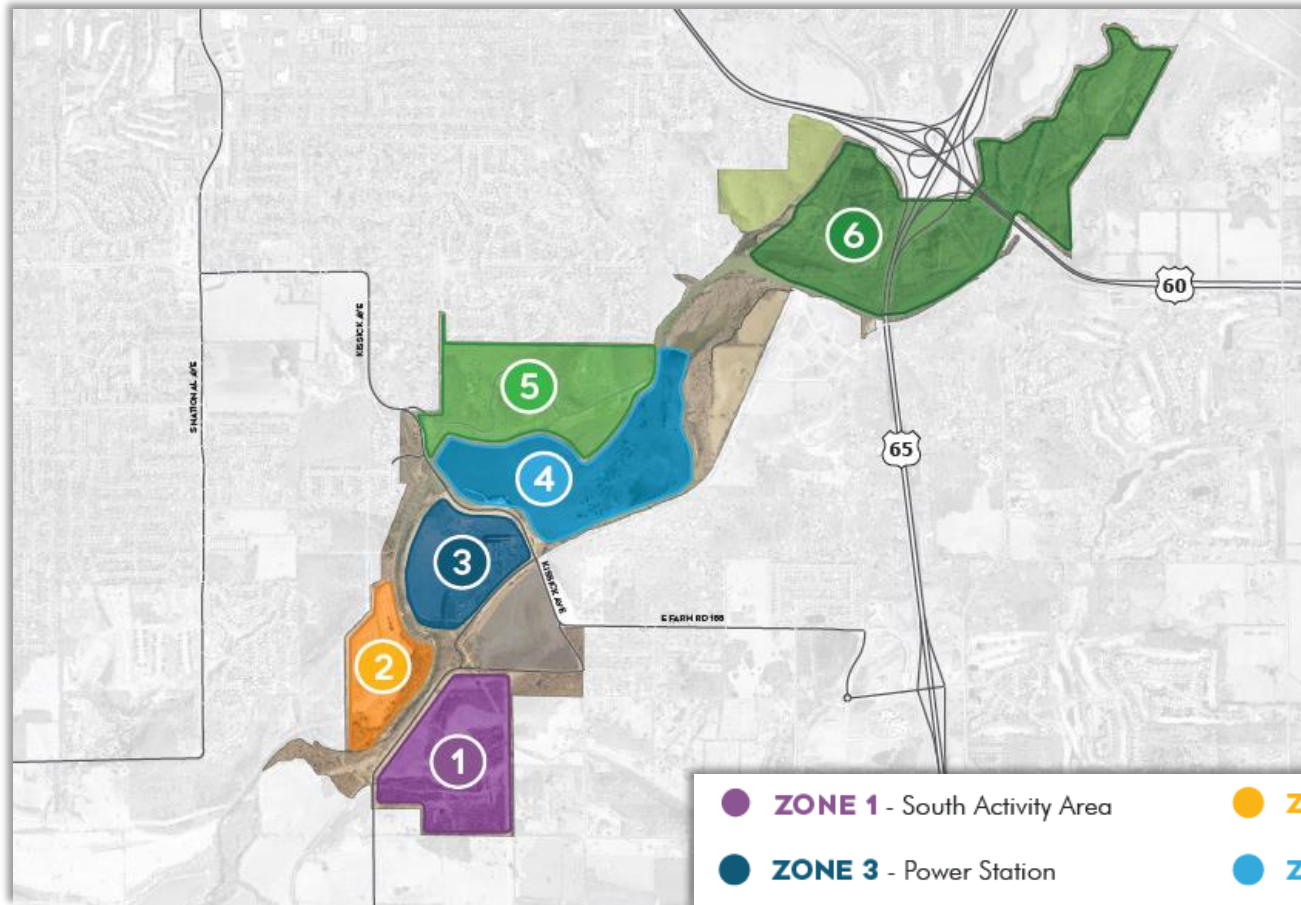


The Vision & Creating the Plan

- Aspirational in nature
- Stand alone piece of the document to present an overview of the plan in its entirety
- Zone analysis explanation
- Concept identification by EDA grant goals
- Renderings & visionary graphics



Planning Zones



● **ZONE 1** - South Activity Area

● **ZONE 3** - Power Station

● **ZONE 5** - Park

● **ZONE 2** - Capped Landfill

● **ZONE 4** - Lake

● **ZONE 6** - North Activity Area



Combination of nature & development that promotes sustainable and resilient job creation for the Springfield Region



● **ZONE 1** - South Activity Area

● **ZONE 3** - Power Station

● **ZONE 5** - Park

● **ZONE 2** - Capped Landfill

● **ZONE 4** - Lake

● **ZONE 6** - North Activity Area

Planning Goals & Zone Overlays

- Goals identified by zones of programming recommendations
- Holistic look at how all of the elements come together for the 1,000 – acre site



Economic Development &
Resilient Job Creation



Sustainable Water Quality
& Green Infrastructure



Adaptive
Reuse



Transportation
Enhancements



Active & Passive Recreation
Opportunities



Holistic and Diverse
Community Input



About the Plan: Discipline Chapters

Hydraulics & Water Quality

- Water Quality Assessment
- Sediment Assessment
- Watershed Assessment
- Dam Regulatory Assessment
- Dam Options Alternatives
- Cost Considerations

HYDRAULICS & WATER QUALITY

Geosyntec Consultants Inc. (Geosyntec) performed a multi-faceted hydrology study as part of the Lake Springfield Sub-area planning process. The purpose of the study was to establish a baseline understanding of the Lake Springfield waterbody (the Lake) and the Lake Springfield Dam (the Dam). The results of the study will be used to inform the development of potential economic growth opportunities and enhancements to recreational opportunities desired by the community.

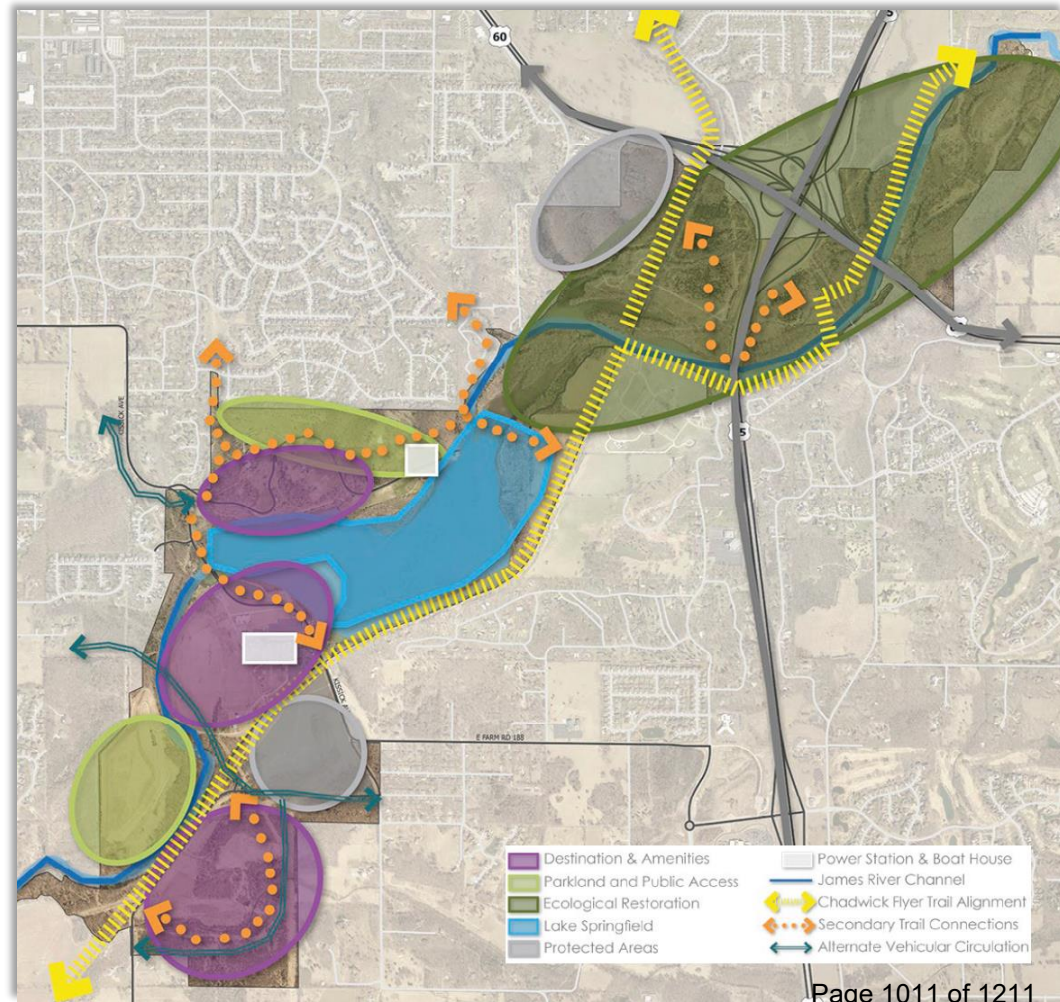
Transportation & Infrastructure

- Vehicular access & connections
- Biking access & connections
- Walking access & connections
- Transit connectivity
- Gateway enhancements
- Utility improvements & considerations



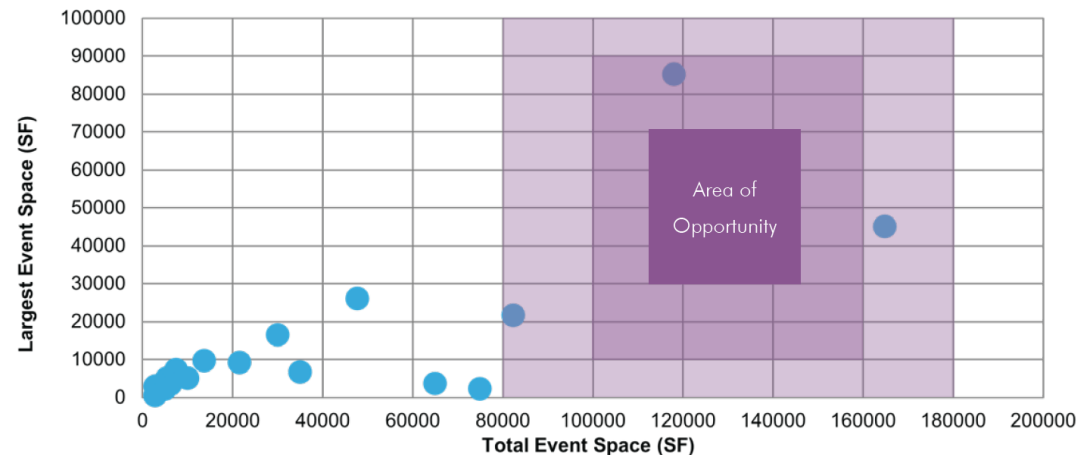
Land Use & Programming

- Programmatic themes for planning area
- Concept refinement
- Site plan recommendations & connectivity within the site
- Concept goal alignment
- Final site plan options



Economic Development

- Springfield market assessment & gap analysis
- Case studies and concepts for refinement
- Economic impact analysis
- Funding mechanisms and feasibility of site programming



Implementation

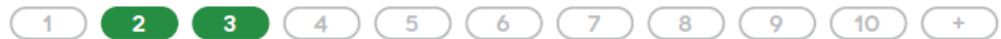
- Project and program specific recommendations and timeline
- Responsible parties for implementation

HOW TO READ THE IMPLEMENTATION CHAPTER

The momentum built around the Lake Springfield plan demonstrates true collaboration and consensus building around the site. The love for this area became quickly apparent as the plan started, and the final site concepts recommended here are the result of intentionally designing with nature to develop the area as an asset to the larger Springfield community. Implementation actions are already starting, and this chapter outlines specific projects to continue implementation momentum.

The projects in this chapter are separated by project goals, the six defined goals of the EDA grant that funding the Lake Springfield Plan. Within each goal are specific projects identified for next steps. The projects are further segmented by public realm investment and private realm investment. Each project includes the identification of what the project is, the timeline for project completion, and responsible party to move that project forward. Total program phasing is identified by 1-, 5- and 10-year milestones. At each of these milestones various elements of site design are to be in progress for project completion.

The timeline for each project is indicated by the 📅 icon and is followed by a visual timeline. For example, the following depicts a project that should be completed between years 2-3.



The responsible party for each project is indicated by the 🧑 icon.



About the Plan: Next Steps

THE IMPLEMENTATION PLAN INCLUDES FOUR LEVELS OF ADMINISTRATION:

1

Establish & Define an Ownership Model

2

Implement a Fundraising Entity & Explore Further Funding Opportunities

3

Public Realm Investment

4

Private Realm Investment



EXPLANATION TO COUNCIL BILL 2024-056 (MCCLURE)

FILED: 04/02/2024

ORIGINATING DEPARTMENT: City Clerk

TITLE: A resolution establishing the Citizens' Commission on Community Investment (CCCI).

PURPOSE: To establish the Citizens' Commission on Community Investment (CCCI).

BACKGROUND INFORMATION: At the general election held on November 3, 2009, the citizens of Springfield voted to adopt a 3/4-cent sales tax for the purpose of funding the Police Officers' and Firefighters' Pension System and included a sunset provision ("the 3/4-cent Police/Fire Pension Sales Tax"). At the general municipal election held on April 8, 2014, the citizens of Springfield voted to renew the 3/4-cent Police/Fire Pension Sales Tax and included a sunset provision. At the general election held on November 5, 2019, the citizens of Springfield voted to renew the 3/4-cent Police/Fire Pension Sales Tax and included a sunset provision, with said expiration expected to occur on or about March 31, 2025; and

On January 9, 2024, the City Council Committee of the Whole met and reached a broad consensus on the need to secure the City's ongoing Police Officers' and Firefighters' Pension System obligations for 2025 and beyond, advance public safety initiatives, and prioritize Forward SGF transformative capital and neighborhood impact projects, including infrastructure and maintenance needs. It was also the consensus of the Committee of the Whole that this was a measure which should be decided by the voters at the general election to be held on November 5, 2024.

In order to receive meaningful community input on the measure to be submitted to the voters, the City Council desires to form a Citizens' Commission on Community Investment ("CCCI" or "the Commission") and potential names for recommendation for appointment have been sought from City Council members.

This resolution will establish the Citizens' Commission on Community Investment ("CCCI" or "the Commission") with the charge of evaluating and prioritizing the highest and best uses for local sales tax capacity upon the expiration of the 3/4-cent Police/Fire Pension Sales Tax.

The Commission will complete its work with the following objectives:

1. Gather intelligence and performance history for the Police Officers' and Firefighters' Pension System, public safety data and trends, and Forward SGF Comprehensive Plan capital project priorities.
2. Develop a comprehensive recommendation that secures continuing Police Officers' and Firefighters' Pension System obligations for 2025 and beyond, advances impactful public safety initiatives, and prioritizes Forward SGF transformative capital and neighborhood impact projects, including infrastructure and maintenance needs, and establishes an order of priority among said recommendations.
3. Conduct the work of the Commission in a transparent manner, in full view of the public



4. Bring a final report and recommendations to the full City Council no later than June 30, 2024.

The following have agreed serve as members of the CCCI:

Phyllis Ferguson, Co-Chair
Tom Prater, Co-Chair
Logan Aguirre
Christina Angle
Kevin Ausburn
Alice Barber
Brent Brown
Megan Buchbinder
Jerome W. Compton
Teresa Coyan
Orin Cummings
Chad Davis
Leslie Forrester
Denise Fredrick
Brendan Griesemer
Bill Hennessey
Sandra Huston
Winter Kinne
Andrew Lear
Sid Needham
Eric Pauly
Steve Prange
Pete Radecki
Jacob Ruder
Krisi Schell
Jeff Schrag
Rusty Worley
Andrew Zinke
Mayor Pro Tem Matt Simpson, City Council Liaison
Councilmember Abe McGull, City Council Liaison

The term of the Commission shall be from the date of the passage of this Resolution until June 30, 2024.

Submitted By: Anita Cotter, City Clerk

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Jason Gage, City Manager 4/3/2024

Maurice S. Jones, Deputy City Manager 4/3/2024

Attachments: 1. CCCI - Council Bill updated 04-02-24

One-rdg. X
P. Hrngs.
Pgs. 5
Filed: 03-27-24

Sponsored by: McClure

COUNCIL BILL 2024-056 RESOLUTION

A RESOLUTION

1 ESTABLISHING the Citizens' Commission on Community Investment (CCCI).
2
3

4 WHEREAS, at the general election held on November 3, 2009, the citizens of
5 Springfield voted to adopt a 3/4-cent sales tax for the purpose of funding the Police
6 Officers' and Firefighters' Pension System and included a sunset provision ("the 3/4-
7 cent Police/Fire Pension Sales Tax"); and
8

9 WHEREAS, at the general municipal election held on April 8, 2014, the citizens
10 of Springfield voted to renew the 3/4-cent Police/Fire Pension Sales Tax and included a
11 sunset provision; and
12

13 WHEREAS, at the general election held on November 5, 2019, the citizens of
14 Springfield voted to renew the 3/4-cent Police/Fire Pension Sales Tax and included a
15 sunset provision, with said expiration expected to occur on or about March 31, 2025;
16 and
17

18 WHEREAS, the Police Officers' and Firefighters' Pension System is a continuing
19 obligation of the City; and
20

21 WHEREAS, on January 9, 2024, the City Council Committee of the Whole met
22 and reached a broad consensus on the need to secure the City's ongoing Police
23 Officers' and Firefighters' Pension System obligations for 2025 and beyond, advance
24 public safety initiatives, and prioritize Forward SGF transformative capital and
25 neighborhood impact projects, including infrastructure and maintenance needs; and
26

27 WHEREAS, it was also the consensus of the Committee of the Whole that this
28 was a measure which should be decided by the voters at the general election to be held
29 on November 5, 2024; and
30

31 WHEREAS, in order to receive meaningful community input on the measure to
32 be submitted to the voters, the City Council desires to form a Citizens' Commission on
33 Community Investment ("CCCI" or "the Commission") and potential names for
34 recommendation for appointment have been sought from City Council members.
35

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF SPRINGFIELD, MISSOURI, as follows, that:

Section 1 – City Council hereby establishes the Citizens’ Commission on Community Investment (“CCCI” or “the Commission”) with the charge of evaluating and prioritizing the highest and best uses for local sales tax capacity upon the expiration of the 3/4-cent Police/Fire Pension Sales Tax.

Section 2 – The Commission will complete its work with the following objectives:

1. Gather intelligence and performance history for the Police Officers’ and Firefighters’ Pension System, public safety data and trends, and Forward SGF Comprehensive Plan capital project priorities.
2. Develop a comprehensive recommendation that secures continuing Police Officers’ and Firefighters’ Pension System obligations for 2025 and beyond, advances impactful public safety initiatives, and prioritizes Forward SGF transformative capital and neighborhood impact projects, including infrastructure and maintenance needs, and establishes an order of priority among said recommendations.
3. Conduct the work of the Commission in a transparent manner, in full view of the public.
4. Bring a final report and recommendations to the full City Council no later than June 30, 2024.

Section 3 – City Council determines that it is in the interest of the City regarding these important matters to receive meaningful community input. The following are hereby appointed to serve as members of the Commission: Phyllis Ferguson, Co-Chair, Tom Prater, Co-Chair, Logan Aguirre, Christina Angle, Kevin Ausburn, Alice Barber, Brent Brown, Megan Buchbinder, Jerome W. Compton, Teresa Cohan, Orin Cummings, Chad Davis, Leslie Forrester, Denise Fredrick, Brendan Griesemer, Bill Hennessey, Sandra Huston, Winter Kinne, Andrew Lear, Sid Needham, Eric Pauly, Steve Prange, Pete Radecki, Jacob Ruder, Krisi Schell, Jeff Schrag, Rusty Worley, Andrew Zinke, Mayor Pro Tem Matt Simpson, City Council Liaison, and Councilmember Abe McGull, City Council Liaison

Section 4 – The term of the Commission shall be from the date of the passage of this Resolution until June 30, 2024.

Section 5 – This Resolution shall be in effect from and after passage.

Passed at meeting: _____

Mayor

84 Attest: _____, City Clerk

85

86 Filed as Resolution: _____

87

88

89 Approved as to form:  _____, City Attorney

90

91

92 Approved for Council action:  _____, City Manager



EXPLANATION TO COUNCIL BILL 2024-057 (HORTON)

FILED: 03/13/2024

ORIGINATING DEPARTMENT: Public Works

TITLE: A special ordinance authorizing the City Manager, or designee, to enter into a Surface Transportation Block Grant Program Agreement with the Missouri Highways and Transportation Commission for the purpose of funding construction of a larger, replacement bridge on Main Avenue over Jordan Creek; amending the Fiscal Year 2023-2024 budget of the Department of Public Works in the amount of \$6,000,000 to appropriate federal Surface Transportation Block Grant Program funds; and declaring that this Ordinance qualifies for approval in one reading pursuant to City Charter Section 2.16(25).

PURPOSE: Authorizing the City Manager, or designee, to enter into a Surface Transportation Block Grant ("STBG") Program Agreement ("Exhibit 1") with the Missouri Highways and Transportation Commission ("MHTC"), for the purpose of funding construction of a larger, replacement bridge on Main Avenue over Jordan Creek ("Exhibit 2"); approving a budget adjustment amending the FY 2024 budget of the Department of Public Works in the amount of \$6,000,000 to appropriate federal STBG funds; and declaring that this bill qualifies for approval in one reading.

BACKGROUND INFORMATION: This project will remove the existing structurally deficient bridge and replace it with a new larger structure. The bridge replacement will include pedestrian accommodations and aesthetic enhancements to blend with the daylighting of Jordan Creek project. The STBG Program Agreement allows for reimbursement of up to 80% (\$6,000,000) of the right of way and real property acquisition and construction costs associated with the project. The City's 20% share, estimated at \$1,500,000, will be funded by the 1/8-cent Transportation Sales Tax and the Level Property Tax and is already budgeted.

As this Ordinance is for a state grant contract, Public Works requests that it be passed as a one-reading bill under City Charter Section 2.16(25).

Supports the following City Council Priorities:

- Public Safety
- Economic Vitality
- Fiscal Sustainability
- Quality of Place



REMARKS: Public Works recommends approval of this Council bill and budget adjustment.

Submitted By: Martin Gugel, Assistant Director of Public Works

Authorized for inclusion on the agenda pursuant to City Code section 2-33:
Maurice S. Jones, Deputy City Manager 3/29/2024

Attachments:

1. Main Ave Bridge STBG_ord
2. Main Ave Bridge STBG Agree_exh1
3. Main Ave Bridge STBG Map_exh2
4. Main Ave Bridge STBG BA_Exh3

34 Section 1 – The City Manager, or designee, is hereby authorized to accept the
35 Surface Transportation Block Grant (“STBG”) Program grant funds in the amount of
36 \$6,000,000 from the Missouri Highways and Transportation Commission (“MHTC”) and
37 to do all things necessary to carry out the intent of this Ordinance, including the
38 execution of an agreement in substantially the same form as the document attached
39 hereto and incorporated herein by this reference as “Exhibit 1.”
40

41 Section 2 – The budget of Public Works for Fiscal Year 2023-2024, is hereby
42 amended in the accounts and in the amounts as shown on Budget Adjustment No. 059,
43 a copy of which is attached hereto and incorporated herein by this reference as “Exhibit
44 3.”
45

46 Section 3 – The City Council hereby finds that the budget adjustment made
47 above has been recommended by the City Manager.
48

49 Section 4 – The City Manager, or designee, is directed to cause the appropriate
50 accounting entries to be made in the books and records of the City.
51

52 Section 5 – City Council hereby finds and declares that this Ordinance authorizes
53 entering into a contract with a state government agency for the purpose of receiving
54 grant funding from the same and may therefore be passed as a one-reading bill
55 pursuant to City Charter Section 2.16(25). This Ordinance shall be in full force and
56 effect from and after passage.
57

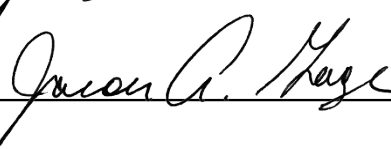
58 Passed at meeting: _____
59

60 _____
61 Mayor
62

63 Attest: _____, City Clerk
64

65 Filed as Ordinance: _____
66

67
68 Approved as to form: , Assistant City Attorney
69

70
71 Approved for Council action: , City Manager

CCO Form: FS11
Approved: 07/96 (KMH)
Revised: 10/22 (MWH)
Modified:

CFDA Number: CFDA #20.205
CFDA Title: Highway Planning and Construction
Award name/number: STBG – 5900(853)
Award Year: SFY2024
Federal Agency: Federal Highway Administration, Department of Transportation

**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
SURFACE TRANSPORTATION BLOCK GRANT (STBG) PROGRAM AGREEMENT**

THIS STBG AGREEMENT is entered into by the Missouri Highways and Transportation Commission (hereinafter, "Commission") and the City of Springfield, Greene County, Missouri (hereinafter, "City").

WITNESSETH:

WHEREAS, the Infrastructure Investment and Jobs Act (IIJA) 23 U.S.C. §133, authorizes a Surface Transportation Block Grant (STBG) Program to fund transportation related projects; and

WHEREAS, the City desires to construct certain improvements, more specifically described below, using such STBG funding; and

WHEREAS, those improvements are to be designed and constructed in compliance with the provisions of this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants, promises and representations in this Agreement, the parties agree as follows:

(1) PURPOSE: The purpose of this Agreement is to grant the use of STBG funds to the City. The improvement contemplated by this Agreement and designated as Project STBG-5900(853) involves:

The replacement of the Main Avenue Bridge over Jordan Creek

The City shall be responsible for all aspects of the construction of the improvement.

(2) LOCATION: The contemplated improvement designated as Project STBG-5900(853) by the Commission is within the city limits of Springfield, Missouri. The general location of the improvement is shown on an attachment hereto marked "Exhibit A" and incorporated herein by reference. More specific descriptions are as follows:

On N Main Ave in Springfield approximately 0.33 miles south of the intersection with Chestnut Expressway.

(3) REASONABLE PROGRESS POLICY: The project as described in this agreement is subject to the reasonable progress policy set forth in the Local Public Agency (LPA) Manual and the final deadline specified in Exhibit B attached hereto and incorporated herein by reference. In the event, the LPA Manual and the final deadline within Exhibit B conflict, the final deadline within Exhibit B controls. If the project is within a Transportation Management Area that has a reasonable progress policy in place, the project is subject to that policy. If the project is withdrawn for not meeting reasonable progress, the City agrees to repay the Commission for any progress payments made to the City for the project and agrees that the Commission may deduct progress payments made to the City from future payments to the City.

(4) LIMITS OF SYSTEM: The limits of the surface transportation system for the City shall correspond to its geographical area as encompassed by the urban boundaries of the City as fixed cooperatively by the parties subject to approval by the Federal Highway Administration (FHWA).

(5) ROUTES TO BE INCLUDED: The City shall select the high traffic volume arterial and collector routes to be included in the surface transportation system, to be concurred with by the Commission, subject to approval by the FHWA. It is understood by the parties that surface transportation system projects will be limited to the said surface transportation system, but that streets and arterial routes may be added to the surface transportation system, including transfers from other federal aid systems.

(6) INVENTORY AND INSPECTION: The City shall:

(A) Furnish annually, upon request from the Commission or FHWA, information concerning conditions on streets included in the STBG system under local jurisdiction indicating miles of system by pavement width, surface type, number of lanes and traffic volume category.

(B) Inspect and provide inventories of all bridges on that portion of the federal-aid highway systems under the jurisdiction of the City in accordance with the Federal Special Bridge Program, as set forth in 23 U.S.C. §144, and applicable amendments or regulations promulgated thereunder.

(7) CITY TO MAINTAIN: Upon completion of construction of this improvement, the City shall accept control and maintenance of the improved street and shall thereafter keep, control, and maintain the same as, and for all purposes, a part of the City street system at its own cost and expense and at no cost and expense whatsoever to the Commission. Any traffic signals installed on highways maintained by the Commission will be turned over to the Commission upon completion of the project for maintenance. All obligations of the Commission under this Agreement shall cease upon completion of the improvement.

(8) INDEMNIFICATION:

(A) To the extent allowed or imposed by law, the City shall defend, indemnify and hold harmless the Commission, including its members and the Missouri Department of Transportation (MoDOT or Department) employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the City's wrongful or negligent performance of its obligations under this Agreement.

(B) The City will require any contractor procured by the City to work under this Agreement:

1. To obtain a no cost permit from the Commission's district engineer prior to working on the Commission's right-of-way, which shall be signed by an authorized contractor representative (a permit from the Commission's district engineer will not be required for work outside of the Commission's right-of-way); and

2. To carry commercial general liability insurance and commercial automobile liability insurance from a company authorized to issue insurance in Missouri, and to name the Commission, and MoDOT and its employees, as additional named insureds in amounts sufficient to cover the sovereign immunity limits for Missouri public entities as calculated by the Missouri Department of Insurance, Financial Institutions and Professional Registration, and published annually in the Missouri Register pursuant to Section 537.610, RSMo. The City shall cause insurer to increase the insurance amounts in accordance with those published annually in the Missouri Register pursuant to Section 537.610, RSMo.

(C) In no event shall the language of this Agreement constitute or be construed as a waiver or limitation for either party's rights or defenses with regard to each party's applicable sovereign, governmental, or official immunities and protections as provided by federal and state constitution or law.

(9) CONSTRUCTION SPECIFICATIONS: Parties agree that all construction under the STBG for the City will be constructed in accordance with current MoDOT design criteria/specifications for urban construction unless separate standards for the surface transportation system have been established by the City and the Commission subject to the approval of the FHWA.

(10) FEDERAL-AID PROVISIONS: Because responsibility for the performance of all functions or work contemplated as part of this project is assumed by the City, and the City may elect to construct part of the improvement contemplated by this Agreement with its own forces, a copy of Section II and Section III, as contained in the United States Department of Transportation Form Federal Highway Administration (FHWA) 1273 "Required Contract Provisions, Federal-Aid Construction Contracts," is attached and made a part of this Agreement as Exhibit C. Wherever the term "the contractor" or words of similar import appear in these sections, the term "the City" is to be substituted. The

City agrees to abide by and carry out the condition and obligations of "the contractor" as stated in Section II, Equal Opportunity, and Section III, Nonsegregated Facilities, as set out in Form FHWA 1273.

(11) ACQUISITION OF RIGHT OF WAY: With respect to the acquisition of right of way necessary for the completion of the project, City shall acquire any additional necessary right of way required for the project and in doing so agrees that it will comply with all applicable federal laws, rules and regulations, including 42 U.S.C. 4601-4655, the Uniform Relocation Assistance and Real Property Acquisition Act, as amended and any regulations promulgated in connection with the Act.

(12) REIMBURSEMENT: The cost of the contemplated improvements will be borne by the United States Government and by the City as follows:

(A) Any federal funds for project activities shall only be available for reimbursement of eligible costs which have been incurred by City. Any costs incurred by City prior to authorization from FHWA and notification to proceed from the Commission are **not** reimbursable costs. All federally funded projects are required to have a project end date. Any costs incurred after the project end date are not eligible for reimbursement. The federal share for this project will be **80** percent not to exceed **\$6,000,000**. The calculated federal share for seeking federal reimbursement of participating costs for the herein improvements will be determined by dividing the total federal funds applied to the project by the total participating costs. Any costs for the herein improvements which exceed any federal reimbursement or are not eligible for federal reimbursement shall be the sole responsibility of City. The Commission shall not be responsible for any costs associated with the herein improvement unless specifically identified in this Agreement or subsequent written amendments.

(B) The total reimbursement otherwise payable to the City under this Agreement is subject to reduction, offset, levy, judgment, collection or withholding, if there is a reduction in the available federal funding, or to satisfy other obligations of the City to the Commission, the State of Missouri, the United States, or another entity acting pursuant to a lawful court order, which City obligations or liability are created by law, judicial action, or by pledge, contract or other enforceable instrument. Any costs incurred by the City prior to authorization from FHWA and notification to proceed from the Commission are not reimbursable costs.

(13) PERMITS: The City shall secure any necessary approvals or permits from the Federal Government and the State of Missouri as required to permit the construction and maintenance of the contemplated improvements.

(14) TRAFFIC CONTROL: The plans shall provide for handling traffic with signs, signal and marking in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).

(15) WORK ON STATE RIGHT OF WAY: If any contemplated improvements

for Project STBG-5900(853) will involve work on the state's right of way, the City will provide reproducible final plans to the Commission relating to such work.

(16) DISADVANTAGED BUSINESS ENTERPRISES (DBEs): At time of processing the required project agreements with the FHWA, the Commission will advise the City of any required goals for participation by DBEs to be included in the City's proposal for the work to be performed. The City shall submit for Commission approval a DBE goal or plan. The City shall comply with the plan or goal that is approved by the Commission and all requirements of 49 C.F.R. Part 26, as amended.

(17) NOTICE TO BIDDERS: The City shall notify the prospective bidders that disadvantaged business enterprises shall be afforded full and affirmative opportunity to submit bids in response to the invitation and will not be discriminated against on grounds of race, color, sex, or national origin in consideration for an award.

(18) PROGRESS PAYMENTS: The City may request progress payments be made for the herein improvements as work progresses but not more than once every two weeks. Progress payments must be submitted monthly. All progress payment requests must be submitted for reimbursement within 90 days of the project completion date for the final phase of work. The City shall repay any progress payments which involve ineligible costs.

(19) PROMPT PAYMENTS: Progress invoices submitted to MoDOT for reimbursement more than thirty (30) calendar days after the date of the vendor invoice shall also include documentation that the vendor was paid in full for the work identified in the progress invoice. Examples of proof of payment may include a letter or e-mail from the vendor, lien waiver or copies of cancelled checks. Reimbursement will not be made on these submittals until proof of payment is provided. Progress invoices submitted to MoDOT for reimbursement within thirty (30) calendar days of the date on the vendor invoice will be processed for reimbursement without proof of payment to the vendor. If the City has not paid the vendor prior to receiving reimbursement, the City must pay the vendor within two (2) business days of receipt of funds from MoDOT.

(20) OUTDOOR ADVERTISING: The City further agrees that the right of way provided for any STBG improvement will be held and maintained inviolate for public highway or street purposes, and will enact and enforce any ordinances or regulations necessary to prohibit the presence of billboards or other advertising signs or devices and the vending or sale of merchandise on such right of way, and will remove or cause to be removed from such right of way any sign, private installation of any nature, or any privately owned object or thing which may interfere with the free flow of traffic or impair the full use and safety of the highway or street.

(21) FINAL AUDIT: The Commission will perform a final audit of project costs. The United States Government shall reimburse the City, through the Commission, any monies due. The City shall refund any overpayments as determined by the final audit.

(22) AUDIT REQUIREMENTS: If the City expend(s) seven hundred fifty thousand dollars (\$750,000) or more in a year in federal financial assistance it is required to have an independent annual audit conducted in accordance with 2 CFR Part 200. A copy of the audit report shall be submitted to MoDOT within the earlier of thirty (30) days after receipt of the auditor's report(s), or nine (9) months after the end of the audit period. Subject to the requirements of 2 CFR Part 200, if the City expend(s) less than seven hundred fifty thousand dollars (\$750,000) a year, the City may be exempt from auditing requirements for that year but records must be available for review or audit by applicable state and federal authorities.

(23) FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT OF 2006: The City shall comply with all reporting requirements of the Federal Funding Accountability and Transparency Act (FFATA) of 2006, as amended. This Agreement is subject to the award terms within 2 C.F.R. Part 170.

(24) VENUE: It is agreed by the parties that any action at law, suit in equity, or other judicial proceeding to enforce or construe this Agreement, or regarding its alleged breach, shall be instituted only in the Circuit Court of Cole County, Missouri.

(25) LAW OF MISSOURI TO GOVERN: This Agreement shall be construed according to the laws of the State of Missouri. The City shall comply with all local, state and federal laws and regulations relating to the performance of this Agreement.

(26) AMENDMENTS: Any change in this Agreement, whether by modification or supplementation, must be accomplished by a formal contract amendment signed and approved by the duly authorized representatives of the City and the Commission.

(27) COMMISSION REPRESENTATIVE: The Commission's **Southwest District Engineer** is designated as the Commission's representative for the purpose of administering the provisions of this Agreement. The Commission's representative may designate by written notice other persons having the authority to act on behalf of the Commission in furtherance of the performance of this Agreement.

(28) NOTICES: Any notice or other communication required or permitted to be given hereunder shall be in writing and shall be deemed given three (3) days after delivery by United States mail, regular mail postage prepaid, or upon receipt by personal or facsimile delivery, addressed as follows:

- (A) To the City:
King Coltrin, PE
King.coltrin@springfieldmo.gov
417-864-1917
- (B) To the Commission:
Garrett Evans, EI
Garrett.evans@modot.mo.gov

or to such other place as the parties may designate in accordance with this Agreement. To be valid, facsimile delivery shall be followed by delivery of the original document, or a clear and legible copy thereof, within three (3) business days of the date of facsimile transmission of that document.

(29) NONDISCRIMINATION ASSURANCE: With regard to work under this Agreement, the City agrees as follows:

(A) Civil Rights Statutes: The City shall comply with all state and federal statutes relating to nondiscrimination, including but not limited to Title VI and Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. §2000d and §2000e, et seq.), as well as any applicable titles of the "Americans with Disabilities Act" (42 U.S.C. §12101, et seq.). In addition, if the City is providing services or operating programs on behalf of the Department or the Commission, it shall comply with all applicable provisions of Title II of the "Americans with Disabilities Act".

(B) Administrative Rules: The City shall comply with the administrative rules of the United States Department of Transportation relative to nondiscrimination in federally-assisted programs of the United States Department of Transportation (49 C.F.R. Part 21) which are herein incorporated by reference and made part of this Agreement.

(C) Nondiscrimination: The City shall not discriminate on grounds of the race, color, religion, sex, disability, national origin, age or ancestry of any individual in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The City shall not participate either directly or indirectly in the discrimination prohibited by 49 C.F.R. §21.5, including employment practices.

(D) Solicitations for Subcontracts, Including Procurements of Material and Equipment: These assurances concerning nondiscrimination also apply to subcontractors and suppliers of the City. These apply to all solicitations either by competitive bidding or negotiation made by the City for work to be performed under a subcontract including procurement of materials or equipment. Each potential subcontractor or supplier shall be notified by the City of the requirements of this Agreement relative to nondiscrimination on grounds of the race, color, religion, sex, disability or national origin, age or ancestry of any individual.

(E) Information and Reports: The City shall provide all information and reports required by this Agreement, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Commission or the United States Department of Transportation to be necessary to ascertain compliance with other contracts, orders and instructions. Where any information required of the City is in the exclusive possession of another who fails or refuses to furnish this information, the City shall so

certify to the Commission or the United States Department of Transportation as appropriate and shall set forth what efforts it has made to obtain the information.

(F) Sanctions for Noncompliance: In the event the City fails to comply with the nondiscrimination provisions of this Agreement, the Commission shall impose such contract sanctions as it or the United States Department of Transportation may determine to be appropriate, including but not limited to:

1. Withholding of payments under this Agreement until the City complies; and/or

2. Cancellation, termination or suspension of this Agreement, in whole or in part, or both.

(G) Incorporation of Provisions: The City shall include the provisions of paragraph (29) of this Agreement in every subcontract, including procurements of materials and leases of equipment, unless exempted by the statutes, executive order, administrative rules or instructions issued by the Commission or the United States Department of Transportation. The City will take such action with respect to any subcontract or procurement as the Commission or the United States Department of Transportation may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided that in the event the City becomes involved or is threatened with litigation with a subcontractor or supplier as a result of such direction, the City may request the United States to enter into such litigation to protect the interests of the United States.

(31) ACCESS TO RECORDS: The City and its contractors must maintain all records relating to this Agreement, including but not limited to invoices, payrolls, etc. These records must be available at no charge to the FHWA and the Commission and/or their designees or representatives during the period of this Agreement and any extension, and for a period of three (3) years after the date on which the City receives reimbursement of their final invoice from the Commission.

(32) CONFLICT OF INTEREST: The City shall comply with conflict of interest policies identified in 23 CFR 1.33. A conflict of interest occurs when an entity has a financial or personal interest in a federally funded project.

(33) MANDATORY DISCLOSURES: The City shall comply with 2 CFR 200.113 and disclose, in a timely manner, in writing all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have entered into this Agreement on the date last written below.

Executed by the City this _____ (date).

Executed by the Commission this _____ (date).

MISSOURI HIGHWAYS AND
TRANSPORTATION COMMISSION

CITY OF SPRINGFIELD

By _____

Title _____

Title _____

ATTEST:

By _____

Title _____

By _____

Secretary to the Commission

Title _____

Approved as to Form:

By _____

Title _____

ATTEST:

By _____

Commission Counsel

Title _____

Approved as to Form:

By _____

Title _____

Ordinance: _____

Exhibit A - Location of Project

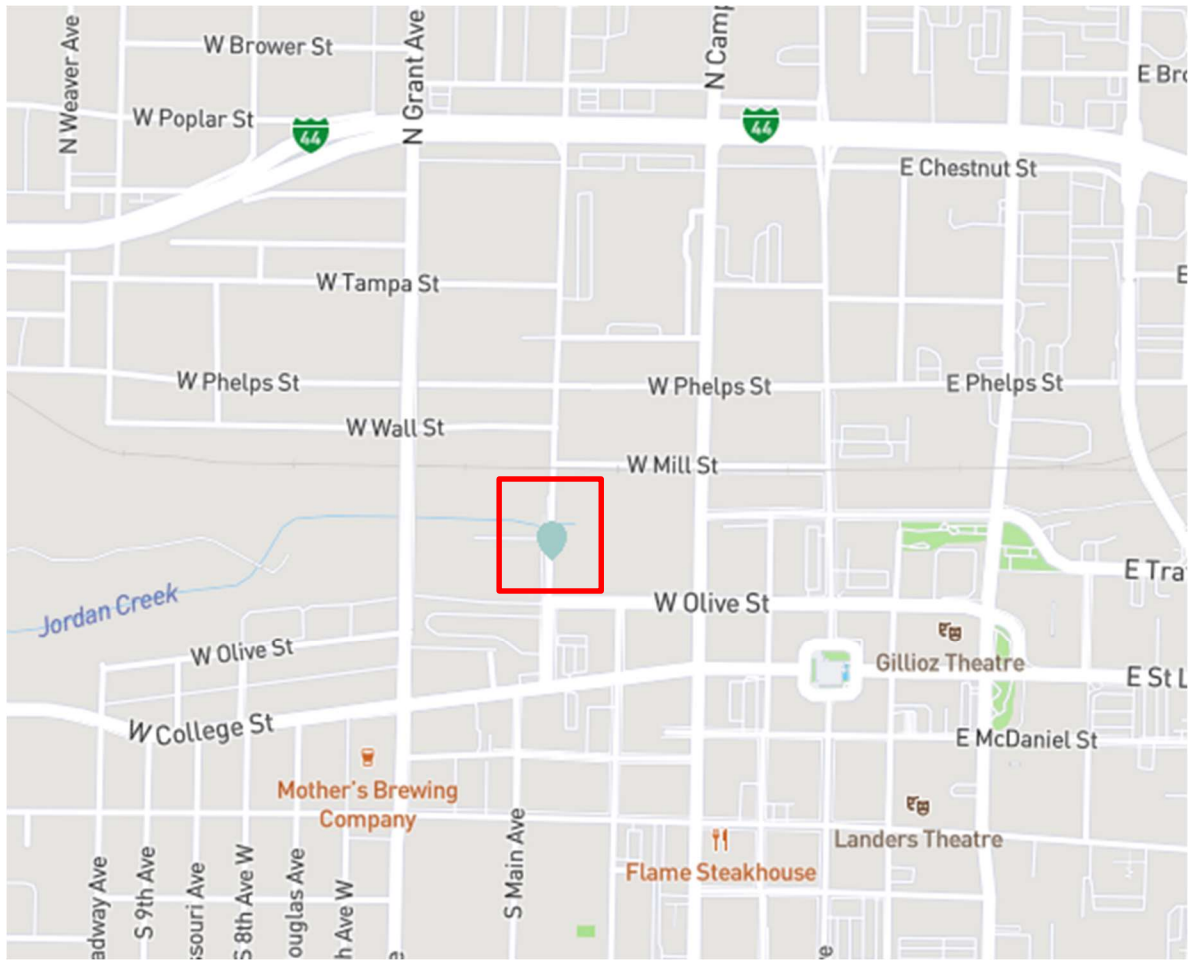


Exhibit B – Project Schedule

Project Description: Replacement of the Main Ave Bridge with increased hydraulic capacity under STBG-5900(853).

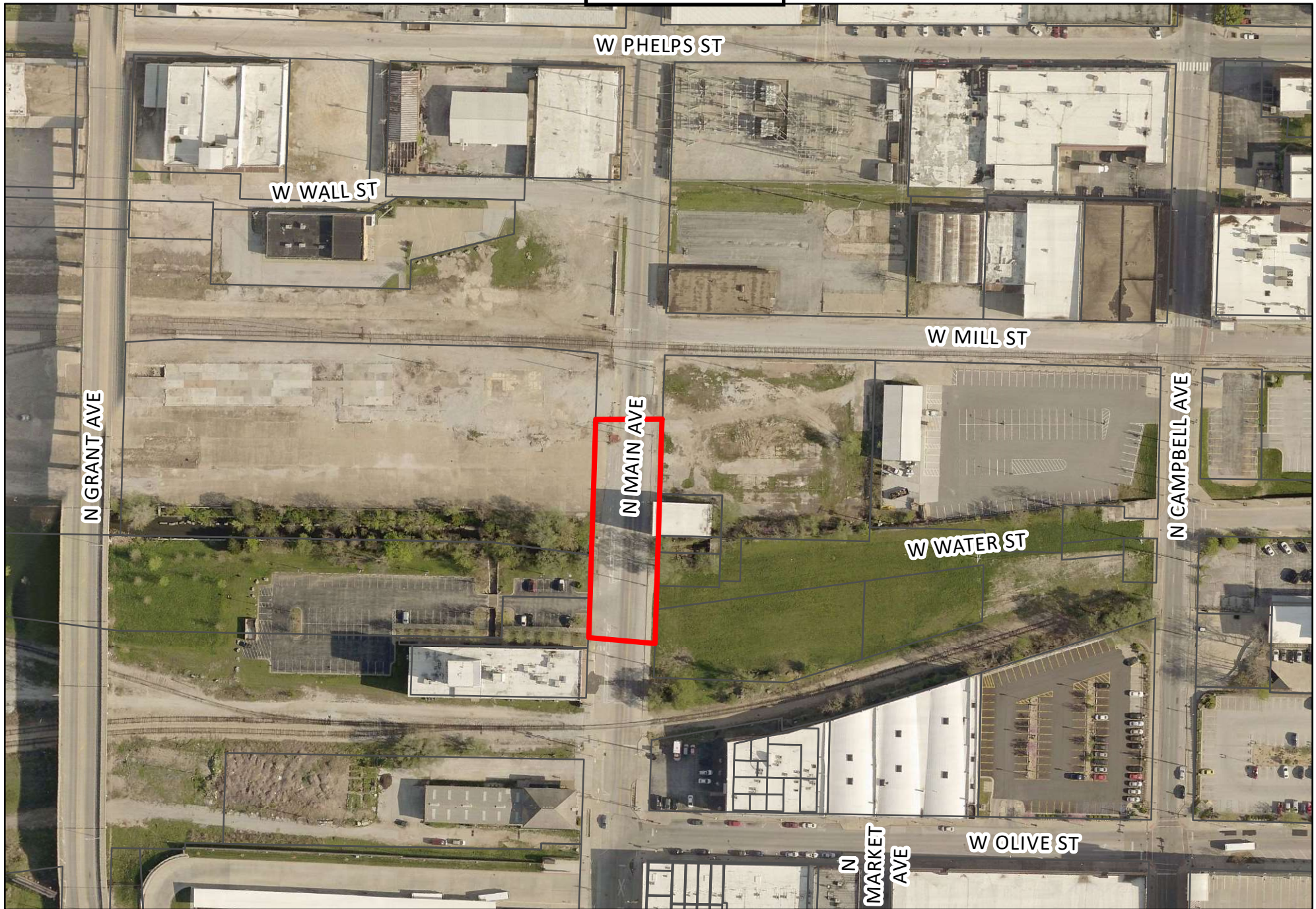
Task	Date
Engineering Services	Locally Funded
Preliminary and Right-of-Way Plans Submittal (if Applicable)	August 15, 2024
Plans, Specifications & Estimate (PS&E) Submittal	November 15, 2024
Plans, Specifications & Estimate (PS&E) Approval	January 15, 2025
Advertisement for Letting	February 15, 2025
Bid Opening	March 15, 2025
Construction Contract Award or Planning Study completed (REQUIRED)	May 15, 2025

*Note: the dates established in the schedule above will be used in the applicable ESC between the sponsor agency and consultant firm.

**Schedule dates are approximate as the project schedule will be actively managed and issues mitigated through the project delivery process. The Award Date or Planning Study Date deliverable is not approximate and requires request to adjust.

Exhibit C - Required Contract Provisions
Federal-Aid Construction Contracts
TO BE INSERTED PRIOR TO EXECUTION

Exhibit 2



CITY OF SPRINGFIELD, MO
BUDGET ADJUSTMENT

Exhibit 3

Budget Adjustment
059

Revenues:

Fund	Dept	Org	Account	P&G	Location	Amount	Description
46040	20	73020	416010	102448	00000	\$ 6,000,000	Federal Surface Transportation Block Grant (STBG)
Net Revenue Adjustment						\$ 6,000,000	

Expenditures:

Fund	Dept	Org	Account	P&G	Location	Amount	Description
46040	20	73020	509110	102448	00000	\$ 6,000,000	Main Avenue Bridge Over Jordan Creek Replacement
Net Expenditure Adjustment						\$ 6,000,000	

Fund Balance Appropriation:

Fund	Title	Amount

Explanation: To amend the FY2023-24 budget by appropriating federal STBG grant funds of \$6,000,000 towards the Main Avenue Bridge Over Jordan Creek Replacement per the STBG Program Agreement with the Missouri Highways & Transportation Commission. The required 20% local match will be funded by the 1/8-cent Transportation Sales Tax and Level Property Tax funds which are already budgeted.

Requested By:

Approved By:

Authorization:

Department Head Date

Director of Finance Date

City Manager Date

Council Bill No. _____
Ordinance No. _____
1st Reading _____
2nd Reading _____
Journal Imp No. _____



EXPLANATION TO COUNCIL BILL 2024-058 (MCGULL)

FILED: 03/18/2024

ORIGINATING DEPARTMENT: Public Works

TITLE: A special ordinance authorizing the City Manager, or designee, to enter into a Transportation Enhancements Funds Program Agreement with the Missouri Highways and Transportation Commission for the purpose of constructing a 10' trail along LeCompte Road from Eastgate Avenue and Division Street north to the BNSF Railroad; amending the Fiscal Year 2023-2024 budget in the amount of \$400,000 to appropriate the Transportation Enhancement Program funds; and declaring that this Ordinance qualifies for approval in one reading pursuant to City Charter Section 2.16(25).

PURPOSE: Authorizing the City Manager, or designee, to enter into a Transportation Enhancements Funds Program Agreement ("Exhibit 1") with the Missouri Highways and Transportation Commission ("MHTC"), for the purpose of funding construction of a 10-foot wide trail along LeCompte Road from Eastgate Avenue and Division Street north to the BNSF Railroad; approving a budget adjustment amending the Fiscal Year 2024 budget of the Department of Public Works in the amount of \$400,000 to appropriate federal funds; and declaring that this Bill qualifies for approval in one reading.

BACKGROUND INFORMATION: This project will construct a 10-foot wide shared use trail, which is part of the Ozarks Transportation Organization's ("OTO") Regional Trail Plan, along the new Eastgate Avenue north from Division Street to LeCompte Avenue, then north along LeCompte Avenue to the BNSF railroad tracks. The Transportation Enhancements Funds Program Agreement allows for reimbursement of up to 80% (\$400,000) of the construction costs associated with the project. The City's 20% share, estimated at \$100,000, will be funded by the 1/8-cent Transportation Sales Tax already budgeted for this project.

As this Ordinance is for a state grant contract, we request that it be passed as a one-reading bill under City Charter Section 2.16(25).

Supports the following City Council Priorities:

- Public Safety
- Economic Vitality
- Fiscal Sustainability
- Quality of Place



REMARKS: Public Works recommends approval of this Council bill and budget adjustment.

Submitted By: Martin Gugel, Assistant Director of Public Works

Authorized for inclusion on the agenda pursuant to City Code section 2-33:
Maurice S. Jones, Deputy City Manager 3/29/2024

Attachments:

1. LeCompte-Eastgate Trail_ord (2)
2. LeCompte-Eastgate Trail Agree_exh1
3. LeCompte-Eastgate Trail_Exh2

One-rdg. X
P. Hrngs.
Pgs. 30
Filed: 04-02-24

Sponsored by: McGull

First Reading: Second Reading:

COUNCIL BILL 2024-058 SPECIAL ORDINANCE

AN ORDINANCE

1 AUTHORIZING the City Manager, or designee, to enter into a Transportation
2 Enhancements Funds Program Agreement with the Missouri Highways
3 and Transportation Commission for the purpose of constructing a 10'
4 trail along LeCompte Road from Eastgate Avenue and Division Street
5 north to the BNSF Railroad; amending the Fiscal Year 2023-2024
6 budget in the amount of \$400,000 to appropriate the Transportation
7 Enhancement Program funds; and declaring that this Ordinance
8 qualifies for approval in one reading pursuant to City Charter Section
9 2.16(25).

10 _____

11
12 WHEREAS, the City and the Missouri Highways and Transportation Commission
13 (“MHTC”) desire to construct a 10’ trail along LeCompte Road from Eastgate Avenue
14 and Division Street north to the BNSF Railroad; and

15
16 WHEREAS, the City and MHTC desire to fund the project through use of the
17 Transportation Enhancement Program funds; and

18
19 WHEREAS, total estimated construction costs for the project are \$500,000; and

20
21 WHEREAS, the Transportation Enhancement Program allows for reimbursement
22 of up to 80 percent (\$400,000) of construction costs; and

23
24 WHEREAS, the required 20 percent local match (\$100,000) will be provided
25 through the 1/8-cent Transportation Sales Tax and is already budgeted for the project.

26
27 NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF
28 SPRINGFIELD, MISSOURI, as follows, that:

29
30 Section 1 – The City Manager, or designee, is hereby authorized to accept
31 Transportation Enhancement Program funds in the amount of \$400,000 from the
32 Missouri Highways and Transportation Commission (“MHTC”) for the purpose of
33 constructing a 10’ trail along LeCompte Road from Eastgate Avenue and Division Street

north to the BNSF Railroad, and to do all things necessary to Carry out the intent of this Ordinance, including execution of an agreement in substantially the same form as the document attached hereto and incorporated herein by reference as "Exhibit 1."

Section 2 – The budget of the City of Springfield for Fiscal Year 2023-2024 is hereby amended in the accounts and in the amounts as shown on Budget Adjustment No. 060, a copy of which is attached hereto and incorporated herein by reference as "Exhibit 2."

Section 3 – City Council hereby finds that the budget adjustment made above has been recommended by the City Manager.

Section 4 – The City Manager, or designee, is directed to cause the appropriate accounting entries to be made in the books and records of the City.

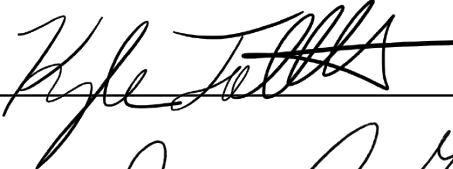
Section 5 – City Council hereby finds and declares that this Ordinance may be passed as a one-reading ordinance under City Charter Section 2.16 (25) as it relates to a contract for the acceptance of grant funds from a state or federal agency. This Ordinance shall be in full force and effect from and after passage.

Passed at meeting: _____

Mayor

Attest: _____, City Clerk

Filed as Ordinance: _____

Approved as to form:  _____, Assistant City Attorney

Approved for Council action:  _____, City Manager

CCO Form: FS25
 Approved: 04/95 (MGB)
 Revised: 10/22 (MWH)
 Modified:

CFDA Number: 20.205
 CFDA Title: Highway Planning and Construction
 Award name/number: TAP – 5901(826)
 Award Year: FY 2023
 Federal Agency: Federal Highway Administration, Department of Transportation

**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 TRANSPORTATION ENHANCEMENTS FUNDS
 PROGRAM AGREEMENT**

THIS AGREEMENT is entered into by the Missouri Highways and Transportation Commission (hereinafter, "Commission") and the City of Springfield (hereinafter, "City").

WITNESSETH:

NOW, THEREFORE, in consideration of the mutual covenants, promises and representations in this Agreement, the parties agree as follows:

(1) PURPOSE: The United States Congress has authorized, in Infrastructure Investment and Jobs Act (IIJA); 23 U.S.C. §101, §106 §133; and §208 funds to be used for transportation enhancements activities. The purpose of this Agreement is to grant the use of such transportation enhancement funds to the City.

(2) LOCATION: The transportation enhancements funds which are the subject of this Agreement are for the project at the following location: Construction of a 10' trail along LeCompte Rd. from Eastgate Ave. and Division St. north to the BNSF Railroad in Springfield, Greene County. The general location of the project is shown on attachment marked "Exhibit A" and incorporated herein by reference.

(3) REASONABLE PROGRESS POLICY: The project as described in this agreement is subject to the reasonable progress policy set forth in the Local Public Agency (LPA) Manual and the final deadline specified in Exhibit B attached hereto and incorporated herein by reference. In the event, the LPA Manual and the final deadline within Exhibit B conflict, the final deadline within Exhibit B controls. If the project is within a Transportation Management Area that has a reasonable progress policy in place, the project is subject to that policy. If the project is withdrawn for not meeting reasonable progress, the City agrees to repay the Commission for any progress payments made to

the City for the project and agrees that the Commission may deduct progress payments made to the City from future payments to the City. The City may not be eligible for future Transportation Enhancements Funds if the City does not meet the reasonable progress policy.

(4) INDEMNIFICATION:

(A) To the extent allowed or imposed by law, the City shall defend, indemnify and hold harmless the Commission, including its members and the Missouri Department of Transportation (MoDOT or Department) employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the City's wrongful or negligent performance of its obligations under this Agreement.

(B) The City will require any contractor procured by the City to work under this Agreement:

1. To obtain a no cost permit from the Commission's district engineer prior to working on the Commission's right-of-way, which shall be signed by an authorized contractor representative (a permit from the Commission's district engineer will not be required for work outside of the Commission's right-of-way); and

2. To carry commercial general liability insurance and commercial automobile liability insurance from a company authorized to issue insurance in Missouri, and to name the Commission, and MoDOT and its employees, as additional named insureds in amounts sufficient to cover the sovereign immunity limits for Missouri public entities as calculated by the Missouri Department of Insurance, Financial Institutions and Professional Registration, and published annually in the Missouri Register pursuant to Section 537.610, RSMo. The City shall cause insurer to increase the insurance amounts in accordance with those published annually in the Missouri Register pursuant to Section 537.610, RSMo.

(C) In no event shall the language of this Agreement constitute or be construed as a waiver or limitation for either party's rights or defenses with regard to each party's applicable sovereign, governmental, or official immunities and protections as provided by federal and state constitution or law.

(5) AMENDMENTS: Any change in this Agreement, whether by modification or supplementation, must be accomplished by a formal contract amendment signed and approved by the duly authorized representatives of the City and the Commission.

(6) COMMISSION REPRESENTATIVE: The Commission's Southwest District Engineer is designated as the Commission's representative for the purpose of

administering the provisions of this Agreement. The Commission's representative may designate by written notice other persons having the authority to act on behalf of the Commission in furtherance of the performance of this Agreement.

(7) NONDISCRIMINATION ASSURANCE: With regard to work under this Agreement, the City agrees as follows:

(A) Civil Rights Statutes: The City shall comply with all state and federal statutes relating to nondiscrimination, including but not limited to Title VI and Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. §2000d and §2000e, *et seq.*), as well as any applicable titles of the "Americans with Disabilities Act" (42 U.S.C. §12101, *et seq.*). In addition, if the City is providing services or operating programs on behalf of the Department or the Commission, it shall comply with all applicable provisions of Title II of the "Americans with Disabilities Act".

(B) Administrative Rules: The City shall comply with the administrative rules of the United States Department of Transportation relative to nondiscrimination in federally-assisted programs of the United States Department of Transportation (49 C.F.R. Part 21) which are herein incorporated by reference and made part of this Agreement.

(C) Nondiscrimination: The City shall not discriminate on grounds of the race, color, religion, creed, sex, disability, national origin, age or ancestry of any individual in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The City shall not participate either directly or indirectly in the discrimination prohibited by 49 C.F.R. §21.5, including employment practices.

(D) Solicitations for Subcontracts, Including Procurements of Material and Equipment: These assurances concerning nondiscrimination also apply to subcontractors and suppliers of the City. These apply to all solicitations either by competitive bidding or negotiation made by the City for work to be performed under a subcontract including procurement of materials or equipment. Each potential subcontractor or supplier shall be notified by the City of the requirements of this Agreement relative to nondiscrimination on grounds of the race, color, religion, creed, sex, disability or national origin, age or ancestry of any individual.

(E) Information and Reports: The City shall provide all information and reports required by this Agreement, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Commission or the United States Department of Transportation to be necessary to ascertain compliance with other contracts, orders and instructions. Where any information required of the City is in the exclusive possession of another who fails or refuses to furnish this information, the City shall so certify to the Commission or the United States Department of Transportation as appropriate and shall set forth what efforts it has made to obtain the information.

(F) Sanctions for Noncompliance: In the event the City fails to comply

with the nondiscrimination provisions of this Agreement, the Commission shall impose such contract sanctions as it or the United States Department of Transportation may determine to be appropriate, including but not limited to:

1. Withholding of payments under this Agreement until the City complies; and/or
2. Cancellation, termination or suspension of this Agreement, in whole or in part, or both.

(G) Incorporation of Provisions: The City shall include the provisions of paragraph (7) of this Agreement in every subcontract, including procurements of materials and leases of equipment, unless exempted by the statutes, executive order, administrative rules or instructions issued by the Commission or the United States Department of Transportation. The City will take such action with respect to any subcontract or procurement as the Commission or the United States Department of Transportation may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided that in the event the City becomes involved or is threatened with litigation with a subcontractor or supplier as a result of such direction, the City may request the United States to enter into such litigation to protect the interests of the United States.

(8) ASSIGNMENT: The City shall not assign, transfer or delegate any interest in this Agreement without the prior written consent of the Commission.

(9) LAW OF MISSOURI TO GOVERN: This Agreement shall be construed according to the laws of the State of Missouri. The City shall comply with all local, state and federal laws and regulations relating to the performance of this Agreement.

(10) CANCELLATION: The Commission may cancel this Agreement at any time for a material breach of contractual obligations by providing the City with written notice of cancellation. Should the Commission exercise its right to cancel this Agreement for such reasons, cancellation will become effective upon the date specified in the notice of cancellation sent to the City.

(11) ACCESS TO RECORDS: The City and its contractors must maintain all records relating to this Agreement, including but not limited to invoices, payrolls, etc. These records must be available at no charge to the Federal Highway Administration (FHWA) and the Commission and/or their designees or representatives during the period of this Agreement and any extension, and for a period of three (3) years after the date on which the City receives reimbursement of their final invoice from the Commission.

(12) FEDERAL-AID PROVISIONS: Because responsibility for the performance of all functions or work contemplated as part of this project is assumed by the City, and the City may elect to construct part of the improvement contemplated by this Agreement

with its own forces, a copy of Section II and Section III, as contained in the United States Department of Transportation Form Federal Highway Administration (FHWA) 1273 "Required Contract Provisions, Federal-Aid Construction Contracts," is attached and made a part of this Agreement as Exhibit C. Wherever the term "the contractor" or words of similar import appear in these sections, the term "the City" is to be substituted. The City agrees to abide by and carry out the condition and obligations of "the contractor" as stated in Section II, Equal Opportunity, and Section III, Nonsegregated Facilities, as set out in Form FHWA 1273.

(13) ACQUISITION OF RIGHT OF WAY: With respect to the acquisition of right of way necessary for the completion of the project, City shall acquire any additional necessary right of way required for this project and in doing so agrees that it will comply with all applicable federal laws, rules and regulations, including 42 U.S.C. 4601-4655, the Uniform Relocation Assistance and Real Property Acquisition Act, as amended and any regulations promulgated in connection with the Act.

(14) MAINTENANCE OF DEVELOPMENT: The City shall maintain the herein contemplated improvements without any cost or expense to the Commission. All maintenance by the City shall be done for the safety of the general public and the esthetics of the area. In addition, if any sidewalk or bike trails are constructed on the Commission's right-of-way pursuant to this Agreement, the City shall inspect and maintain the sidewalk or bike trails constructed by this project in a condition reasonably safe to the public and, to the extent allowed by law, shall indemnify and hold the Commission harmless from any claims arising from the construction and maintenance of said sidewalk or bike trails. If the City fails to maintain the herein contemplated improvements, the Commission or its representatives, at the Commission's sole discretion shall notify the City in writing of the City's failure to maintain the improvement. If the City continues to fail in maintaining the improvement, the Commission may remove the herein contemplated improvement whether or not the improvement is located on the Commission's right of way. Any removal by the Commission shall be at the sole cost and expense of the City. Maintenance includes but is not limited to mowing and trimming between shrubs and other plantings that are part of the improvement.

(15) PLANS: The City shall prepare preliminary and final plans and specifications for the herein improvements. The plans and specifications shall be submitted to the Commission for the Commission's review and approval. The Commission has the discretion to require changes to any plans and specification prior to any approval by the Commission.

(16) REIMBURSEMENT: The cost of the contemplated improvements will be borne by the United States Government and by the City as follows:

(A) Any federal funds for project activities shall only be available for reimbursement of eligible costs which have been incurred by City. Any costs incurred by City prior to authorization from FHWA and notification to proceed from the Commission are **not** reimbursable costs. The federal share for this project will be eighty percent (80%) not to exceed \$383,160 (Three hundred eighty-three thousand one hundred sixty dollars). The calculated federal share for seeking federal reimbursement of participating costs for the herein improvements will be determined by dividing the total federal funds applied to the project by the total participating costs. Any costs for the herein improvements which exceed any federal reimbursement or are not eligible for federal reimbursement shall be the sole responsibility of City. The Commission shall not be responsible for any costs associated with the herein improvement unless specifically identified in this Agreement or subsequent written amendments.

(17) PROGRESS PAYMENTS: The City may request progress payments be made for the herein improvements as work progresses but not more than once every two weeks. Progress payments must be submitted monthly. The City shall repay any progress payments which involve ineligible costs.

(18) PROMPT PAYMENTS: Progress invoices submitted to MoDOT for reimbursement more than thirty (30) calendar days after the date of the vendor invoice shall also include documentation that the vendor was paid in full for the work identified in the progress invoice. Examples of proof of payment may include a letter or e-mail from the vendor, lien waiver or copies of cancelled checks. Reimbursement will not be made on these submittals until proof of payment is provided. Progress invoices submitted to MoDOT for reimbursement within thirty (30) calendar days of the date on the vendor invoice will be processed for reimbursement without proof of payment to the vendor. If the City has not paid the vendor prior to receiving reimbursement, the City must pay the vendor within two (2) business days of receipt of funds from MoDOT.

(19) PERMITS: The City shall secure any necessary approvals or permits from any federal or state agency as required for the completion of the herein improvements. If this improvement is on the right of way of the Commission, the City must secure a permit from the Commission prior to the start of any work on the right of way. The permits which may be required include, but are not limited to, environmental, architectural, historical or cultural requirements of federal or state law or regulation.

(20) INSPECTION OF IMPROVEMENTS AND RECORDS: The City shall assure that representatives of the Commission and FHWA shall have the privilege of inspecting and reviewing the work being done by the City's contractor and subcontractor on the herein project. The City shall also assure that its contractor, and all subcontractors, if any, maintain all books, documents, papers and other evidence pertaining to costs incurred in connection with the Transportation Enhancement Program Agreement, and make such materials available at such contractor's office at all reasonable times at no charge during this Agreement period, and for three (3) years from the date of final

payment under this Agreement, for inspection by the Commission, FHWA or any authorized representatives of the Federal Government and the State of Missouri, and copies shall be furnished, upon request, to authorized representatives of the Commission, State, FHWA, or other Federal agencies.

(21) CREDIT FOR DONATIONS OF FUNDS, MATERIALS, OR SERVICES: A person may offer to donate funds, materials or services in connection with this project. Any donated funds, or the fair market value of any donated materials or services that are accepted and incorporated into this project shall be credited according to 23 U.S.C. §323.

(22) DISADVANTAGED BUSINESS ENTERPRISES (DBE): The Commission will advise the City of any required goals for participation by disadvantaged business enterprises (DBEs) to be included in the City's proposal for the work to be performed. The City shall submit for Commission approval a DBE goal or plan. The City shall comply with the plan or goal that is approved by the Commission and all requirements of 49 C.F.R. Part 26, as amended.

(23) VENUE: It is agreed by the parties that any action at law, suit in equity, or other judicial proceeding to enforce or construe this Agreement, or regarding its alleged breach, shall be instituted only in the Circuit Court of Cole County, Missouri.

(24) NOTICE TO BIDDERS: The City shall notify the prospective bidders that disadvantaged business enterprises shall be afforded full and affirmative opportunity to submit bids in response to the invitation and will not be discriminated against on grounds of race, color, sex, or national origin in consideration for an award.

(25) FINAL AUDIT: The Commission may, in its sole discretion, perform a final audit of project costs. The United States Government shall reimburse the City, through the Commission, any monies due. The City shall refund any overpayments as determined by the final audit.

(26) AUDIT REQUIREMENTS: If the City expend(s) seven hundred fifty thousand dollars (\$750,000) or more in a year in federal financial assistance it is required to have an independent annual audit conducted in accordance with 2 CFR Part 200. A copy of the audit report shall be submitted to MoDOT within the earlier of thirty (30) days after receipt of the auditor's report(s), or nine (9) months after the end of the audit period. Subject to the requirements of 2 CFR Part 200, if the City expend(s) less than seven hundred fifty thousand dollars (\$750,000) a year, the City may be exempt from auditing requirements for that year but records must be available for review or audit by applicable state and federal authorities.

(27) FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT OF 2006: The City shall comply with all reporting requirements of the Federal Funding Accountability and Transparency Act (FFATA) of 2006, as amended. This Agreement is subject to the award terms within 2 C.F.R. Part 170.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have entered into this Agreement on the date last written below.

Executed by the City on _____ .

Executed by the Commission on _____ .

MISSOURI HIGHWAYS AND
TRANSPORTATION COMMISSION

CITY OF SPRINGFIELD

Title _____

By _____
Title _____

ATTEST:

ATTEST:

Secretary to the Commission

By _____
Title _____

By _____
Title _____

By _____
Title _____

Approved as to Form:

Approved as to Form:

Commission Counsel

Title _____

Ordinance No _____

Exhibit A - Location of Project



Exhibit B – Project Schedule

Project Description: TAP-5901(826) will be for the construction phase only of a multiuse trail along LeCompte Rd. from Eastgate Ave. and Division St. north to the BNSF Railroad.

Task	Date
Date funding is made available or allocated to recipient	04/30/2024
Preliminary and Right-of-Way Plans Submittal (if Applicable)	07/15/2025
Plans, Specifications & Estimate (PS&E) Submittal	12/31/2024
Plans, Specifications & Estimate (PS&E) Approval	1/31/2025
Advertisement for Letting	02/15/2025
Bid Opening	03/15/2025
Construction Contract Award or Planning Study completed (REQUIRED)	05/15/2025

*Note: the dates established in the schedule above will be used in the applicable ESC between the sponsor agency and consultant firm.

**Schedule dates are approximate as the project schedule will be actively managed and issues mitigated through the project delivery process. The Award Date or Planning Study Date deliverable is not approximate and a Supplemental Agreement is required to modify this date.

Exhibit C - Required Contract Provisions
Federal-Aid Construction Contracts

FHWA-1273 -- Revised July 5, 2022

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics,

including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State

Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor

set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1 of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 of this section. 29 CFR 5.5.

* \$27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

3. Withholding for unpaid wages and liquidated damages.

The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or

equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance

with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders

or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant

who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is

submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier

subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.
2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS** (23 CFR 633, Subpart B, Appendix B)
This provision is applicable to all Federal-aid projects funded
under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

CITY OF SPRINGFIELD, MO
BUDGET ADJUSTMENT

Exhibit 2

Budget Adjustment
060

Revenues:

Fund	Dept	Org	Account	P&G	Location	Amount	Description
46040	20	73020	416010	000000	00000	\$400,000	Transportation Enhancement Federal Grant Revenues through the Missouri Highways & Transportation Commission
Net Revenue Adjustment						\$400,000	

Expenditures:

Fund	Dept	Org	Account	P&G	Location	Amount	Description
46040	20	73020	509110	000000	00000	\$400,000	Ten (10) Foot Wide Trail Along LeCompte Road from Eastgate Avenue and Division Street North to the BNSF Railroad
Net Expenditure Adjustment						\$400,000	

Fund Balance Appropriation:

Fund	Title	Amount

Explanation: To amend the FY2023-24 Budget by appropriating \$400,000 of federal Transportation Enhancement grant funds for the partial funding of the construction of a 10-foot wide trail along LeCompte Road from Eastgate Avenue and Division Street north to the BNSF Railroad.

Requested By:

Approved By:

Authorization:

Department Head Date

Director of Finance Date

City Manager Date

Council Bill No. _____
Ordinance No. _____
1st Reading _____
2nd Reading _____
Journal Imp No. _____



EXPLANATION TO COUNCIL BILL 2024-059 (HORTON)

FILED: 03/20/2024

ORIGINATING DEPARTMENT: Planning and Development

TITLE: A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 0.09 acres of property generally located at 2646 West Walnut Street from R-SF, Single-Family Residential District to HC, Highway Commercial District with Conditional Overlay District No. 251; and adopting an updated Official Zoning Map. (By: Seth Holdings, LLC; 2646 W. Walnut Street; Z-9-2024 with Conditional Overlay District No. 251.)

PURPOSE: Amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 0.09 acre of property generally located at 2646 West Walnut Street from R-SF, Single-Family Residential District to HC, Highway Commercial District and establishing Conditional Overlay District No. 251. (Staff and Planning and Zoning Commission recommend approval.)

BACKGROUND INFORMATION:

ZONING CASE NUMBER Z-9-2024/ CONDITIONAL OVERLAY DISTRICT NO. 251

The applicant is requesting to rezone the subject property generally located at 2646 West Walnut Street from R-SF, Single-Family Residential District to HC, Highway Commercial District and establishing Conditional Overlay District No. 251. The applicant is proposing to combine HC zoned lots to allow for commercial expansion along Scenic Avenue.

REMARKS: The Planning and Zoning Commission held a public hearing on March 14, 2024, and recommended to approve, by a vote of 7 to 0.

The Planning and Development staff recommends the application be approved (see the attached Development Review Staff Report).

FINDINGS FOR STAFF RECOMMENDATION:

1. *The Comprehensive Plan's Land Use & Development chapter* identifies the subject property as the Traditional Neighborhood placetype. This placetype includes areas that are comprised of post-war residential neighborhoods that contain predominantly single-family detached dwellings with uniform setbacks, building designs, and parcel sizes, that are separated from dissimilar uses by distinct zoning boundaries and buffer yard. The property is proposed to allow HC, Highway Commercial District uses so this would

allow for expansion of a low-intensity neighborhood commercial use which is a supporting use in this placetype.

2. The Traditional Neighborhood place type supports low-intensity, neighborhood commercial. This application is attempting to expand the commercial uses that will primarily be located off Scenic Avenue. This property is on the edge of the placetype and is adjacent to properties that have frontage along Scenic Avenue, which is a secondary arterial roadway.

3. The proposed Highway Commercial District is consistent with the goals and objectives of the Traditional Neighborhood placetype in this location.

4. The applicant is proposing a Conditional Overlay District to provide full bufferyard along the east and south bordering properties and require a combination of lots along Scenic and Walnut which are all owned by the same property owner.

5. The subject property is in an area that has other retail and office uses that take advantage of access to Scenic Avenue, which is an arterial roadway.

6. The subject property has access to City Utilities infrastructure, and any necessary extension of such services can be provided via City Utilities' extension policy, though new easements may be necessary to accommodate this.

7. There are changing conditions in the area affected that make the proposed rezoning necessary.

8. The range of uses in the proposed HC district are compatible with the uses permitted on other property in the immediate vicinity.

9. There are adequate utility and sewer and water facilities existing or can be provided to serve the uses that would be permitted on the property if it were rezoned.

10. The impact the uses, which would be permitted if the property were rezoned, is not expected to significantly increase the volume of vehicular and pedestrian traffic or reduce traffic safety in the vicinity. This application will not require a traffic study.

11. The proposed zoning will not correct an error in the application of this article, but rather will provide a viable use of the property subject to the provisions of the zoning district.

12. A reasonably viable economic use of the subject property will not be precluded if the proposed rezoning is denied. The property will be half HC and half R-SF, so only uses that are allowed in both would be permitted. This could create significant development issues.



STAFF RECOMMENDATION: Staff recommends approval based on the proposal's general conformance to the Comprehensive Plan's Traditional Neighborhood placetype and on the finding of facts above.

Submitted By: Daniel Neal, Senior City Planner

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Maurice S. Jones, Deputy City Manager 3/29/2024

- Attachments:**
1. Z-9-2024 COD 251 - 2646 W. Walnut Street_ord
 2. COD_exhA
 3. Legal Description_exhB
 4. ROP_exhC
 5. Staff Report_exhD

One-rdg. _____
P. Hrngs. X
Pgs. 23
Filed: 04-02-24

Sponsored by: Horton

First Reading: _____

Second Reading: _____

COUNCIL BILL 2024-059

GENERAL ORDINANCE _____

AN ORDINANCE

1 AMENDING the Springfield Land Development Code, Section 36-306, 'Official
2 zoning map and rules for interpretation,' by rezoning approximately
3 0.09 acres of property generally located at 2646 West Walnut
4 Street from R-SF, Single-Family Residential District to HC, Highway
5 Commercial District with Conditional Overlay District No. 251; and
6 adopting an updated Official Zoning Map.
7 _____
8

9 WHEREAS, an application has been filed for a zoning change of the property
10 generally located at 2646 West Walnut Street from R-SF, Single-Family Residential
11 District to HC, Highway Commercial District, with Conditional Overlay District No. 251;
12 and
13

14 WHEREAS, Conditional Overlay District No. 251 shall modify the requirements of
15 the Springfield Land Development Code Section 36-422, Highway Commercial District,
16 by requiring that the property described in "Exhibit B" comply with the requirements
17 described in "Exhibit A" attached herein; and
18

19 WHEREAS, following proper notice, the Planning and Zoning Commission held a
20 public hearing on March 14, 2024, a copy of the Record of Proceedings from said public
21 hearing being attached hereto and incorporated herein by this reference as "Exhibit C,"
22 and said Commission made its recommendation; and
23

24 WHEREAS, the City has reviewed the applicant's request and prepared a staff
25 report concerning the application, which is attached hereto and incorporated herein by
26 this reference as "Exhibit D"; and
27

28 WHEREAS, proper notice was given of a public hearing before City Council, and
29 said hearing was held in accordance with the law.
30

31 NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF
32 SPRINGFIELD, MISSOURI, as follows, that:
33

34 Section 1 – The property described in "Exhibit B," which is attached hereto and
35 incorporated herein by this reference, is hereby rezoned from R-SF, Single-Family
36 Residential District to HC, Highway Commercial District with Conditional Overlay District
37 No. 251. Springfield Land Development Code, Section 36-306, 'Official zoning map and
38 rules for interpretation,' is hereby amended, changed, and modified consistent with this
39 Ordinance.

40
41 Section 2 – City Council hereby establishes Conditional Overlay District No. 251,
42 which shall contain the requirements and standards provided in "Exhibit A," which is
43 attached hereto and incorporated herein by this reference as though set forth herein.
44 The requirements of Conditional Overlay District No. 251 shall modify the requirements
45 of the Springfield Land Development Code Section 36-422, Highway Commercial
46 District, by requiring the property described in "Exhibit B" to comply with the
47 requirements contained in "Exhibit A."

48
49 Section 3 – City Council hereby directs the City Manager, or designee, to update
50 the City's digital zoning map to reflect this rezoning, and City Council adopts the map
51 thereby amended as the Official Zoning Map of Springfield, Missouri, as provided for in
52 the Springfield Land Development Code, Section 36-306, 'Official zoning maps and
53 rules of interpretation.'

54
55 Section 4 – The Official Zoning Map herein adopted shall be maintained and
56 archived in the same digital form in which this Council has approved its adoption.

57
58 Section 5 – This Ordinance shall be in full force and effect from and after
59 passage.

60
61 Passed at meeting: _____

62
63 _____
64 Mayor

65
66 Attest: _____, City Clerk

67
68 Filed as Ordinance: _____

69
70 Approved as to form: Laura Vales, Assistant City Attorney

71
72 Approved for Council action: Jason A. Hays, City Manager
73
74

EXHIBIT A

CONDITIONAL OVERLAY DISTRICT PROVISIONS
ZONING CASE Z-9-2024 COD 251

The requirements of Section 36-422. of the Springfield Zoning Ordinance shall be modified herein for development within this district to include the following:

1. The use of the narrow or shallow lot exemption provisions of Section 36- 482(16) for the required bufferyards of the proposed rezoning district shall not be allowed.
2. The subject property will need to be combined with the property at 2646 W. Walnut Street and 410 S. Scenic Avenue following the Subdivision Regulations.

EXHIBIT B

LEGAL DESCRIPTION

A STRIP OF LAND DESCRIBED AS FOLLOWED: THE WEST HALF (25 FEET) OF LOT 7, BLOCK 10, IN WESTPORT ADDITION, AN ADDITION TO THE CITY OF SPRINGFIELD, GREENE COUNTY, MISSOURI.

EXHIBIT C

**RECORD OF PROCEEDINGS
Planning and Zoning Commission – March 14, 2024**

Z-9-2024 COD 251
2646 West Walnut Street
Applicant: Seth Holdings, LLC

Mr. Neal stated that this is a request to rezone approximately 0.09 acre of property from R-SF, Single-Family Residential District to HC, Highway Commercial District and establishing Conditional Overlay District No. 251.

Mr. Colony asked if it was split into its own lot. Mr. Neal noted that it can be a split zoned lot and that it may have occurred during the annexation.

Discussion on the lot and rezoning with the additional 25 feet being dedicated for the buffer zone.

Mr. Rick Wilson, 1835 S. Stewart stated that they don't want to buffer against their own property and the plan is to redevelop the land for an area food eating establishment and want to protect the neighborhood.

Mr. Colony believes this would be a great idea.

Mr. Knuckles closed the public hearing.

COMMISSION ACTION:

Planning and Zoning Commission Board Member Scott moved to approve Z-9-2024 COD 251, Commissioner Colony seconded the motion. It **Passed** with the following vote. Ayes: Commissioner Gunther, Commissioner Pauly, Commissioner Scott, Commissioner Lebeck, Commissioner Colony, Commissioner Knuckles, Commissioner Doennig. Nays: None. Absent: Commissioner Ridge and Commissioner Broekhoven. Abstain: None.



Bob Hosmer, AICP
Planning Manager

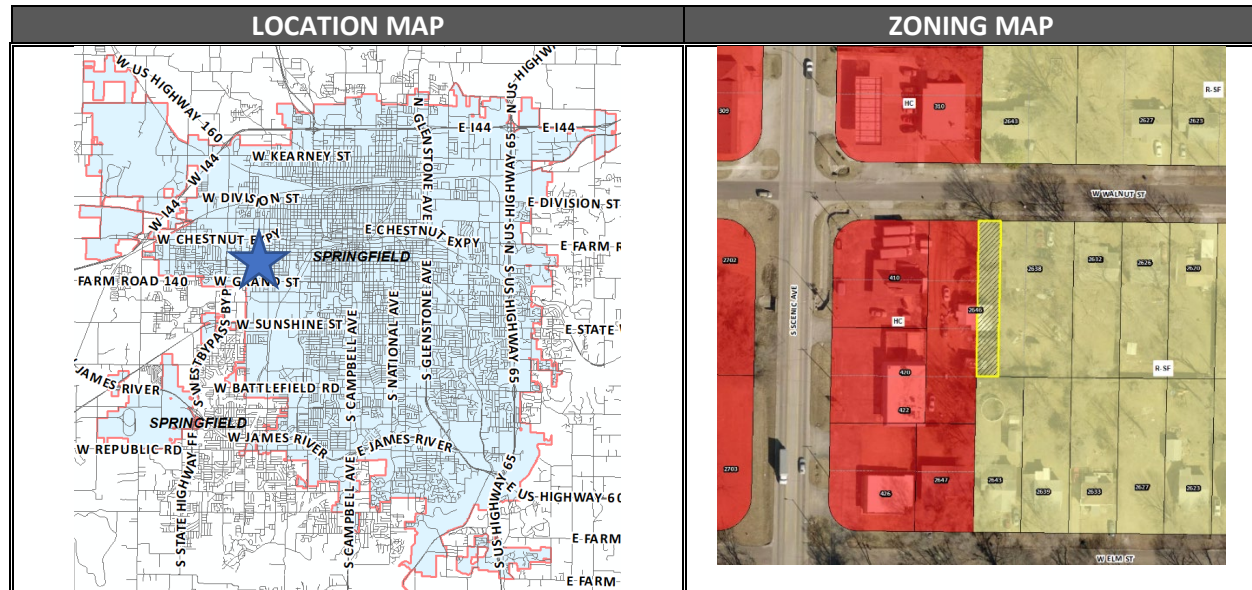
DEVELOPMENT REVIEW STAFF REPORT

PROJECT INFORMATION

Case Number:	Z-9-2024 with Conditional Overlay District No. 251
Location:	2646 W. Walnut Street
Total Acres:	0.09 acre
Applicant:	Seth Holdings, LLC
Existing Land Use:	Single-family residence
Neighborhood Meeting:	February 20, 2024
Planning and Zoning Commission:	March 14, 2024
City Council:	April 8, 2024
Public Notification:	Mail, posted property, and legal in Daily Events
Staff:	Daniel Neal, Senior Planner
Staff recommendation:	Staff recommends approval
Proposed motion:	I move to recommend approval of rezoning case Z-9-2024 with Conditional Overlay District No. 251 as set forth in Attachment 1. (All commission motions are made in the affirmative).
Required Vote:	A majority of those present (5 members are a quorum).

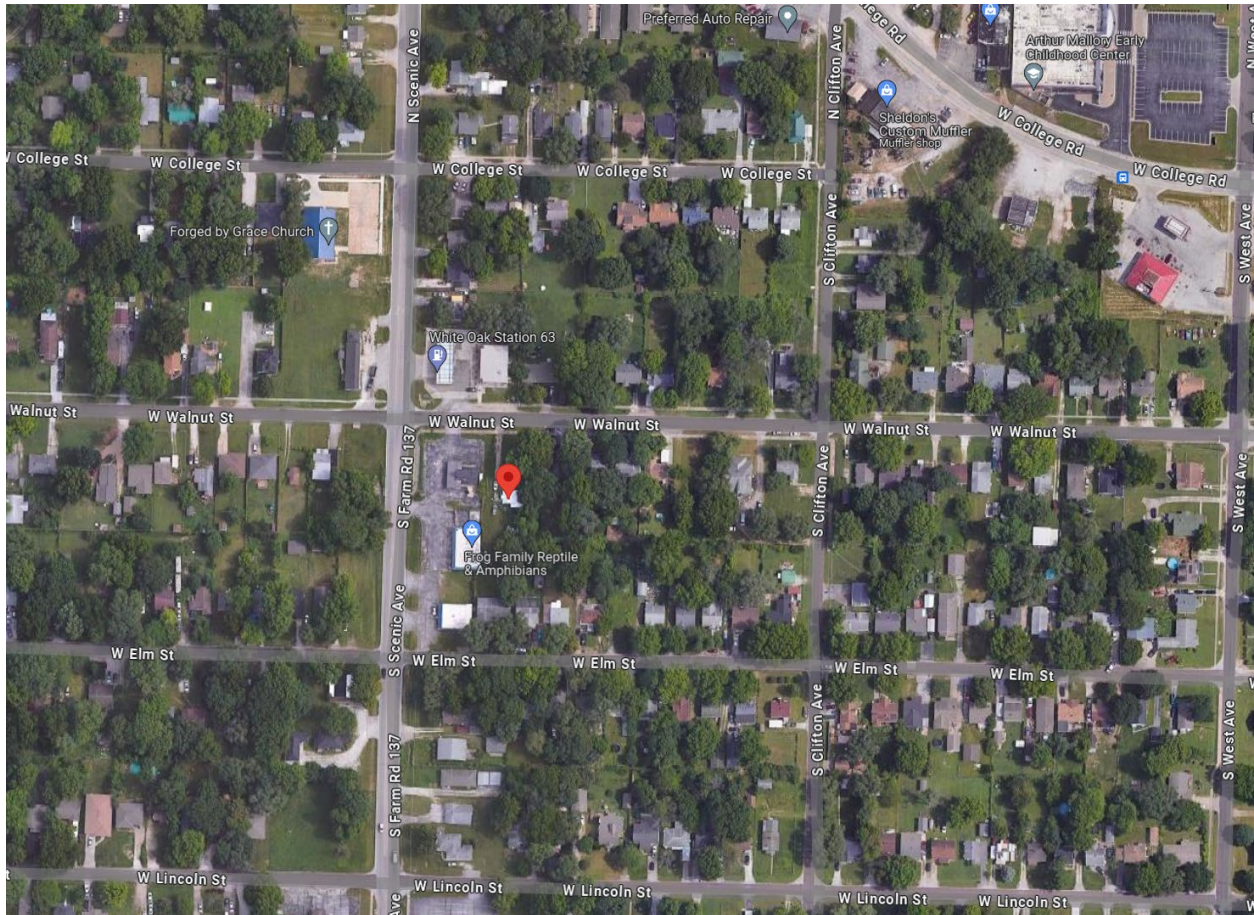
PROJECT SUMMARY:

Request to rezone approximately 0.09 acre of property generally located at 2646 West Walnut Street from R-SF, Single-Family Residential District to HC, Highway Commercial District and establishing Conditional Overlay District No. 251.

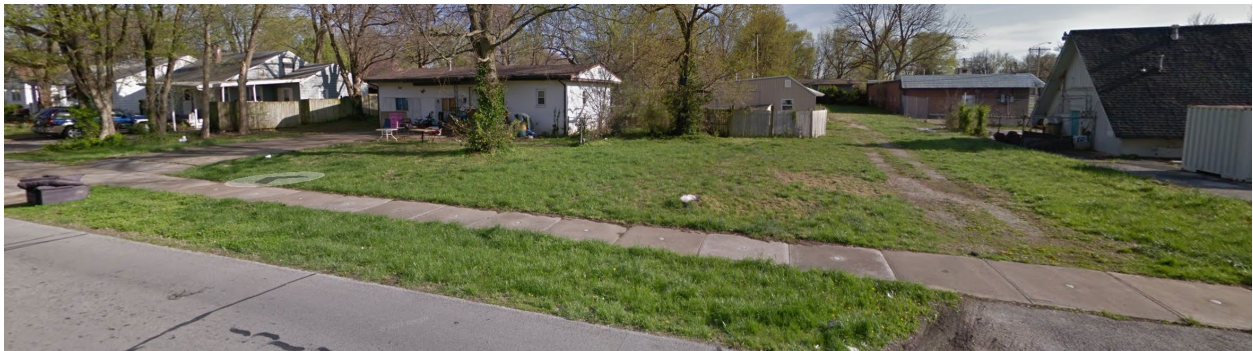


DEVELOPMENT REVIEW STAFF REPORT

GOOGLE AERIAL OF LANDMARKS, BUSINESSES, AND ATTRACTIONS:



GOOGLE MAPS STREET VIEW:



DEVELOPMENT REVIEW STAFF REPORT

PROPERTY HISTORY:

The subject property has been zoned R-SF, Single-Family Residential District since the Citywide remapping in 1995.

PLANNING AND ZONING COMMISSION AUTHORITY:

Sec. 36-367. – Amendments

(7) Findings by the commission.

(a) Rezoning. If the application is for a reclassification of property to a different zoning district classification on the zoning map, the report of the planning and zoning commission may consider:

1. Whether the proposed zoning district classification is consistent with the Springfield Comprehensive Plan;
2. Whether there are any changed or changing conditions in the area affected that make the proposed rezoning necessary;
3. Whether the range of uses in the proposed zoning district classification are compatible with the uses permitted on other property in the immediate vicinity;
4. Whether adequate utility and sewer and water facilities exist or can be provided to serve the uses that would be permitted on the property if it were rezoned;
5. The impact the uses, which would be permitted if the property were rezoned, will have upon the volume of vehicular and pedestrian traffic and traffic safety in the vicinity;
6. Whether the proposed rezoning would correct an error in the application of this article as applied to the subject property;
7. Whether a reasonably viable economic use of the subject property will be precluded if the proposed rezoning is denied; and
8. Information submitted at the public hearing.

ZONING ORDINANCE REQUIREMENTS:

CODE ITEM	REQUIREMENTS FOR HC
Use Limitations	(a) Streets through adjacent residential areas shall not be used to provide principal access for truck traffic to any nonresidential use in this district except on streets classified as expressways, arterials, or collectors. (b) No motor vehicle repair or maintenance work shall take place outdoors within 150 feet of the boundary of any residential district. (c) All sales, display or outdoor storage areas that would be routinely disturbed because of the nature of the activity being conducted or because of vehicular traffic, except those areas of nurseries and garden centers where living plants are located, shall be paved or otherwise improved with an all-weather, dust-free surface. (d) All uses shall operate in accordance with the noise standards contained in section 36-485, noise standards. (e) No use shall emit an odor that creates a nuisance as determined by chapter 2A, article X, Springfield City Code.

DEVELOPMENT REVIEW STAFF REPORT

	(f)Uses on parcels not served by public water and public sewer shall meet the requirements of subsection 36-303(22).
Maximum Structure Height	None, except that all structures shall remain below a 30-degree bulk plane as measured from the boundary of any R-SF or R-TH district.
Minimum Open Space	Not less than 20 percent

COMPATIBILITY WITH COMPREHENSIVE PLAN:

PLACETYPE:

The *Comprehensive Plan's Land Use & Development* chapter identifies the subject property as the Traditional neighborhood placetype. Traditional Neighborhoods are comprised of post-war residential neighborhoods that contain predominantly single-family detached dwellings with uniform setbacks, building designs, and parcel sizes, that are separated from dissimilar uses by distinct zoning boundaries and buffer yards. Housing in Traditional Neighborhoods range from bungalows to expansive ranch style homes constructed with a variety of materials and methods. Neighborhood parks, schools, and churches are dispersed throughout to serve nearby residents. These neighborhoods can follow a gridded block pattern or curvilinear streets and are well connected internally with sidewalks and trails. Traditional Neighborhoods tend to be expansive, isolating residents from services and resources on the edges, often beyond walking distance. Planning for Traditional Neighborhoods should strive to increase and integrate quality of place and complete neighborhood characteristics. These characteristics could include beautification efforts such as planting street trees, expanding connections and access to the greenway and trail system, and support for low-intensity multi-family, low-intensity neighborhood commercial, or a mix of uses to serve area residents. Multi-family, neighborhood commercial, or mixed use should be located on the edges of the greenway system, on higher classification roadways, or areas identified by residents during the neighborhood planning process. Preservation of residential housing and housing patterns should be prioritized where lots are predominately accessed from side or internal local streets.

Redevelopment of traditional single-family residential housing for higher-density housing or commercial should be limited to areas adjacent to identified activity centers, where circulation and access will not negatively affect the adjoining neighborhood.

LAND USES PRIMARY USES

- Single-family detached

SUPPORTING USES

- Single-family attached
- Low-intensity multifamily

DEVELOPMENT REVIEW STAFF REPORT

- Low-intensity, neighborhood commercial
- Parks, greenways, and open space
- Public and private schools and places of worship
- Low-intensity urban agriculture

CHARACTERISTICS TRANSPORTATION & INFRASTRUCTURE

- Traffic-calming measures, such as speed-humps, bump-outs, roundabouts, landscaped chicanes with integrated stormwater management, and on-street parking are used to slow traffic.
- Best management practices for stormwater management are required in development projects and within public rights-of-way, such as permeable paving, rain gardens, green roofs, native landscaping, and other low impact design strategies.
- Sidewalk gaps are filled, and sidewalks connect to transit routes, greenways and trails, and supportive uses are located within the neighborhood and around the perimeter.
- Alleys provide pedestrian connections, alternative access to rear yards, detached garages, and other approved accessory uses. • Sense of place and identity is enhanced through neighborhood organization efforts, preservation and planting trees, neighborhood identification signs, and traffic calming improvements that double as streetscape elements.
- As technology, trends, and funds permit, utilities are buried or are consolidated along rear property lines, reducing conflicts with street trees, pedestrian infrastructure, and viewsheds.
- Major entrances into neighborhoods are marked by identification signs and landscaping.

URBAN DESIGN - BUILDING AND SITE TYPOLOGY

- The main entrances of new residential developments are oriented towards the primary street.
- Preservation and adaptive reuse of neighborhood schools and surplus buildings are encouraged.
- When appropriate, adaptive reuse of residential structures for low-intensity, neighborhood-scale nonresidential uses, including missing middle housing types, is encouraged at neighborhood nodes and along edges.
- Accommodations are made to allow expanded home occupations, without detracting from the character of the neighborhood, being conscious of changing trends and advances in technologies.
- New and infill buildings maintain the proportions and architectural features common in the existing block.
- When commercial buildings are located within or adjacent to the neighborhood, they are oriented to the street, focus on pedestrian-scale, and provide limited vehicle parking.

TRADITIONAL NEIGHBORHOOD

DEVELOPMENT REVIEW STAFF REPORT

- Residential subdivisions are designed and platted with curvilinear streets in structured layouts that maximize use of land.
- Lots have uniform widths, depths, and setbacks that align with home sizes and densities.
- Attached garages are a standard element, typically integrated into the design of the home and make up a dominant part of the front elevation, reducing the on-street parking demands.
- Vehicular driveways are provided for each home and are accessed almost exclusively from the front or side street, limiting on-street parking opportunities.
- Neighborhoods are often self-regulated by covenants that limit use, size, and design of structures, as well as care and use of private amenities and common areas.

TRANSITIONS

- A “stepped down” approach is used to transition from higher density/intensity residential and non-residential uses to single-family residential homes and uses, with greater densities/intensities located on higher functioning roadways, at the periphery of the neighborhood.
- Lower density residential uses are sufficiently screened and buffered between higher density housing and nonresidential uses.
- The design of higher density residential uses integrated into the Residential Neighborhood Placetype should complement the scale and character of the surrounding neighborhood. Attention should be given to building height, orientation, architectural style, and setback to ensure the existing neighborhood character is retained.

DEVELOPMENT REVIEW STAFF REPORT

FUTURE PLACETYPE MAP:



PLACETYPES	LAND USES													
	Single-Family Detached	Single-Family Attached	Multi-family	Parks & Open Space	Sports Complexes & Recreational Facilities	Urban Agriculture	Office, Hospitality, Retail Sales & Service	Neighborhood Commercial	Maker, Artisan & Innovation Spaces	Public & Private Schools & Vocational Schools	Government, Colleges & Institutional Facilities	Personal Storage, Outdoor Sales & Service	Light Industry	Warehouse & Distribution Facilities
Residential Neighborhood	●	○	◇	○	◇	◇	○							
Mixed Residential	●	●	○	○	◇	◇	○							
Downtown	●	●	○	○	○	○	○	○	○	○	○	○	○	○
Mixed-Use	○	○	○	○	○	○	○	○	○	○	○	○	○	○
City Corridor	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Institutional & Employment Center	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Business Flex	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Industry & Logistics	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Urban Green Space & Recreation	○	○	○	○	○	○	○	○	○	○	○	○	○	○

- **Primary Land Use:**
More prominent and play a pivotal role in characterizing that placetype
- **Supporting Land Use:**
Less prevalent and serve to support the primary land use.
- ◇ **Low Intensity Supporting Land Use:**
Less prevalent and serve to support the primary use at neighborhood scale

DEVELOPMENT REVIEW STAFF REPORT

MAJOR THOROUGHFARE MAP:



SURROUNDING ZONING, LAND USES AND PLACETYPES:

	NORTH	SOUTH	EAST	WEST
ZONING	R-SF	R-SF	R-SF	HC
LAND USE	Single-family residence	Single-family residence	Single-family residence	Retail/office uses
PLACETYPES	Traditional Neighborhood	Traditional Neighborhood	Traditional Neighborhood	Traditional Neighborhood

DEVELOPMENT REVIEW STAFF REPORT

DEPARTMENT COMMENTS:

DEPARTMENT OF BUILDING DEVELOPMENT SERVICES:

No comments.

CITY UTILITIES:

No issues with the proposed rezoning.

DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER MANAGEMENT DIVISION:

No objection to the rezoning. Both existing properties have access to public sewer and are in a sewer district.

FIRE DEPARTMENT:

No comments.

DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION:

TRAFFIC REPORT

	Street Name	Street Classification	Jurisdiction	ROW from Centerline (ft.)		Traffic Count (vehicles per day)	On-Street Parking	Sidewalk	
				Required	Existing			Required	Existing
Street 1	W. Walnut St	Local	City	30	30	NA	Yes	Yes	Yes
Street 2	S. Scenic Avenue	Secondary Arterial	City	35	40	NA	No	Yes	No

ACCESS - All new or modified driveway approaches shall comply with current City of Springfield standards for the street classification.

TRAILS, BUS STOPS, AND ADDITIONAL INFORMATION - There are no Greenway Trails near the property. There is one bus stop near the property.

IMPROVEMENTS - No improvements are required for this rezoning. A traffic study is not required for this rezoning.

DEPARTMENT OF PUBLIC WORKS STORMWATER ENGINEERING DIVISION:

DEVELOPMENT REVIEW STAFF REPORT

SITE DESCRIPTION & DRAINAGE PATTERN

The property is in the **Upper Wilsons Creek** drainage basin. The property **is not** located in a FEMA designated floodplain. Staff **is not** aware of flooding problems in the local or downstream area. The city **is not** aware of a sinkhole or other Karst feature at this location. The property **does not have a stream buffer on site**. A fee in lieu of on-site stormwater detention **will be dependent on further analysis of the surrounding stormwater infrastructure and downstream impacts**.

PW Stormwater has no concerns for the proposed rezoning from R-SF to HC. Please note that development of the property will be subject to the following conditions at the time of development:

All chapter and section references below are to the City's Flood Control and Water Quality Protection Manual Version April 2022.

DETENTION AND DISCHARGE REQUIREMENTS

1. Any development or redevelopment that increases runoff, through the increase in impervious surface, current detention requirements must be met per Chapter 3 Sec. 2.3.3. The only exception to building detention is a Fee in Lieu of detention application per the City of Springfield Code and the manual dependent on approvable by the Director of Public Works.

WATER QUALITY REQUIREMENTS

N/A

FLOODPLAIN

N/A

NATURAL CHANNEL & STREAM BUFFERS

N/A

SINKHOLES & KARST FEATURES

N/A

ADDITIONAL STORMWATER REQUIREMENTS

N/A

STAFF ANALYSIS AND RECOMMENDATION:

1. The applicant is requesting to rezone approximately 0.09 acre of property generally located at 2646 West Walnut Street from R-SF, Single-Family Residential District to HC, Highway Commercial District and establishing Conditional Overlay District No. 251. The applicant is proposing to combine HC zoned lots to allow for commercial expansion along Scenic Avenue.
2. The *Comprehensive Plan's Land Use & Development* chapter identifies the subject property as the Traditional Neighborhood placetype. This placetype includes areas that are comprised of post-war residential neighborhoods that contain predominantly single-family

DEVELOPMENT REVIEW STAFF REPORT

detached dwellings with uniform setbacks, building designs, and parcel sizes, that are separated from dissimilar uses by distinct zoning boundaries and buffer yard. The property is proposed to allow HC, Highway Commercial District uses so this would allow for expansion of a low-intensity neighborhood commercial use which is a supporting use in this placetype.

3. The Traditional Neighborhood place type supports low-intensity, neighborhood commercial. This application is attempting to expand the commercial uses that will primarily be located off Scenic Avenue. This property is on the edge of the placetype and is adjacent to properties that have frontage along Scenic Avenue which is a secondary arterial roadway.
4. The Highway Commercial District is consistent with the goals and objectives of the Traditional Neighborhood placetype in this location.
5. The applicant is proposing a Conditional Overlay District to provide full bufferyard along the east and south bordering properties and require a combination of lots along Scenic and Walnut which are all owned by the same property owner.
6. The subject property is in an area that has other retail and office uses that take advantage of access to Scenic Avenue which is an arterial roadway.
7. The subject property has access to City Utilities infrastructure, and any necessary extension of such services can be provided via City Utilities' extension policy, though new easements may be necessary to accommodate this.
8. There are changing conditions in the area affected that make the proposed rezoning necessary.
9. The range of uses in the proposed HC district are compatible with the uses permitted on other property in the immediate vicinity;
10. There are adequate utility and sewer and water facilities existing or can be provided to serve the uses that would be permitted on the property if it were rezoned;
11. The impact the uses, which would be permitted if the property were rezoned, is not expected to significantly increase the volume of vehicular and pedestrian traffic or reduce traffic safety in the vicinity. This application will not require a traffic study.
12. The proposed zoning will not correct an error in the application of this article, but rather will provide a viable use of the property subject to the provisions of the zoning district.
13. A reasonably viable economic use of the subject property will not be precluded if the proposed rezoning is denied. The property will be half HC and half R-SF so only uses that are allowed in both would be permitted. This could create significant development issues.

DEVELOPMENT REVIEW STAFF REPORT

STAFF RECOMMENDATION:

1. Staff recommends approval based on the proposal's general conformance to the Comprehensive Plan's Traditional Neighborhood Placetype and on the finding of facts above.

PLANNING AND ZONING OPTIONS:

The planning and zoning commission shall make one of the following recommendations in connection with each proposed change in zoning district classification of this article:

1. Recommend against the proposed change in the zoning district classification.
2. Recommend a change in the zoning district classification.
3. Recommend a change in the zoning district classification together with recommendations which, in the judgment of the planning and zoning commission, will protect adjacent property and ensure that the proposed amendment is consistent with the purpose and intent of this article.

DEVELOPMENT REVIEW STAFF REPORT

ATTACHMENT 1

CONDITIONAL OVERLAY DISTRICT PROVISIONS NO. 251

The requirements of Section 36-422. of the Springfield Zoning Ordinance shall be modified herein for development within this district to include the following:

1. The use of the narrow or shallow lot exemption provisions of Section 36- 482(16) for the required bufferyards of the proposed rezoning district shall not be allowed.
2. The subject property will need to be combined with the property at 2646 W. Walnut Street and 410 S. Scenic Avenue following the Subdivision Regulations.

Attachment 2

AFFIDAVIT OF NEIGHBORHOOD NOTIFICATION AND MEETING SUMMARY

1. Request change to zoning from: Residential Single Family (SF) to Highway Commercial District (HC)
(existing zoning) (proposed zoning)
2. Meeting Date & Time: Tuesday, February 20, 2014 @ 4:00 PM to 6:30 PM
3. Meeting Location: The Library Station, 3535 N. Kansas, Springfield, MO
4. Number of invitations that were sent: 151
5. How the mailing list was generated: From City of Springfield
6. Number of neighbors in attendance (attach a sign-in sheet): 9
7. List the verbal comments and how you plan to address any issues:
(City Council does not expect all the issues to be resolved to the neighborhood's satisfaction; however, the developer must explain why the issues cannot be resolved).

Neighbors requested and received information about the buffer zone around the business. Assurances that privacy fencing and landscaping will be included in the buffer zone.
Natural Space: Neighbors requested the natural space behind the rezone lot be preserved, trees not cut down but trimmed back instead. The developer intends to keep as many existing trees as possible.
Parking: the proposed business will have enough parking on site and not rely upon parking on Elm Street.
Citizens expressed concerns with criminal elements currently associated with the A Frame building and neighboring businesses including noise, assaults, etc. The parking area will be maintained for safety and security of its patrons and the neighbors. Property Tax and Home Insurance values should be not increased due to this project/rezone.

8. List or attach the written comments and how you plan to address any issues:

We have not received written comments.

I, Rick Wilson (print name), attest that the neighborhood meeting was held on 2/20/24 (month/date/year), and is at least twenty-one (21) days prior to the Planning and Zoning Commission public hearing and in accordance with the attached "Neighborhood Notification and Meeting Process."

Rick Wilson
Signature of person completing affidavit

Rick Wilson
Printed name of person completing affidavit

2.20.24 Neighborhood Meeting

2646 W. Walnut

Sign in

	<u>Name</u>	<u>Address</u>
1	Juan Sample	1150 S Main Ave (2650 W College)
2	Sandy Trautman	2443 W. 8th St.
3	Wanda Lawrence	2647 W Elm St
4	OCTAVIA SANCHEZ	
5	Patrick Feehan	
6	Linda Moore - Tom Tyler	2626 W. Walnut St.
7	Sarah Tinajero	1717 E Dale
8	Rocket Anderson	516 S. Summit
9	JoAnne Ash	1106 E. Loren,



EXPLANATION TO COUNCIL BILL 2024-060 (MCGULL)

FILED: 03/20/2024

ORIGINATING DEPARTMENT: Planning and Development

TITLE: A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 9.45 acres of property generally located at the 2200 block of North Belcrest Avenue from HC, Highway Commercial District with Conditional Overlay District No. 226 to HM, Heavy Manufacturing District with Conditional Overlay District No. 250; and adopting an updated Official Zoning Map. (By: 3G Investment Group, LLC; 2200 blk N. Belcrest Avenue; Z-6-2024 with Conditional Overlay District No. 250.)

PURPOSE: Amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 9.45 acres of property generally located at 2200 block North Belcrest Avenue from HC, Highway Commercial District with Conditional Overlay District No. 226 to HM, Heavy Manufacturing District and establishing a new Conditional Overlay District No. 250. (Staff and Planning and Zoning Commission recommend approval.)

BACKGROUND INFORMATION:

ZONING CASE NUMBER Z-6-2024/ CONDITIONAL OVERLAY DISTRICT NO. 250

The applicant is requesting to rezone the subject property generally located at 2200 block North Belcrest Avenue from HC, Highway Commercial District with Conditional Overlay District No. 226 to HM, Heavy Manufacturing District and establishing a new Conditional Overlay District No. 250. The applicant intends to sell the property for industrial uses which the property was previously zoned HM District prior to 2023.

REMARKS: The Planning and Zoning Commission held a public hearing on March 14, 2024, and recommended to approve, by a vote of 7 to 0. The Planning and Development staff recommends the application be approved (see the attached Development Review Staff Report).

FINDINGS FOR STAFF RECOMMENDATION:

1. The Comprehensive Plan's Land Use & Development chapter identifies the subject property as the Industry & Logistics placetype. This placetype primarily consists of, "...heavy and moderately intense manufacturing, distribution uses, and a range of operations that rely on proximity to the City's airport, interstate, and rail facilities." Based on these primary functions, this placetype also accommodates other activities typically associated with industry and manufacturing, including outdoor activity involving storage or parking of vehicles and equipment.

2. The Heavy Manufacturing District is intended for heavy industrial uses and other uses not otherwise provided for in the other industrial districts. The intensity of uses permitted in this district makes it necessary to separate it from all residential districts wherever possible with good accessibility provided to major rail, air facilities and highways.
3. The proposed Conditional Overlay District will require enhanced perimeter landscaping to be triggered when the site is developed. The landscape plantings along U.S. Highway 65 shall consist of at least one canopy tree, two understory or evergreen trees; and four shrubs per 100 linear feet of street frontage.
4. The subject property is located along U.S. Highway 65, which is classified as a freeway roadway and Belcrest Avenue, which is a local roadway, respectively.
5. The subject property has access to City Utilities' infrastructure, and any necessary extension of such services can be provided via City Utilities' extension policy, though new easements may be necessary to accommodate this.
6. There are no known changing conditions in the area affected that make the proposed rezoning necessary.
7. The range of uses in the proposed HM district and COD are compatible with the uses permitted on other property in the immediate vicinity.
8. There are adequate utility and sewer and water facilities existing or can be provided to serve the uses that would be permitted on the property if it were rezoned.
9. The impact of the proposed uses, which would be permitted if the property were rezoned, is not expected to significantly increase the volume of vehicular and pedestrian traffic or reduce traffic safety in the vicinity.
10. The proposed zoning will not correct an error in the application of this article, but rather will provide a viable use of the property subject to the provisions of the zoning district.
11. A reasonably viable economic use of the subject property will not be precluded if the proposed rezoning is denied.

STAFF RECOMMENDATION: Staff recommends approval based on the proposal's general conformance to the Comprehensive Plan's Industry & Logistics Placetype and on the finding of facts above.

Submitted By: Daniel Neal, Senior City Planner

Authorized for inclusion on the agenda pursuant to City Code section 2-33:



Maurice S. Jones, Deputy City Manager 3/29/2024

- Attachments:**
1. Z-6-2024 COD 250_Ord
 2. COD_exhA
 3. Legal Description_exhB
 4. ROP_exhC
 5. Staff Report_exhD

One-rdg. _____
P. Hrngs. X
Pgs. 23
Filed: 04-02-24

Sponsored by: McGull

First Reading: _____

Second Reading: _____

COUNCIL BILL 2024-060

GENERAL ORDINANCE _____

AN ORDINANCE

1 AMENDING the Springfield Land Development Code, Section 36-306, 'Official
2 zoning map and rules for interpretation,' by rezoning approximately
3 9.45 acres of property generally located at the 2200 block of North
4 Belcrest Avenue from HC, Highway Commercial District with
5 Conditional Overlay District No. 226 to HM, Heavy Manufacturing
6 District with Conditional Overlay District No. 250; and adopting an
7 updated Official Zoning Map.
8 _____
9

10 WHEREAS, an application has been filed for a zoning change of the property
11 generally located at the 2200 block of North Belcrest Avenue from HC, Highway
12 Commercial District with Conditional Overlay District No. 226 to HM, Heavy
13 Manufacturing District with Conditional Overlay District No. 250; and
14

15 WHEREAS, Conditional Overlay District No. 250 shall modify the requirements of
16 the Springfield Land Development Code Section 36-433, Heavy Manufacturing District,
17 by requiring that the property described in "Exhibit B" comply with the requirements
18 described in "Exhibit A" attached herein; and
19

20 WHEREAS, following proper notice, the Planning and Zoning Commission held a
21 public hearing on March 14, 2024, a copy of the Record of Proceedings from said public
22 hearing being attached hereto and incorporated herein by this reference as "Exhibit C,"
23 and said Commission made its recommendation; and
24

25 WHEREAS, the City has reviewed the applicant's request and prepared a staff
26 report concerning the application, which is attached hereto and incorporated herein by
27 this reference as "Exhibit D"; and
28

29 WHEREAS, proper notice was given of a public hearing before City Council, and
30 said hearing was held in accordance with the law.
31

32 NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF
33 SPRINGFIELD, MISSOURI, as follows, that:

34 Section 1 – The property described in "Exhibit B," which is attached hereto and
35 incorporated herein by this reference, is hereby rezoned from HC, Highway Commercial
36 District with Conditional Overlay District No. 226 to HM, Heavy Manufacturing District
37 with Conditional Overlay District No. 250. Springfield Land Development Code, Section
38 36-306, 'Official zoning map and rules for interpretation,' is hereby amended, changed,
39 and modified consistent with this Ordinance.

40
41 Section 2 – City Council hereby establishes Conditional Overlay District No. 250,
42 which shall contain the requirements and standards provided in "Exhibit A," which is
43 attached hereto and incorporated herein by this reference as though set forth herein.
44 The requirements of Conditional Overlay District No. 250 shall modify the requirements
45 of the Springfield Land Development Code Section 36-433, Heavy Manufacturing
46 District, by requiring the property described in "Exhibit B" to comply with the
47 requirements contained in "Exhibit A."

48
49 Section 3 – City Council hereby directs the City Manager, or designee, to update
50 the City's digital zoning map to reflect this rezoning, and City Council adopts the map
51 thereby amended as the Official Zoning Map of Springfield, Missouri, as provided for in
52 the Springfield Land Development Code, Section 36-306, 'Official zoning maps and
53 rules of interpretation.'

54
55 Section 4 – The Official Zoning Map herein adopted shall be maintained and
56 archived in the same digital form in which this Council has approved its adoption.

57
58 Section 5 – This Ordinance shall be in full force and effect from and after
59 passage.

60
61 Passed at meeting: _____

62
63 _____
64 Mayor

65
66 Attest: _____, City Clerk

67
68 Filed as Ordinance: _____

69
70 Approved as to form: Laura Vales, Assistant City Attorney

71
72 Approved for Council action: Juan A. Page, City Manager
73
74

EXHIBIT A

CONDITIONAL OVERLAY DISTRICT PROVISIONS
ZONING CASE Z-6-2024 COD 250

The requirements of Section 36-433, Heavy Manufacturing District of the Land Development Code shall be modified as set forth herein for development within this district:

1. Perimeter landscaping:
 - a. Perimeter landscaping shall be provided along U.S. Highway 65 for any change of use, building permit or subdivision of the property. The plantings within the perimeter landscape area shall consist of at least one canopy tree, two understory or evergreen trees and four shrubs per 100 linear feet of highway frontage.

EXHIBIT B

LEGAL DESCRIPTION

A parcel of land being a part of Lot 1, of Morris Industrial Park Phase One, a subdivision recorded in Plat Book AAA at Page 582, in the Greene County Recorder's Office in the City of Springfield, Greene County, Missouri, being more particularly described as follows:

BEGINNING at the Northeast corner of said Lot 1, said point being on the West Right-of-Way line of US Highway 65, as it now exists; thence along said West Right-of-Way line the following three (3) courses: 1) S11°08'27"E (S11°19'49"E Plat), a distance of 27.70 feet (27.82' Plat); 2) S02°17'33"W (S02°17'42"W Plat), a distance of 350.29 feet (350.37' Plat); 3) S12°25'16"W (S12°25'10"W Plat), a distance of 142.26 feet; thence N87°06'48"W, a distance of 666.43 feet; thence S01°50'45"W, a distance of 21.27 feet; thence N87°06'48"W, a distance of 829.16 feet to a point on an existing public access easement recorded in Book 2020 at Page 001996-20; thence along said access easement and along a non-tangent curve to the left having a radius of 75.00 feet, an arc length of 38.19 feet, a central angle of 29°10'39" and a chord distance of 37.78 feet which bears N20°33'02"E, to a point on the Northerly line of said Lot 1; thence along said Northerly line the following three (3) courses: 1) S87°06'48"E (S87°07'18"E Plat), a distance of 767.33 feet; 2) N01°50'45"E (N01°50'15"E Plat), a distance of 503.04 feet (503.12' Plat); 3) S87°05'38"E (S87°05'41"E Plat), a distance of 738.76 feet (738.77' Plat) to the POINT OF BEGINNING.

Containing 9.450 acres, more or less, and subject to any rights-of-way, easements, and restrictions of record.

EXHIBIT C

**RECORD OF PROCEEDINGS
Planning and Zoning Commission – March 14, 2024**

Z-6-2024 COD 250
220 blk North Belcrest Avenue
Applicant: 3G Investment Group, LLC

Mr. Neal stated that this is a request to rezone approximately 9.45 acres of property from HC, Highway Commercial District with Conditional Overlay District No. 226 to HM, Heavy Manufacturing District and establishing a new Conditional Overlay District No. 250.

Mr. Scott asked if the Conditional Overlay District (COD) was a stopgap until the rewriting of the zoning code.

Mr. Hosmer noted that it is an interim as the Planning Department moves forward to the new code rewrite.

No speakers (applicant did not appear).

Mr. Knuckles closed the public hearing.

Commission asked if the applicant is required to be present and whether they can proceed. Laura Vales, Assistant Attorney noted that they can temporarily waive a requirement in the operating procedure.

COMMISSION ACTION: (Proceed with applicant absent.)

Planning and Zoning Commission Board Member Colony moved to proceed with applicant absent for Z-6-2024 COD 250, Commissioner Lebeck seconded the motion. It **Proceeded** with the following vote. Ayes: Commissioner Gunther, Commissioner Pauly, Commissioner Scott, Commissioner Lebeck, Commissioner Colony, Commissioner Knuckles, Commissioner Doennig. Nays: None. Absent: Commissioner Ridge and Commissioner Broekhoven. Abstain: None.

COMMISSION ACTION:

Planning and Zoning Commission Board Member Colony moved to approve Z-6-2024 COD 250, Commissioner Pauly seconded the motion. It **Passed** with the following vote. Ayes: Commissioner Gunther, Commissioner Pauly, Commissioner Scott, Commissioner Lebeck, Commissioner Colony, Commissioner Knuckles, Commissioner Doennig. Nays: None. Absent: Commissioner Ridge and Commissioner Broekhoven. Abstain: None.



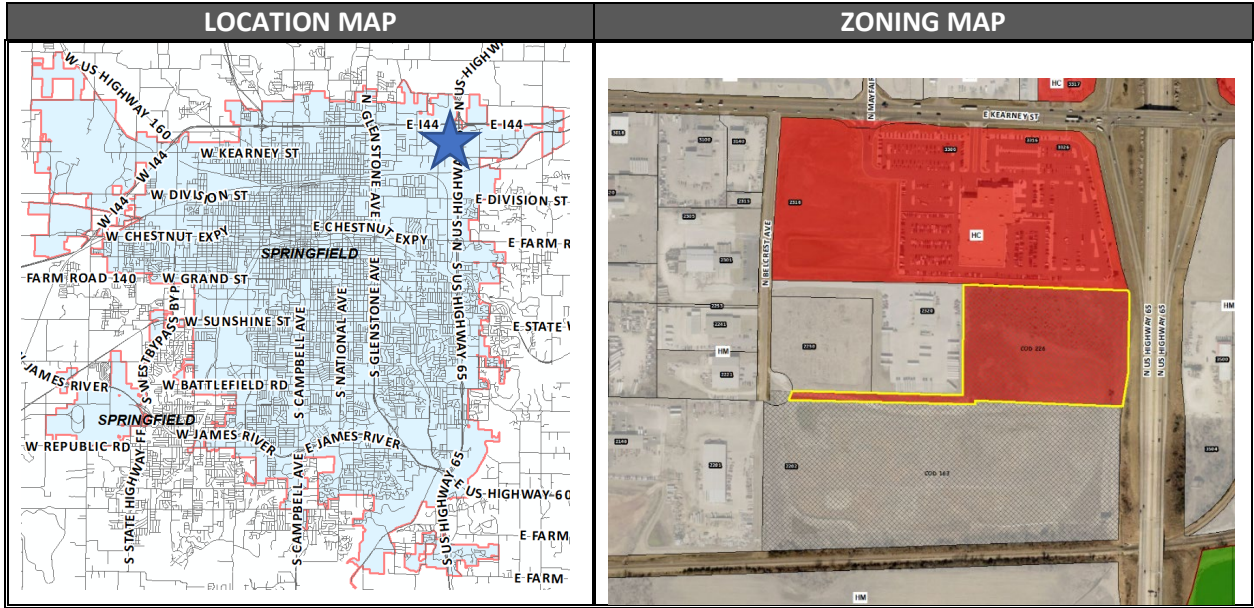
Bob Hosmer, AICP
Planning Manager

DEVELOPMENT REVIEW STAFF REPORT

PROJECT INFORMATION	
Case Number:	Z-6-2024 with Conditional Overlay District No. 250
Location:	2200 blk N. Belcrest Avenue
Total Acres:	9.45 acres
Applicant:	3G Investment Group, LLC
Existing Land Use:	Vacant/undeveloped
Neighborhood Meeting:	February 13, 2024
Planning and Zoning Commission:	March 14, 2024
City Council:	April 8, 2024
Public Notification:	Mail, posted property, and legal in Daily Events
Staff:	Daniel Neal, Senior Planner
Staff recommendation:	Staff recommends approval
Proposed motion:	I move to recommend approval of rezoning case Z-6-2024 with Conditional Overlay District No. 250 as set forth in Attachment 1 of the staff report. (All commission motions are made in the affirmative.)
Required Vote:	A majority of those present (5 members are a quorum).

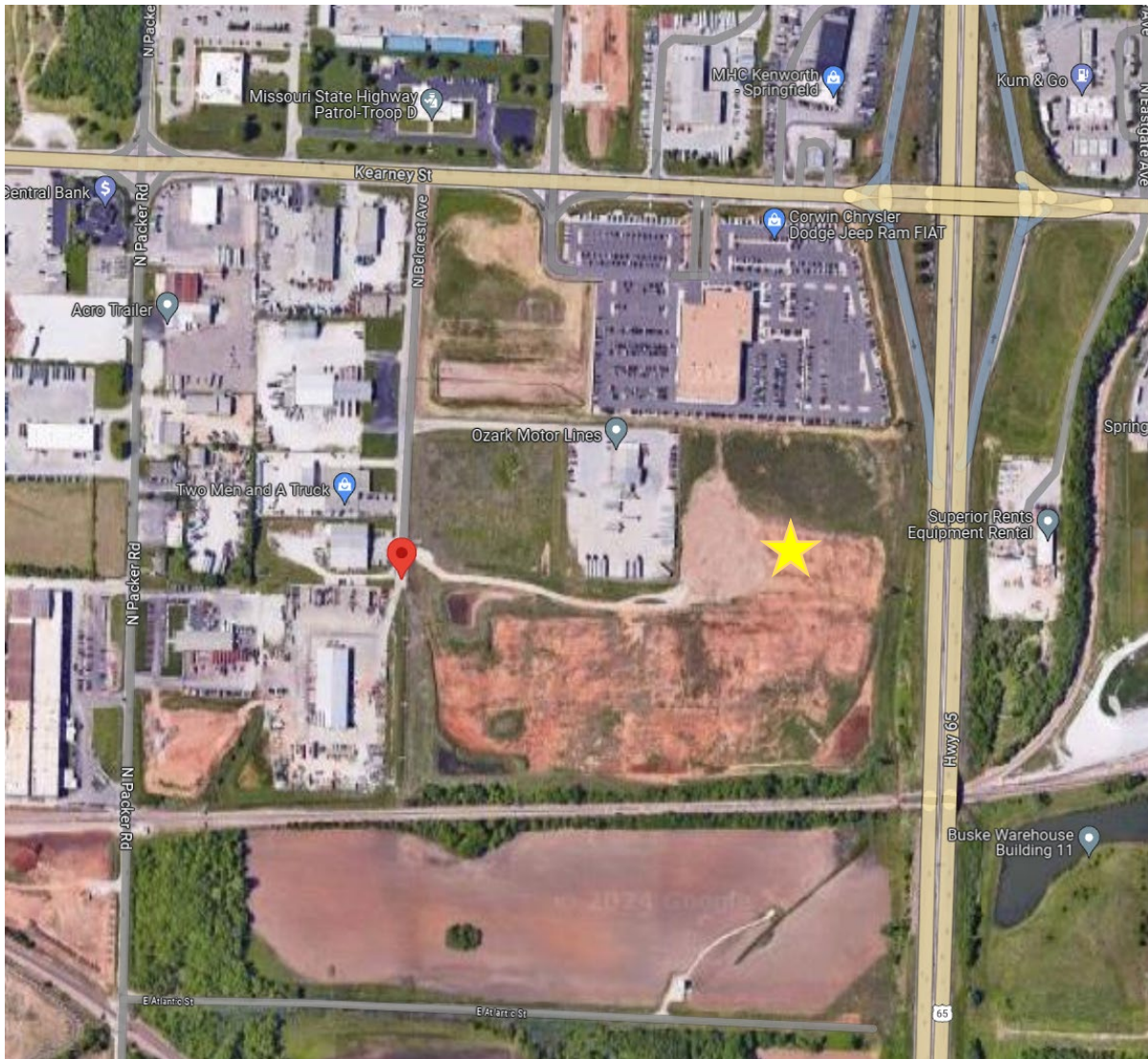
PROJECT SUMMARY:

Request to rezone approximately 9.45 acres of property generally located at 2200 block North Belcrest Avenue from HC, Highway Commercial District with Conditional Overlay District No. 226 to HM, Heavy Manufacturing District and establishing a new Conditional Overlay District No. 250.



DEVELOPMENT REVIEW STAFF REPORT

GOOGLE AERIAL OF LANDMARKS, BUSINESSES, AND ATTRACTIONS:



GOOGLE MAPS STREET VIEW:



DEVELOPMENT REVIEW STAFF REPORT

PROPERTY HISTORY:

This subject property had been zoned HM, General Manufacturing District since the 1995 remapping; however, it was recently rezoned to HC, Highway Commercial District in 2023.

PLANNING AND ZONING COMMISSION AUTHORITY:

Sec. 36-367. – Amendments

(7) Findings by the commission.

(a) Rezoning. If the application is for a reclassification of property to a different zoning district classification on the zoning map, the report of the planning and zoning commission may consider:

1. Whether the proposed zoning district classification is consistent with the Springfield Comprehensive Plan.
2. Whether there are any changed or changing conditions in the area affected that make the proposed rezoning necessary.
3. Whether the range of uses in the proposed zoning district classification are compatible with the uses permitted on other property in the immediate vicinity.
4. Whether adequate utility and sewer and water facilities exist or can be provided to serve the uses that would be permitted on the property if it were rezoned.
5. The impact the uses, which would be permitted if the property were rezoned, will have upon the volume of vehicular and pedestrian traffic and traffic safety in the vicinity.
6. Whether the proposed rezoning would correct an error in the application of this article as applied to the subject property.
7. Whether a reasonably viable economic use of the subject property will be precluded if the proposed rezoning is denied; and
8. Information submitted at the public hearing.

ZONING ORDINANCE REQUIREMENTS:

CODE ITEM	REQUIREMENTS FOR HM DISTRICT
Use Limitations	(a) No building shall be used for residential purposes, except that a guard, caretaker or other person employed on the premises, and their family, may reside on the premises in conformance with subsection 36-450(3)(b)6. Existing nonconforming residential uses may be expanded up to ten percent of the floor area existing at the time the district is mapped to provide enlarged cooking and sanitary facilities but not bedrooms or other living space. (b) No junk, scrap, salvage, or automobile wrecking yard shall be located within 500 feet of any residential district. (c) All uses shall operate in accordance with the noise standards contained in section 36-485, noise standards.

DEVELOPMENT REVIEW STAFF REPORT

	(d) No use shall emit an odor that creates a nuisance as determined by chapter 2A, article X, Springfield City Code. (e) Uses on parcels not served by public water and public sewer shall meet the requirements of subsection 36-303(22).
Minimum Lot Size	Not applicable to the HM District
Maximum Height	Not applicable to the HM District
Bulk Plane	None.
Minimum Yard Requirements	1. <i>Front yard:</i> Offices, as a principal use, athletic clubs, fitness centers, indoor sports facilities and recording, television and radio studios: a. Twenty-five feet along a street classified as a collector or higher classification street or as required by section 36-453, supplemental open space, and yard regulations. b. Fifteen feet along a street classified as a local street or as required by section 36-453, supplemental open space, and yard regulations. 2. <i>Side yards:</i> Ten (10) feet, except as required by section 36-453, supplemental open space, and yard regulations, and the bufferyard requirements in subsection (8). 3. <i>Rear yards:</i> Ten (10) feet, except as required by the bufferyard requirements in subsection (8)).
Minimum Open Space	Offices, as a principal use, athletic clubs, fitness centers, indoor sports facilities, and recording, television, and radio studios: Not less than 15 percent of the total lot area shall be devoted to open space including required yards and bufferyards unless modified in accordance with subsection 36-482(15). Open space shall not include areas covered by buildings, structures, parking, loading and other paved areas and internal streets. Open space shall contain living ground cover and other landscaping materials.
Design Requirements	(a) A site plan meeting the requirements of section 36-360, site plan review, shall be submitted and approved. (b) A landscape plan meeting the requirements of section 36-482, landscaping and bufferyards, and 36-483, off-street parking and loading area design standards, shall be submitted, and approved.

DEVELOPMENT REVIEW STAFF REPORT

	(c) All off-street parking and vehicular use areas shall be screened from all residential uses in accordance with section 36-480, screening, and fencing. (d) All outdoor storage and refuse storage areas shall be screened from view in accordance with section 36-480, screening, and fencing. (e) Mechanical and electrical equipment, including air conditioning units, shall be screened from view in accordance with section 36-480, screening, and fencing. (f) Lighting shall be designed to reflect away from any adjacent or nearby residential area and in accordance with section 36-484, lighting standards. (g) Accessory buildings and structures shall meet the requirements of section 36-450, accessory structures and uses.
Buffering and Landscaping	Whenever any development in an HM industrial commercial district is located adjacent to a different zoning district, screening and a bufferyard shall be provided in accordance with sections 36-480, screening, and fencing, and 36-482, landscaping and bufferyards.

COMPATIBILITY WITH COMPREHENSIVE PLAN:

The project area is located within the Industry & Logistics placetype, (see the Future Placetype Map on page 4 for reference). Per the *Land Use & Development* chapter of the *Comprehensive Plan*, this placetype primarily consists of, "...heavy and moderately intense manufacturing, distribution uses, and a range of operations that rely on proximity to the City's airport, interstate, and rail facilities." Based on these primary functions, this placetype also accommodates other activities typically associated with industry and manufacturing, including outdoor activity involving storage or parking of vehicles and equipment.

Placetypes are not as rigid as zoning districts and allow for supporting or ancillary uses which complement and enhance its sense of place; as an extension of this, a single placetype is not likely to be defined by a single zoning district or even a collection of closely related zoning districts (e.g. industrial districts), but rather a mix of tangentially related zoning districts which together form a cohesive sense of place when developed with similar character, scale, and form. The Industry & Logistics placetype allows for certain supporting uses which complement the placetype's primary industrial or manufacturing uses, including office, hospitality, retail sales and service uses, universities, colleges, and vocational schools, and government, healthcare, and institutional uses, to name a few. As a result, this placetype should include a mix of industrial zones complemented by office or commercial zones were deemed suitable. The HM, Heavy Manufacturing district, which allows for a variety of industrial uses, is a suitable match for the Industry & Logistics placetype.

DEVELOPMENT REVIEW STAFF REPORT

PRIMARY USES

1. Personal and outdoor storage
2. Light industry
3. Warehousing and distribution facilities
4. Heavy industry and manufacturing
5. Airport, railroad, and freight facilities

SUPPORTING USES

1. Parks, greenways and open space
2. Urban agriculture
3. Office, hospitality, retail sales and service
4. Maker spaces, artisan, and innovation spaces
5. Universities, Colleges & Vocational Schools
6. Government, healthcare and institutional facilities

CHARACTERISTICS TRANSPORTATION & INFRASTRUCTURE

1. Direct new industrial and logistic dependent development to areas planned for more intense uses located near existing rail lines, major roadways, and Enterprise Zones.
2. Best management practices for stormwater management are required in development projects and within public rights-of-way, such as permeable paving, rain gardens, green roofs, native landscaping, and other low impact design strategies.
3. Freight traffic is diverted away from quieter residential or commercial streets to designated truck routes that are designed for anticipated capacity and have clear access to major routes and roadways.
4. Electric vehicle charging facilities, pedestrian and bicycle infrastructure, and automated vehicle parking and loading spaces are integrated along major corridors, installed at key destinations, and integrated into development plans.

URBAN DESIGN – BUILDING AND SITE TYPOLOGY

1. Industrial buildings exhibit quality façade designs and site layouts that enhance the character of the area and promote quality development and a sense of place.
2. Site design should discourage the placement or storage of materials and mechanical equipment along major roadways leading to the airport or along major routes into the city or should be completely screened, along with trash receptacles, and recycling bins.
3. Lighting, landscaping, signage, mail, and delivery accommodations are proactively incorporated into the site design.
4. Industrial parks contain integrated paths and outdoor recreation areas that are used as amenities by employees.
5. Entrances into industrial parks are clearly marked with monument signage and landscaping.
6. Public art, gateway signage, and landscaping are incorporated into the streetscape leading to and from the airport and interstate interchanges to
7. create a lasting, positive image of the community.

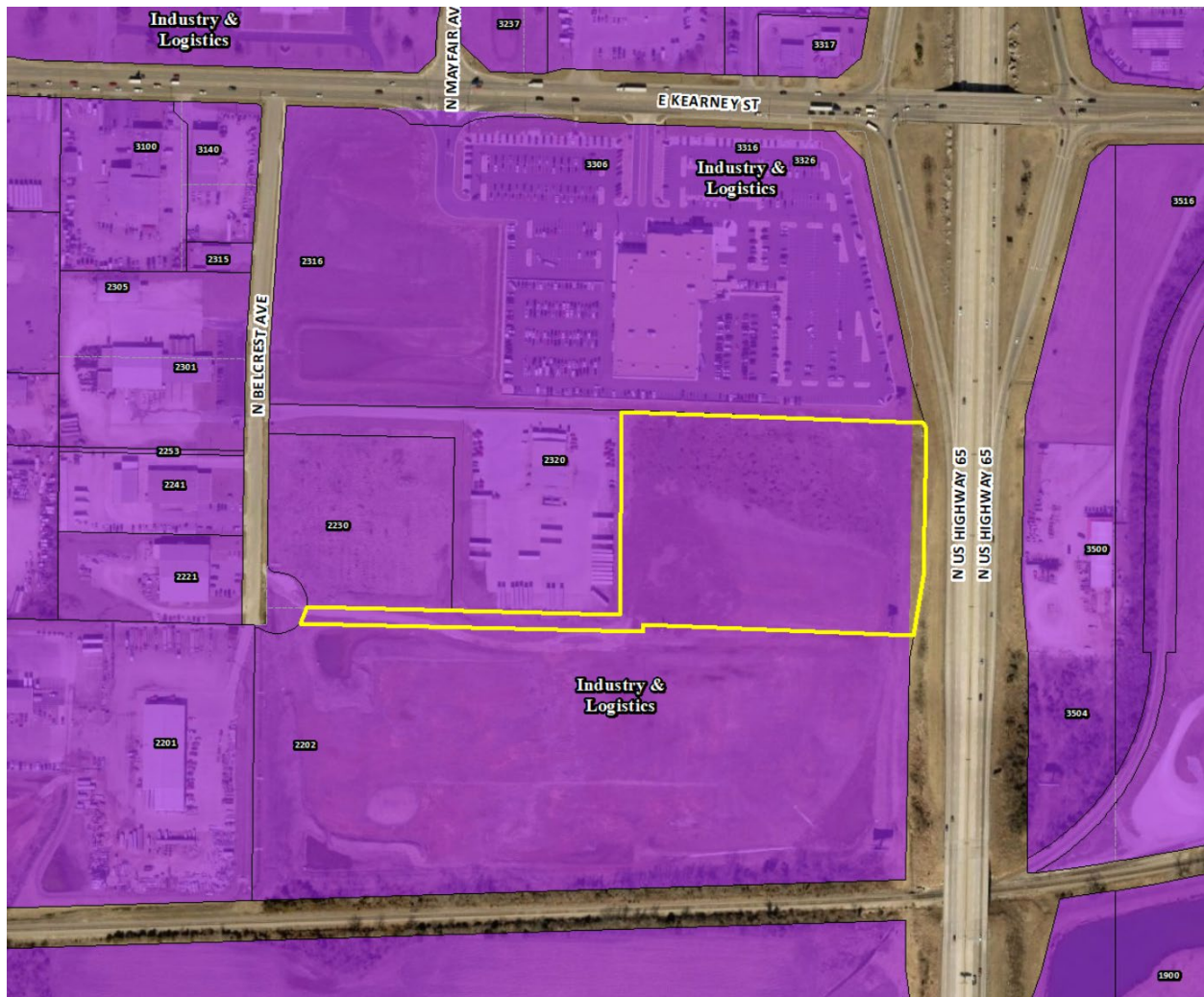
TRANSITIONS

1. Industrial uses are well screened and buffered when located near lower.
2. intensity commercial or residential areas to reduce potential negative visual and noise impacts.

DEVELOPMENT REVIEW STAFF REPORT

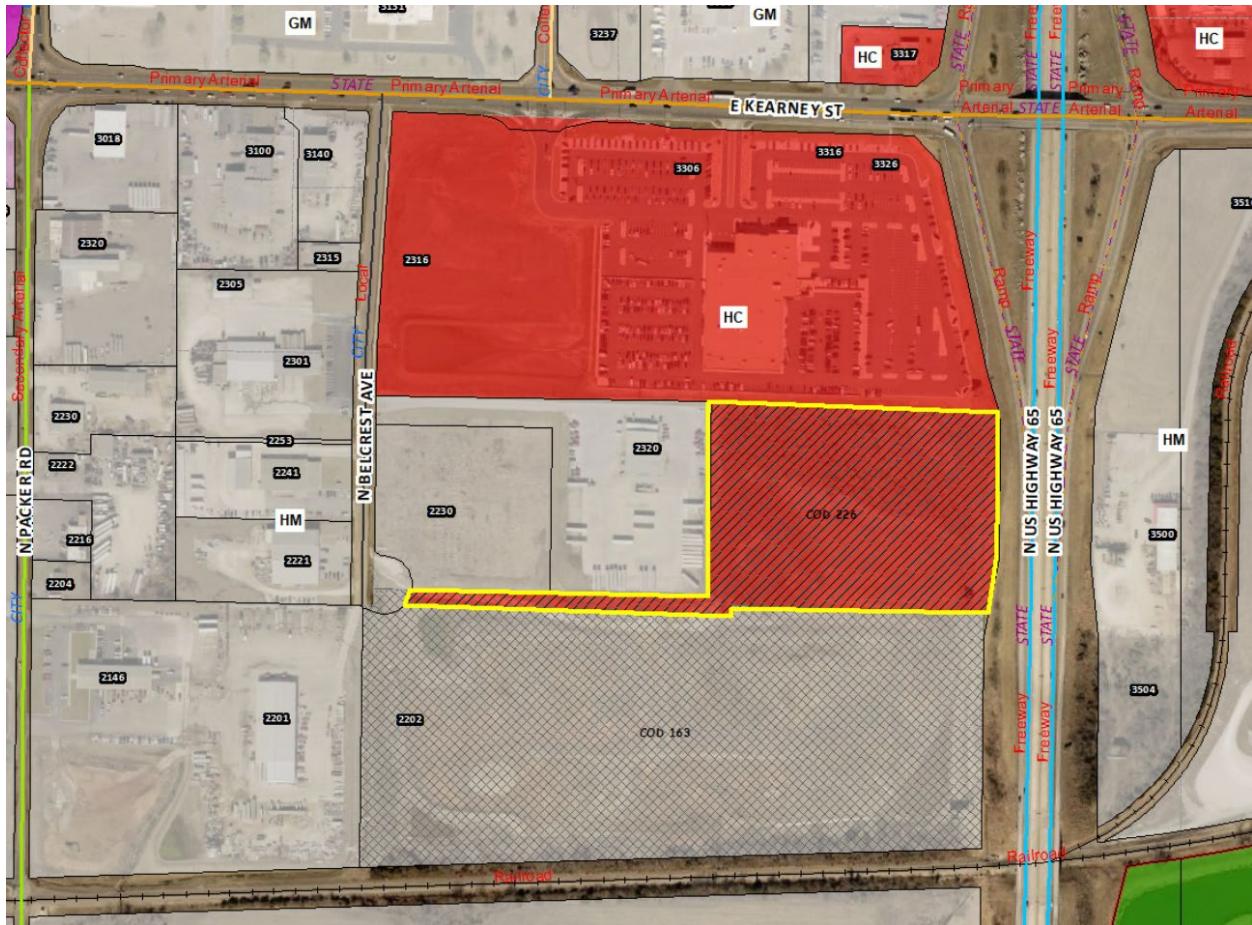
3. Less intense support sales, service, and supply of goods related to heavier manufacturing operations, airport, and other logistical operations are integrated along secondary roadways and around the periphery.

FUTURE PLACETYPE MAP:



DEVELOPMENT REVIEW STAFF REPORT

MAJOR THOROUGHFARE MAP:



SURROUNDING ZONING, LAND USES AND PLACETYPES:

	NORTH	SOUTH	EAST	WEST
ZONING	HC	HM	HM	HM
LAND USE	Automotive sales	Vacant/undeveloped	Manufacturing uses	Manufacturing uses

DEPARTMENT COMMENTS:

1. DEPARTMENT OF BUILDING DEVELOPMENT SERVICES:
No comments.
2. CITY UTILITIES:
No issues with the proposed rezoning.
3. DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER MANAGEMENT DIVISION:

DEVELOPMENT REVIEW STAFF REPORT

- a. No objection to the rezoning however sewer access to this property is limited to a 6" service lateral. Public sewer lines are west of the property but is west of a 48" Raw Water main that cannot be crossed with public sewer (due to depth of the sanitary sewer and water main). Any use that requires more than a 6" service lateral would need to extend public sewer from some other location.
4. FIRE DEPARTMENT:
No comments.
5. DEPARTMENT OF PUBLIC WORKS STORMWATER ENGINEERING DIVISION:

SITE DESCRIPTION & DRAINAGE PATTERN

No existing detention or water quality Stormwater Control Measures are present. The property is in the **Jordan Creek North Branch** drainage basin. The property **is not** located in a FEMA designated floodplain. Staff **is not** aware of flooding problems in the local or downstream area. The city **is not** aware of a sinkhole or other Karst feature at this location. The property **does not have a stream buffer on site**. A fee in lieu of on-site stormwater detention **will not be allowed and detention is required**.

PW Stormwater has no concerns for the proposed rezoning from HC to HM. Please note that development of the property will be subject to the following conditions at the time of development:

All chapter and section references below are to the City's Flood Control and Water Quality Protection Manual Version April 2022.

DETENTION AND DISCHARGE REQUIREMENTS

1. Any development or redevelopment that increases runoff, through the increase in impervious surface, current detention requirements must be met per Chapter 3 Sec. 2.3.3. The only exception to building detention is a Fee in Lieu of detention application per the City of Springfield Code and the manual dependent on approvable by the Director of Public Works.

WATER QUALITY REQUIREMENTS

1. Water Quality is required for new development projects or redevelopment projects, with new or increased impervious surfacing, within the city limits of Springfield that disturb 1 acre or greater. Including projects less than 1 acre that are part of a larger common plan of development or sale that will disturb 1 or more acres over the life of the project. Chapter 10 Sec. 2.0.
2. A land disturbance permit will be required with disturbing 1 acre or greater per Chapter 4 Section 5 of the City's Flood Control and Water Quality Protection Manual.

DEVELOPMENT REVIEW STAFF REPORT

FLOODPLAIN

N/A

NATURAL CHANNEL & STREAM BUFFERS

N/A

SINKHOLES & KARST FEATURES

N/A

ADDITIONAL STORMWATER REQUIREMENTS

1. Operation and maintenance agreements are required for any permanent stormwater control measures. O&M will need to be approved during the process and will be reviewed by ES-Water Quality per Chapter 12 Sec. 3.0.

a. As-builts of the detention and water quality improvements are required. we would like the following as-built notes on the plans:

The Engineer of record is required to submit an as-built certification of the stormwater control measures upon completion of the project. The contractor shall coordinate with the Engineer to identify the list of stormwater control measures requiring certification and coordinate during construction to allow the Engineer to make any observations necessary during construction to certify the measures.

6. DEPARTMENT OF PUBLIC WORKS TRAFFIC DIVISION:

TRAFFIC REPORT

	Street Name	Street Classification	Jurisdiction	ROW from Centerline (ft.)		Traffic Count (vehicles per day)	On-Street Parking	Sidewalk	
				Required	Existing			Required	Existing
Street 1	N. Belcrest Avenue	Local: Non-Residential	City	30	30	NA	Yes	Yes	Yes

ACCESS - All new or modified driveway approaches shall comply with current City of Springfield standards for the street classification.

TRAILS, BUS STOPS, AND ADDITIONAL INFORMATION - There are no Greenway Trails near the property. There are three bus stops on Kearney Street near the property.

IMPROVEMENTS - No improvements are required for this rezoning. A traffic study may be required at time of development.

DEVELOPMENT REVIEW STAFF REPORT

STAFF ANALYSIS AND RECOMMENDATION:

1. The applicant is requesting to rezone approximately 9.45 acres of property generally located at 2200 block North Belcrest Avenue from HC, Highway Commercial District with Conditional Overlay District No. 226 to HM, Heavy Manufacturing District and establishing a new Conditional Overlay District No. 250. The applicant intends to sell the property for industrial uses which the property was previously zoned HM District prior to 2023.
2. The Heavy Manufacturing District is intended for heavy industrial uses and other uses not otherwise provided for in the other industrial districts. The intensity of uses permitted in this district makes it necessary to separate it from all residential districts wherever possible with good accessibility provided to major rail, air facilities and highways.
3. The proposed Conditional Overlay District will require enhanced perimeter landscaping to be triggered when the site is developed. The landscape plantings along U.S. Highway 65 shall consist of at least one canopy tree, two understory or evergreen trees; and four shrubs per 100 linear feet of street frontage.
4. The subject property is located along U.S. Highway 65 which is classified as a freeway roadway and Belcrest Avenue which is a local roadway, respectively.
5. The subject property has access to City Utilities infrastructure, and any necessary extension of such services can be provided via City Utilities' extension policy, though new easements may be necessary to accommodate this.
6. There are no known changing conditions in the area affected that make the proposed rezoning necessary.
7. The range of uses in the proposed HM district and COD are compatible with the uses permitted on other property in the immediate vicinity.
8. There are adequate utility and sewer and water facilities existing or can be provided to serve the uses that would be permitted on the property if it were rezoned.
9. The impact of the proposed uses, which would be permitted if the property were rezoned, is not expected to significantly increase the volume of vehicular and pedestrian traffic or reduce traffic safety in the vicinity.
10. The proposed zoning will not correct an error in the application of this article, but rather will provide a viable use of the property subject to the provisions of the zoning district.
11. A reasonably viable economic use of the subject property will not be precluded if the proposed rezoning is denied.
12. The proposed rezoning was reviewed by City departments and comments are contained in the staff report (above).

DEVELOPMENT REVIEW STAFF REPORT

13. The applicant held a neighborhood meeting on February 13, 2024, regarding the rezoning request. A summary of the meeting is attached (Attachment 2).
14. The public notice was advertised in the Daily Events at least 15 days prior to the public hearing. The property was posted by the applicant at least 10 days prior to the public hearing. Public notice letters were sent out at least 10 days prior to the public hearing to all property owners within 185 feet.

STAFF RECOMMENDATION:

1. Staff recommends approval of the rezoning request based on its compatibility with the *Comprehensive Plan's* Industry & Logistics Placetype.

PLANNING AND ZONING OPTIONS:

The planning and zoning commission shall make one of the following recommendations in connection with each proposed change in zoning district classification of this article:

1. Recommend against the proposed change in the zoning district classification.
2. Recommend a change in the zoning district classification.
3. Recommend a change in the zoning district classification together with recommendations which, in the judgment of the planning and zoning commission, will protect adjacent property and ensure that the proposed amendment is consistent with the purpose and intent of this article.

DEVELOPMENT REVIEW STAFF REPORT

ATTACHMENT 1 Conditional Overlay District No. 250

The requirements of Section 36-433, Heavy Manufacturing District of the Land Development Code shall be modified as set forth herein for development within this district:

1. Perimeter landscaping:
 - a. Perimeter landscaping shall be provided along U.S. Highway 65 for any change of use, building permit or subdivision of the property. The plantings within the perimeter landscape area shall consist of at least one canopy tree, two understory or evergreen trees and four shrubs per 100 linear feet of highway frontage.

Attachment 2

AFFIDAVIT OF NEIGHBORHOOD NOTIFICATION AND MEETING SUMMARY

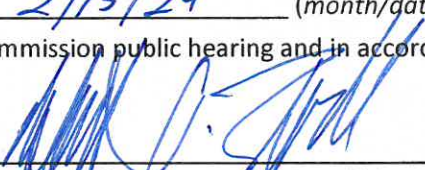
1. Request change to zoning from: Highway Commercial (HC) to Heavy Manufacturing (HM)
(existing zoning) (proposed zoning)
2. Meeting Date & Time: Tuesday, February 13
3. Meeting Location: Frisco Building Cafe Conference Room 3253 E. Chestnut Expy
4. Number of invitations that were sent: 37
5. How the mailing list was generated: By the City of Springfield Staff
6. Number of neighbors in attendance (attach a sign-in sheet): 1
7. List the verbal comments and how you plan to address any issues:
(City Council does not expect all the issues to be resolved to the neighborhood's satisfaction; however, the developer must explain why the issues cannot be resolved).

None

8. List or attach the written comments and how you plan to address any issues:

None

I, Bob Newell (print name), attest that the neighborhood meeting was held on 2/15/24 (month/date/year), and is at least twenty-one (21) days prior to the Planning and Zoning Commission public hearing and in accordance with the attached "Neighborhood Notification and Meeting Process."


Signature of person completing affidavit

Bob Newell
Printed name of person completing affidavit

Belcrest 9.5 AC Rezoning Neighborhood Meeting
Thursday, February 15th
Frisco Building Conference Room
Erlen Group - Bob Newell

Name/Company	Street Address	Zip Code	Phone Number	Email Address
WILLIAMS	2146 NORTH JACKSON	65803	417 818-1700	TEY@WILLIAMSOF.COM



EXPLANATION TO COUNCIL BILL 2024-061 (HORTON)

FILED: 03/20/2024

ORIGINATING DEPARTMENT: Planning and Development

TITLE: A general ordinance amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 0.42 acres of property generally located at 1501 and 1505 West College Street and 201 North Nettleton Avenue from HC, Highway Commercial District to IC, Industrial Commercial District; and adopting an updated Official Zoning Map. (By: Lorisa Kirkpatrick LLC; 1501 and 1505 West College Street and 201 North Nettleton Avenue; Z-8-2024.)

PURPOSE: Amending the Springfield Land Development Code, Section 36-306, 'Official zoning map and rules for interpretation,' by rezoning approximately 0.42 acres of property generally located at 1501, 1505 West College Street and 201 North Nettleton Avenue from HC, Highway Commercial to IC, Industrial Commercial. (Staff and Planning and Zoning Commission recommend approval.)

BACKGROUND INFORMATION:
ZONING CASE NUMBER Z-8-2024

The applicant is requesting to rezone approximately 0.42 acres of property generally located at 1501, 1505 West College Street and 201 North Nettleton Avenue from HC, Highway Commercial to IC, Industrial Commercial. The applicant intends to establish a distillery business which the HC district does not allow.

REMARKS: The Planning and Zoning Commission held a public hearing on March 14, 2024, and recommended to approve, by a vote of 7 to 0. The Planning and Development staff recommends the application be approved (see the attached Development Review Staff Report).

FINDINGS FOR STAFF RECOMMENDATION:

1. This application is consistent with the City Corridor placetype which predominantly consists of commercial and service-related development varying in scale, ranging from standalone businesses to large retail centers. City Corridors are also key locations to support and encourage multi-family developments that rely on proximity to retail, commercial services, and employment centers. Each of these use groups are best located along major roadways with high volumes of traffic. This placetype is not only highly accessible by car, but also by walking, biking, and transit.

2. "Maker, artisan, and innovation spaces" is listed as a primary land use in the City Corridor placetype. The IC district is consistent with this placetype which would allow

commercial, retail and manufacturing uses that are intended to allow the distillery use.

3. The subject property has access to City Utilities infrastructure, and any necessary extension of such services can be provided via City Utilities' extension policy, though new easements may be necessary to accommodate this.

4. There are few changing conditions in the area affected that make the proposed rezoning necessary. Minor development of property within the vicinity has been occurring.

5. The range of uses in the proposed IC district is compatible with the uses permitted on other property in the immediate vicinity. There is IC zoning to the south of the subject property. It is also located in an area of industrial and manufacturing uses.

6. There are adequate utility and sewer and water facilities existing or can be provided to serve the uses that would be permitted on the property if it were rezoned.

7. The impact of the uses, which would be permitted if the property were rezoned, is not expected to significantly increase the volume of vehicular and pedestrian traffic or reduce traffic safety in the vicinity.

8. The proposed zoning will not correct an error in the application of this article, but rather will provide a viable use of the property subject to the provisions of the zoning district.

9. A reasonably viable economic use of the subject property will not be precluded if the proposed rezoning is denied.

STAFF RECOMMENDATION: Staff recommends approval based on the proposal's general conformance to the Comprehensive Plan's City Corridor placetype and on the finding of facts above.

Submitted By: Michael Sparlin, Senior City Planner

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Maurice S. Jones, Deputy City Manager 3/29/2024

Attachments:

1. Z-8-2024 _Ord
2. Legal Description_exhA
3. ROP_exh B
4. Staff Report_exh C

One-rdg. _____
P. Hrngs. X
Pgs. 23
Filed: 04-02-24

Sponsored by: Horton

First Reading: _____

Second Reading: _____

COUNCIL BILL 2024-061

GENERAL ORDINANCE _____

AN ORDINANCE

1 AMENDING the Springfield Land Development Code, Section 36-306, 'Official
2 zoning map and rules for interpretation,' by rezoning approximately
3 0.42 acres of property generally located at 1501 and 1505 West
4 College Street and 201 North Nettleton Avenue from HC, Highway
5 Commercial District to IC, Industrial Commercial District; and
6 adopting an updated Official Zoning Map.
7 _____
8

9 WHEREAS, an application has been filed for a zoning change of the property
10 generally located at 1501 and 1505 West College Street and 201 North Nettleton
11 Avenue from HC, Highway Commercial District to IC, Industrial Commercial District; and
12

13 WHEREAS, following proper notice, the Planning and Zoning Commission held a
14 public hearing on March 14, 2024, a copy of the Record of Proceedings from said public
15 hearing being attached hereto and incorporated herein by this reference as "Exhibit B,"
16 and said Commission made its recommendation; and
17

18 WHEREAS, the City has reviewed the applicant's request and prepared a staff
19 report concerning the application, which is attached hereto and incorporated herein by
20 this reference as "Exhibit C"; and
21

22 WHEREAS, proper notice was given of a public hearing before City Council, and
23 said hearing was held in accordance with the law.
24

25 NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF
26 SPRINGFIELD, MISSOURI, as follows, that:
27

28 Section 1 – The property generally located at 1501 and 1505 West College
29 Street and 201 North Nettleton Avenue and described in "Exhibit A," which is attached
30 hereto and incorporated herein by this reference, is hereby rezoned from HC, Highway
31 Commercial District to IC, Industrial Commercial District. Springfield Land Development
32 Code, Section 36-306, 'Official zoning map and rules for interpretation,' is hereby
33 amended, changed, and modified consistent with this Ordinance.

34 Section 2 – City Council hereby directs the City Manager, or designee, to update
35 the City's digital zoning map to reflect this rezoning, and City Council adopts the map
36 thereby amended as the Official Zoning Map of Springfield, Missouri, as provided for in
37 the Springfield Land Development Code, Section 36-306, 'Official zoning maps and
38 rules of interpretation.'

39
40 Section 3 – The Official Zoning Map herein adopted shall be maintained and
41 archived in the same digital form in which this Council has approved its adoption.

42
43 Section 4 – This Ordinance shall be in full force and effect from and after
44 passage.

45
46 Passed at meeting: _____

47
48 _____
49 Mayor

50
51 Attest: _____, City Clerk

52
53 Filed as Ordinance: _____

54
55 Approved as to form: Laura Vales, Assistant City Attorney

56
57
58 Approved for Council action: Jason A. Hays, City Manager
59

EXHIBIT A

LEGAL DESCRIPTION

All of lot 55 and the east thirty-five feet of lot 56 in West End Addition.

EXHIBIT B

RECORD OF PROCEEDING
Planning and Zoning Commission – March 14, 2024

Z-8-2024
1501 & 1505 West College Street and 201 North Nettleton Avenue
Applicant: Lorisa Kirkpatrick, LLC

Mr. Sparlin stated that this is a request to rezone approximately 0.42 acres of property from HC, Highway Commercial to IC, Industrial Commercial.

Mr. Andy Bennett, 2805 S. Ingram Mill Road and here as the applicant representative and here to answer any questions.

Mr. Pauly asked if the current building will be repurposed, and Mr. Bennett noted that it will be.

Mr. Knuckles closed the public hearing.

Mr. Pauly noted that this proposal is right on Route 66 and sees it as a positive.

COMMISSION ACTION:

Planning and Zoning Commission Board Member Colony moved to approve Z-8-2024, Commissioner Lebeck seconded the motion. It **Passed** with the following vote. Ayes: Commissioner Gunther, Commissioner Pauly, Commissioner Scott, Commissioner Lebeck, Commissioner Colony, Commissioner Knuckles, Commissioner Doennig. Nays: None. Absent: Commissioner Ridge and Commissioner Broekhoven. Abstain: None.



Bob Hosmer, AICP
Planning Manager

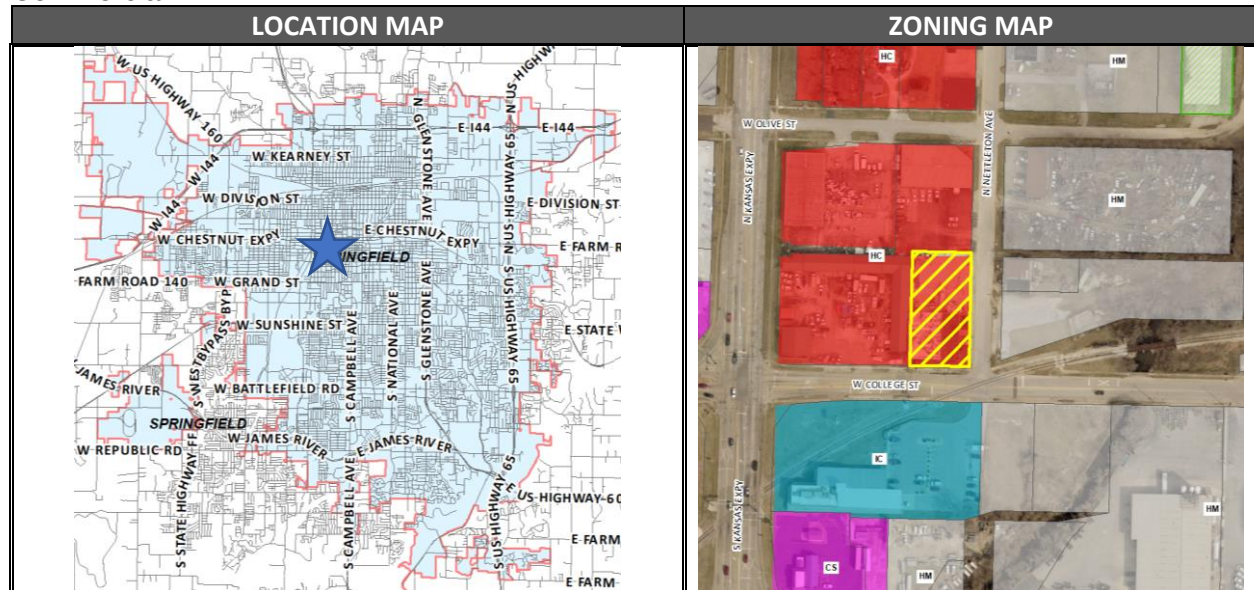
DEVELOPMENT REVIEW STAFF REPORT

PROJECT INFORMATION

Case Number:	Z-8-2024
Location:	1501 and 1505 West College Street and 201 North Nettleton Avenue
Total Acres:	0.42 acres
Applicant:	Lorisa Kirkpatrick LLC
Existing Land Use:	Commercial use with residential lofts
Neighborhood Meeting:	February 25, 2024
Planning and Zoning Commission:	March 14, 2024
City Council:	April 8, 2024
Public Notification:	Mail, posted property, and legal in Daily Events
Staff:	Michael Sparlin, Senior Planner
Staff recommendation:	Staff recommends approval
Proposed motion:	I move to recommend approval of rezoning case Z-8-2024 (All commission motions are made in the affirmative).
Required Vote:	A majority of those present (5 members are a quorum).

PROJECT SUMMARY:

Request to rezone approximately 0.42 acres of property generally located at 1501, 1505 West College Street and 201 North Nettleton Avenue from HC, Highway Commercial to IC, Industrial Commercial.



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GOOGLE AERIAL OF LANDMARKS, BUSINESSES, AND ATTRACTIONS:



GOOGLE STREETVIEW:



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PROPERTY HISTORY:

The subject property was zoned HC in the 1995 city-wide remapping.

PLANNING AND ZONING COMMISSION AUTHORITY:

Sec. 36-367. – Amendments

(7) Findings by the commission.

(a) Rezoning. If the application is for a reclassification of property to a different zoning district classification on the zoning map, the report of the planning and zoning commission may consider:

1. Whether the proposed zoning district classification is consistent with the Springfield Comprehensive Plan;
2. Whether there are any changed or changing conditions in the area affected that make the proposed rezoning necessary;
3. Whether the range of uses in the proposed zoning district classification are compatible with the uses permitted on other property in the immediate vicinity;
4. Whether adequate utility and sewer and water facilities exist or can be provided to serve the uses that would be permitted on the property if it were rezoned;
5. The impact the uses, which would be permitted if the property were rezoned, will have upon the volume of vehicular and pedestrian traffic and traffic safety in the vicinity;
6. Whether the proposed rezoning would correct an error in the application of this article as applied to the subject property;
7. Whether a reasonably viable economic use of the subject property will be precluded if the proposed rezoning is denied; and
8. Information submitted at the public hearing.

ZONING ORDINANCE REQUIREMENTS:

CODE ITEM	REQUIREMENTS FOR IC DISTRICT
Use Limitations	(a) No dust, particulate matter, or noxious or toxic matter of any sort shall be emitted or discharged at any time. (b) All uses shall operate in accordance with the noise standards contained in section 36-485, noise standards. (c) All industrial operations and activities, except off-street parking and loading facilities and storage, shall be conducted wholly inside a building, or buildings. (d) Storage may be maintained outside a building inside yards or rear yards if such storage area is screened from public streets, designated arterials, or greater street

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	classifications, and from other property, except property located in an IC, LI, GM, or HM district. (e) All outdoor storage shall be at least 100 feet from any residential district boundary. (f) No use shall emit an odor that creates a nuisance as determined by chapter 2A, article X, Springfield City Code. (g) No building shall be used for residential purposes except that a watchman or custodian may reside on the premises. (h) Uses on parcels not served by public water and public sewer shall meet the requirements of subsection 36-303(22).
Minimum Lot Size	Not applicable to the IC District
Maximum Height	Not applicable to the IC District
Bulk Plane	None, except that all structures shall remain below a 30-degree bulk plane as measured from the boundaries of any R-SF or R-TH district.
Minimum Yard Requirements	1. <i>Front yard:</i> a. Twenty-five feet along a street classified as a collector or higher classification street or as required by section 36-453, supplemental open space, and yard regulations. b. Fifteen feet along a street classified as a local street or as required by section 36-453, supplemental open space, and yard regulations. 2. <i>Side yards:</i> None, except as required by section 36-453, supplemental open space, and yard regulations, and the bufferyard requirements in subsection (8). 3. <i>Rear yards:</i> None, except as required by the bufferyard requirements in subsection (8)).
Minimum Open Space	Not less than 15 percent of the total lot area shall be devoted to open space including required yards and bufferyards unless modified in accordance with subsection 36-482(15). Open space shall not include areas covered by buildings, structures, parking, loading and other paved areas and internal streets. Open space shall contain living ground cover and other landscaping materials.
Design Requirements	(a) A site plan meeting the requirements of section 36-360, site plan review, shall be submitted and approved. (b) A landscape plan meeting the requirements of section 36-482, landscaping and bufferyards, and 36-483, off-

DEVELOPMENT REVIEW STAFF REPORT

	street parking and loading area design standards, shall be submitted, and approved. (c) All off-street parking and vehicular use areas shall be screened from all residential uses in accordance with section 36-480, screening, and fencing. (d) All outdoor storage and refuse storage areas shall be screened from view in accordance with section 36-480, screening, and fencing. (e) Mechanical and electrical equipment, including air conditioning units, shall be screened from view in accordance with section 36-480, screening, and fencing. (f) Lighting shall be designed to reflect away from any adjacent or nearby residential area and in accordance with section 36-484, lighting standards. (g) Accessory buildings and structures shall meet the requirements of section 36-450, accessory structures and uses.
Buffering and Landscaping	Whenever any development in an IC industrial commercial district is located adjacent to a different zoning district, screening and a bufferyard shall be provided in accordance with sections 36-480, screening, and fencing, and 36-482, landscaping and bufferyards.

COMPATIBILITY WITH COMPREHENSIVE PLAN:

PLACETYPE:

The *Comprehensive Plan's Land Use & Development* chapter identifies the subject property within the City Corridor placetype.

The City Corridor placetype predominantly consists of commercial and service-related development varying in scale, ranging from standalone businesses to large retail centers. City Corridors are also key locations to support and encourage multi-family developments that rely on proximity to retail, commercial services, and employment centers. Each of these use groups are best located along major roadways with high volumes of traffic. This placetype is not only highly accessible by car, but also by walking, biking, and transit. City Corridors provide a wide range of shopping, service, entertainment, and employment destinations for both residents and visitors. Common uses within the placetype include chain restaurants, gas stations, hotels, national retailers, movie theaters, smaller offices, and a variety of support services.

Primary Land Uses:

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- Office, hospitality, retail sales and service
- Multi-family
- Sports complexes and recreation facilities
- Maker, artisan, and innovation spaces

Supporting Land Uses:

- Public and private schools and places of worship
- Parks, greenways, and open space
- Urban agriculture
- Universities, colleges, and vocational schools
- Personal and outdoor storage

Characteristics

TRANSPORTATION & INFRASTRUCTURE

- Access management is improved for vehicles through curb cut consolidation and cross-access between commercial properties, reducing traffic conflicts and backups.
- Electric vehicle charging facilities, pedestrian and bicycle infrastructure, and automated vehicle parking and loading spaces are integrated along major corridors, installed at key destinations, and incorporated into private development plans.
- As technology, trends, and funds permit, utilities are buried or consolidated along rear property lines, reducing conflicts with street trees, pedestrian infrastructure, and viewsheds.
- Transit service is expanded along key commercial corridors over the long term with bus stops enhanced with shelters and live timetables.

URBAN DESIGN - BUILDING AND SITE TYPOLOGY:

- Residential development and commercial buildings should be oriented to the street.
- Parking should be located behind or beside the primary buildings with abundant landscaping and screening to encourage greater interest and interaction between the adjoining street and the building, that contributes to community-wide quality of place.
- Pedestrian pathways within large parking lots provide safe access to business entrances.
- A greater focus on site design, parking access, massing, and building orientation are adopted to ensure development that is complementary to adjacent lower density residential development.
- Multi-story buildings designed with active ground floor spaces should be visible and inviting to increase a vibrant pedestrian environment.
- Use of quality materials, construction methods, workmanship, and design should be incorporated into new development and redevelopment.
- A mix of building heights is supported through structured site and building design strategies to soften the impact on adjacent lower intensity residential development.
- Lighting, landscaping, signage, mail, and delivery accommodations should also be proactively incorporated into the site design.

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- Design should avoid the placement of mechanical equipment along major roadways or should be completely screened, along with adequate spacing for storage of waste receptacles.
- Best management practices for stormwater management are required in development projects and within public rights-of-way, such as permeable paving, rain gardens, green roofs, native landscaping, and other low impact design strategies.
- Encourage code adjustments regarding parking minimums instead of parking maximums.

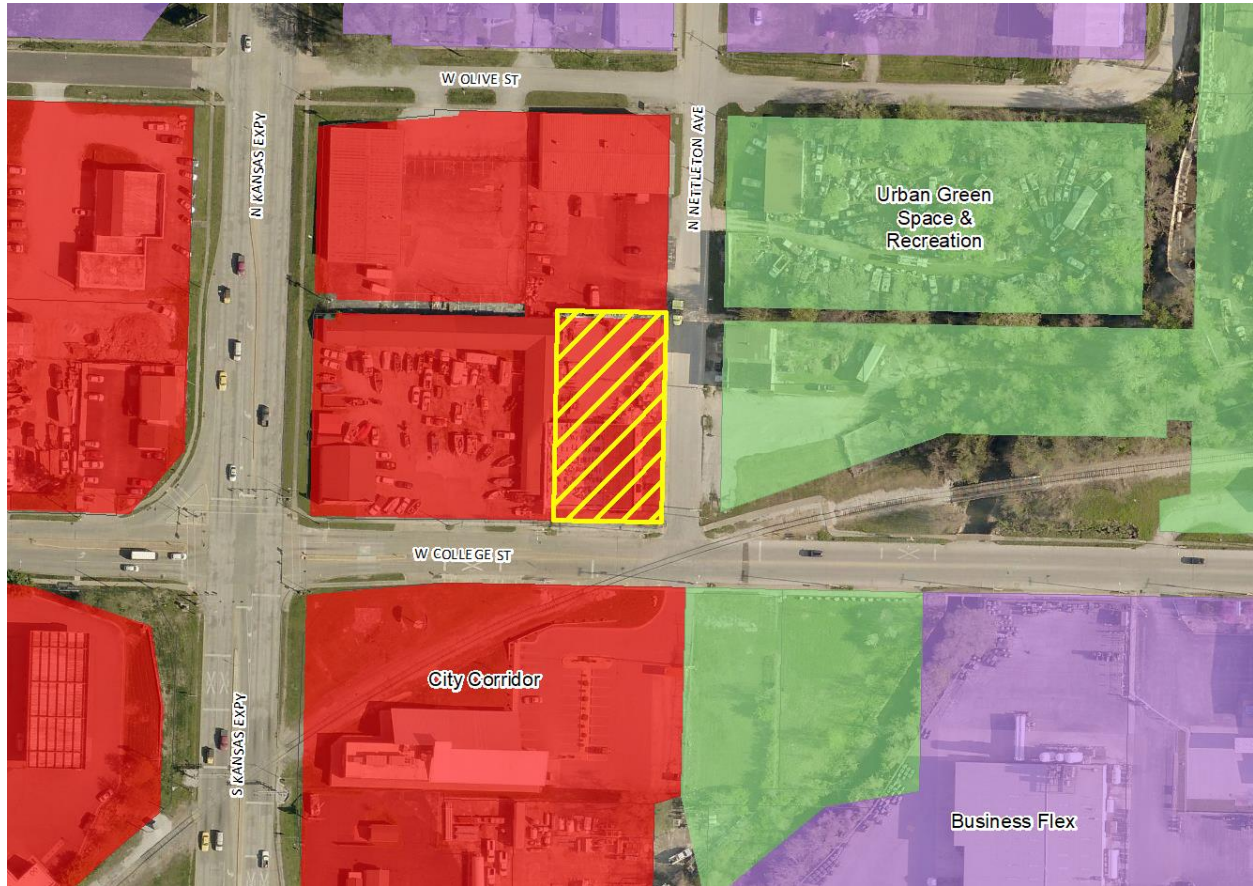
TRANSITIONS:

- Office and multifamily uses can be placed on the periphery of the placetype to transition into adjacent lower density residential Placetypes.
- Higher density residential development should be integrated along existing commercial corridors in need of reinvestment, transitioning aging commercial properties to new uses and focusing future commercial development at high activity nodes.
- Commercial and higher density residential is sufficiently screened and buffered between low-density residential development.
- Multi-story buildings should be sited and designed to reduce the impact on adjacent lower intensity residential development.

The subject property is also within the College Street Corridor Plan (2012) which was adopted as a guiding document for the College Street corridor. The College Street zoning districts were created as a result of the Plan. It was determined that the HC district was adequate for the subject property. However, it was a goal of the Plan to increase flexibility in land use to provide opportunity for creativity and maximize economic activity.

DEVELOPMENT REVIEW STAFF REPORT

FUTURE PLACETYPE MAP:



PLACETYPES	LAND USES															
	Single Family Detached	Single Family Attached	Multi-Family	Parks & Open Space	Sports Complexes & Recreational Facilities	Urban Agriculture	Office	Hospitality	Retail Sales & Service	Neighborhood Commercial	Major Retail & Innovation Spaces	Public & Private Schools & Places of Worship	Universities, Colleges & Vocational Schools	Government, Healthcare & Institutional Facilities	Personal Storage, Outdoor Sales & Service	Light Industry
Residential Neighborhood	●	○	◇	○	◇	◇	○									
Mixed Residential	●	●	○	○	◇	◇	○									
Downtown			●	○	○	○	○	○	○	○	○	○	○	○	○	○
Mixed-Use	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○
City Corridor			●	○	○	○	○	○	○	○	○	○	○	○	○	○
Institutional & Employment Center			○	○	○	○	○	○	○	○	○	○	○	○	○	○
Business Flex				○	○	○	○	○	○	○	○	○	○	○	○	○
Industry & Logistics				○	○	○	○	○	○	○	○	○	○	○	○	○
Urban Green Space & Recreation				●	○	○										

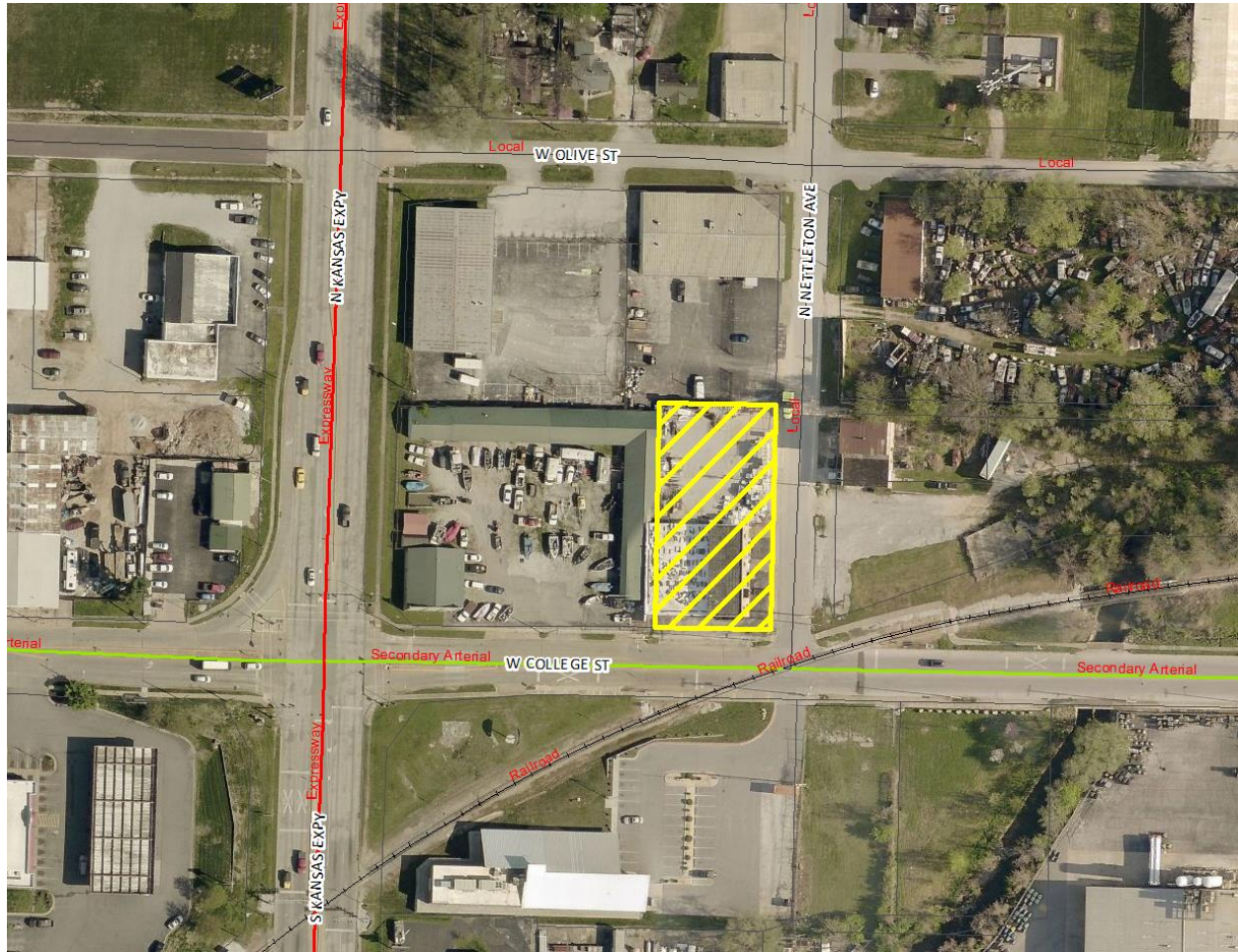
Primary Land Use:
More prominent and play a pivotal role in characterizing that placetype

Supporting Land Use:
Less prevalent and serve to support the primary land use.

Low Intensity Supporting Land Use:
Less prevalent and serve to support the primary use at neighborhood scale

DEVELOPMENT REVIEW STAFF REPORT

MAJOR THOROUGHFARE MAP:



SURROUNDING ZONING, LAND USES AND PLACETYPES:

	NORTH	SOUTH	EAST	WEST
ZONING	HC	IC	HM	HC
LAND USE	Commercial, small machine shop	Railroad, Commercial use	Railroad, Commercial use, city-owned property	Commercial use
PLACETYPES	City Corridor	City Corridor	Urban Green space & recreation	City Corridor

DEPARTMENT OF BUILDING DEVELOPMENT SERVICES:

No comments.

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CITY UTILITIES:

No issues

DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER MANAGEMENT DIVISION:

No issues. Tract has access to public sewer.

FIRE DEPARTMENT:

No objections to rezoning.

DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION:

	Street Name	Street Classification	Jurisdiction	ROW from Centerline (ft.)		Traffic Count (vehicles per day)	On-Street Parking	Sidewalk	
				Required	Existing			Required	Existing
Street 1	W. College St	Secondary Arterial	City	35	30	NA	No	Yes	Yes
Street 2	N. Nettleton Avenue	Local	City	30	25	NA	Yes	Yes	Yes

ACCESS - All new or modified driveway approaches shall comply with current City of Springfield standards for the street classification.

TRAILS, BUS STOPS, AND ADDITIONAL INFORMATION - There are no Greenway Trails near the property. There is one bus stop near the property.

IMPROVEMENTS - No improvements are required for this rezoning. A traffic study is not required for this rezoning.

DEPARTMENT OF PUBLIC WORKS STORMWATER ENGINEERING DIVISION:

SITE DESCRIPTION & DRAINAGE PATTERN

The property is in the **Jordan Creek Lower Branch** drainage basin. The property is located in a FEMA designated floodplain. Staff is aware of flooding problems in the local or downstream area. The city is **not** aware of a sinkhole or other Karst feature at this location. The property **does not have a stream buffer on site**.

A fee in lieu of on-site stormwater detention is **not applicable because the site is built out**.

DEVELOPMENT REVIEW STAFF REPORT

PW Stormwater has no concerns for the proposed rezone from HC to IC. Please note that development of the property will be subject to the following conditions at the time of development:

All chapter and section references below are to the City's Flood Control and Water Quality Protection Manual Version April 2022.

DETENTION AND DISCHARGE REQUIREMENTS

1. Site is already existing 100% impervious area. Any redevelopment would not trigger detention requirement.

WATER QUALITY REQUIREMENTS

N/A

FLOODPLAIN

1. The proposed development is within the Floodplain of the Jordan Creek Lower Branch stream. All new construction or redevelopment will require a Floodplain Permit submitted through Building Development Services for review.
 - a. The property contains a portion of the Floodway for Jordan Creek Lower Branch. No new construction or redevelopment would be allowed in the Floodway.
 - b. The Floodplain and Floodway shrink from the FEMA 2010 to the FEMA 2019 Flood Maps. The 2019 FEMA Flood Map completely removes the Floodway from the property but maintains the Floodplain.
 - c. The FEMA 2019 Flood Maps are not yet approved. Expected approval date is end of 2024. Rezoning does not affect the Floodplain or Floodway.

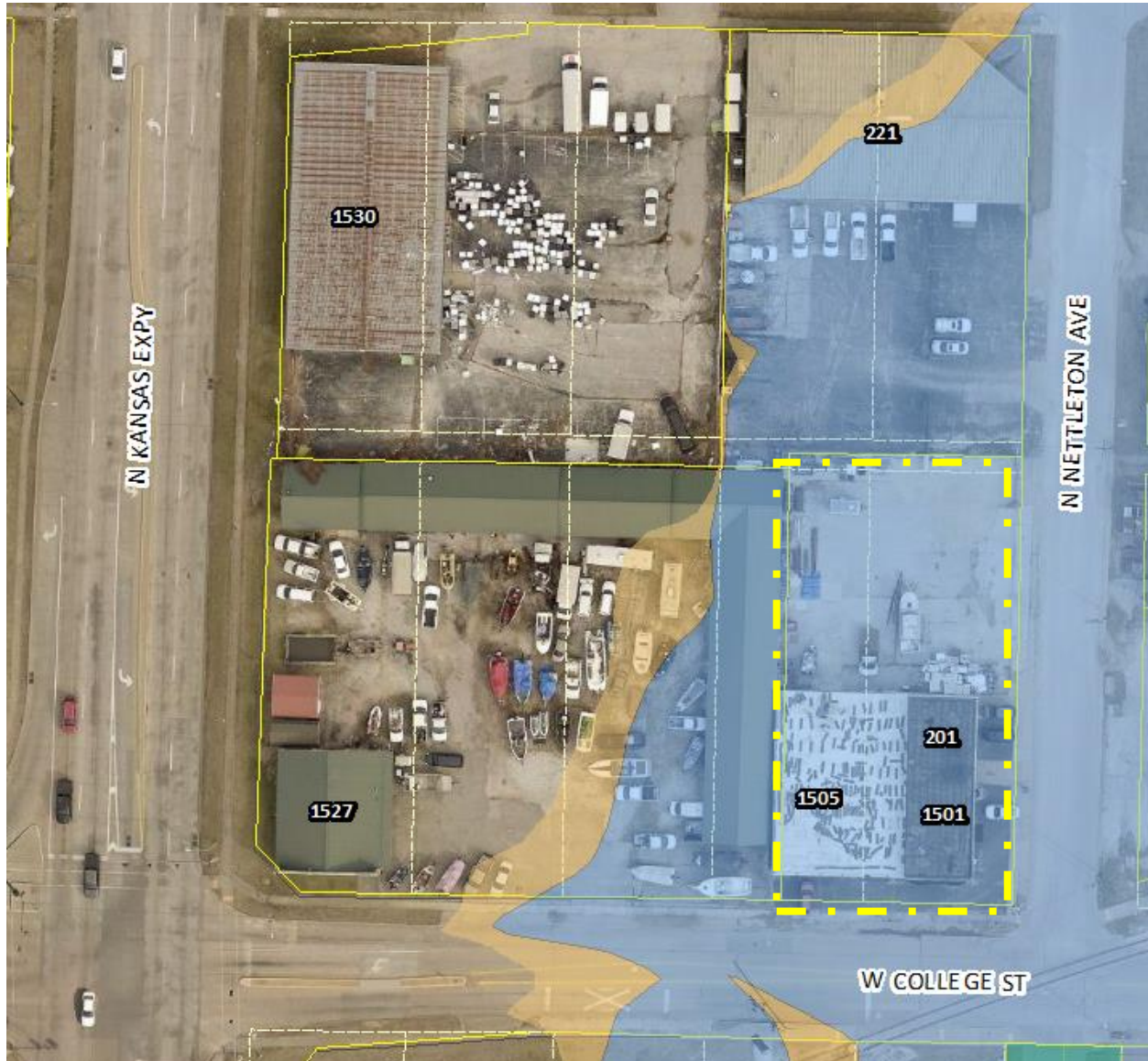
DEVELOPMENT REVIEW STAFF REPORT

FEMA 2010 Flood Map



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FEMA 2019 Flood Map (Proposed)



NATURAL CHANNEL & STREAM BUFFERS

1. No Stream Buffer on the Property.

SINKHOLES & KARST FEATURES

N/A

ADDITIONAL STORMWATER REQUIREMENTS

1. Stormwater Control Measures are the responsibility of the property owner or property owners' association to maintain, repair, and update unless the agreement is made with the City to

DEVELOPMENT REVIEW STAFF REPORT

operate. Operation and maintenance agreements are required for any permanent stormwater control measures.

STAFF ANALYSIS AND RECOMMENDATION:

1. The applicant is requesting to rezone approximately 0.42 acres of property generally located at 1501, 1505 West College Street and 201 North Nettleton Avenue from HC, Highway Commercial to IC, Industrial Commercial. The applicant intends to establish a distillery business which the HC district would not allow.
2. This application is consistent with the City Corridor placetype which predominantly consists of commercial and service-related development varying in scale, ranging from standalone businesses to large retail centers. City Corridors are also key locations to support and encourage multi-family developments that rely on proximity to retail, commercial services, and employment centers. Each of these use groups are best located along major roadways with high volumes of traffic. This placetype is not only highly accessible by car, but also by walking, biking, and transit.
3. “Maker, artisan, and innovation spaces” is listed as a primary land use in the City Corridor placetype. The IC district is consistent with this placetype which would allow commercial, retail and manufacturing uses that are intended to allow the distillery use.
4. The subject property has access to City Utilities infrastructure, and any necessary extension of such services can be provided via City Utilities’ extension policy, though new easements may be necessary to accommodate this.
5. There are few changing conditions in the area affected that make the proposed rezoning necessary. Minor development of property within the vicinity has been occurring.
6. The range of uses in the proposed IC district is compatible with the uses permitted on other property in the immediate vicinity. There is IC zoning to the south of the subject property. It is also located in an area of industrial and manufacturing uses.
7. There are adequate utility and sewer and water facilities existing or can be provided to serve the uses that would be permitted on the property if it were rezoned.
8. The impact of the uses, which would be permitted if the property were rezoned, is not expected to significantly increase the volume of vehicular and pedestrian traffic or reduce traffic safety in the vicinity.
9. The proposed zoning will not correct an error in the application of this article, but rather will provide a viable use of the property subject to the provisions of the zoning district.
10. A reasonably viable economic use of the subject property will not be precluded if the proposed rezoning is denied.

DEVELOPMENT REVIEW STAFF REPORT

STAFF RECOMMENDATION:

1. Staff recommends approval based on the proposal's general conformance to the Comprehensive Plan's City Corridor placetype and on the finding of facts above.

PLANNING AND ZONING OPTIONS:

The planning and zoning commission shall make one of the following recommendations in connection with each proposed change in zoning district classification of this article:

1. Recommend against the proposed change in the zoning district classification.
2. Recommend a change in the zoning district classification.
3. Recommend a change in the zoning district classification together with recommendations which, in the judgment of the planning and zoning commission, will protect adjacent property and ensure that the proposed amendment is consistent with the purpose and intent of this article.

AFFIDAVIT OF NEIGHBORHOOD NOTIFICATION AND MEETING SUMMARY

1. Request change to zoning from: Highway Commercial to Industrial Commercial
(existing zoning) (proposed zoning)
2. Meeting Date & Time: February 22, 2024 4:00 to 6:30
3. Meeting Location: 1501 W. College St.
4. Number of invitations that were sent: 55
5. How the mailing list was generated: Planning and Zoning Dept
6. Number of neighbors in attendance (attach a sign-in sheet): _____
7. List the verbal comments and how you plan to address any issues:
(City Council does not expect all the issues to be resolved to the neighborhood's satisfaction; however, the developer must explain why the issues cannot be resolved).

Will it effect any tax rates for neighboring buidings. Rezone whole area or only our buiding → Bob's Auto Repair? They are HM. Junkyard

8. List or attach the written comments and how you plan to address any issues:

--	--	--

I, LORISA Kirkpatrick (print name), attest that the neighborhood meeting was held on 2/22/24 (month/date/year), and is at least twenty-one (21) days prior to the Planning and Zoning Commission public hearing and in accordance with the attached "Neighborhood Notification and Meeting Process."

L Kirkpatrick
Signature of person completing affidavit

LORISA KIRKPATRICK
Printed name of person completing affidavit

REZONING APPLICATION REGARDING 1501 W. COLLEGE STREET

Neighborhood Meeting

February 22, 2024

4:00 pm – 6:30 pm

	Name	Address	Phone Number
1.	Oren Redus	939 S. Weaver Ave	417-280-0749
2.	Greg Cherry	310 N Nettleton	417-299-5768
3.	DAVID J. ESLEY	West Capitol	417-350-5708
4.	Claudia Boff	220 N. Nettleton	417-894-1089
5.	Thomas Boff	1330 W. MT VERNON	417-864-5245
6.	Ronald J. Korman	1315 W. College	417-294-0766
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EXPLANATION TO COUNCIL BILL 2024-062 (HORTON)

FILED: 03/21/2024

ORIGINATING DEPARTMENT: Planning and Development

TITLE: A general ordinance amending Chapter 36 of the Springfield City Code, known as the 'Land Development Code,' Article III, 'Zoning Regulations,' Division 5, 'Supplemental District Regulations,' Section 36-459, 'Special regulations for retail liquor sales,' for the purpose of requiring additional notices and protest eligibility.

PURPOSE: Amending Chapter 36 of the Springfield, Missouri, City Code, known as the 'Land Development Code,' Article III, 'Zoning Regulations,' Division 5, Section 36-459, Special regulations for retail liquor sales, for the purpose of requiring additional notices and protest eligibility. (Staff and Planning and Zoning Commission both recommend approval.)

BACKGROUND INFORMATION:

ZONING ORDINANCE TEXT AMENDMENT: LIQUOR LICENSE NOTICE & PROTEST

City Council initiated amendments at their meeting on October 25, 2023 related to Section 36-459, Special regulations for retail liquor sales, to add additional requirements to notify property owners and occupants of residential dwellings within 200 feet of the location of a liquor license application.

FINDINGS FOR STAFF RECOMMENDATION:

1. City Council has directed City staff to prepare amendments to Section 36-459, Special Regulations for Retail Liquor Sales, that would require all residential occupants and property owners in areas zoned R-SF, R-TH, R-MHC, or designated for single-family or two-family residential use in a PD district within 200 feet of an establishment applying for a liquor license to be given written notice via mail of such application. Said mailed notice will also include instructions on how to file a protest petition, as well as next steps depending on whether a protest petition is deemed sufficient or insufficient.
2. As originally proposed, said notices cannot be mailed on the 1st day of the application filing as background check results must first be received and reviewed by Law Department before proceeding to posting/notification process. Therefore, it is recommended that this is to occur by first-class mail no later than three (3) days prior to the posting of public notice as currently required by Section 36-459(4).
3. Another purpose of the amendment is to allow for occupants/renters/tenants to be informed if uses with the sale of retail liquor will be allowed within 200 feet of their property and enable them to protest the sale of retail liquor sales in the vicinity of where they reside. Currently, only property owners are notified and able to protest the sale of retail liquor.

4. Only one signature per land parcel, whether owner or occupant, shall be counted in determining whether the 50-percent threshold for protest has been satisfied. In the event of conflict between the owner and occupant, the owner shall prevail.
5. Forward SGF supports a Comprehensive City Code Update. This Plan calls for a full update to the City's Land Development Code and Ordinances to align regulations with the recommendations contained in each chapter. The Comprehensive Plan is a policy guide that should inform decision making for years to come.
6. Before an amendment shall be approved by ordinance, the Planning and Zoning Commission shall have first had a public hearing regarding the proposed amendment and made an official report to the City Council regarding the Planning and Zoning Commission's recommendation regarding said amendment. Once the Planning and Zoning Commission has made its official report, any further review by the Planning and Zoning Commission shall not be required unless City Council elects to refer a matter back to the Planning and Zoning Commission for further review.
7. The Growth and Development Advisory Committee (GDAC), Downtown Springfield Association (DSA), Commercial Club and all Registered Neighborhood Associations were notified of this amendment and public hearing dates for comment.

REMARKS: The Planning and Zoning Commission held a public hearing on March 14, 2024, and recommended approval, by a vote of 5 to 2, of the proposed amendments.

The Planning and Development staff recommends the text amendment be approved (see the attached Development Review Staff Report).

FINDINGS FOR STAFF RECOMMENDATION: Staff recommends approval of the text amendment based on its consistency with the Comprehensive Plan.

Submitted By: Daniel Neal, Senior City Planner

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Maurice S. Jones, Deputy City Manager 4/2/2024

Attachments:

1. Liquor License Notice Amendment_Ord
2. ROP_exhA
3. Staff Report_exhB

One-rdg. _____
P. Hrngs. X
Pgs. 14
Filed: 04-02-24

Sponsored by: Horton

First Reading: _____

Second Reading: _____

COUNCIL BILL 2024-062

GENERAL ORDINANCE _____

AN ORDINANCE

1 AMENDING Chapter 36 of the Springfield City Code, known as the 'Land
2 Development Code,' Article III, 'Zoning Regulations,' Division 5,
3 'Supplemental District Regulations,' Section 36-459, 'Special
4 regulations for retail liquor sales,' for the purpose of requiring
5 additional notices and protest eligibility.
6 _____
7

8 WHEREAS, City Council initiated amendment to Section 36-459 of the
9 Springfield City Code at its meeting on October 25, 2023; and
10

11 WHEREAS, the proposed amendment would require all residential occupants
12 and property owners in areas zoned Single-Family Residential District (R-SF),
13 Residential Townhouse District (R-TH), Manufactured Home Community District (R-
14 MHC), or designated for single-family or two-family residential use in a Planned
15 Development District (PD) within 200 feet of an establishment applying for a liquor
16 license to be given written notice via mail of such application, along with instructions on
17 how to file a protest petition; and
18

19 WHEREAS, following proper notice, the Planning and Zoning Commission held a
20 public hearing regarding the proposed amendment to Section 36-459 on March 14,
21 2024, a copy of the Record of Proceedings from said public hearing being attached
22 hereto and incorporated herein by this reference as "Exhibit A," and recommended
23 approval of the proposed changes; and
24

25 WHEREAS, proper notice was given of a public hearing before City Council, and
26 said hearing was held in accordance with the law.
27

28 NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF
29 SPRINGFIELD, MISSOURI, as follows, that:
30

31 Section 1 – Chapter 36 of the Springfield City Code, known as the 'Land
32 Development Code,' Article III, 'Zoning Regulations,' Division 5, 'Supplemental District
33 Regulations,' Section 36-459, 'Special regulations for retail liquor sales,' is hereby
34 amended to read as follows:

(Note: Language to be added is underlined, and language being removed is ~~stricken~~.)

Section 36-459. Special regulations for retail liquor sales.

- (1) *Applicability.* No license shall be issued for the sale of intoxicating liquor at retail in any form notwithstanding that the proposed establishment is within the zone appropriate therefore under this article nor shall any such use be conducted in any zone of the city unless the following procedures shall be followed.
- (2) *Location with regard to R-SF, R-TH, R-MHC, or PD districts.* Whenever any application shall be received by the city for the establishment of a place for the sale of intoxicating liquor at retail in any form, it shall be determined by the officer charged with the responsibility of issuing such licenses whether or not the proposed establishment is located within 200 feet of any property zoned R-SF, R-TH, R-MHC or designated for single-family or two-family residential use in a PD district under this article. In the event there shall be no such property within 200 feet from the proposed location and the application shall otherwise be appropriate and authorized by the laws of the city, then the license may be issued.
- (3) *Application fee.* If the proposed establishment is within 200 feet of property zoned R-SF, R-TH, R-MHC, or designated for single-family or two-family residential use in a PD district, then the person charged with the responsibility of accepting applications for such establishments on behalf of the city shall require to be filed therewith a fee of \$107.00 plus the actual costs of publication and other for legal notices required by law for the processing of said application, which fee is in addition to the license fee required by ordinances of the city. The additional fee shall be for the costs of processing the application and providing the necessary notifications described herein.
- (4) *Public notice.* Thereupon, the applicant shall cause to be posted in four places in the vicinity of the property which is so zoned R-SF, R-TH, R-MHC or designated for single-family or two-family residential use in a PD district, and which is within 200 feet of the proposed establishment a notice setting forth the proposed application and advising that persons within said 200 feet owning or occupying property zoned R-SF, R-TH, R-MHC or designated for single-family or two-family residential use in a PD district, shall have the right within 21 days from the date that the notice shall first be posted in which to protest the granting of a license for the establishment and the use of the land therefore, including instructions for filing said protest. In addition, said notice shall be mailed to all persons within said 200 feet owning or occupying property zoned R-SF, R-TH, R-MHC or designated for single-family or two-family residential use in a PD district, said mailing to occur by first-class mail no later than three (3) days prior to the posting described herein. Deposit in the United States mail, with postage prepaid, shall constitute proof of compliance with the mailing notice requirement. In addition, ~~the~~ said notice shall be advertised in an official newspaper or a newspaper of general circulation in the City of Springfield, Missouri, said notice to be given for at least five straight consecutive issues, and the time to protest shall commence with the date of the first said publication and shall terminate on the twenty-first day thereafter.

- (5) *Protest requirements.* If within the 21 days aforesaid there shall be filed with the officer of the city charged with receiving applications for liquor licenses a protest to granting the license for the proposed establishment signed by at least 50 percent of the owners and/or occupants of the land so zoned R-SF, R-TH, R-MHC or designated for single-family or two-family residential use in a PD district, and located within 200 feet of the proposed establishment, then the application shall be forwarded to city council for its resolution in favor or against said application. If, however, no such protest shall be filed within 21 days or if the same shall be insufficient, thereupon the license may issue, all other requirements of the law of the City of Springfield having been met and complied with.

For the purpose of this section, only one signature per land parcel, whether property owner or occupant, shall be counted in determining whether the 50-percent threshold for protest has been satisfied. In the event of conflict between the owner and occupant, the owner shall prevail.

The official of the City of Springfield charged with the responsibility of accepting applications for licenses for the sale of intoxicating liquor at retail shall have the authority from time to time to prepare forms to implement this section including protest forms, application forms, and forms for notice, forms for proof of ownership and/or occupancy, and other appropriate requirements. Forms of protest shall in any event be acknowledged by some person other than a protesting owner or occupant located within the 200 feet area acknowledging the signatures of the persons contained thereon to be the free act and deed of the persons so signing. In determining those persons entitled to be counted in such protest, only those persons who are owners or occupants of the land of record on the date that the application shall have been filed shall be entitled to protest.

Notwithstanding the provisions of this section, the director of finance may issue a license for the same location to any purchaser of a retail liquor establishment which was duly licensed at the time of the purchase providing the purchaser makes proper application and is qualified and eligible to hold a license and providing that the provisions of section 10-36 [of the] Springfield City Code shall have been complied with; nor shall the provisions of this section prohibit the reissuance of licenses for previously existing duly licensed establishments.

- (6) *Exemption from notice.* The applicant shall be exempted from the notice and publication requirements herein, and only those requirements, if 100 percent of all owners and occupants of residential property as set forth herein, file a notarized waiver of protest setting forth the case or license number, address of establishment, and indicating they have no opposition to the proposed use, and the license may issue providing the applicant has complied with all other applicable requirements.

Section 2 – Savings Clause. Nothing in this Ordinance shall be construed to affect any suit or proceeding now pending in any court, or any rights acquired, or liability incurred, nor any cause or causes of action accrued or existing, under any act or ordinance repealed hereby, nor shall any right or remedy of any character be lost, impaired, or affected by this Ordinance.

126 Section 3 – Severability Clause. If any section, subsection, sentence, clause, or
127 phrase of this Ordinance is for any reason held to be invalid, such decision shall not
128 affect the validity of the remaining portions of this Ordinance. City Council hereby
129 declares that it would have adopted the Ordinance and each section, subsection,
130 sentence, clause, or phrase thereof, irrespective of the fact that any one or more
131 sections, subsections, sentences, clauses, or phrases be declared invalid.

132
133 Section 4 – This Ordinance shall be in full force and effect from and after
134 passage.

135
136 Passed at meeting: _____

137
138 _____
139 Mayor

140
141 Attest: _____, City Clerk

142
143 Filed as Ordinance: _____

144
145 *Laura Vales*
146 Approved as to form: _____, Assistant City Attorney

147
148 *Jason A. Hage*
149 Approved for Council action: _____, City Manager

EXHIBIT A

RECORD OF PROCEEDINGS
Planning and Zoning Commission – March 14, 2024

Liquor License Notice & Protest Text Amendment

Citywide

Applicant: City of Springfield

Mr. Neal stated that this is a request to amend Section 36-459, Special Regulations for Retail Liquor Sales. The purpose of the amendments is to allow for occupants/renters/tenants to be informed if uses with the sale of retail liquor will be allowed within 200 feet of their property and enable them to protest the sale of retail liquor sales in the vicinity of where they reside.

Mr. Colony asked how they had decided on the 200 feet for sending out mailers. Mr. Neal noted that it is consistent with state requirements and rezoning.

Ms. Covert, Licensing Supervisor noted that state stature for schools, churches, and parks states 100 feet and the city had extended it to 200 feet. She also noted that the code is vague on the posting of signs (4 signs to be posted in vicinity of location) and will need to be posted for 21 consecutive days.

Mr. Scott asked about legal standing to tenancy instead of strictly ownership.

Ms. Vales noted that she said cannot find anything written, but this was direct request from City Council.

Further discussion on who would prevail, tenant or property owner and it was noted that the property owner would prevail and what percentage would cause it to go forward to council.

Mr. Knuckles closed the public hearing.

COMMISSION ACTION:

Planning and Zoning Commission Board Member Scott moved to approve Retail Liquor Sales Text Amendment, Commissioner Colony seconded the motion. It was **Passed** with the following vote. Ayes: Commissioner Gunther, Commissioner Scott, Commissioner Lebeck, Commissioner Colony, Commissioner Knuckles. Nays: Commissioner Pauly and Commissioner Doennig. Absent: Commissioner Ridge and Commissioner Broekhoven. Abstain: None.



Bob Hosmer, AICP
Planning Manager

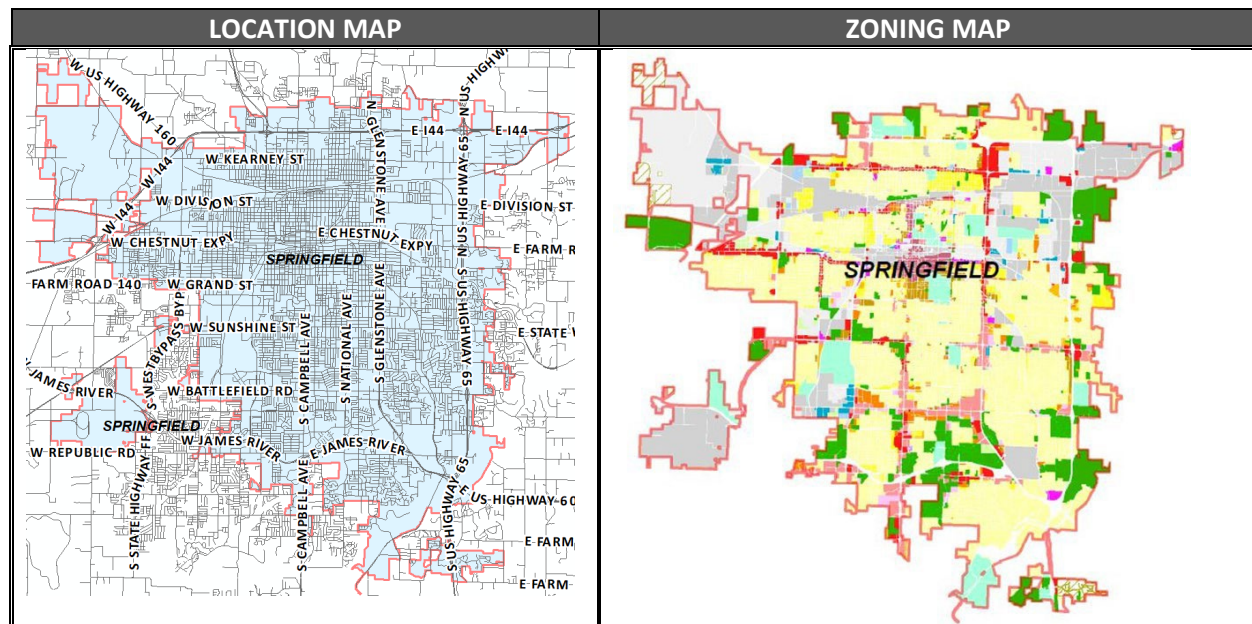
DEVELOPMENT REVIEW STAFF REPORT

PROJECT INFORMATION:

Case Number:	Liquor License Notice & Protest Amendment
Location:	Citywide
Total Acres:	NA
Applicant:	City of Springfield
Existing Land Use:	NA
Neighborhood Meeting:	NA
Planning and Zoning Commission:	March 14, 2024
City Council:	April 8, 2024
Public Notification:	Legal in Daily Events
Staff:	Daniel Neal, Senior Planner
Staff recommendation:	Staff recommends approval
Proposed motion:	I move to recommend approval of the text amendment to Section 36-459 as set forth in Attachment 1 to the staff report on this item. (All commission motions are made in the affirmative.)
Required Vote:	A majority of those present (5 members are a quorum).

PROJECT SUMMARY:

Request to amend Section 36-459, Special Regulations for Retail Liquor Sales, to require that all residential occupants and property owners in areas zoned R-SF, R-TH, R-MHC, or designated for single-family or two-family residential use in a PD district within 200 feet of an establishment applying for a liquor license to be given written notice via mail of such application. Said mailed notice will also include instructions on how to file a protest petition, as well as next steps depending on whether a protest petition is deemed sufficient or insufficient.



DEVELOPMENT REVIEW STAFF REPORT

PLANNING AND ZONING COMMISSION AUTHORITY:

Sec. 36-367. – Amendments

(7) Findings by the commission.

(a) *Text amendments.* If the request is for an amendment of the text of this article, the recommendation of the planning and zoning commission may consider:

1. Whether the proposed text amendment is consistent with the Springfield Comprehensive Plan;
2. Whether the proposed text amendment is consistent with the intent and purpose of this article;
3. The areas of the city that are most likely to be affected by the proposed text amendment and the manner in which those areas will be affected;
4. Whether the proposed text amendment is necessitated by a change in conditions in the zoning districts affected and the nature of such changed conditions;
5. Information submitted at the public hearing.

COMPATIBILITY WITH COMPREHENSIVE PLAN:

1. The Comprehensive Plan establishes and assigns placetypes to all areas within the City and surrounding planning area. Each placetype assignment should be used to guide future land development and redevelopment, as well as more detailed or strategic planning at the district, corridor, or neighborhood level. Zoning and other related regulatory codes are used to implement the planning vision, at the parcel level. Multiple zoning districts can be present in the placetypes as long as they complement one another and support the general character of the placetype. The placetypes should serve as an essential tool in identifying needed updates to the City's zoning regulations and development standards. Chapter 15: Implementation, provides additional detailed guidance on how the city should use placetypes when updating development codes.
2. **Forward SGF** supports a Comprehensive City Code Update. This Plan calls for a full update to the City's Land Development Code and Ordinances to align regulations with the recommendations contained in each chapter. The Comprehensive Plan is a policy guide that should inform decision making for years to come, but it is not regulatory. The City needs to update its development regulations to support the Plan's vision.
3. **Development Regulations.** Increased use flexibility that promotes redevelopment and revitalization will need to be balanced by regulatory codes that promote and emphasize quality design and construction that is pedestrian focused and has a greater experience factor. The city's guiding principle of Quality of Place emphasizes the need for more public and private amenities and features. Future code changes will need to support the implementation of planning that promotes the development of places with a wide array of convenient services in proximity to amenity-rich, attractive, inviting, integrated corridors and districts that are within walking distance of neighborhood, trails, parks, and mixed-use centers with diverse housing options. Likewise, neighborhoods that can support low-intensity commercial hubs surrounded by diverse housing types will require codes to keep development intensity in-check at a neighborhood-scale. Plans and code

DEVELOPMENT REVIEW STAFF REPORT

changes will also need to champion alignment of subsidies and other public investments and improvements with land planning to ensure housing and economic development projects are permitted and supported in places where they are best suited and equitably dispersed across the city.

STAFF ANALYSIS AND RECOMMENDATION:

1. City Council has directed City staff to prepare amendments to Section 36-459, Special Regulations for Retail Liquor Sales, that would require all residential occupants and property owners in areas zoned R-SF, R-TH, R-MHC, or designated for single-family or two-family residential use in a PD district within 200 feet of an establishment applying for a liquor license to be given written notice via mail of such application. Said mailed notice will also include instructions on how to file a protest petition, as well as next steps depending on whether a protest petition is deemed sufficient or insufficient and is to occur by first-class mail no later than three (3) days prior to the posting of public notice as currently required by Section 36-459(4).
2. The purpose of the amendments is to allow for occupants/renters/tenants to be informed if uses with the sale of retail liquor will be allowed within 200 feet of their property and enable them to protest the sale of retail liquor sales in the vicinity of where they reside. Currently, only property owners are notified and able to protest the sale of retail liquor.
3. Only one signature per land parcel, whether owner or occupant, shall be counted in determining whether the 50-percent threshold for protest has been satisfied. In the event of conflict between the owner and occupant, the owner shall prevail.
4. Before an amendment shall be approved by ordinance, the Planning and Zoning Commission shall have first had a public hearing regarding the proposed amendment and made an official report to the City Council regarding the Planning and Zoning Commission's recommendation regarding said amendment. Once the Planning and Zoning Commission has made its official report, any further review by the Planning and Zoning Commission shall not be required unless City Council elects to refer a matter back to the Planning and Zoning Commission for further review.
5. The Growth and Development Advisory Committee (GDAC), Downtown Springfield Association (DSA), Commercial Club and all Registered Neighborhood Associations were notified of this amendment and public hearing dates for comment.

STAFF RECOMMENDATION:

1. Staff recommends approval of the text amendment based on its consistency with the *Comprehensive Plan*.

DEVELOPMENT REVIEW STAFF REPORT

PLANNING AND ZONING OPTIONS:

The planning and zoning commission shall make one of the following recommendations in connection with each proposed change in zoning district classification of this article:

1. Recommend against the proposed change in the text amendment.
2. Recommend a change in the text amendment.
3. Recommend a change in the text amendment together with recommendations which, in the judgment of the planning and zoning commission, will ensure that the proposed amendment is consistent with the purpose and intent of this article.

DEVELOPMENT REVIEW STAFF REPORT

PROPOSED AMENDMENT:

Attachment 1

Note: The existing language is in black. Language to be added is underlined and to be removed is ~~stricken~~.

Sec. 36-459. Special regulations for retail liquor sales.

- (1) *Applicability.* No license shall be issued for the sale of intoxicating liquor at retail in any form notwithstanding that the proposed establishment is within the zone appropriate therefore under this article nor shall any such use be conducted in any zone of the city unless the following procedures shall be followed.
- (2) *Location with regard to R-SF, R-TH, R-MHC, or PD districts.* Whenever any application shall be received by the city for the establishment of a place for the sale of intoxicating liquor at retail in any form, it shall be determined by the officer charged with the responsibility of issuing such licenses whether or not the proposed establishment is located within 200 feet of any property zoned R-SF, R-TH, R-MHC or designated for single-family or two-family residential use in a PD district under this article. In the event there shall be no such property within 200 feet from the proposed location and the application shall otherwise be appropriate and authorized by the laws of the city, then the license may be issued.
- (3) *Application fee.* If the proposed establishment is within 200 feet of property zoned R-SF, R-TH, R-MHC, or designated for single-family or two-family residential use in a PD district, then the person charged with the responsibility of accepting applications for such establishments on behalf of the city shall require to be filed therewith a fee of \$107.00 plus the actual costs of publication and other ~~for~~ legal notices required by law for the processing of said application, which fee is in addition to the license fee required by ordinances of the city. The additional fee shall be for the costs of processing the application and providing the necessary notifications described herein.
- (4) *Public notice.* Thereupon, the applicant shall cause to be posted in four places in the vicinity of the property which is so zoned R-SF, R-TH, R-MHC or designated for single-family or two-family residential use in a PD district, and which is within 200 feet of the proposed establishment a notice setting forth the proposed application and advising that persons within said 200 feet owning or occupying property zoned R-SF, R-TH, R-MHC or designated for single-family or two-family residential use in a PD district, shall have the right within 21 days from the date that the notice shall first be posted in which to protest the granting of a license for the establishment and the use of the land therefore, including instructions for filing said protest. In addition, said notice shall be mailed to all persons within said 200 feet owning or occupying property zoned R-SF, R-TH, R-MHC or designated for single-family or two-family residential use in a PD district, said mailing to occur by first-class mail no later than three (3) days prior to the posting described herein. Deposit in the United States mail, with postage prepaid, shall constitute proof of compliance with the mailing notice

DEVELOPMENT REVIEW STAFF REPORT

requirement. In addition, ~~the~~ said notice shall be advertised in an official newspaper or a newspaper of general circulation in the City of Springfield, Missouri, said notice to be given for at least five straight consecutive issues, and the time to protest shall commence with the date of the first said publication and shall terminate on the twenty-first day thereafter.

- (5) *Protest requirements.* If within the 21 days aforesaid there shall be filed with the officer of the city charged with receiving applications for liquor licenses a protest to granting the license for the proposed establishment signed by at least 50 percent of the owners and/or occupants of the land so zoned R-SF, R-TH, R-MHC or designated for single-family or two-family residential use in a PD district, and located within 200 feet of the proposed establishment, then the application shall be forwarded to city council for its resolution in favor or against said application. If, however, no such protest shall be filed within 21 days or if the same shall be insufficient, thereupon the license may issue, all other requirements of the law of the City of Springfield having been met and complied with.

For the purpose of this section, only one signature per land parcel, whether owner or occupant, shall be counted in determining whether the 50 percent threshold for protest has been satisfied. In the event of conflict between the owner and occupant, the owner shall prevail.

The official of the City of Springfield charged with the responsibility of accepting applications for licenses for the sale of intoxicating liquor at retail shall have the authority from time to time to prepare forms to implement this section including protest forms, application forms, and forms for notice, forms for proof of ownership and/or occupancy, and other appropriate requirements. Forms of protest shall in any event be acknowledged by some person other than a protesting owner or occupant located within the 200 feet area acknowledging the signatures of the persons contained thereon to be the free act and deed of the persons so signing. In determining those persons entitled to be counted in such protest, only those persons who are owners or occupants of the land of record on the date that the application shall have been filed shall be entitled to protest.

Notwithstanding the provisions of this section, the director of finance may issue a license for the same location to any purchaser of a retail liquor establishment which was duly licensed at the time of the purchase providing the purchaser makes proper application and is qualified and eligible to hold a license and providing that the provisions of section 10-36 [of the] Springfield City Code shall have been complied with; nor shall the provisions of this section prohibit the reissuance of licenses for previously existing duly licensed establishments.

- (6) *Exemption from notice.* The applicant shall be exempted from the notice and publication requirements herein, and only those requirements, if 100 percent of all owners and occupants of residential property as set forth herein, file a notarized waiver of protest setting forth the case or license number, address of establishment, and indicating they

DEVELOPMENT REVIEW STAFF REPORT

have no opposition to the proposed use, and the license may issue providing the applicant has complied with all other applicable requirements.



EXPLANATION TO COUNCIL BILL 2024-063 (MCGULL)

FILED: 03/21/2024

ORIGINATING DEPARTMENT: Planning and Development

TITLE: A special ordinance approving the Final Development Plan of Planned Development District No. 303, generally located at 1735 East Valley Water Mill Road. (By: Triple S Properties Inc.; 1735 E Valley Water Mill Road; Final Development Plan – Planned Development 303.)

PURPOSE: Approving the final development plan for Planned Development District No. 303 generally located at 1735 East Valley Water Mill Road. (Staff and Planning and Zoning Commission recommend approval.)

BACKGROUND INFORMATION:

PLANNED DEVELOPMENT DISTRICT NO. 303 – FINAL DEVELOPMENT PLAN

The applicant is requesting approval of the final development plan of Planned Development No. 303 on approximately 3.48 acres of property generally located at 1735 East Valley Water Mill Road for a multi-family development.

The Final Development Plan as presented in the Council Bill is the same as that presented to the Planning and Zoning Commission. Staff subsequently recognized that the Final Development Plan as presented to the Planning and Zoning Commission did not comply with the thirty (30) degree bulk plane requirement along the east property line as set forth in Planned Development District No. 303. The applicant has agreed to modify the plan to comply with the bulk plane requirement, and staff has prepared an amendment to this Council Bill to reflect the modified plan. City Council has the authority to approve the Final Development Plan with this modification as an amendment.

REMARKS: The Planning and Zoning Commission held a public hearing on March 14, 2024, and recommended to approve, by a vote of 7 to 0. The Planning and Development staff recommends the application be approved (see the attached Development Review Staff Report).

FINDINGS FOR STAFF RECOMMENDATION:

1. The rezoning of the property to Planned Development No 303 to allow for multi-family uses was approved in 2006 without a final development plan. The applicant is requesting approval of the final development plan of Planned Development No. 303 on approximately 3.48 acres of property generally located at 1735 E Valley Water Mill Road for a multi-family development.



2. The subject property is currently being platted with the Preliminary Plat of Valley Water Mill Estates.

3. The Administrative Review Committee (ARC) recommended approval of the Final Development Plan on January 18, 2024.

4. The final development plan for developments in Planned Development 303 requires recommendation by Planning and Zoning Commission and approval by City Council.

STAFF RECOMMENDATION: The final development plan is in substantial conformity to the Planned Development Ordinance approved by City Council, September 18, 2006, and staff recommends approval.

Submitted By: Michael Sparlin, Senior City Planner

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Maurice S. Jones, Deputy City Manager 4/3/2024

Attachments:

1. FDP PD 303 _Ord
2. Legal Description_exh A
3. ROP_exh B
4. Staff Report_exhC

One-rdg. _____
P. Hrngs. X
Pgs. 15
Filed: 04-02-24

Sponsored by: McGull

First Reading: _____

Second Reading: _____

COUNCIL BILL 2024-063

SPECIAL ORDINANCE _____

AN ORDINANCE

1 APPROVING the Final Development Plan of Planned Development District No. 303,
2 generally located at 1735 East Valley Water Mill Road.
3
4 _____

5 WHEREAS, on September 18, 2006, City Council passed General Ordinance
6 5600, rezoning approximately seven (7) acres of land generally located at the northeast
7 corner of Glenstone and Valley Water Mill from Greene County R-1 District to PD -
8 Planned Development District No. 303, without submission of a final development plan;
9 and
10

11 WHEREAS, a final development plan for a multi-family development on a portion
12 of the above-described tract, consisting of approximately 3.48 acres generally located at
13 1735 East Valley Water Mill Road and described more fully in "Exhibit A," which is
14 attached hereto and incorporated herein by this reference, has been prepared and
15 submitted; and
16

17 WHEREAS, the subject property, as described in "Exhibit A," is currently being
18 platted with the Preliminary Plat of Valley Water Mill Estates; and
19

20 WHEREAS, the Administrative Review Committee recommended approval of the
21 proposed Final Development Plan on January 18, 2024; and
22

23 WHEREAS, on March 14, 2024, the Planning and Zoning Commission
24 conducted a public hearing, a copy of the Record of Proceedings from said public
25 hearing being attached hereto and incorporated herein by this reference as "Exhibit B,"
26 and recommended approval of the proposed Final Development Plan.
27

28 NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF
29 SPRINGFIELD, MISSOURI, as follows, that:
30

31 Section 1 – Subject to all regulations and standards of Planned Development
32 District No. 303, City Council hereby approves the Final Development Plan as shown in
33 "Exhibit C," which is attached hereto, and incorporated herein by this reference.

34 Section 2 – This Ordinance shall be in full force and effect from and after
35 passage.

36
37 Passed at meeting: _____

38
39 _____
40 Mayor

41
42 Attest: _____, City Clerk

43
44 Filed as Ordinance: _____

45
46 Approved as to form: Laura Vales, Assistant City Attorney

47
48 Approved for Council action: Jason A. Hays, City Manager
49
50

EXHIBIT A

LEGAL DESCRIPTION

A TRACT OF LAND BEING A PORTION OF THE NORTHEAST QUARTER OF SECTION 6, TOWNSHIP 29 NORTH, RANGE 21 WEST OF THE FIFTH P.M., CITY OF SPRINGFIELD, GREENE COUNTY, MISSOURI, SAID TRACT ALSO BEING THOSE PARCELS CONVEYED TO TRIPLE S PROPERTIES INC. IN BOOK 2023, PAGE 10009-23 OF THE GREENE COUNTY RECORDER OF DEEDS OFFICE, SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING FROM AN EXISTING RAILROAD SPIKE AT THE SOUTHWEST CORNER OF LOT 5 OF THE NORTHEAST CORNER OF SAID SECTION 6, THENCE S88°13'08"E ALONG THE SOUTH LINE OF SAID LOT 5 A DISTANCE OF 720.04 FEET; THENCE N01°59'51"E TO A POINT ON THE NORTH RIGHT OF WAY LINE OF E. VALLEY WATER MILL ROAD (40' WIDE) FOR A POINT OF BEGINNING.

THENCE LEAVING SAID NORTH RIGHT OF WAY LINE N01°59'14"E FOR 244.30 FEET; THENCE S87°38'47"E 589.00 FEET; THENCE S01°51'43"W 234.59 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF E. VALLEY WATER MILL ROAD; THENCE ALONG SAID NORTH RIGHT OF WAY LINE N88°18'00"W A DISTANCE OF 9.79 FEET; THENCE S02°13'33"W A DISTANCE OF 2.93; THENCE N88°18'21"W A DISTANCE OF 579.72 FEET TO THE POINT OF BEGINNING CONTAINING 141,931 SQUARE FEET OR 3.26 ACRES, MORE OR LESS, SUBJECT TO ANY AND ALL EASEMENTS, RESTRICTIONS, COVENANTS OF RECORD.

EXHIBIT B

RECORD OF PROCEEDINGS
Planning and Zoning Commission – March 14, 2024

Planned Development 303 Final Development Plan
1735 East Valley Water Mill Road
Applicant: Triple S Properties, Inc.

Mr. Sparlin stated that this is a request to approve the final development plan of Planned Development No. 303, on approximately 3.48 acres of property for a multi-family development.

Mr. Tim Schowe, 2804 N. Biagio Street, Ozark here on behalf of the developer and this meets the density allowed in the existing Planned Development (allows 28 du/ac).

Mr. Scott asked about the northeast and northwest corners.

Mr. Schowe stated that the northeast corner will be a swimming pool and northwest corner is an existing sink hole that they will avoid.

Mr. Pauly asked about the building height and was told it will be a three-story building and each building will have 24 units for three buildings total.

Mr. Scott asked about the bulk plane requirements on the east side.

Mr. Sparlin noted that he believes it will be a 30-degree bulk plane but does not have the language present to review.

Discussion of the bulk plane requirements (45-degree or 30-degree bulk plan). Planned Development 303 notes it as 30-degree bulk plane.

Mr. Knuckles closed the public hearing.

COMMISSION ACTION:

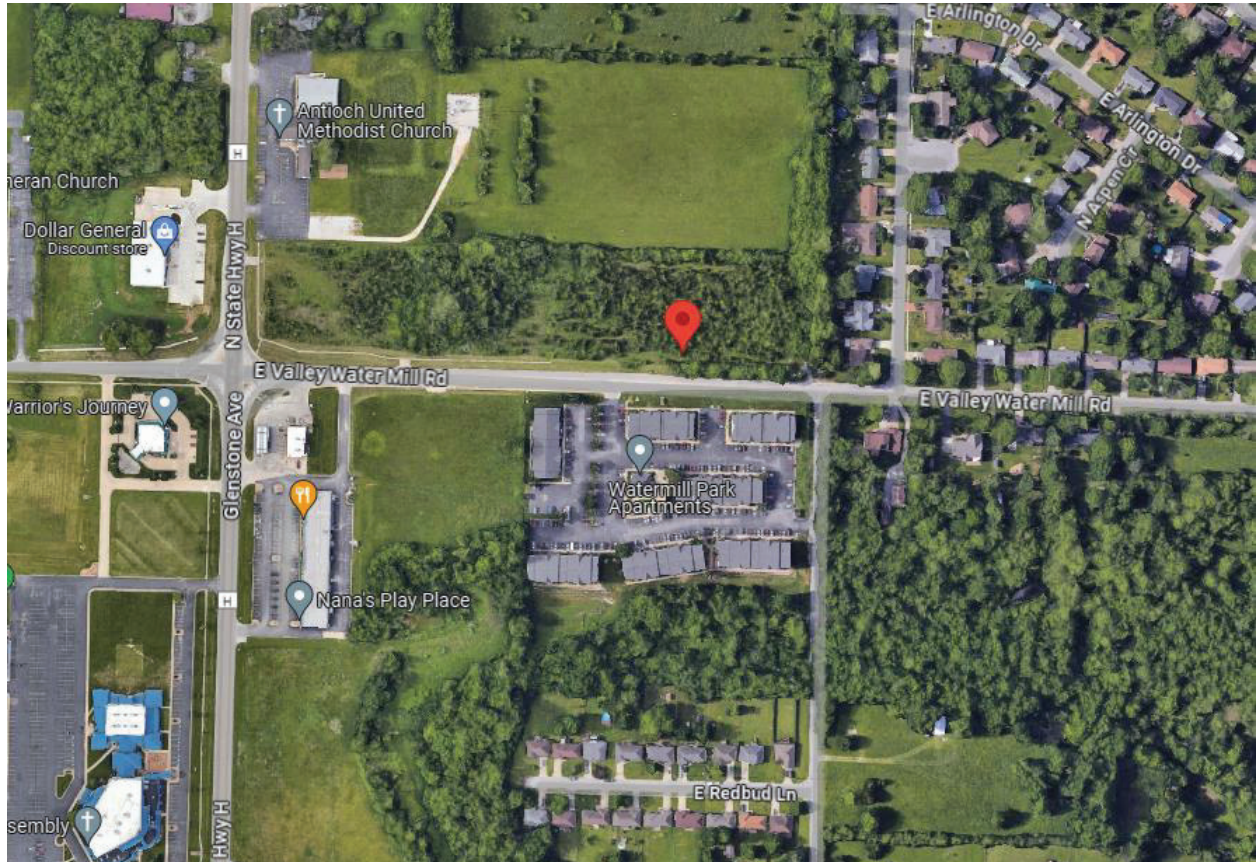
Planning and Zoning Commission Board Member Colony moved to approve Preliminary Plat of Valley Water Mill Estates, Commissioner Lebeck seconded the motion. It was **Passed** with the following vote. Ayes: Commissioner Gunther, Commissioner Pauly, Commissioner Scott, Commissioner Lebeck, Commissioner Colony, Commissioner Knuckles, Commissioner Doennig. Nays: None. Absent: Commissioner Ridge and Commissioner Broekhoven. Abstain: None.



Bob Hosmer, AICP
Planning Manager

DEVELOPMENT REVIEW STAFF REPORT

GOOGLE AERIAL OF LANDMARKS, BUSINESSES, AND ATTRACTIONS:



GOOGLE MAPS STREET VIEW:



DEVELOPMENT REVIEW STAFF REPORT

PROPERTY HISTORY:

The subject property was rezoned from Greene Co. R-1 to PD 303 in September 2006.

COMPATIBILITY WITH COMPREHENSIVE PLAN:

PLACETYPE:

The *Comprehensive Plan's Land Use & Development* chapter identifies the subject property as the City Corridor placetype.

The City Corridor placetype predominantly consists of commercial and service-related development varying in scale, ranging from standalone businesses to large retail centers. City Corridors are also key locations to support and encourage multi-family developments that rely on proximity to retail, commercial services, and employment centers. Each of these use groups are best located along major roadways with high volumes of traffic. This placetype is not only highly accessible by car, but also by walking, biking, and transit. City Corridors provide a wide range of shopping, service, entertainment, and employment destinations for both residents and visitors. Common uses within the placetype include chain restaurants, gas stations, hotels, national retailers, movie theaters, smaller offices, and a variety of support services.

ZONING ORDINANCE REQUIREMENTS:

Sec. 36-405 (9), states in part:

- (e) *Action by planning and zoning commission.* Within 45 days following the submission by the applicant or referral from the administrative review committee of a complete application for the final development plan, or such longer period as may be agreed to by the applicant, the planning and zoning commission shall review the plan with respect to its conformity to the approved preliminary development plan; with respect to the merit or lack of merit of any departure of the final development plan from substantial conformity with the preliminary development plan; and with respect to compliance of the final development plan with any conditions imposed by approval of the preliminary development plan, and with the provisions of this article and all other applicable federal, state and city codes, ordinances and regulations.

If the planning and zoning commission finds that there is substantial conformity between such plans and shall further find the final development plan to be in all other respects complete and in compliance with any conditions imposed by approval of the preliminary development plan, and with the provisions of this article and all other applicable, federal, state and city codes, ordinances and regulations, it shall approve the final development plan. Planning and zoning commission action shall constitute final approval of the final development plan.

If the planning and zoning commission shall find that the final development plan lacks substantial conformity to the preliminary development plan but merits approval notwithstanding such lack of conformity, it shall transmit such plan to the city council together with its recommendation that the final development plan be approved.

DEVELOPMENT REVIEW STAFF REPORT

In any case, where the planning and zoning commission finds that the final development plan lacks substantial conformity to the preliminary development plan and does not merit approval, it shall transmit such plan to the city council, together with its recommendation that the final development plan not be approved. The failure of the commission to act within the aforesaid time period shall be deemed a recommendation to the city council to deny the final development plan as submitted.

- (f) *Action by city council.* Within 45 days, or such longer period as may be agreed to by the applicant, following the action of the planning and zoning commission, or its failure to act as provided, the city council shall either refuse to approve the final development plan, shall refer it back to the planning commission for further consideration of specified matters; or shall, by ordinance duly adopted, approve the final development plan, with or without modifications to be accepted by the applicant, as a condition of such approval. The failure of the city council to act within the aforesaid time period shall be deemed a final denial of final development plan approval.
- (g) *Notice and recording of final development plan.* Within seven days following the final disposition of an application for final development plan approval, the secretary of the planning and zoning commission shall mail notice thereof to the applicant and to all city officials, departments, bureaus, boards and commissions whose duties might be affected by such disposition. When a final development plan is approved, the secretary shall, within ten days of its approval, file a copy of the entire final development plan in the permanent records of the planning and zoning commission.

DEPARTMENT COMMENTS:

DEPARTMENT OF BUILDING DEVELOPMENT SERVICES:

No comments.

CITY UTILITIES:

No issues with Final Development Plan.

DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER MANAGEMENT DIVISION:

No issues with FDP.

FIRE DEPARTMENT:

As agreed, a fire apparatus turn-around easement of 35 feet of the west end of the fire lane shall be granted and no bollards shall be installed in the east end of the fire lane.

DEVELOPMENT REVIEW STAFF REPORT

DEPARTMENT OF PUBLIC WORKS TRAFFIC ENGINEERING DIVISION:

	Street Name	Street Classification	Jurisdiction	ROW from Centerline (ft.)		Traffic Count (vehicles per day)	On-Street Parking	Sidewalk	
				Required	Existing			Required	Existing
Street 1	E. Valley Water Mill Road	Secondary Arterial	City	35	35	NA	No	Yes	No
Street 3	N. Waverly Avenue	Local	City	25	0	NA	No	Yes	No

ACCESS - All access to the development shall be per PD 303 and current City of Springfield standards for the street classification.

TRAILS, BUS STOPS, AND ADDITIONAL INFORMATION - There are no Greenway Trails near the property. There are no bus stops near the property.

IMPROVEMENTS - The new street (Waverly Avenue) must be constructed to City of Springfield Local Street standards which includes sidewalk on one side. Public Improvement Plans are required to be submitted, approved and improvements constructed, or funds escrowed prior to approval of the final plat. A traffic study is not required.

DEPARTMENT OF PUBLIC WORKS STORMWATER ENGINEERING DIVISION:

SITE DESCRIPTION & DRAINAGE PATTERN

The property is in the **South Dry Sac** drainage basin. The property **is not** located in a FEMA designated floodplain. Staff **is not** aware of flooding problems in the local or downstream area. The city **is** aware of a sinkhole or other Karst feature at this location. The property **does not have a stream buffer on site**.

A fee in lieu of on-site stormwater detention **is not applicable because detention is already provided**.

The FDP meets Stormwater Requirements. Please note that development of the property will be subject to the following conditions at the time of development:

All chapter and section references below are to the City's Flood Control and Water Quality Protection Manual Version April 2022.

DETENTION AND DISCHARGE REQUIREMENTS

1. Detention Basin constructed as Regional Basin (7PW5979). Drains to Sinkhole 7054.

WATER QUALITY REQUIREMENTS

1. Water Quality provided by regional basin built as 7PW5979.
2. A land disturbance permit will be required with disturbing 1 acre or greater per Chapter 4 Section 5 of the City's Flood Control and Water Quality Protection Manual.

FLOODPLAIN

N/A

DEVELOPMENT REVIEW STAFF REPORT

NATURAL CHANNEL & STREAM BUFFERS

N/A

SINKHOLES & KARST FEATURES

1. Sinkhole 7054 is mapped and boundary set. The detention basin is discharging to the sinkhole.

ADDITIONAL STORMWATER REQUIREMENTS

N/A

STAFF ANALYSIS AND RECOMMENDATION:

1. The applicant is requesting approval of the final development plan of Planned Development No. 303 on approximately 3.48 acres of property generally located at 1735 E Valley Water Mill Road for a multi-family development.
2. The subject property is currently being platted with the Preliminary Plat of Valley Water Mill Estates.
3. The Administrative Review Committee (ARC) recommended approval of the Final Development Plan on date January 18, 2024.
4. The final development plan for developments in Planned Development 303 requires recommendation by Planning and Zoning Commission and approval by City Council.

STAFF RECOMMENDATION:

1. The final development plan is in substantial conformity to the Planned Development Ordinance approved by City Council and staff recommends approval.

DWG NAME: W:\SW-Projects\3602-546 - Site\Valley Water Mill Rd Springfield\AutoCAD Drawings\3602-546 - Plan Sheet\KAS\SITE IMPROVEMENT PLANS\FINAL DEVELOPMENT PLAN.dwg PLOT DATE: Feb 05, 2024 - 3:49pm PLOTTED BY: cadd

OWNER/DEVELOPER
MORELOCK BUILDERS & ASSOCIATES
C/O CRYSTAL WEBSTER
222 E. OLIVE STREET
SPRINGFIELD, MO 65806
CWEBSTER@MORELOCKBUILDERS.COM

ZONING REQUIREMENTS
ALL UTILITIES TO BE PROVIDED BY:
CITY UTILITIES OF SPRINGFIELD
301 E. CENTRAL
SPRINGFIELD, MO 65802
417-863-9000

SITE AREA: 3.26 AC.
ZONING: PLANNED DEVELOPMENT

MAXIMUM PARKING REQUIREMENTS
1 BEDROOMS (36 + 1 SSP/UNIT) = 54
2 BEDROOMS (36 + 3 SSP/UNIT) = 72
TOTAL PARKING REQUIRED = 126
ACCESSIBLE SPACES = 9
STANDARD SPACES = 121
TOTAL PARKING PROVIDED = 126
BICYCLE PARKING (5 SPACES FOR 101-200 VEHICLE SPACES) = 5

MINIMUM OPEN SPACE REQUIRED = 20%
EXISTING OPEN SPACE = 99.95%
PROPOSED OPEN SPACE = 42.14%
MAXIMUM IMPERVIOUS ALLOWED = 80%

EXISTING IMPERVIOUS = 197 SF
IMPERVIOUS SURFACE = 0.1339%
EFFECTIVE IMPERVIOUS (197.26/141,830.46) = 0.1395%
PROPOSED IMPERVIOUS = 76,999 SF
IMPERVIOUS SURFACE = 0.5423%
EFFECTIVE IMPERVIOUS (59,788.23/141,830.46) = 0.4225%

INTERIOR LANDSCAPING FOR PROPOSED PARKING LOT:
LIVING INTERIOR LANDSCAPING AREA = 2,627 SF
PARKING AREA = 44,434 SF
MIN. % OF INTERIOR LANDSCAPING/PARKING AREA = 5%
INTERIOR LANDSCAPING/PARKING AREA PROVIDED = 5.91%

INTERIOR LANDSCAPING: THERE SHALL BE 2 UNDER-STORY TREES OR 1 CANOPY TREE PLANTED FOR EVERY 30 PARKING SPACES OR 12,000 SQUARE FEET OF PARKING OR VEHICLE USE AREA.
9 UNDER-STORY, AND 4 CANOPY TREES ARE REQUIRED. TREES ON SITE CURRENTLY MAY BE UTILIZED IF THEY MEET CHARACTERISTICS.

STREET FRONTAGE LANDSCAPING: THERE SHALL BE ON CANOPY ONE CANOPY, ONE UNDER-STORY, ORIENTAL OR EVERGREEN TREE AND 4 SHRUBS PER 100 LINEAR FEET. AREAS WHERE CANOPY TREES ARE NOT ALLOWED, EACH REQUIRED CANOPY TREE MAY BE REPLACED BY 2 UNDER-STORY, ORIENTAL OR EVERGREEN TREES.
(FOUR (4) CANOPY TREES, FOUR (4) ORNAMENTAL/EVERGREEN TREES, AND SEVEN (7) SHRUBS ARE REQUIRED AND ARE SHOWN ON EXHIBIT.)

BUFFERYARDS:
BUFFERYARD C (RMD TO RSP)

EAST PROPERTY LINE:
15' WIDE MINIMUM BUFFERYARD REQUIRED WITH (1) CANOPY TREES, (2) UNDER-STORY TREES, (2) EVERGREEN TREES, (10) SHRUBS PER 100 LINEAR FEET EXCEPT WHERE PAVEMENT CURRENTLY EXISTS.

20' WIDE BUFFERYARDS PROVIDED (0.8 PLANTING FACTOR USED)
REQUIRED PLANTINGS: LENGTH = 192'; 2 CANOPY, 4 UNDER-STORY, 4 EVERGREEN, 18 SHRUBS.

NORTH PROPERTY LINE:
15' WIDE MINIMUM BUFFERYARD REQUIRED WITH (1) CANOPY TREES, (2) UNDER-STORY TREES, (2) EVERGREEN TREES, (10) SHRUBS PER 100 LINEAR FEET EXCEPT WHERE PAVEMENT CURRENTLY EXISTS.

*EXISTING TREES MAY BE USED IN BUFFERYARD REQUIREMENTS
20' BUFFERYARDS PROVIDED (0.8 PLANTING FACTOR USED)
REQUIRED PLANTINGS: LENGTH = 485'; 4 CANOPY, 8 UNDER-STORY, 8 EVERGREEN, 39 SHRUBS.

WEST PROPERTY LINE: NOT REQUIRED
SOUTH PROPERTY LINE: NOT REQUIRED

LANDSCAPING NOTES

QUALITY: ALL TREES AND SHRUBS SHALL HAVE WELL-DEVELOPED LEADERS AND TOPS AND ROOT CHARACTERISTIC OF THE SPECIES, CULTIVAR OR VARIETY AND SHALL SHOW EVIDENCE OF PROPER NURSERY TRAINING. ALL PLANT MATERIALS MUST BE FREE OF INSECTS, DISEASE, MECHANICAL INJURIES AND OTHER OBJECTIONABLE FEATURES AT THE TIME OF PLANTING.

COVERAGE: GRASS, GROUND COVER, SHRUBS AND OTHER LIVING LANDSCAPE MATERIALS SHALL BE USED TO COVER ALL OPEN GROUND. TREES SHALL HAVE THE FOLLOWING CHARACTERISTICS:

CANOPY TREES SHALL BE DECIDUOUS TREES THAT HAVE A MINIMUM HEIGHT OF THIRTY FEET AT MATURITY. ALL CANOPY TREES SHALL HAVE A CALIPER WIDTH OF ONE AND ONE HALF INCH AT THE TIME OF PLANTING.

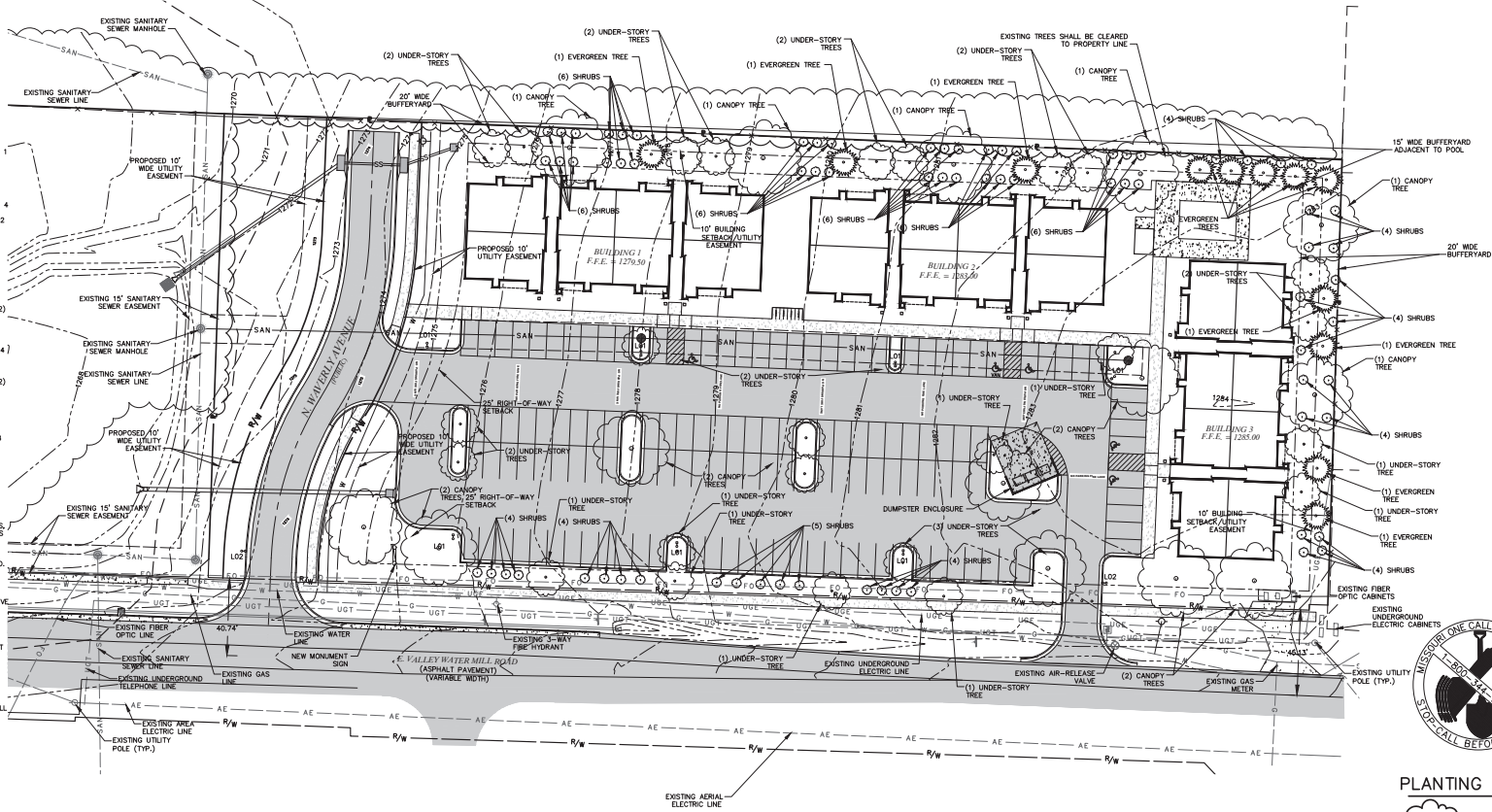
UNDER-STORY TREES SHALL BE DECIDUOUS TREES THAT HAVE A MAXIMUM HEIGHT OF LESS THAN THIRTY FEET AT MATURITY. ALL UNDER-STORY TREES SHALL HAVE A CALIPER WIDTH OF ONE INCH AT THE TIME OF PLANTING.

ORNAMENTAL TREES SHALL BE FLOWERING DECIDUOUS TREES. ALL ORNAMENTAL TREES SHALL HAVE A CALIPER WIDTH OF ONE INCH AT THE TIME OF PLANTING.

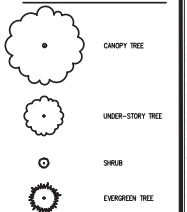
EVERGREEN OR CONIFER TREES SHALL HAVE A MINIMUM HEIGHT OF THIRTY FEET AT MATURITY. ALL EVERGREEN OR CONIFER TREES SHALL BE AT LEAST SIX FEET HIGH AT TIME OF PLANTING.

SHRUBS AND HEDGES: SHRUBS SHALL BE A MINIMUM OF 18" IN HEIGHT WHEN MEASURED IMMEDIATELY AFTER PLANTING. HEDGES, WHEN INSTALLED, SHALL BE PLANTED AND MAINTAINED SO AS TO FORM A CONTINUOUS, UNBROKEN, SOLID VISUAL SCREEN WHICH WILL BE AT LEAST THREE FEET HIGH WITHIN ONE YEAR AFTER TIME OF PLANTING.

FINAL DEVELOPMENT PLAN



PLANTING LEGEND



2024 North Eagle Street
O'Fallon, Missouri 63371
417-992-4105 (fax)
info@ochaan.com

OC
CHAAN

Missouri State Certificate of Authority Number:
Engineering: 0070302025
Surveying: 0070302025
Architectural: 0070302025
Land Subdividing: 0070302025
General Consulting: 0070302025
Master Planning: 0070302025

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF OCHAAAN. THEY ARE TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. NO PART OF THESE PLANS OR SPECIFICATIONS ARE TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF OCHAAAN.

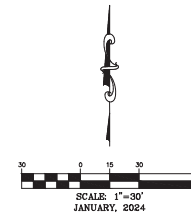
MISSOURI STATE BOARD OF ARCHITECTURE
REGISTERED ARCHITECT
JAMES D. OCHAAAN
FE-2018000268
5-24

SITE IMPROVEMENT PLANS
E. VALLEY WATER MILL ROAD
SPRINGFIELD, MO

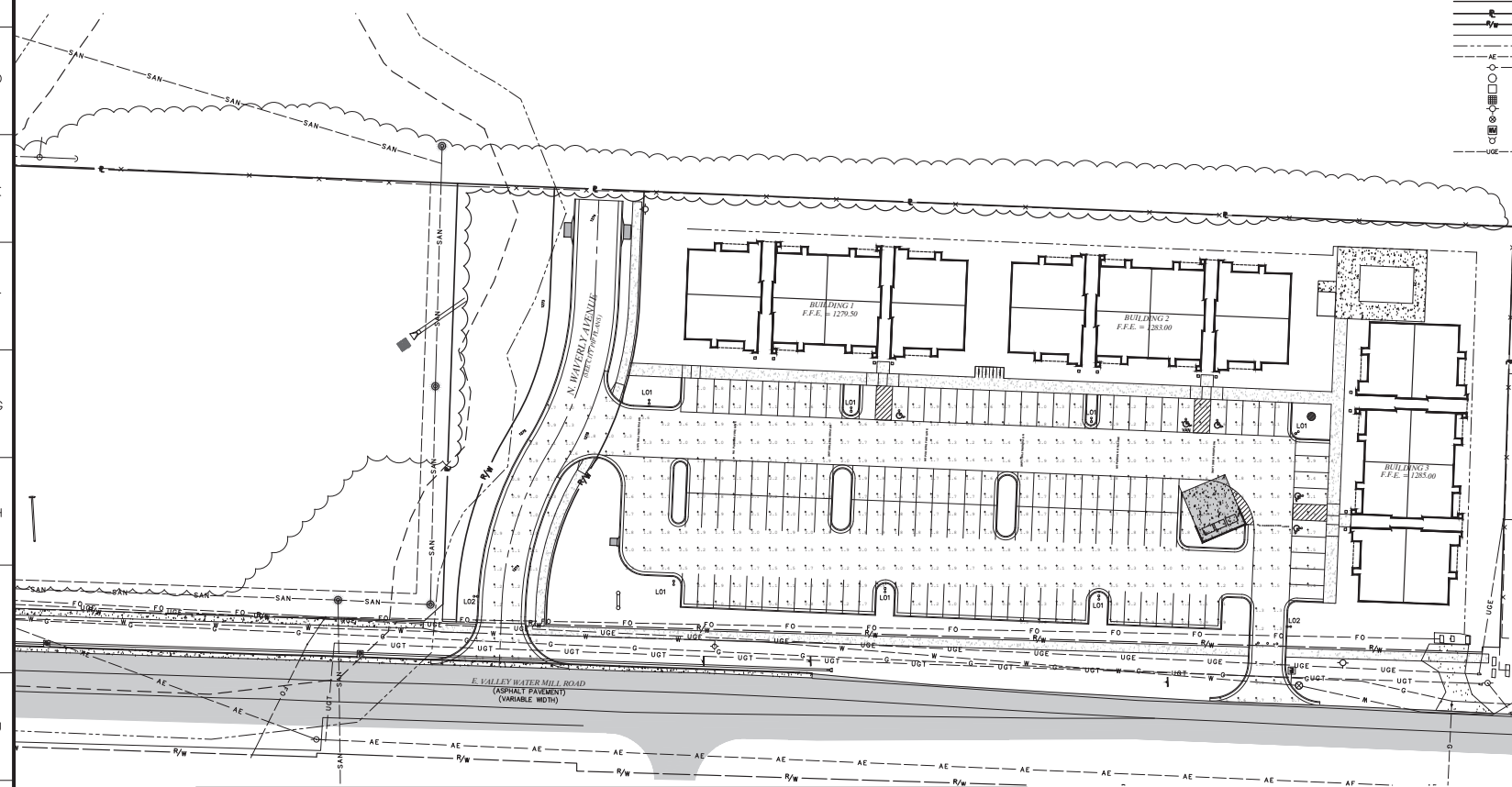
FINAL DEVELOPMENT PLAN

ADD TIES
FEB. 5, 2024
1" = 30'
SW23-546
FDP

SITE PHOTOMETRICS PLAN



LEGEND	
EXISTING	PROPOSED



Luminaire Schedule					
Symbol	Qty	Label	Arrangement	Description	LLF
	2	L02	Single	1 RSK2 LED P2 40K R5 MVOLT SPA ON 25' POLE AND 3' CONCRETE BASE	0.900
	7	L01	Single	1 RSK2 LED P2 40K R3 MVOLT SPA ON 25' POLE AND 3' CONCRETE BASE	0.900

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
parking lot	illumiance	Fc	1.79	3.8	0.5	3.58	7.60
south entrance	illumiance	Fc	0.97	1.3	0.5	1.94	2.60
west drive	illumiance	Fc	1.04	1.5	0.7	1.49	2.14
west entrance	illumiance	Fc	2.08	3.6	1.6	1.30	2.25

PRELIMINARY DRAWING

FOR REVIEW PURPOSES ONLY
NOT TO BE USED FOR CONSTRUCTION

215 S. 4th St. Ste. 100
Des Moines, IA 50319
515-281-4100
info@ochaan.com

OC
CH
AAN

Missouri State Certificate
of Authority Number:
Engineering: 007630025

Services:
• Architecture
• Civil Engineering
• Land Surveying
• Mechanical Engineering
• Electrical Engineering
• General Consulting
• Master Planning

SITE IMPROVEMENT PLANS
E. VALLEY WATER MILL ROAD
SPRINGFIELD, MO

SITE PHOTOMETRICS PLAN

DATE: 01/08/24
BY: JBS
CHECKED BY: TES

JAN. 8, 2024

SCALE: 1" = 30'

PROJECT NO: SW23-546

C4

Sparlin, Michael

From: STIDZ Media <stidzmedia@gmail.com>
Sent: Wednesday, March 13, 2024 4:59 PM
To: Zoning@springfieldmo.gov
Subject: 1735 E Valley Water Mill - Zoning

****CAUTION**** This email originated from outside the organization. Do not open attachments or click links from sources you do not know and trust.

To whom it may concern,

My name is Bruce Stidham and I live at 3625 N Stewart Ave, just to the east of the proposed residential development at 1735 E Valley Water Mill. Myself and my fellow neighbors have never been contacted about this new development but I was kindly sent a drawing of the proposal two days ago by Andrew at planning and zoning.

We are VERY concerned about the recent clearing of the forest on this land that destroyed the deer habitat, and furthermore the damage to the extensive Bat and Owl habitat that exists on this land. I am unable to appear at the upcoming planning and zoning meeting on March 14th as I am out of town on business.

Is there anyone I could speak to about this situation?

Regards,

Bruce Stidham

--

Bruce E. Stidham
Proprietor - **STIDZ Media**
Email: stidzmedia@gmail.com
Website: www.stidzmedia.com
Phone: (417) 838-7339



EXPLANATION TO COUNCIL BILL 2024-064 (HARDINGER)

FILED: 03/21/2024

ORIGINATING DEPARTMENT: Human Resources

TITLE: A special ordinance authorizing the payment of a one-time, \$2,000 retention incentive payment for eligible employees in the positions of 911 Telecommunicator, 911 Telecommunicator Lead, and 911 Shift Supervisor.

PURPOSE: To approve a retention incentive payment for specific 911 dispatcher positions, including all employees in the positions of 911 Telecommunicator, 911 Telecommunicator Lead, and 911 Shift Supervisor.

BACKGROUND INFORMATION: The City's Emergency Communications Department and the 911 industry have experienced unprecedented staffing shortages and difficulty retaining top talent in 911 dispatching positions. This situation has significantly strained operations and increased overtime for the City's existing workforce, yet the current 911 staff continues to operate at an extraordinarily high level. These city employees continue to demonstrate resilience in delivering critical emergency dispatching services to the citizens of Springfield and throughout Greene County.

Considering the current situation, the City is focused on several strategies for recruiting and retaining 911 dispatchers. This Council Bill details one of the strategies to retain current staff by presenting a one-time retention payment for employees of the City's Emergency Communications Center. Based on this strategy, a \$2,000 Retention Pay lump sum payment will be made to eligible employees on the May 9, 2024 payroll payment. To be eligible, an employee must be employed in one of the three positions as of April 28, 2024.

BUDGET NOTES: Funding was allocated and included in the current Fiscal Year 2024 budget that City Council adopted.

REMARKS: The recommendations and explanations are consistent with City Council's policies.

Submitted By: Darla Morrison, Director of Human Resources

Authorized for inclusion on the agenda pursuant to City Code section 2-33:
Jason Gage, City Manager 3/29/2024



Attachments: 1. 911 Retention Payment_Ord

One-rdg. _____
P. Hrngs. _____
Pgs. 4
Filed: 04-02-24

Sponsored by: Hardinger

First Reading: _____

Second Reading: _____

COUNCIL BILL 2024-064

SPECIAL ORDINANCE _____

AN ORDINANCE

1 AUTHORIZING the payment of a one-time, \$2,000 retention incentive payment for
2 eligible employees in the positions of 911 Telecommunicator, 911
3 Telecommunicator Lead, and 911 Shift Supervisor.
4 _____
5

6 WHEREAS, the Springfield-Greene County 9-1-1 Emergency Communications
7 Department has experienced staffing shortages and difficulty retaining staff in 911
8 dispatching positions; and
9

10 WHEREAS, a proposed one time retention incentive payment for employees in the
11 positions of 911 Telecommunicator, 911 Telecommunicator Lead, and 911 Shift
12 Supervisor was presented to the Greene County Commission and was included in the
13 Greene County budget allocation for salary expenses for the Springfield-Greene County
14 9-1-1 Emergency Communications Department; and
15

16 WHEREAS, the intergovernmental agreement between the City and Greene County
17 regarding the 9-1-1 Emergency Communications Department provides that the City will
18 pay all expenses necessary for operating the 9-1-1 Emergency Communications
19 Department and will then invoice Greene County for such expenses, and Greene
20 County will remit payment for approved expenses.
21

22 NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF
23 SPRINGFIELD, MISSOURI, as follows, that:
24

25 Section 1 – City Council hereby authorizes a one-time retention incentive payment of
26 \$2,000 to be paid to eligible employees within the 9-1-1 Emergency Communications
27 Department, as follows: All full-time employees that are employed, as of April 28, 2024,
28 in the positions of 911 Telecommunicator, 911 Telecommunicator Lead, or 911 Shift
29 Supervisor, shall receive a \$2,000 retention payment which will be included within their
30 May 9, 2024, payroll payment.
31

32 Section 2 – This Ordinance shall be in full force and effect from and after passage.
33

34 Passed at meeting: _____

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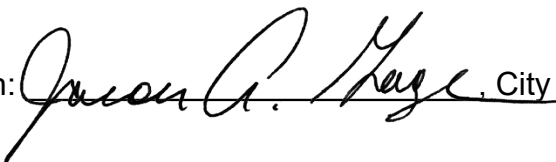
47

Mayor

Attest: _____, City Clerk

Filed as Ordinance: _____

Approved as to form: , Assistant City Attorney

Approved for Council action: , City Manager



EXPLANATION TO COUNCIL BILL 2024-065 (LEE)

FILED: 03/22/2024

ORIGINATING DEPARTMENT: Finance

TITLE: A special ordinance authorizing the City of Springfield, Missouri, to enter into a Funding, Licensing, and Services Agreement with Ozark Greenways, Inc., a Missouri Nonprofit Corporation, for the purpose of funding the Multi-Trail Gap Planning and Design Project for the not to exceed price of One Hundred Eighty Two Thousand and 00/100 Dollars (\$182,000.00); authorizing the City Manager or designee to execute the same by and on behalf of the City of Springfield; and amending the FY2023-2024 Adopted Budget by appropriating carryover funds from the FY2022-2023 Adopted Budget and increasing expenses in the amount of One Hundred Eighty Two Thousand and 00/100 Dollars (\$182,000.00).

PURPOSE: Authorizing the City to enter into an agreement with Ozark Greenways for the purpose of funding the Multi-Trail Gap Planning and Design Project for the not to exceed price of \$182,000.00 and amending the FY2023-2024 Adopted Budget by appropriating carryover funds from the FY2022-2023 Adopted Budget in the amount of \$182,000.00.

BACKGROUND INFORMATION: The City has \$182,000 in remaining carryover funds in the General Fund. These carryover funds are the result of actual revenue that exceeded the budget estimate and/or expenses that were lower than budget during the last fiscal year (2022-2023). The City wishes to amend the FY2023-2024 budget to provide one-time funds for the Multi-Trail Gap Planning and Design Project in the amount of \$182,000.00. The City also wishes to contract with Ozark Greenways to apply for an 80/20 matching grant through the Ozarks Transportation Organization. Funds will be used for the planning and design of “shovel ready” projects, specifically five trail segment connections that will provide for 18.94 miles of connected trail and close 3.01 miles of gaps with 10’ concrete multi-use trail. If Ozark Greenways’ grant application is unsuccessful, the funds will be returned to the City.

Submitted By: David Holtmann, Director of Finance

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Maurice S. Jones, Deputy City Manager 4/3/2024

Attachments:

1. City Manager Ord Authorizing Contract with Ozark Greenways for Trail Gap Project (1)
2. Draft Funding Service and License Agreement_Ozark Greenways_04 03 2024_clean

3. Carryover BA Ozark Greenways - Multi-Trail Gap Planning and Design Project

Sponsored by: Lee

First Reading: _____

Second Reading: _____

COUNCIL BILL 2024-065

SPECIAL ORDINANCE _____

AN ORDINANCE

1 AUTHORIZING the City of Springfield, Missouri, to enter into a Funding, Licensing, and
2 Services Agreement with Ozark Greenways, Inc., a Missouri Nonprofit
3 Corporation, for the purpose of funding the Multi-Trail Gap Planning
4 and Design Project for the not to exceed price of One Hundred Eighty
5 Two Thousand and 00/100 Dollars (\$182,000.00); authorizing the City
6 Manager or designee to execute the same by and on behalf of the City
7 of Springfield; and amending the FY2023-2024 Adopted Budget by
8 appropriating carryover funds from the FY2022-2023 Adopted Budget
9 and increasing expenses in the amount of One Hundred Eighty Two
10 Thousand and 00/100 Dollars (\$182,000.00).
11 _____
12

13 WHEREAS, there are \$182,000.00 in carryover funds remaining from the fiscal
14 year 2022-2023 budget; and
15

16 WHEREAS, carryover funds occur when actual revenue exceeds the City's
17 budget estimates or actual expenses are lower than the City's budget estimates; and
18

19 WHEREAS, City Council desires to amend the budget to provide one-time
20 funding for certain activities from carryover funds, specifically funding the Multi-Trail
21 Gap Planning and Design Project; and
22

23 WHEREAS, the City wishes to amend the budget for Fiscal Year 2023-2024 to
24 appropriate \$182,000.00 in carryover funds from Fiscal Year 2022-2023 and to provide
25 for \$182,000.00 in costs expected to be incurred, as set forth in "Exhibit B," Budget
26 Adjustment 061.
27

28 NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF
29 SPRINGFIELD, MISSOURI, as follows, that:
30

31 Section 1 – That the Funding, Licensing, and Services Agreement with Ozark
32 Greenways, Inc., a Missouri Nonprofit Corporation, for the purpose of funding the Multi-
33 Trail Gap Planning and Design Project for the not to exceed price of One Hundred

Eighty Two Thousand and 00/100 Dollars (\$182,000.00), a true and accurate copy of said Agreement being attached hereto and incorporated by reference as "Exhibit A," be and the same is hereby approved.

Section 2 – That the City Manager, or designee, is hereby authorized and directed to execute said Agreement, in the same or substantially similar form, by and on behalf of the City of Springfield.

Section 3 – The budget of the City of Springfield, Missouri, for Fiscal Year 2023-2024, is hereby amended in the accounts and amounts shown on Budget Adjustment No. 061, a true and accurate copy of the same being attached hereto and incorporated by reference as "Exhibit B."

Section 4 – City Council hereby finds that the budget adjustment made in Section 3 herein has been recommended by the City Manager.

Section 5 – The City Manager is hereby authorized and directed to cause the appropriate accounting entries to be made in the books and records of the City.

Section 6 – This Ordinance shall be in full force and effect from and after passage.

Passed at meeting: _____

Mayor

Attest: _____, City Clerk

Filed as Ordinance: _____

Approved as to form: _____, City Attorney or Assistant City Attorney

Approved for Council action: _____, City Manager

FUNDING, LICENSE, AND SERVICES AGREEMENT

THIS AGREEMENT ("this "Agreement") is made and entered into this ____ day of _____, 20__ ("the Effective Date"), by and between the City of Springfield, Missouri, a Missouri Municipal Corporation ("City"), and Ozark Greenways, Inc., a Missouri Nonprofit Corporation ("Greenways").

WITNESSETH:

WHEREAS, the Parties entered into Contract Number 2023-0801, a Funding Memorandum and Services Agreement, on or about June 30, 2023 ("the Master Agreement"); and

WHEREAS, the Master Agreement contemplates future Funding, License, and Service Agreements such as this Agreement; and

WHEREAS, City desires to enter into this Agreement for the purpose of funding the services described herein related to the Multi-Trail Gap Planning and Design Project for the not to exceed price of \$182,000; and

WHEREAS, Greenways desires to enter into this Agreement for the purpose of performing the services described herein related to the Multi-Trail Gap Planning and Design Project for the not to exceed price of \$182,000.

NOW, THEREFORE, in exchange for valuable consideration each received from the other, the receipt and sufficiency of which is hereby acknowledged, the Parties do hereby agree as follows:

PART A

ARTICLE 1: SCOPE OF SERVICES

- 1.1 Scope of Services:** Greenways agrees to perform the services herein set forth in connection with the project described in **Part B** in a satisfactory and proper manner as determined by City and in accordance with the terms set forth in this Agreement.
- 1.2 Non-Municipal Personnel and Services:** Greenways will secure, at Greenways' own expense, all personnel required to perform the services called for under this Agreement by Greenways. Such personnel shall not be employees of or have any contractual relationship with City except as employees or independent contractors of Greenways. All of the services required hereunder will be performed by Greenways or under Greenways' direct supervision, and all personnel engaged in the services shall be fully qualified and shall be authorized under state and local law to perform such services.
- 1.3 Period of Performance:** The services of Greenways are to commence as soon as practicable on or after the date of this Agreement, and shall be undertaken and completed in such sequence as to assure their expeditious completion in light of the purposes of this Agreement. Greenways must incur all costs associated with the project by April 22, 2025, and must expend all funds by October 22, 2025.

ARTICLE 2: COMPENSATION AND USE OF FUNDS

- 2.1 Regulation for Use of Funds:** The use of funds received pursuant to this Agreement shall be in accordance with the requirements of City; other regulations governing the use of these funds; and any amendments or policy revisions thereto which shall become effective during the term of this Agreement. *It is Greenways' responsibility to read, understand, and comply with these regulations.*
- 2.2 Vendor Registration:** Greenways must complete the necessary paperwork to become a vendor of City before any payment can be made. This includes completing City's vendor registration form(s), providing Greenways' current W-9, and City staff verifying Greenways' taxpayer ID with the IRS. The address on the Vendor Registration form must agree with the address on the invoice requesting reimbursement. If there are any changes, a new Vendor Registration form must be completed.
- 2.3 Total Payments:** City is limited by law with respect to the amount of money it can pay. Greenways expressly understands that in no event will the total amount of funds provided by City to Greenways under this Agreement exceed the sum of \$182,000. The Parties acknowledge and agree that the purpose of this contract is to provide 20% matching funds for an award of grant funding from the Ozark Transportation Organization in 2024. The Parties further acknowledge and agree that this contract is conditioned on Greenways' receipt of said grant funds, and, to the extent that said grant funds are not awarded to Greenways, any unused matching funds will be returned to City.
- 2.4** this contract is conditioned on Greenways' award of grant funding from the Ozarks Transportation Organization
- 2.5 Procurement Methods:** Greenways must have and use documented procurement procedures, consistent with the City's procurement policy, for the acquisition of property or services required under this Agreement.

ARTICLE 3: PROGRAM MONITORING

- 3.1 General:** City staff may evaluate progress based on the objectives, criteria, work schedule, and budget in **Parts B and C**, to determine if it is consistent with the initial purpose of the project and in compliance with City requirements. All data necessary to review and monitor project progress as determined by the City will be made available to City personnel or an auditor as designated by the City to oversee compliance monitoring. This includes, but is not limited to performance records and interviews with Greenways' staff, as required by City.
- 3.2 Financial Monitoring:** City staff may monitor, review, and evaluate the financial procedures of Greenways. All data necessary to review and monitor the financial procedures as determined by the City will be made available to City personnel or an auditor as designated by the City to oversee financial monitoring. This includes, but is not limited to financial records and interviews with Greenways' staff, as required by City.

- 3.3** **Projects Involving Construction or Renovation, or the Planning/Design for Either:** For all projects requiring construction or renovation, or for plans and design for future construction/renovation, Greenways must comply with the City building code, all zoning regulations, and meet or exceed any designs and/or specifications provided by City staff.

ARTICLE 4: AUDITS AND INSPECTIONS

- 4.1** **Audits and Inspections:** Greenways must establish an adequate accounting system on a current basis in accordance with generally accepted accounting principles and standards and in accordance with any specific requirements of the Director of Finance of City. Greenways personnel will make available to City staff, and any other auditor authorized by City, all program and accounting records and financial statements needed or requested by City or its Auditor(s). If any portion of the funds approved by this Agreement is subcontracted to other organizations for the delivery of objectives and criteria, Greenways will ensure that the fiscal and performance records of the subcontractor will be available for inspection by City personnel or duly authorized auditors by including appropriate clauses in all of its subcontracts that Greenways records must be available for review or audit by the appropriate officials of City.

ARTICLE 5: DOCUMENTATION AND RECORD KEEPING

- 5.1** **Establishment and Maintenance of Records:** Greenways shall establish and maintain records as prescribed by City, with respect to all matters covered by this Agreement.
- 5.2** **Record Requirements:** Greenways shall maintain all records required by the State of Missouri and/or City, and that are pertinent to the activities to be funded under this Agreement. Such records shall include but are not limited to:
- a. Records providing a full description of each activity undertaken;
 - b. Records required to determine the eligibility of activities;
 - c. Financial records that document all transactions and that can be properly documented and audited;
 - d. Copies of all bid documents, bids received, RFPs, RFQs, and any other procurement documents;
 - e. Copies of all third party or subcontracts; and
 - f. Detailed records on the Greenways' organization, financial and administrative systems, and the specific City-funded project(s) or activities.
- 5.3** **Retention of and Access to Records:** Greenways must consult with and remain in compliance with the Record Retention Guidelines published by the Missouri Secretary of State. If any litigation, claim, negotiation, or other action involving the records has been started before the expiration of the established retention period, the records must be retained until all litigation, claims, or audit findings involving the records have been resolved and final action taken. Greenways agrees that City, or any of its authorized representatives has access to and the right to examine all records which are pertinent to this Agreement. The right also includes timely and reasonable access to Greenways' personnel for the purpose of interview and discussion related to such records. The same right to review will be imposed upon any third party or subcontractor of Greenways.

ARTICLE 6: TERMINATION

6.1 Termination:

- a. Termination for breach: In the event that Greenways fails to comply with any term of this Agreement, City may suspend or terminate this Agreement, in whole or in part, or take other remedial action as it determines appropriate. Should City desire to terminate this Agreement for noncompliance, it shall first give written notice of the reason for proposed termination. The notice shall set forth the following:
 - i. Reasonable description of the default/reason for termination;
 - ii. Demand for a cure; and
 - iii. Statement of reasonable time within which a cure must be effected. Such reasonable time will be presumed to be not less than five, nor more than fifteen, business days. Such times shall be measured from the actual receipt of said notice.

If Greenways cures the default within the reasonable period of time set forth in the notice, or as otherwise agreed in writing between the parties, City shall not terminate the Agreement and the written notice of proposed termination shall be deemed revoked, null and void.

In the event of termination of this Agreement by City, when termination is due to Greenways noncompliance as set forth above, Greenways shall forfeit to City all unexpended monies provided under the Agreement.

- b. Termination for convenience: City may also terminate this Agreement for convenience with at least fifteen business days' written notice to Greenways.
- c. Termination for insufficient funding: Funding to be made available by City under this Agreement has been approved by the City Council. In the event that sufficient funds are not appropriated, at the sole discretion of City, this Agreement may be terminated in whole or in part with fifteen business days' written notice to Greenways.

ARTICLE 7: MISCELLANEOUS CLAUSES AND NOTICES

- 7.1 Terms Herein Controlling Provisions**: The terms of this Agreement shall prevail and control over the terms of any other conflicting provision in any other document relating to and a part of the Agreement.
- 7.2 Entire Agreement**. This Agreement contains the entire agreement of the parties. No modification, amendment, or waiver of any of the provisions of this Agreement shall be effective unless in writing specifically referring hereto and signed by all parties.
- 7.3 Assignability**: Neither City nor Greenways shall assign, sublet, or transfer any interest in this Agreement without the prior written consent of the other.
- 7.4 Subcontracting/Third Party Contracts**: Greenways agrees to furnish City with a copy of any and all third-party contracts that it executes in the performance of the work to be undertaken within the scope of this Agreement. Greenways agrees to incorporate or cause to be incorporated in all third-

party contracts or subcontracts funded under or as part of this Agreement provisions requiring all applicable Federal, State, and local laws, rules, and regulations to be adhered to in accordance with all parts of this Agreement. Specifically, Greenways agrees to require and monitor compliance by all contractors, subcontractors, and other third parties. Any third-party contract that is not in accordance with the outlined budget in this Agreement will be subject to the advance, written approval of City. Furthermore, City shall not be obligated or liable hereunder to any party other than Greenways.

7.5 **Headings.** The headings or captions of this Agreement are for convenience and reference only, and in no way define, limit, or describe the scope or intent of this Agreement or any provision hereof.

7.6 **Third Party Exclusion.** This Agreement is intended solely for the benefit of City and Greenways and is not intended to benefit, either directly or indirectly, any third party or member(s) of the public at large. No third party may sue for damages based on the terms or performance of this Agreement.

7.7 **Independent Contractor:** This Agreement does not create an employee/employer relationship between the parties. It is the parties' intention that Greenways will be an independent contractor and not City's employee for all purposes, including, but not limited to: the application of the Fair Labor Standards Act minimum wage and overtime payments, Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act, the provisions of the Internal Revenue Code, Missouri revenue and taxation laws, Missouri workers' compensation and unemployment insurance laws. Greenways will retain sole and absolute discretion in the judgment of the manner and means of carrying out Greenways' activities and responsibilities hereunder. Greenways agrees that it is a separate and independent enterprise from City, that it has a full opportunity to find other work, that it has made its own investment in its business, and that it will utilize a high level of skill necessary to perform the services. This Agreement shall not be construed as creating any joint employment relationship between Greenways and City, and City will not be liable for any obligation incurred by Greenways, including but not limited to unpaid minimum wages and/or overtime premiums.

7.8 **Liability and Indemnity.** The parties mutually agree to the following:

- a. In no event shall City be liable to Greenways for special, indirect, or consequential damages, except those caused by City's gross negligence or willful or wanton misconduct directly and solely resulting in a breach of this Agreement.
- b. Greenways shall defend, indemnify, and hold City harmless from and against all claims, including but not limited to losses, and liabilities arising out of personal injuries, including death, and damage to property, which are caused by Greenways arising out of or in any way connected with this Agreement.
- c. Greenways shall indemnify and hold City harmless from all wages or overtime compensation due Greenways' employees in rendering services pursuant to this Agreement, including payment of reasonable attorney fees and costs in the defense of any claim made under the Fair Labor Standards Act or any other federal or state law.

7.9 Insurance: Without limiting any of the other obligations or liabilities of Greenways, Greenways shall secure and maintain, at its own cost and expense, throughout the duration of this Agreement, and until the work is completed and accepted by City, insurance of such types and in such amounts as may be necessary to protect it, and the interests of City, against all hazards or risks of loss as hereunder specified, or which may arise out of the performance of this Agreement. The form and limits of such insurance, together with the underwriter thereof in each case, are subject to approval by City. Regardless of such approval, it shall be the responsibility of Greenways to maintain adequate insurance coverage at all times during the term of the Agreement. Failure of Greenways to maintain coverage shall not relieve it of any contractual responsibility or obligation or liability under this Agreement.

The certificates of insurance, including evidence of the required endorsements hereunder, or the policies, shall be filed with City at the time that this Agreement is signed by Greenways. All insurance policies shall provide thirty (30) days written notice to be given by the insurance company in question prior to modification or cancellation of such insurance. Such notices shall be mailed, certified mail, return receipt requested, to:

City of Springfield – Attn: City Manager’s Office, P.O. Box 8368, Springfield, MO 65801-8368 and

As of January 1, 2024, the minimum coverage for the insurance referred to herein shall be as set out below:

- a. Workers' Compensation....Statutory coverage per RSMo 287.010 et seq. Employer's Liability.....\$1,000,000.00
- b. Commercial General Liability Insurance, including coverage for Contractual Liability and Independent Contractors Liability. Such coverage shall apply to bodily injury and property damage on an "Occurrence Form Basis" with limits of at least One Million and 00/100 Dollars (\$1,000,000) for all claims arising out of a single accident or occurrence. Greenways agrees that the proceeds of such insurance policy shall first be used to pay any award, damages, costs, and/or attorneys' fees incurred by or assessed against City, its employees, officers and agents, before payment of any award, damages, costs or attorney fees of Greenways, its employees, officers or agents. Greenways agrees to cause its insurer to name City as an additional insured on such insurance policy, including City as an additional insured for coverage under its products-completed operations hazard, and said policy shall be primary and noncontributory.
- c. Automobile Liability Insurance covering bodily injury and property damage for owned, non-owned and hired vehicles, with limits of at least One Million and 00/100 Dollars (\$1,000,000) for all claims arising out of a single accident or occurrence. Subcontractor agrees to cause its insurer to name City as an additional insured on such insurance policy.

7.10 Confidentiality of Documents: Greenways, at such times and in such forms as City may require, shall furnish to the City, such statements, records, reports, data, and information City may request pertaining to matters covered by this Agreement. Any information, data, and other related materials prepared or assembled by Greenways under this Agreement which City requests to be kept as confidential shall not be made available to anyone other than an appropriate agency of the United States government without the prior written approval of City.

- 7.11 Identification of Documents and Projects:** All projects, reports, maps, news releases, and/or other documents undertaken as part of this Agreement, other than documents exclusively for internal use with City staff, shall contain the following posted information at the project site or the front cover or title page of any reports or documents, or in the case of maps, in an appropriate block: "City of Springfield", then name of Greenways, and, in the case of written material, the month and year of preparation and the following information regarding City assistance: "The funding of this project, report, map, document, etc., was financed (in whole or in part) through an award of funds from the City of Springfield."
- 7.12 Copyrights:** If this Agreement results in a book or other material that may be copyrighted, the author is free to copyright the work, subject to City regulations. City reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use and to authorize others to use all copyrighted material and all material that can be copyrighted.
- 7.13 Patents:** Any discovery or invention arising out of or developed in the course of work aided by this Agreement shall promptly and fully be reported to City for determination by City as to whether patent protection on such invention or patent discovery shall be sought and how the rights in the invention or discovery, including rights under the patent issued thereon, shall be disposed of and administered, in order to protect the public interest. All such determinations are subject to the City regulations.
- 7.14 Anti-Trust Litigation:** For good cause, and as consideration for executing this Agreement, Greenways, acting herein by and through its authorized agent, hereby conveys, sells, assigns and transfers to City all rights, title and interest in and to all causes of action it may now or hereafter acquire under the anti-trust laws of the United States and the State of Missouri relating to the particular product, products, or services purchased or acquired by Greenways pursuant to this Agreement.
- 7.15 Payment of Taxes:** City shall not be liable for the payment of any taxes levied by the City, State, or Federal Governments against Greenways, and all such taxes shall be paid by Greenways; however, should City nevertheless pay any such taxes, greenways shall immediately reimburse City.
- 7.16 Occupational License:** Greenways shall obtain and maintain an occupational license with City, if required by Springfield City Code, as well as any required state or federal license. The cost of this occupational license shall be borne by Greenways. This Agreement will not be executed by City until this occupational license has been obtained.
- 7.17 Affidavit for Contracts Over \$5,000.00.** That pursuant to Missouri Revised Statute Sections 285.525 through 285.550, if this Agreement exceeds the amount of \$5,000.00 and Greenways is associated with a business entity, Greenways shall provide a notarized affidavit acceptable to City stating that the associated business entity is enrolled in and participates in a federal work authorization program with respect to the employees working in connection with the contracted services, and that said business entity does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. Additionally, Greenways must provide documentation for said business entity evidencing current enrollment in a federal work authorization program.

- 7.18 Nonresident/Foreign Contractors.** Greenways shall procure and maintain during the life of this Agreement: a certificate from the Missouri Director of Revenue evidencing compliance with the transient employer financial assurance law, unless exempt pursuant to the provisions of Section 285.230 RSMo.
- 7.19 Certificate of Compliance with 34.600 RSMo. (Anti-Discrimination Against Israel Act).** That pursuant to Missouri Revised Statute Sections 34.600 et., seq., Greenways must provide a written certification of compliance with the Anti-Discrimination Against Israel Act, RSMo. 34.600 et.,seq. that Greenways is not currently engaged in and shall not, for the duration of the Agreement, engage in a boycott of goods or services from the State of Israel; companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel; or persons or entities doing business in the State of Israel. This section shall not apply to contracts with a total potential value of less than one hundred thousand dollars or to contractors with fewer than ten employees.
- 7.20 Training Required:** It shall be the responsibility of Greenways to participate in all appropriate training conducted by or as required by City.
- 7.21 Choice of Law:** This Agreement and every question arising hereunder shall be interpreted under and governed by the laws of the State of Missouri. Should any part of this Agreement be litigated, venue shall be proper only in the Circuit Court of Greene County, Missouri.
- 7.22 Compliance with Law.** Greenways shall comply with all applicable local, state and federal laws and regulations in carrying out this Agreement, regardless of whether said local, state and federal laws are specifically referenced in this Agreement.
- 7.23 Attorney Fees.** In the event of any litigation arising from breach of this Agreement, City shall be entitled to recover from Greenways all reasonable costs incurred for such litigation, including staff time, court costs, attorney fees, and all other related expenses incurred in such litigation.
- 7.24 Notices:** All notices required or permitted hereinunder and required to be in writing may be given by one of the following means: electronic mail (if to Greenways); sending the notice by a national recognized courier service, and addressed to the party to be notified, with a written receipt of delivery; or by first class mail, with return receipt requested, addressed to City or Greenways at the addresses shown below. The date of delivery of any notice provided by courier service or first class mail shall be the date of delivery as confirmed by receipt. The date of delivery of notice by electronic mail (if to Greenways) shall be deemed to be the date transmission occurs, except where the transmission is not completed by 5:00 p.m. on a regular business day at the location of the receiving party, in which case the date of delivery shall be deemed to fall on the next regular business day for the receiving party.

To City: City of Springfield
 ATTN: City Manager
 840 N. Boonville Ave.
 Springfield, MO 65802

With a copy to: City of Springfield
ATTN: City Attorney
840 N. Boonville Ave.
Springfield, MO 65802

To Greenways: Ozark Greenways' Executive Director
650 North Boonville, Suite 201
Springfield, MO 65806

With a copy to: Ozark Greenways' Board President
650 North Boonville, Suite 201
Springfield, MO 65806

7.25 Acceptance of Agreement: This Agreement shall not be considered accepted, approved or otherwise effective until the statutorily required approvals and certifications have been given.

IN WITNESS WHEREOF, THE PARTIES HERETO EVIDENCE THEIR AGREEMENT TO THE TERMS OF THIS Agreement BY THEIR SIGNATURES BELOW.

GREENWAYS

CITY OF SPRINGFIELD

BY: _____
PRINT NAME & TITLE:
DATE: _____

BY: _____
CITY MANAGER OR DEPUTY CITY MANAGER
DATE: _____

CERTIFICATE OF DIRECTOR OF FINANCE

I certify that the expenditure contemplated by this document is within the purpose of the appropriation to which it is to be charged and that there is an unencumbered balance of appropriated and available funds to pay therefor.

Director of Finance or Acting Director

APPROVED AS TO FORM BY: _____ CITY ATTORNEY OR ASSISTANT CITY ATTORNEY

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PART B
GREENWAYS INFORMATION, PROJECT SCOPE, AND TIMELINE

GREENWAYS INFORMATION

Greenways: Ozark Greenways, Inc
SAM UEI: VYGPMK8DXRN9
FUND SOURCE: City of Springfield, MO, Carryover Funds from 2022-2023 Fiscal Year
Award Amount: \$182,000

Address: 650 North Boonville, Suite 201
City: Springfield
State: MO
Zip Code + 4: 65806

Contact Person: Mary Kromrey, Executive Director
Contact Email: mary@ozarkgreenways.org
Contact Phone: 417-501-4674

PROJECT SCOPE

Project Overview:

Planning and design of multi-trail gap construction project as set out in attached “Exhibit 1-A” and “Exhibit 1-B,” which are incorporated herein by reference. The City shall own any real estate interests acquired and improvements made pursuant to this Agreement, including the “Five trail segment connections” described in the exhibits.

Trail Specification Minimums Obtained from City Staff:

- *Trail width at least ten (10) foot minimum; and
- *Trail path to be constructed with at least (6) inch concrete thickness, using minimum of 4,000 psi concrete, medium broom finish, control joints ten (10) feet on center, and expansion joints a maximum of one hundred (100) feet apart.

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PART C
PROJECT BUDGET
OZARK GREENWAYS, INC
TRAIL-GAP PLANNING AND DESIGN

Expense	Amount
Professional Services	\$
Local Match for OTO	\$
	\$
	\$
Total project costs:	\$182,000

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Proposed Trail Engineering Scope

“UNGAP the MAP Trails”



Background

Ozarks Greenways is interested in investing in trail projects that will connect the larger trail system to provide a connected network that can serve as a viable transportation option. Currently, Ozark Greenways, Public Works, and the Springfield-Greene County Parks Department have identified several connections that could be the next in line to be constructed if funding were available. The engineering and environmental work will be a benefit in advancing projects to receive full funding from a variety of sources, including federal transportation alternative funding, recreational trail funding, federal discretionary grants, and foundation grants. The primary objective will be to get design and environmental clearances completed to result in the development of ready-to-go construction projects for federal funding to assist with ungapping the trail map. Five trail segment connections have been identified that will provide for 18.94 miles of connected trail and close 3.01 miles of critical gaps with 10' concrete multi-use trail.



Trail 1 - South Creek Greenway Trail – Posenke Gap

Length: 2640 Linear feet trail gap along the South Creek Greenway Trail.

Description: The gap is within the South Creek Greenway Trail alignment.

- This .5-mile trail gap along the South Creek Greenway Trail provides for a direct trail connection to Wilson's Creek Greenway Trail.
- 10' wide concrete trail
- 10' boardwalk trail
- One (1) pedestrian bridge
- Equine Fencing

Schedule: Design would begin in June 2024. Construction could begin in May 2025 with additional funding.

Background Information: In March of 1991, a plan was approved for the South Creek Greenway trail, stretching from Meador Park on the east to the Wilson's Creek Greenway trail at Tal's Trailhead on the west. On September 21, 1991, Ozark Greenways (which was still a committee under Project Parkway,) broke ground on a “test” 1,000 feet segment of the South Creek Greenway trail. Thirty-two years later, the City of Springfield obtained all of the easements and right-of-way to fill the

remaining trail gap on each end of the trail. The eastern trail gap between National Avenue and Meador Park is funded and will be under construction in 2024. Ozark Greenways will be working with Public Works and Parks on the final design, environmental clearances, and fundraising for the western end in 2024 and 2025. Construction could begin in Spring 2025 if funded.

Engineering Cost Requested: \$160,378.66 design/engineering.

- \$128,302.93 Federal, \$32,075.73 Local Match

Item Description	Unit Cost	South Creek	
		Qty	Cost
Removal of Improvements			\$ 10,000.00
Earthwork (25% of trail pavement)			\$ 49,475.00
Concrete Trail- 10' (with base)	\$ 100.00 /LF	1,979	\$ 197,900.00
Boardwalk Trail - 10'	\$ 360.00 /LF	372	\$ 133,920.00
Bridge Costs	\$ 500,000.00 /EA	1	\$ 500,000.00
Retaining Walls	\$ 75.00 /SF		\$ -
16x10 Box Culvert	\$ 2,250.00 LF		\$ -
Seeding & Mulch	\$ 12,000.00 Ac	1	\$ 7,500.00
Signalized Pedestrian Crossing	\$ 25,000.00 ea		
Signage (1%)			\$ 9,097.95
Tree Protection			\$ 11,000.00
Erosion Control (2%)	\$ 30,000		\$ 11,195.90
Mobilization (10%)	\$ 90,000		\$ 90,979.50
Contingency (20%)			\$ 205,613.67
Construction Total:			\$ 1,226,682.02
Right of Way Acquisition			
Utilities (1%)			\$ 12,336.82
Preliminary Engineering (13%)			\$ 160,378.66
Construction Engineering (20%)			\$ 246,736.40
Project Total:			\$ 1,646,133.90



Trail 2 - Wilson's Creek Greenway Trail (Ewing Park West to Rutledge-Wilson Farm Park)

Length: 6864 linear feet connection from James Ewing Park (Hillcrest Trailhead) to Rutledge Wilson Park (James Ewing Park to Rutledge Wilson).

Description:

- 10' wide concrete trail from Hillcrest Ave to Rutledge Wilson Farm Park
- Two (2) Pedestrian bridges spanning Wilsons Creek and (1) pedestrian bridge spanning smaller drainage tributary
- Elimination of at-grade road crossing with dedicated trail under West Bypass (MoDOT route)
- Trail connections to Overhill Park, James Ewing Park, & Rutledge Wilson Farm Park
- Includes parking lot ADA and safety improvements

Schedule: Preliminary Engineering could begin July 2024 with funding agreement and consultant selection.

Background Information: This 1.2-mile trail connection opens up the system to the South Creek Greenway, the Jordan Creek Greenway, Fassnight Creek Greenway, and numerous on-street bikeways. The alignment begins at the western end of James Ewing Park and the existing western edge of the Wilson's Creek Greenway where it terminates near Hillcrest Avenue. The trail will provide a connection south over the washed-out Hillcrest Bridge with a new bridge to Bennett Street for an on-street connection. The trail continues northwest staying north of Wilson's Creek, provides a second pedestrian bridge over a drainage tributary, and provides an eastern connection/trailhead into Overhill park to the northeast and adjacent to Ewing neighborhood. The trail continues traveling west and crosses Wilson's Creek with a wide pedestrian bridge following the south side of the creek. It goes under West Bypass and connects to the existing Wilson's Creek Trail in the Rutledge-Wilson Farm Park.



Abandoned Bridge culvert over Wilsons Creek- Hillcrest Ave –
Future Pedestrian Bridge

Engineering Cost Requested – \$400,023.39

- \$320,018.71 Federal, \$80,004.68 Local

Item Description	Unit Cost	Wilson's Creek	
		Qty	Cost
Removal of Improvements			\$ 10,000.00
Earthwork (25% of trail pavement)			\$ 161,250.00
Concrete Trail- 10' (with base)	\$ 100.00 /LF	6,450	\$ 645,000.00
Boardwalk Trail - 10'	\$ 360.00 /LF		
Bridge Costs	\$ 500,000.00 /EA	2	\$ 1,000,000.00
Retaining Walls	\$ 75.00 /SF		
16x10 Box Culvert	\$ 2,250.00 LF	190	\$ 427,500.00
Seeding & Mulch	\$ 12,000.00 Ac	1	\$ 7,500.00
Signalized Pedestrian Crossing	\$ 25,000.00 ea		
Signage (1%)			\$ 22,692.50
Tree Protection			\$ 18,000.00
Erosion Control (2%)	\$ 30,000		\$ 45,385.00
Mobilization (10%)	\$ 90,000		\$ 226,925.00
Contingency (20%)			\$ 512,850.50
Construction Total:			\$ 3,077,103.00
Right of Way Acquisition			\$ 100,000.00
Utilities (1%)			\$ 30,771.03
Preliminary Engineering (13%)			\$ 400,023.39
Construction Engineering (20%)			\$ 461,565.45
Project Total:			\$ 4,069,462.87



Trail 3 - Jordan Creek Greenway Trail (Mt. Vernon Street to College Street)

Length: 2,245 linear feet connecting the existing Jordan Creek Trail to College Street

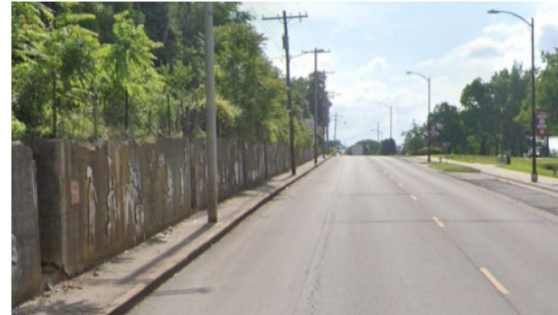
Description:

- 8'-12' wide concrete trail

- Sidewalk replacement and connection to MoDOT intersection improvements at Kansas Expressway
- Elimination of three (3) at-grade road crossings providing dedicated separated route under Mount Vernon Street, Kansas Expressway (MoDOT Route), and Walnut Street
- High Visibility Crosswalk Installations using features such as contrasting pavement markings, raised crossings, and/or rectangular rapid flashing beacons

Schedule: Preliminary Engineering could begin July 2024 with funding agreements and consultant selection.

Background Information: This trail connection will bridge the gap disconnect the Jordan Creek Greenway and add a connection to the existing Wilson's Creek Greenway to the southwest. This segment of the Jordan Creek Greenway begins at Mr. Vernon Street west of Kansas Expressway and follows the Jordan Creek northeast to College street where it will continue to the east of Grant St. The alignment spurs a new sidewalk connection north on Fort to the West Meadows Trailhead with the addition of a new pedestrian bridge to traverse Jordan Creek.



College St. looking West towards Kansas Expressway and future Jordan Creek Greenway connection- Sidewalk on south side of street is currently inaccessible due to utility poles centered within path.

Engineering Cost Requested – \$137,520.44

- \$110,016.35 Federal, \$27,504.09 Local

Item Description	Unit Cost	Jordan Creek	
		Qty	Cost
Removal of Improvements			\$ 12,000.00
Earthwork (25% of trail pavement)			\$ 56,125.00
Concrete Trail- 10' (with base)	\$ 100.00 /LF	2,245	\$ 224,500.00
Boardwalk Trail - 10'	\$ 360.00 /LF		
Bridge Costs	\$ 500,000.00 /EA		
Retaining Walls	\$ 75.00 /SF	9000	\$ 450,000.00
16x10 Box Culvert	\$ 2,250.00 LF		
Seeding & Mulch	\$ 12,000.00 Ac	5	\$ 22,500.00
Signalized Pedestrian Crossing	\$ 25,000.00 ea		\$ -
Signage (1%)			\$ 7,801.25
Tree Protection			\$ 15,000.00
Erosion Control (2%)	\$ 30,000		\$ 15,602.50
Mobilization (10%)	\$ 90,000		\$ 78,012.50
Contingency (20%)			\$ 176,308.25
Construction Total:			\$ 1,057,849.50
Right of Way Acquisition			\$ 110,000.00
Utilities (1%)			\$ 10,578.50
Preliminary Engineering (13%)			\$ 137,520.44
Construction Engineering (20%)			\$ 211,569.90
Project Total:			\$ 1,527,518.33



Trail 4 - Ward Branch Greenway Trail (National Avenue to Fremont Avenue)

Length: 1,900 linear feet between E Bradford Parkway and E Independence Street, from S National Avenue to S Fremont Avenue.

Description: This project will extend the existing Ward Branch Greenway trail from its current terminus at the Cox Health Campus to the planned Fremont Avenue Multi-Use Sidepath.

Schedule: Preliminary Engineering could begin July 2024 with funding agreements and consultant selection.

Background Information: This trail was identified in *Vision 2020*. There is currently a hard surface trail built that connects to Campbell Avenue on the west. OTO Regional Trail Study identified this trail alignment in 2017. This alignment was identified in 2020 in *Forward SGF* and the *Springfield-Greene County Parks & Recreation Master Plan*.

Engineering Cost Requested - \$43,188.60

- \$34,550.88 Federal, \$8,637.72 Local

Item Description	Unit Cost		Ward Branch	
			Qty	Cost
Removal of Improvements				\$ 10,000.00
Earthwork (25% of trail pavement)				\$ 43,500.00
Concrete Trail- 10' (with base)	\$ 100.00	/LF	1,740	\$ 174,000.00
Boardwalk Trail - 10'	\$ 360.00	/LF		
Bridge Costs	\$ 500,000.00	/EA		
Retaining Walls	\$ 75.00	/SF		
16x10 Box Culvert	\$ 2,250.00	LF		
Seeding & Mulch	\$ 12,000.00	Ac	1	\$ 7,500.00
Signalized Pedestrian Crossing	\$ 25,000.00	ea		\$ -
Signage (1%)				\$ 2,450.00
Tree Protection				\$ 10,000.00
Erosion Control (2%)	\$ 30,000			\$ 4,900.00
Mobilization (10%)	\$ 90,000			\$ 24,500.00
Contingency (20%)				\$ 55,370.00
Construction Total:				\$ 332,220.00
Right of Way Acquisition				
Utilities (1%)				\$ 3,322.20
Preliminary Engineering (13%)				\$ 43,188.60
Construction Engineering (20%)				\$ 66,444.00
Project Total:				\$ 445,174.80



Trail 5 - Fassnight Creek Greenway Trail (Skate Park to Fort Avenue)

Length: 2,256 linear feet along Fassnight Creek Trail Starting at current terminus west of Parkview High School on S Thelma Ave/W Meadowmere St. to S Fort Ave.

Description:

- 10' wide concrete trail from current terminus to S Fort Ave

- One (1) pedestrian bridge crossing the Fassnight Creek
- At-grade road crossing and Rapid Flash Beacon at terminus on S Fort Ave

Schedule: Preliminary Engineering could begin July 2024 with funding agreements and consultant selection.

Background Information: This project will increase the connectivity to the Fassnight Park, including the Parkview High School, JFK stadium and sports complex, skate park and pool with the neighborhood west of Fort Ave and Fassnight Park, including multiple apartment complexes and senior living facilities. The project will provide a safe route for school children and pedestrians from the neighborhood to the park and other primary pedestrian and bicycle corridors like Grant Avenue Parkway and the Link, the major north/ south bike corridor through Springfield. There is currently a bus stop at Fort/Bennett Street so can connect citizens to the transit system. The project would be the first step to close the gap in the Fassnight Creek Trail between the park and the Jordan Creek Trail along Ewing Sports Complex. The project would fill 26% of the current gap. The Fassnight Creek trail is one of the few east/west trail corridors in central Springfield, connecting numerous parks as well as Phelps Grove Park farther east, schools and cultural institutions like the Springfield Art Museum. Extension to the existing trail was identified as a planned priority trail project in the 2017 OTO Trail Investment Study.

Engineering Cost Requested - \$168,788.10

- \$135,030.48 Federal, \$33,757.62 Local

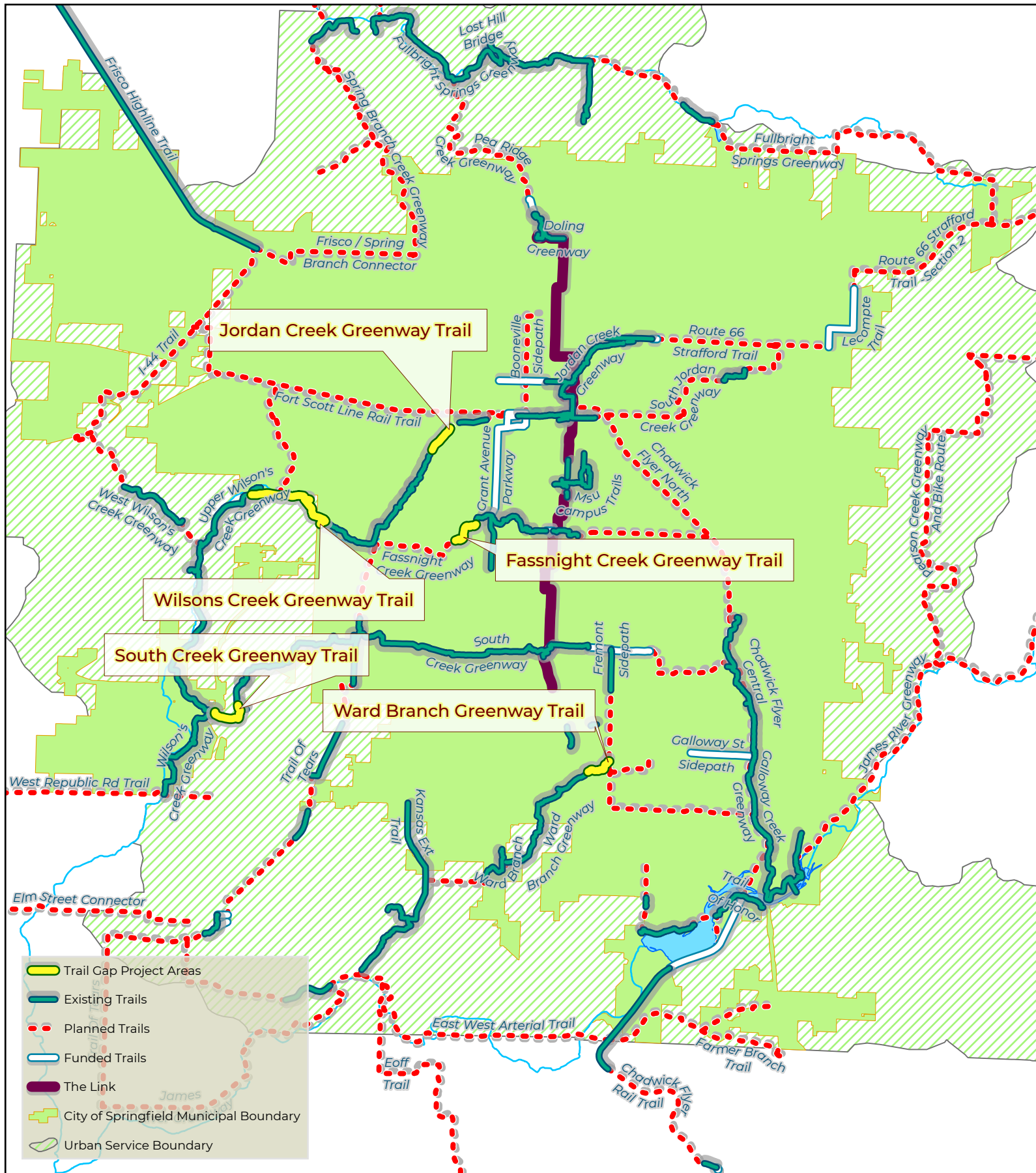
Item Description	Unit Cost	Fassnight Creek	
		Qty	Cost
Removal of Improvements			\$ 5,000.00
Earthwork (25% of trail pavement)			\$ 53,000.00
Concrete Trail- 10' (with base)	\$ 100.00 /LF	2,120	\$ 212,000.00
Boardwalk Trail - 10'	\$ 360.00 /LF		
Bridge Costs	\$ 500,000.00 /EA	1	\$ 500,000.00
Retaining Walls	\$ 75.00 /SF	2,500	\$ 125,000.00
16x10 Box Culvert	\$ 2,250.00 LF		
Seeding & Mulch	\$ 12,000.00 Ac	2	\$ 7,500.00
Signalized Pedestrian Crossing	\$ 25,000.00 ea	1	\$ 40,000.00
Signage (1%)			\$ 9,575.00
Tree Protection			\$ 15,000.00
Erosion Control (2%)	\$ 30,000		\$ 19,150.00
Mobilization (10%)	\$ 90,000		\$ 95,750.00
Contingency (20%)			\$ 216,395.00
Construction Total:			\$ 1,298,370.00
Right of Way Acquisition			\$ 60,000.00
Utilities (1%)			\$ 12,983.70
Preliminary Engineering (13%)			\$ 168,788.10
Construction Engineering (20%)			\$ 259,674.00
Project Total:			\$ 1,799,815.80



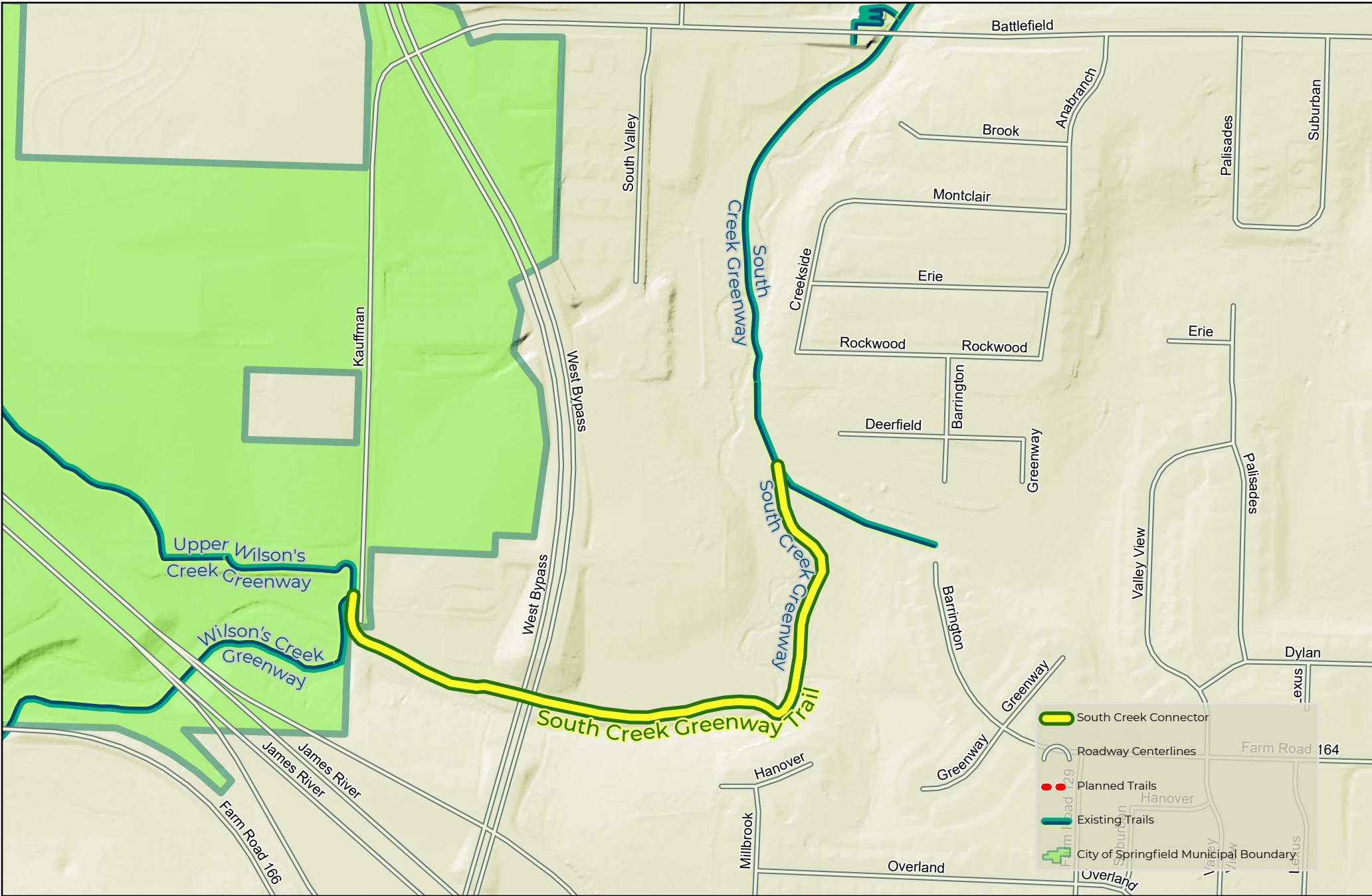
Estimated Project Costs Summary

Proposed Engineering Cost: \$909,899.19 - \$727,919.35 Federal, \$181,979.84 Local

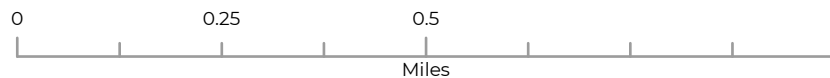
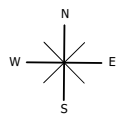
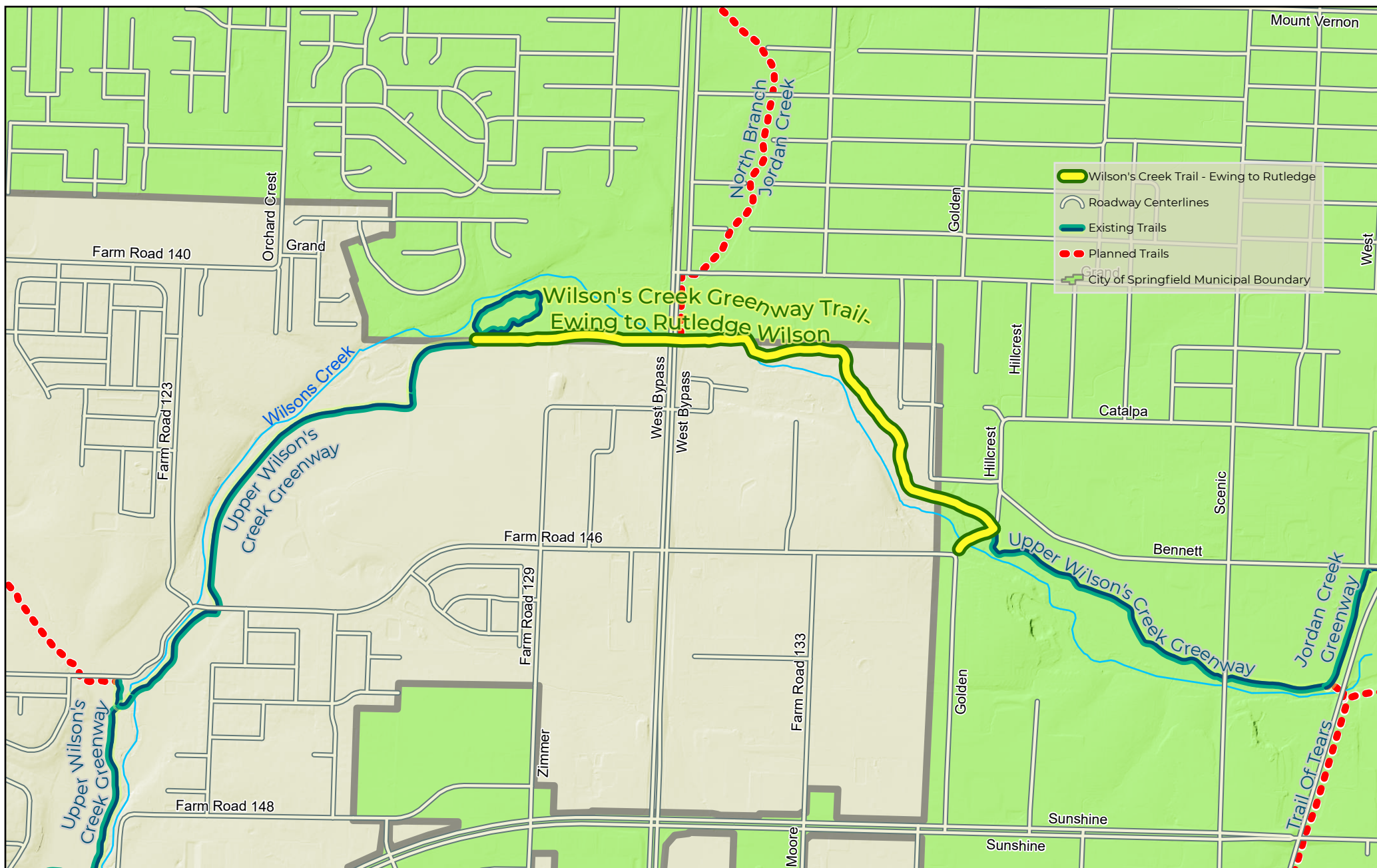
Item Description	Unit Cost	Unit	Wilson's Creek		Jordan Creek		South Creek		Ward Branch		Fassnight Creek		Totals
			Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	
Removal of Improvements		LS		\$10,000.00		\$12,000.00		\$10,000.00		\$10,000.00		\$5,000.00	\$47,000.00
Earthwork (25% of trail pavement)	\$25.00	LF	6,450	\$161,250.00	2,245	\$56,125.00	1,979	\$49,475.00	1,740	\$43,500.00	2,120	\$53,000.00	\$363,350.00
Concrete Trail - 10' width (with base)	\$100.00	LF	6,450	\$645,000.00	2,245	\$224,500.00	1,979	\$197,900.00	1,740	\$174,000.00	2,120	\$212,000.00	\$1,453,400.00
Boardwalk Trail	\$360.00	LF		\$0.00		\$0.00	372	\$133,920.00		\$0.00		\$0.00	\$133,920.00
Prefabricated Steel Bridge & Abutments	\$500,000.00	EA	2	\$1,000,000.00		\$0.00	1	\$500,000.00		\$0.00	1	\$500,000.00	\$2,000,000.00
Signalized Pedestrian Crossing	\$40,000.00	EA		\$0.00		\$0.00		\$0.00		\$0.00	1	\$40,000.00	\$40,000.00
Retaining Walls	\$50.00	SF		\$0.00	9,000	\$450,000.00		\$0.00		\$0.00	2,500	\$125,000.00	\$575,000.00
Box Culvert (16' x 10')	\$2,250.00	LF	190	\$427,500.00		\$0.00		\$0.00		\$0.00		\$0.00	\$427,500.00
Tree Protection		LS		\$18,000.00		\$15,000.00		\$11,000.00		\$10,000.00		\$15,000.00	\$69,000.00
Seeding & Mulch	\$7,500.00	ACRE	1	\$7,500.00	3	\$22,500.00	1	\$7,500.00	1	\$7,500.00	1	\$7,500.00	\$52,500.00
Signage & Pavement Markings (1%)				\$22,692.50		\$7,801.25		\$9,097.95		\$2,450.00		\$9,575.00	\$51,616.70
Erosion Control (2%)				\$45,385.00		\$15,602.50		\$18,195.90		\$4,900.00		\$19,150.00	\$103,233.40
Mobilization (10%)				\$226,925.00		\$78,012.50		\$90,979.50		\$24,500.00		\$95,750.00	\$516,167.00
Contingency (20%)				\$512,850.50		\$176,308.25		\$205,613.67		\$55,370.00		\$216,395.00	\$1,166,537.42
Construction Total				\$3,077,103.00		\$1,057,849.50		\$1,233,682.02		\$332,220.00		\$1,298,370.00	\$6,999,224.52
Right-of-Way Acquisition				\$100,000.00		\$110,000.00		\$0.00		\$0.00		\$60,000.00	\$270,000.00
Utilities (1%)				\$30,771.03		\$10,578.50		\$12,336.82		\$3,322.20		\$12,983.70	\$69,992.25
Preliminary Engineering (13%)				\$400,023.39		\$137,520.44		\$160,378.66		\$43,188.60		\$168,788.10	\$909,899.19
Construction Engineering (20%)				\$461,565.45		\$211,569.90		\$246,736.40		\$66,444.00		\$259,674.00	\$1,245,989.75
Prelim Engineering Local Funding (20%)				\$80,004.68		\$27,504.09		\$32,075.73		\$8,637.72		\$33,757.62	\$181,979.84
Prelim Engineering Federal Funding (80%)				\$320,018.71		\$110,016.35		\$128,302.93		\$34,550.88		\$135,030.48	\$727,919.35



South Creek Greenway Trail



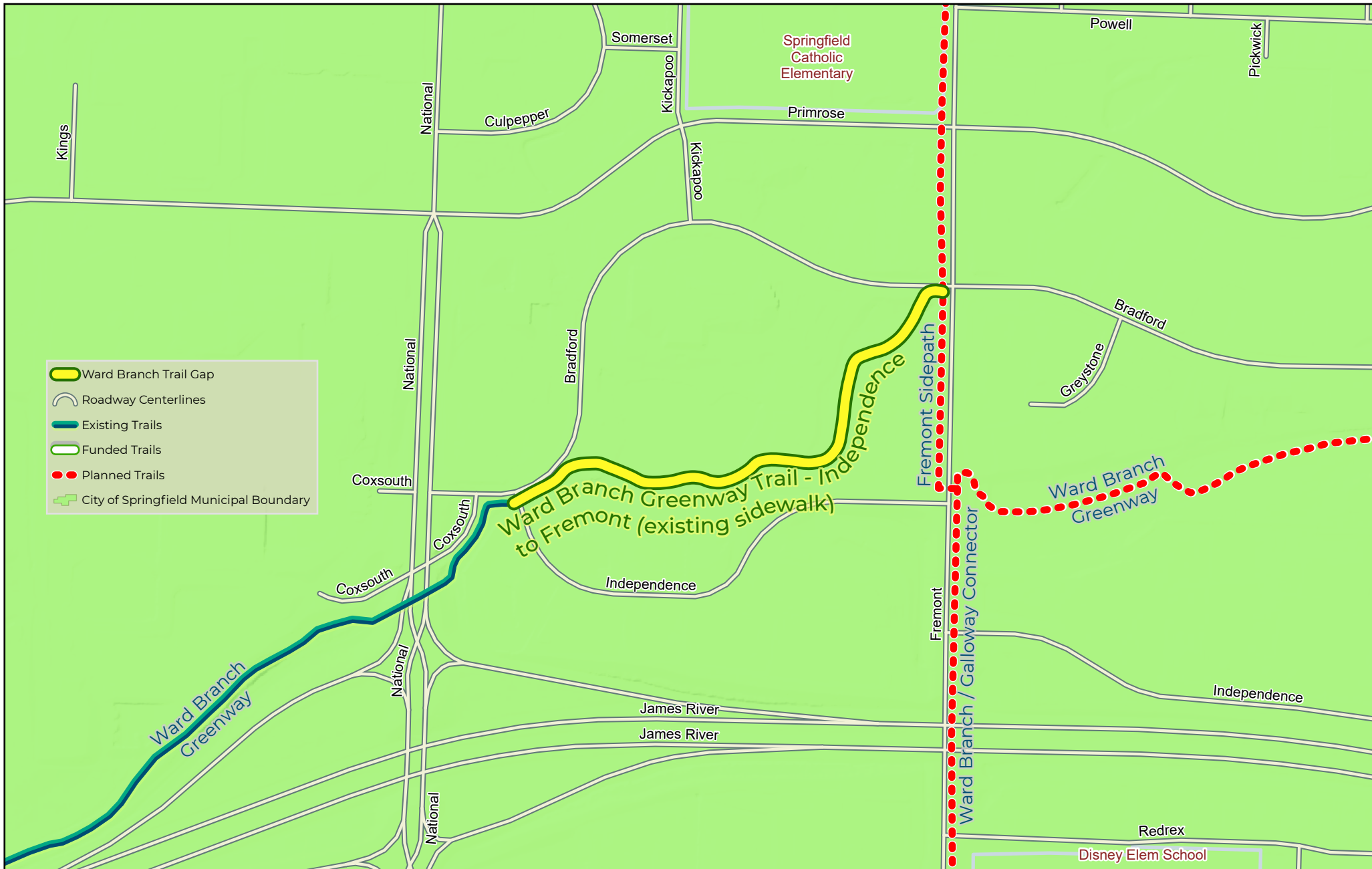
Wilson's Creek Greenway Trail



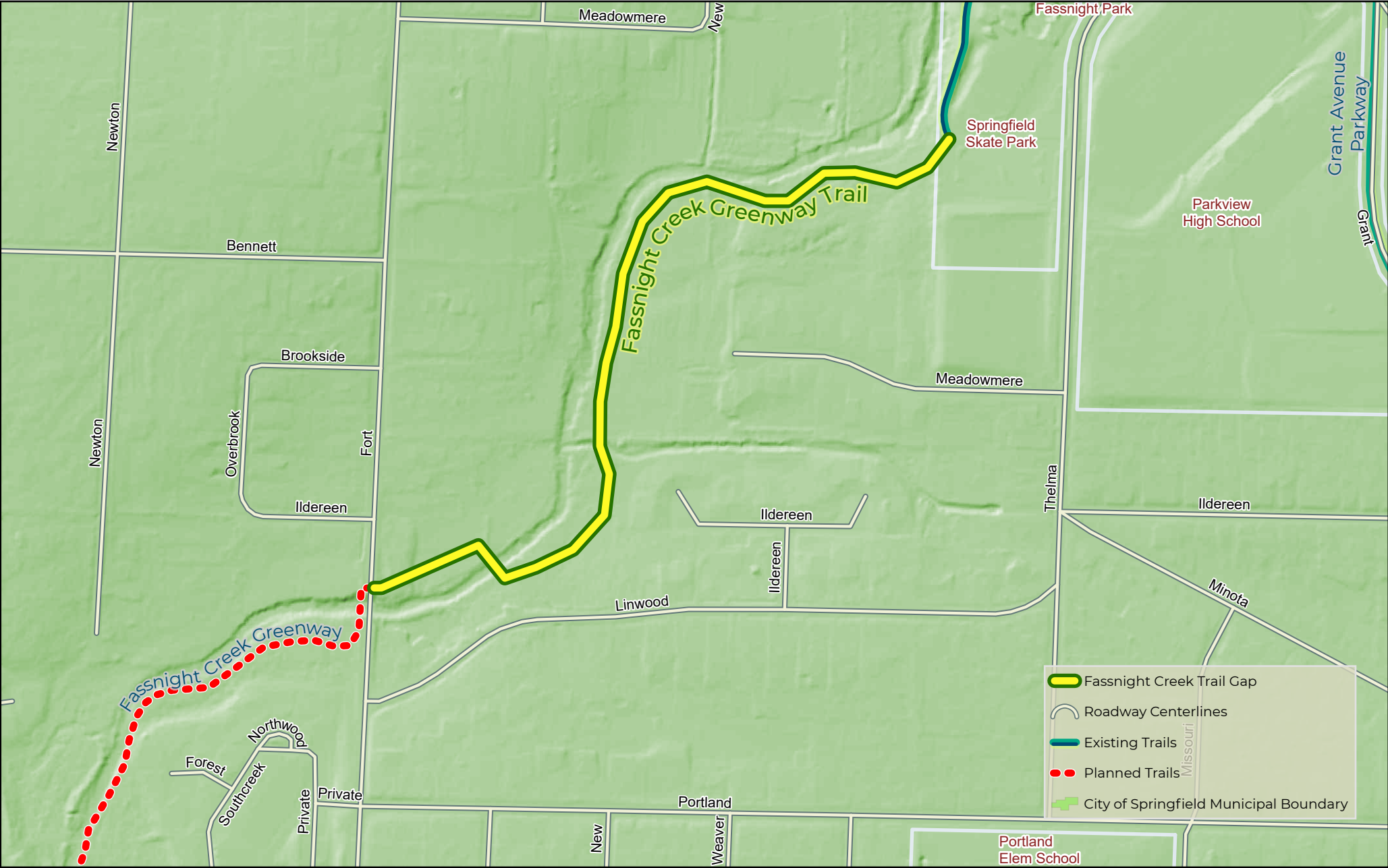
Jordan Creek Greenway Trail



Ward Branch Greenway Trail



Fassnacht Creek Greenway Trail



CITY OF SPRINGFIELD, MO
BUDGET ADJUSTMENT

Exhibit B

Budget Adjustment
061

Revenues:

Fund	Dept	Org	Account	P&G	Location	Amount	Description
Net Revenue Adjustment						\$ -	

Expenditures:

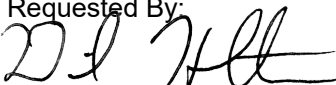
Fund	Dept	Org	Account	P&G	Location	Amount	Description
10110	16	80030	504580	000000	00000	182,000	Ozark Greenways - Multi-Trail Gap Planning and Design Project
Net Expenditure Adjustment						\$ 182,000	

Fund Balance Appropriation:

Fund	Title	Amount
10110	General Fund	(182,000)

Explanation: To amend the FY2023-24 General Fund budget by appropriating FY23 carryover for one-time needs.

Requested By:

 3-29-2024
Department Head Date

Approved By:

 3-29-2024
Director of Finance Date

City Manager Date

Authorization:

Council Bill No. 2024-065
Ordinance No. _____
1st Reading _____
2nd Reading _____
Journal Imp No. _____



EXPLANATION TO COUNCIL BILL 2024-066 (HARDINGER)

FILED: 03/19/2024

ORIGINATING DEPARTMENT: Public Works

TITLE: A special ordinance authorizing the City Manager, or designer, to enter into a Cooperative Agreement with the Board of Governors of Missouri State University for the purpose of curating any artifacts or records generated by the archaeological investigation conducted in support of the Renew Jordan Creek project.

PURPOSE: Authorizing the City Manager, or designee, to enter into a Cooperative Intergovernmental Agreement with the Board of Governors of Missouri State University for the curation of artifacts and records generated by the archaeological investigations conducted in support of the Renew Jordan Creek ("Project").

BACKGROUND INFORMATION: As part of United States Corps of Engineers ("USACE") Section 404 permit process, the USACE as the Project's Federal Partner, is required to comply with Section 106 of the National Historic Preservation Act. The City of Springfield, in coordination with the USACE and various consulting parties including Missouri State Historic Preservation Office ("SHPO") and numerous Native American Tribal representatives, is required to plan for ways to mitigate and address impacts to known and suspected historical sites within the Project area.

As part of the Section 106 requirements, and in consultation USACE, it was determined that a Programmatic Agreement ("PA") and a Memorandum of Agreement ("MOA") would be required to define the associated archeological investigation and impact mitigation for the Project. The pre-construction trenching scope of work is supporting work for the PA and Section 106 compliance. The intention of the pre-construction investigation trenching is to identify areas and concentrations of potential artifacts that will help inform the magnitude of construction monitoring by contracted archaeologists required during construction excavation activities.

There is potential for both the pre-construction investigation trenching and construction monitoring to generate archaeological artifacts associated with the two historical sites in the Project area (23GR2023, Springfield Wagon Shops & 23GR2024, Springfield Manufacturing Company). The Cooperative Intergovernmental Agreement ("Exhibit A") would serve as a curation agreement that allows archaeological artifacts generated as part of the Project to be curated by the Bernice S. Warren Center for Archaeological Research ("CAR") at Missouri State University. Curation of the archaeological artifacts is necessary for compliance with Section 106 requirements. A curation fee of \$1,458.14 will be paid to CAR for curation of artifacts recovered as part of the pre-construction trenching work. A curation fee for the construction monitoring has not been determined and will be informed by the results from the pre-construction trenching.



REMARKS: Public Works recommends approval of this Council bill.

Submitted By: Martin Gugel, Assistant Director of Public Works

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Maurice S. Jones, Deputy City Manager 3/29/2024

Attachments:

1. MSU Agreement-RJC Artifacts Curation_ord
2. MSU Curation Agreement_ExhA

One-rdg. _____
P. Hrngs. _____
Pgs. 6
Filed: 04-02-24

Sponsored by: Hardinger

First Reading: _____

Second Reading: _____

COUNCIL BILL 2024-066

SPECIAL ORDINANCE _____

AN ORDINANCE

1 AUTHORIZING the City Manager, or designee, to enter into a Cooperative Agreement
2 with the Board of Governors of Missouri State University for the
3 purpose of curating any artifacts or records generated by the
4 archaeological investigation conducted in support of the Renew Jordan
5 Creek project.
6 _____
7

8 WHEREAS, as part of United States Corps of Engineers ("USACE") Section 404
9 permit process, the City is required to comply with Section 106 of the National Historic
10 Preservation Act and develop plans to mitigate and address impacts to known and
11 suspected historical sites within the area of the Renew Jordan Creek project ("Project");
12 and
13

14 WHEREAS, pre-construction investigation trenching and construction monitoring
15 may potentially generate archaeological artifacts associated with two historic sites within
16 the Project area, and curation of any artifacts is necessary to comply with Section 106;
17 and
18

19 WHEREAS, the Bernice S. Warren Center for Archaeological Research ("CAR")
20 at Missouri State University is agreeable to curating any archaeological artifacts
21 discovered in exchange for a fee; and
22

23 WHEREAS, the fee for curation is \$1,458.14 for curation of any artifacts
24 discovered during pre-construction trenching work, and is yet to be determined for
25 curation of any artifacts discovered during construction monitoring.
26

27 NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF
28 SPRINGFIELD, MISSOURI, as follows, that:
29

30 Section 1 – City Council hereby authorizes the City Manager, or designee, to
31 enter into a Cooperative Agreement with the Board of Governors of Missouri State
32 University for the purpose of curating any artifacts or records generated by the
33 archaeological investigations conducted in support of the Renew Jordan Creek project

34 in an amount not to exceed \$16,458.14, said agreement to be in substantially similar
35 form to the document attached hereto and incorporated by reference as Exhibit A.
36

37 Section 2 – This Ordinance shall be in full force and effect from and after
38 passage.
39

40 Passed at meeting: _____
41

42 _____
43 Mayor
44

45 Attest: _____, City Clerk
46

47 Filed as Ordinance _____
48

49 Approved as to form:  _____, Assistant City Attorney
50
51

52 Approved for Council action:  _____, City Manager
53

EXHIBIT A

COOPERATIVE AGREEMENT

Cooperative Agreement between the **Board of Governors of Missouri State University** and the **City of Springfield, Missouri** for curation of artifacts and records generated by archaeological investigations conducted in support of the Renew Jordan Creek project.

It is mutually agreed as follows:

A. The Bernice S. Warren Center for Archaeological Research (CAR), Missouri State University shall:

1. Serve as a repository for collections of archaeological materials and associated documents resulting from archaeological investigations (e.g., trenching, monitoring, data recovery) conducted on behalf of the City of Springfield in support of the Renew Jordan Creek project.
2. Accession archaeological collections and documentation of their recovery and maintain them in a designated secure area at CAR.
3. Maintain the right to accept or reject any collection due to its size, nature, or lack of adequate documentation.
4. Allow access to collections deposited on behalf of the City of Springfield for study and exhibition per CAR policy.
5. Provide space for viewing the collection pending adequate advance notification.

B. The City of Springfield, Missouri shall:

1. Pay to CAR \$1,458.14 for curation of artifacts recovered during pre-construction trenching work, and an additional curation fee not to exceed \$15,000 for curation of artifacts recovered during construction.

[Signature Page Follows]

City of Springfield

Approved By:

City Manager or Deputy City Manager

Date: _____

Approved as to Form:

City Attorney or Assistant City Attorney

Date: _____

Certificate of Director of Finance

I certify that the expenditure contemplated by this document is within the purpose of the appropriation to which it is to be charged and that there is unencumbered balance of appropriated and available funds to pay therefor.

Director of Finance or Acting Director

Date: _____

Missouri State University

By:

Brad Bodenhausen
VP, Global and Community Partnerships

Date: _____



EXPLANATION TO COUNCIL BILL 2024-067 (HARDINGER)

FILED: 03/18/2024

ORIGINATING DEPARTMENT: Economic Vitality

TITLE: A resolution confirming the appointment of David Lewis and Misty Ware and the reappointment of Brad Fisher and Joe Reynolds to the Southern Hills Community Improvement District Board of Directors.

PURPOSE: To appoint David Lewis and Misty Ware and reappoint Brad Fisher and Joe Reynolds to the Southern Hills Community Improvement District Board of Directors. (Staff recommends approval.)

BACKGROUND INFORMATION: As required by the petition establishing the Southern Hills Community Improvement District ("CID"), the Mayor shall appoint directors to the CID Board of Directors with the consent of the City Council. The CID Board of Directors requests the following appointments:

Seat	Name	Qualification	Term	Notes
1	Misty Ware	Property Owner	4/9/2028	New Appointment
3	Brad Fisher	Property Owner	4/9/2028	Reappointment
6	David Lewis	Property Owner	4/9/2028	New Appointment
7	Joe Reynolds	Property Owner	4/9/2028	Reappointment

REMARKS: Staff recommends approval.

Submitted By: Matthew Schaefer, Senior City Planner

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Maurice S. Jones, Deputy City Manager 3/29/2024

Attachments: 1. Southern Hills CID Board Appointment_Ord

One-rdg. X
P. Hrngs.
Pgs. 3
Filed: 04-02-24

Sponsored by: Hardinger

COUNCIL BILL 2024-067 RESOLUTION

A RESOLUTION

1 CONFIRMING the appointment of David Lewis and Misty Ware and the
2 reappointment of Brad Fisher and Joe Reynolds to the Southern Hills
3 Community Improvement District Board of Directors.
4
5

6 WHEREAS, on April 9, 2018, City Council passed Special Ordinance 27019,
7 approving a petition to establish the Southern Hills Community Improvement District
8 ("CID") and thereby establishing the same; and
9

10 WHEREAS, said petition established the qualifications of and process for
11 appointment of members to the Southern Hills CID Board of Directors through
12 appointment by the Mayor with confirmation by City Council; and
13

14 WHEREAS, there is currently a need to appoint four (4) members to the
15 Southern Hills CID Board of Directors to serve terms through April 9, 2028; and
16

17 WHEREAS, the Southern Hills CID Board of Directors submitted a slate to the
18 City Clerk recommending the appointment of David Lewis and Misty Ware and the
19 reappointment of Brad Fisher and Joe Reynolds to the Southern Hills CID Board of
20 Directors.
21

22 NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF
23 SPRINGFIELD, MISSOURI as follows, that:
24

25 Section 1 – The Mayor hereby appoints, and City Council hereby confirms such
26 appointment, of David Lewis to the Southern Hills Community Improvement District
27 Board of Directors, with his term to expire on April 9, 2028.
28

29 Section 2 – The Mayor hereby appoints, and City Council hereby confirms such
30 appointment, of Misty Ware to the Southern Hills Community Improvement District
31 Board of Directors, with her term to expire on April 9, 2028.
32

33 Section 3 – The Mayor hereby reappoints, and City Council hereby confirms such
34 reappointment, of Brad Fisher to the Southern Hills Community Improvement District
35 Board of Directors, with his term to expire on April 9, 2028.
36

Section 4 – The Mayor hereby reappoints, and City Council hereby confirms such reappointment, of Joe Reynolds to the Southern Hills Community Improvement District Board of Directors, with his term to expire on April 9, 2028.

Section 5 – This Resolution shall be effective immediately upon adoption.

Passed at meeting: _____

Mayor

Attest: _____, City Clerk

Filed as Resolution _____

Approved as to form: Maureen E. Hall, Assistant City Attorney

Approved for Council action: Jason G. Page, City Manager



EXPLANATION TO COUNCIL BILL 2024-068 (HOSMER)

FILED: 03/20/2024

ORIGINATING DEPARTMENT: Economic Vitality

TITLE: A resolution confirming the appointment of David Holtmann and the reappointment of Martin Gugel and Rob Haik to the SGF Sports Community Improvement District Board of Directors.

PURPOSE: To appoint David Holtmann and reappoint Martin Gugel and Rob Haik to the SGF Sports Community Improvement District Board of Directors. (Staff recommends approval.)

BACKGROUND INFORMATION: As required by the petition establishing the SGF Sports Community Improvement District (CID), the Mayor shall appoint Directors to the CID Board of Directors with the consent of the City Council. The CID Board of Directors requests the following appointments to the Board.

Seat	Name	Qualification	Term Expires	Notes
3	Martin Gugel	City of Springfield Official/Employee	11/15/2027	Reappointment
4	Rob Haik	Property Owner Representative	11/15/2027	Reappointment
5	David Holtmann	City of Springfield Official/Employee	11/15/2027	New Appointment

REMARKS: Staff recommends approval.

Submitted By: Matthew Schaefer, Senior City Planner

Authorized for inclusion on the agenda pursuant to City Code section 2-33:

Maurice S. Jones, Deputy City Manager 3/29/2024

Attachments: 1. SGF Sports CID Board Appointments _Res

One-rdg. X
P. Hrngs.
Pgs. 3
Filed: 04-02-24

Sponsored by: Hosmer

COUNCIL BILL 2024-068 RESOLUTION

A RESOLUTION

1 CONFIRMING the appointment of David Holtmann and the reappointment of Martin
2 Gugel and Rob Haik to the SGF Sports Community Improvement
3 District Board of Directors.
4
5

6 WHEREAS, on November 15, 2021, City Council passed Special Ordinance
7 27597, approving a petition to establish the SGF Sports Community Improvement
8 District ("CID") and thereby establishing the same; and
9

10 WHEREAS, said petition established the qualifications of and process for
11 appointment of members to the SGF Sports CID Board of Directors through
12 appointment by the Mayor with confirmation by City Council; and
13

14 WHEREAS, there is currently a need to appoint three (3) members to the SGF
15 Sports CID Board of Directors to serve terms through November 15, 2027; and
16

17 WHEREAS, the SGF Sports CID Board of Directors submitted a slate to the City
18 Clerk recommending the appointment of David Holtmann and the reappointment of
19 Martin Gugel and Rob Haik to the SGF Sports CID Board of Directors.
20

21 NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF
22 SPRINGFIELD, MISSOURI as follows, that:
23

24 Section 1 – The Mayor hereby appoints, and City Council hereby confirms such
25 appointment, of David Holtmann to the SGF Sports Community Improvement District
26 Board of Directors, with his term to expire on November 15, 2027.
27

28 Section 2 – The Mayor hereby reappoints, and City Council hereby confirms such
29 reappointment, of Martin Gugel to the SGF Sport Community Improvement District
30 Board of Directors, with his terms to expire on November 15, 2027.
31

32 Section 3 – The Mayor hereby reappoints, and City Council hereby confirms such
33 reappointment, of Rob Haik to the SGF Sport Community Improvement District Board of
34 Directors, with his terms to expire on November 15, 2027.
35

36 Section 4 – This Resolution shall be effective immediately upon adoption.

37 Passed at meeting: _____

38

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49

50

Mayor

Attest: _____, City Clerk

Filed as Resolution _____

Approved as to form: Laura Vales, Assistant City Attorney

Approved for Council action: Jason A. Hays, City Manager