



Springfield Art Museum

Building and Grounds

Committee Meeting

March 21, 2024

4:00 PM

Community Room
1111 East Brookside Drive
Springfield, MO 65807

TENTATIVE AGENDA

1. **Call to Order**
2. **Approval of Meeting Minutes**
 - 2.1. 3/4/2024 Meeting Minutes
3. **Director's Report**
 - 3.1. 2024 Roofing Study
 - 3.2. Food & Beverage Concept
4. **Adjournment**

In accordance with Americans with Disabilities Act (ADA) guidelines, if you need special accommodations when attending any City meeting, please notify the City Clerk's Office at 417-864-1651 as soon as possible to ensure our ability to accommodate your needs.

**Springfield Art Museum
Building & Grounds Committee Meeting Minutes
Monday, March 4, 2024
Springfield Art Museum Community Room - 12:00 p.m.**

Board Members Present:

- | | |
|---|--|
| ☒ Alia Lee | ☒ Amanda Stadler (Chair) |
| ☒ Holly Acharya | ☐ Matt Edwards |
| ☐ Marco Denis | ☒ Tracy McGrady |
| ☐ Mark Wheeler | ☐ Valorie Rogers |

Staff Members Present: Nick Nelson (Museum Director)

Others Present: None

Call to Order: Meeting called to order by Amanda Stadler at 12:02 PM

Approval of Minutes: Tracy McGrady made a motion to approve the minutes from the February 15 committee meeting. The motion was seconded by Holly Acharya. The motion carried and the minutes were approved.

Director's Report: Nick Nelson provided a review of the HVAC system from the February 15 meeting. He stated that there were initial concerns regarding the maintenance of the ice tank system, but that the committee member with those concerns reached out and stated that after researching the matter, they no longer have those concerns. The committee had no questions regarding the proposed HVAC systems.

Nick presented a study of the Museum's current HVAC systems which included the current status of the various components and their replacement costs. To summarize the study, within the next 5 years the Museum will have to replace many of the major components of its current HVAC system. The estimated cost of components that are in need of immediate replacement is \$860K. Total cost to replace all components is between \$1.4M and 2.4M. These cost estimates do not include design, drawings, engineering, etc.

Nick stated that the next meeting the HVAC and Roofing studies would be discussed as well as Food Service for the new facility.

Committee members requested that Nick send a calendar invite for the upcoming City Council Lunch when the Museum expansion and renovation will be discussed.

Other Items: None

Adjournment: Meeting adjourned at 12:39 PM.

Submitted by: Nick Nelson, Museum Director

HVAC Assessment



The purpose of this report is to outline the condition of the HVAC system in leu of the Art Museum renovation project. After meeting with Gold Mechanical to discuss the past work done on the units and to get their opinion on the system, the following outlines which components of the system can be reused in the new building, and what would need to be replaced due to age or the availability of parts. The estimated replacement costs of these units are for replacement of the current system only and do not include relocation, chilled/hot water loops, mezzanines, or square footage changes. These estimates are from internet research only and are not based on quotes.

HVAC Assessment

Chiller Plant:

-Series R Air-cooled Rotary Liquid Chillers.

-Refrigerant: R-22

- (Being phased out) hard to find

-Will be very expensive to recharge

-Parts are no longer manufactured.

-Units are already being pieced together with parts that are not meant for these units.

-Coils have had multiple repairs and are brittle.

-Chiller 2 Circuit 2 needs solenoid replaced **\$10,000**

-Possible Lifespan: **0**

Estimated Unit Replacement cost:

- Now: \$350,000.00 (per unit)
- 5 years: \$387,500.00 *Based on a 3% material cost inflation annually. (per unit)
- Estimated length of project = 160 hours
- Heat exchanger and pumps:
 - o 1 heat exchanger = \$6,000.00 + 3% annually
 - o 4 pumps \$2,500.00 per pump = \$10,000.00 + 3% annually
- Gold crew: Based on standard time Cat 2 in contract.
 - o Journeyman \$75 per hour x 2 = \$12,000.00
 - o Apprentice \$65 per hour x 3 = \$10,400.00
 - o Total Labor \$ 22,400.00

*Prices in 5 years will be higher
- Totals:
 - o 2 Units
 - o Now = \$500,000.00 + 22,400.00 + \$16,000.00 = **\$638,400.00**
 - o 5 years = \$575,000.00 + 22,400.00 + \$18,400.00 = **\$715,800.00**

*It is my opinion that the Chiller plant needs replacement during the remodel project.



HVAC Assessment

Air Handlers:

New wing AHU:

- Good condition
- Has had a new coil installed.
- Bearings have no issues.
- Replacement cost - **\$80,000.00** Based on \$5 per CFM @ 16,000cfm potential.

*Estimated life expectancy 10 years w/ proper maintenance



Fresh Air unit:

- Good condition
- Bearings have no issues.
- Drain pan in good shape.
- Replacement cost - **\$66,000.00** Based on \$5 per CFM @ 13,200cfm potential.

*Estimated life expectancy 10 years w/ proper maintenance



Musgrave Wing:

- Good condition
- Bearings have no issues.
- Drain pan in good shape.
- Replacement cost - **\$20,000.00** Based on \$5 per CFM @ 4,000cfm potential.

*Estimated life expectancy 8 years w/ proper maintenance

***Not tied into chiller loop**



HVAC Assessment

Musgrave Restrooms:

- Good condition
- Bearings have no issues.
- Drain pan in good shape.
- Replacement cost - **\$10,000.00** Based on \$5 per CFM @ 2,000cfm potential.

*Estimated life expectancy 6 years w/ proper maintenance

***Not tied into chiller loop**



Lower Vault:

- Passable condition
- Bearings have high pitched noise with a slight wobble.
- Drain pan in good shape.
- Replacement cost estimate- **\$10,000.00** Based on \$5 per CFM @ 2,000cfm potential.

*Estimated life expectancy 3 years

***Recommend replacement during project**



Weisel/Kelly:

- Good condition
- Bearings have no issues.
- The drain pan is rusted but not through.
- Replacement cost estimate - **\$15,000.00** Based on \$5 per CFM @ 3,000cfm potential.

*Estimated life expectancy 10 years w/ proper maintenance



HVAC Assessment

Upper Vault:

- Good condition
- Bearings have been replaced but are making a grinding noise.
- Drain pan in good shape.
- Replacement cost estimate - **\$8,000.00** Based on \$5 per CFM @ 1,600cfm potential.

*Estimated life expectancy 8 years w/ proper maintenance

***Not tied into chiller loop**



Daikins:

- Working condition
- Many complaints.
- Unable to maintain environment.
- Do not recommend keeping.

***Not tied into chiller loop**



HVAC Assessment

Auditorium units:

- Condition – Not operating at this time.
- Leaking valves
- Bearings need to be replaced.
- Repair estimate = **\$5,000 each unit**
- Replacement cost estimate = **\$15,000.00** per unit. Based on \$5 per CFM @ 3,000cfm potential.

*Recommend replacement during remodel



FCU's:

Shop FCU:

- Good Condition
- No Issues at this time
- Replacement cost estimate = **\$6,000.00** Based on \$5 per CFM @ 1,200cfm potential.



HVAC Assessment

Condenser Units:

Upper Vault-

- Good condition
- Compressor has been replaced.
- Fan motor has been replaced.
- Replacement cost = **\$6,000.00**

*Estimated life expectancy 10 years w/ proper maintenance



Musgrave Wing-

- Good condition
- VFD and contactors have been replaced.
- Fan motor has been replaced.
- Replacement cost = **\$8,000.00**

*Estimated life expectancy 10 years w/ proper maintenance



Musgrave Restrooms-

- Good condition
- Pressure switches have been replaced.
- Fan motor has been replaced.
- New TXV
- Replacement cost = **\$3,000.00**

*Estimated life expectancy 8 years w/ proper maintenance



HVAC Assessment

Back of House-

- Condition - working
- End of Life
- Replacement cost = \$4,000.00

*Estimated life expectancy 0 years Recommend replacement.

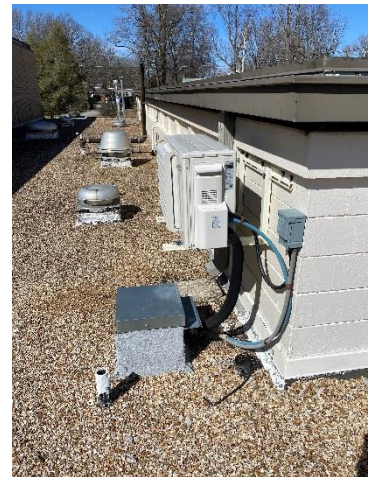


Mini Split:

Security Office-

- Good condition
- Replacement cost = \$4,500.00

*Estimated life expectancy 10 years w/ proper maintenance



HVAC Assessment

Frame Shop FCU:

- Does not currently work.
- Replacement estimate **\$2,500.00**



Back of House FCU:

- Good condition
- Older unit/ Past life
- Replacement estimate **\$2,500.00**



West Hall FCU:

- Good condition
- Older unit/ Past life
- Replacement estimate **\$1,500.00**



HVAC Assessment

Humidifiers:

Musgrave Wing:

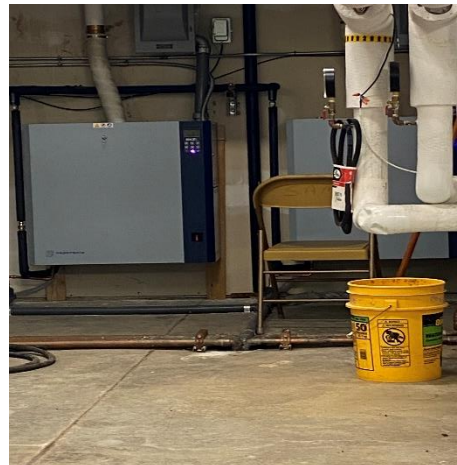
- Most of the components have been replaced on this unit. It requires tank replacements during PM's. This unit is working properly.
- Estimated life – 5 years before parts are discontinued.
- Replacement Price - **\$8,000**



New Wing:

- Good condition
- New tanks in both units.
- Heating elements need to be replaced.
- New temp sensors installed.
- Replacement cost - **\$20,000.00**

*Estimated life expectancy 8 years w/ proper maintenance



Weisel/Kelly:

- Good condition
- Has cleanable tank
- Will need to replace the heating elements soon.
 - o New elements = \$800
- New unit **\$4,000.00**

*Estimated life expectancy 8 years w/ proper maintenance



HVAC Assessment

Lower Vault:

- Working condition
- End of life /Parts discontinued.
- Replace as soon as possible.
- Replacement = **\$4,000.00**



Upper Vault:

- Most of the components have been replaced on this unit. It requires tank replacements during PM's. This unit is working properly.
- Estimated life – 5 years before parts are discontinued.
- Replacement Price - **\$4,000.00**



HVAC Assessment

Boilers:

Aerco:

- Current condition Good
- Constant breakdowns
- Both have had the ignition boards and sensors replaced.
- Parts are expensive.
- Replacement cost for both **\$60,000.00**

*Estimated life – 5 years before parts are discontinued and hard to find.



Lochinvar FTXL:

- Condition – Good
- No issues at this time
- Replacement cost = **\$10,000.00**

*Estimated life – 8 years before parts are discontinued and hard to find.



HVAC Assessment

Review:

In immediate need of replacement: The components of the HVAC system in the table below are components I believe need to be replaced due to age, availability of parts, condition of the equipment, and the past repair records.

Component	Estimated Cost
Chiller Plant	\$715,800.00
Boiler Plant	\$60,000.00
Auditorium Units	\$30,000.00
Lower Vault AHU	\$10,000.00
ED Wing System to tie into main	\$35,000.00
Lower Vault Humidifier	\$4,000.00
FCU's	\$6,500.00

Estimated Total = \$860,500.00

*This does not account for Architectural Design/Drawings, Engineering, or any other costs except for materials and labor which could be greater or lower based on brand and size increase/decrease.

Total Replacements: The below table is if all HVAC equipment as it is currently is replaced.

Chiller Plant	\$715,800.00
Boiler Plant	\$70,000.00
AHU's	\$30,000.00
Condensers	\$21,000.00
Ed Wing	\$35,000.00
Humidifiers	\$40,000.00
FCU's	\$6,500.00
Mini Splits	\$4,500.00
BAS/Building Automation System	\$500,000.00 to \$1,500,000.00

*BAS estimate is a broad amount due to the unknown extent of work and material needed at this time.

Estimated Total Depending on cost of the BAS is \$1,422,800.00 to \$2,422,800.

*This does not account for Architectural Design/Drawings, Engineering, or any other costs except for materials and labor which could be greater or lower based on brand and size increase/decrease.

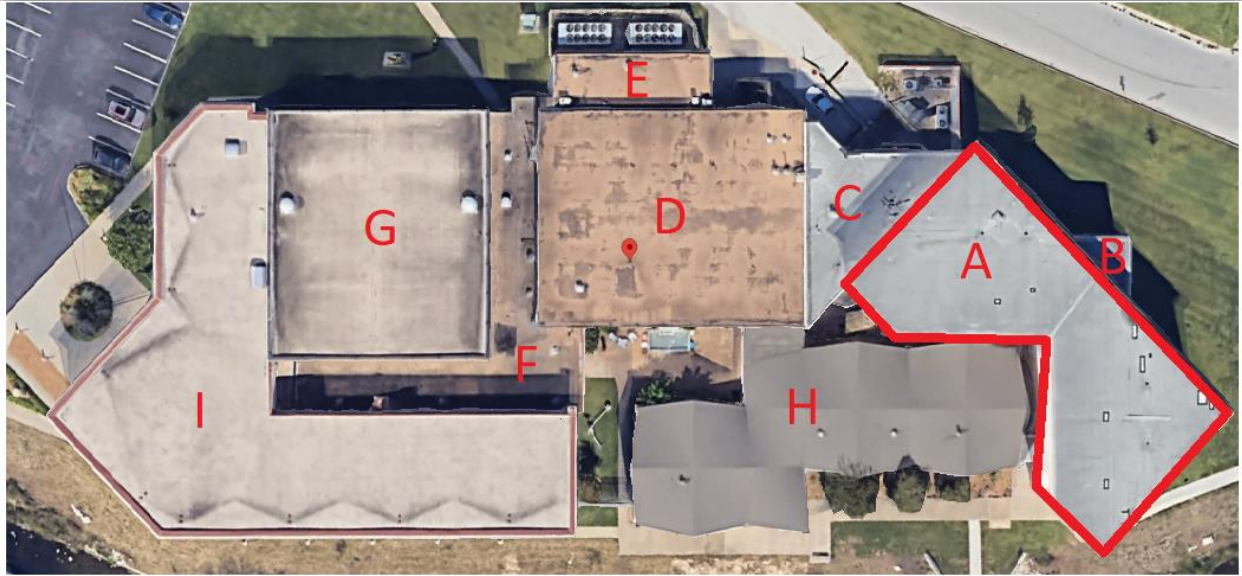


Roof Assessment Report 2024

Facility Coordinator

JR Sowers

Roof A Musgrave Wing



General Information:

Year installed – 2014.

Roof Size – 7,148 sqft

Warranty – Expires March 9, 2034

Installation Contractor – Shay Roofing Inc.

Roof Type – Modified Bitumen

Ply Information –

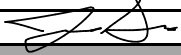
- 2 ply Fiberglass
- 1 ply Base Fiberglass
- .25" Gypsum
- 1ply Polyisocyanurate mechanically attached.

Deck Type - Metal

Replacement Estimate - **\$107,220.00** based on \$15.00 Sqft assessment by warranty company.

Current condition: Good, minor repairs needed

Monthly Roof Inspection Report

Month Ending:	March		Roof:	Roof A Musgrave		
Property Name:	Springfield Art Museum					
Inspected By/Date:	James Sowers					
Signature:						
Roof System	Check For/Possible Issues	Good	Fair	Poor	N/A	Resolution/ Steps Taken
Field of Roof	Inspect Roofing material is free from rips, tears, holes, soft areas, and any other deficiencies. Make sure there are no plants/weeds growing on roof.		Fair			Multiple repaired areas, some failing
Expansion Joints	Movement, missing caulk, or cracking		Fair			Some joints failing and need to redone
Walls/Parapets	Settling cracks, missing mortar, does it need to be cleaned/painted	Good				
Coping/Facia	Look for separation in the seems, missing caulk. Are they rusted, need to be painted.		Fair			
Base Flashing	Check attachment, is the caulk dry rotted. In need of replacement.		Fair			Blister in one area with seam separation
HVAC Units	Are they in working condition, is there units that are abandoned and need to be removed. Check for rusted pans and open duck work. Check curbs	Good				
Penetrations	Are the pitch pans full and in good shape. Are the pipe boots in good condition. Check weather heads.	Good				
Drainage Systems	Check all gutters, downspouts, roof drains, and scuppers. Make sure they are free from debris and plant material. Clean out gutters if needed.		Fair			Missing one drain cover
Interior Roof Deck	Look for cracking, water spots, and signs of movement.	Good				
Ceilings	Stained or missing tiles/dry wall	Good				
Metal	attachment and rusting		Fair			Roof access hatch rusting
Roof Edges	Deterioration	Good				
Davits/Roof anchors	Are they tight, corrosion, Are they inspected annually				N/A	
Lightning Protection	Attached, rusted, and cable cleats still attached.				N/A	
Cleanliness	Look for building materials left behind by contractors. Mildew, plant material, and or moss. Does the roof need walk mats.	Good				
Roof ladders/Access	Attachment, and in working order. Is it locked or need to be locked. Does the access door work properly.		Fair			Rusting roof hatch
Other	Abandoned antenna dishes, Grease guards, hoods or vents, are the cables ran properly, does all the lighting work, electrical outlets and switches.				N/A	

Roof	Missing drain cover	
A		

Roof	Previous repairs	
A		

Roof	Failing repair	
A		

Roof	Flashing cracking	
A		

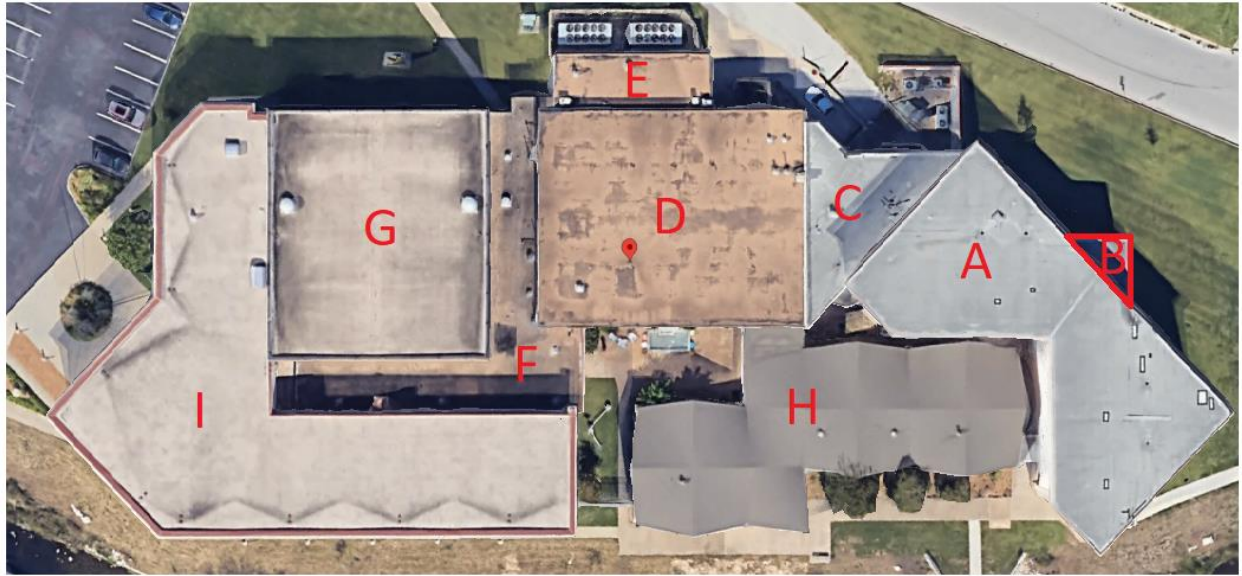
Roof	Expansion Joints Failing, needs to be redone	
A		

Roof	Expansion Joints Failing, needs to be redone	
A		

Roof	Blister and open seam	
A		

Roof	Roof access is rusted, needs to be painted	
A		

Roof B Musgrave Wing



General Information:

Year installed – 2014.

Roof Size – 364 sqft

Warranty – Expires March 9, 2034

Installation Contractor – Shay Roofing Inc.

Roof Type – Modified Bitumen

Ply Information –

- 2 ply Fiberglass
- 1 ply Base Fiberglass
- .25" Gypsum
- 1ply Polyisocyanurate mechanically attached.

Deck Type - Metal

Replacement Estimate - **\$5,460.00** based on \$15.00 Sqft assessment by warranty company.

Current condition: Fair, minor repairs needed

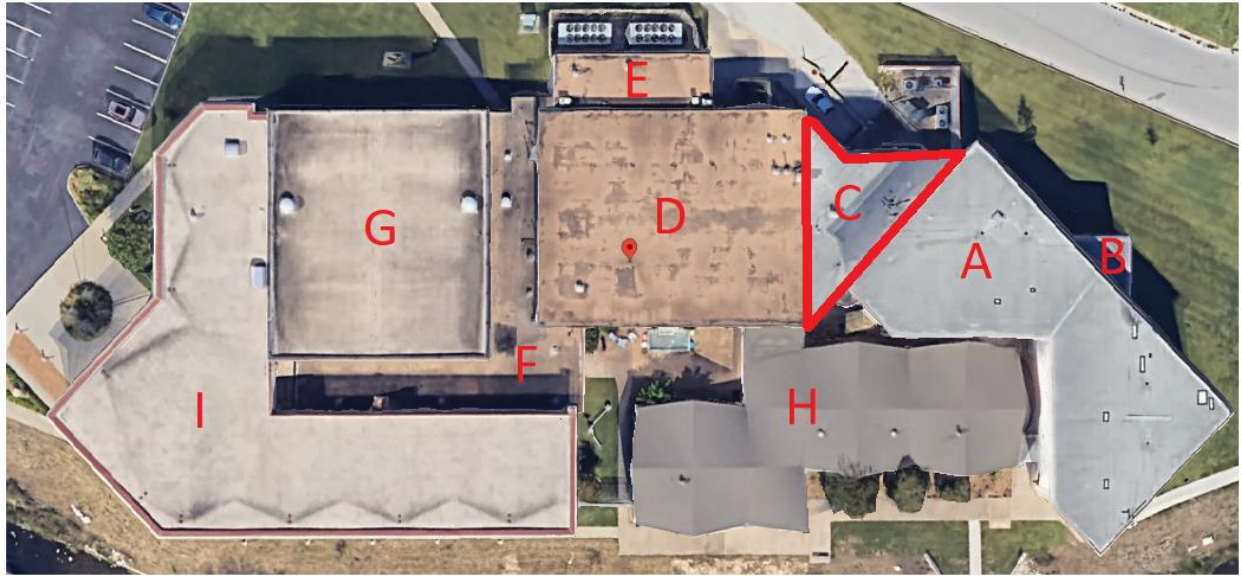
Monthly Roof Inspection Report

Month Ending:	March	Roof:	Roof B Musgrave			
Property Name:	Springfield Art Museum					
Inspected By/Date:	James Sowers					
Signature:						
Roof System	Check For/Possible Issues	Good	Fair	Poor	N/A	Resolution/ Steps Taken
Field of Roof	Inspect Roofing material is free from rips, tears, holes, soft areas, and any other deficiencies. Make sure there are no plants/weeds growing on roof.		Fair			Multiple repairs throughout/ Some failing
Expansion Joints	Movement, missing caulk, or cracking				N/A	
Walls/Parapets	Settling cracks, missing mortar, does it need to be cleaned/painted	Good				
Coping/Facia	Look for separation in the seems, missing caulk. Are they rusted, need to be painted.				N/A	
Base Flashing	Check attachment, is the caulk dry rotted. In need of replacement.		Fair			
HVAC Units	Are they in working condition, is there units that are abandoned and need to be removed. Check for rusted pans and open duck work. Check curbs				N/A	
Penetrations	Are the pitch pans full and in good shape. Are the pipe boots in good condition. Check weather heads.	Good				
Drainage Systems	Check all gutters, downspouts, roof drains, and scuppers. Make sure they are free from debris and plant material. Clean out gutters if needed.	Good				
Interior Roof Deck	Look for cracking, water spots, and signs of movement.	Good				
Ceilings	Stained or missing tiles/dry wall	Good				
Metal	attachment and rusting	Good				
Roof Edges	Deterioration			Poor		Failing curb
Davits/Roof anchors	Are they tight, corrosion, Are they inspected annually				N/A	
Lightning Protection	Attached, rusted, and cable cleats still attached.				N/A	
Cleanliness	Look for building materials left behind by contractors. Mildew, plant material, and or moss. Does the roof need walk mats.	Good				
Roof ladders/Access	Attachment, and in working order. Is it locked or need to be locked. Does the access door work properly.	Good				
Other	Abandoned antenna dishes, Grease guards, hoods or vents, are the cables ran properly, does all the lighting work, electrical outlets and switches.				N/A	

Roof	Previous repairs cracking	
B		

Roof	Blister	
B B		

Roof C Musgrave/Loading Dock



General Information:

Year installed – 2014.

Roof Size – 1,318 sqft

Warranty – Expires March 9, 2034

Installation Contractor – Shay Roofing Inc.

Roof Type – Modified Bitumen

Ply Information –

- 2 ply Fiberglass
- 1 ply Base Fiberglass
- .25" Gypsum
- 1ply Polyisocyanurate mechanically attached.

Deck Type - Metal

Replacement Estimate - **\$19,770.00** based on \$15.00 Sqft assessment by warranty company.

Current condition: Poor, Major repairs needed.

Monthly Roof Inspection Report

Month Ending:	March	Roof:	Roof C Musgrave/Loading Dock			
Property Name:	Springfield Art Museum					
Inspected By/Date:	James Sowers					
Signature:						
Roof System	Check For/Possible Issues	Good	Fair	Poor	N/A	Resolution/ Steps Taken
Field of Roof	Inspect Roofing material is free from rips, tears, holes, soft areas, and any other deficiencies. Make sure there are no plants/weeds growing on roof.			Poor		Blisters throughout roughly 15, Multiple holes found. Vapor locked in between plys
Expansion Joints	Movement, missing caulk, or cracking	Good				
Walls/Parapets	Settling cracks, missing mortar, does it need to be cleaned/painted	Good				
Coping/Facia	Look for separation in the seems, missing caulk. Are they rusted, need to be painted.				N/A	
Base Flashing	Check attachment, is the caulk dry rotted. In need of replacement.		Fair			Flange is brittle
HVAC Units	Are they in working condition, is there units that are abandoned and need to be removed. Check for rusted pans and open duck work. Check curbs	Good				
Penetrations	Are the pitch pans full and in good shape. Are the pipe boots in good condition. Check weather heads.	Good				
Drainage Systems	Check all gutters, downspouts, roof drains, and scuppers. Make sure they are free from debris and plant material. Clean out gutters if needed.	Good				
Interior Roof Deck	Look for cracking, water spots, and signs of movement.	Good				
Ceilings	Stained or missing tiles/dry wall	Good				
Metal	attachment and rusting	Good				
Roof Edges	Deterioration			Poor		Failing curb
Davits/Roof anchors	Are they tight, corrosion, Are they inspected annually				N/A	
Lightning Protection	Attached, rusted, and cable cleats still attached.				N/A	
Cleanliness	Look for building materials left behind by contractors. Mildew, plant material, and or moss. Does the roof need walk mats.	Good				
Roof ladders/Access	Attachment, and in working order. Is it locked or need to be locked. Does the access door work properly.				N/A	
Other	Abandoned antenna dishes, Grease guards, hoods or vents, are the cables ran properly, does all the lighting work, electrical outlets and switches.				N/A	

Roof	Open seam	
C		

Roof	Many blisters throughout	
C		

Roof	Holes in the flashing repairs	
C		

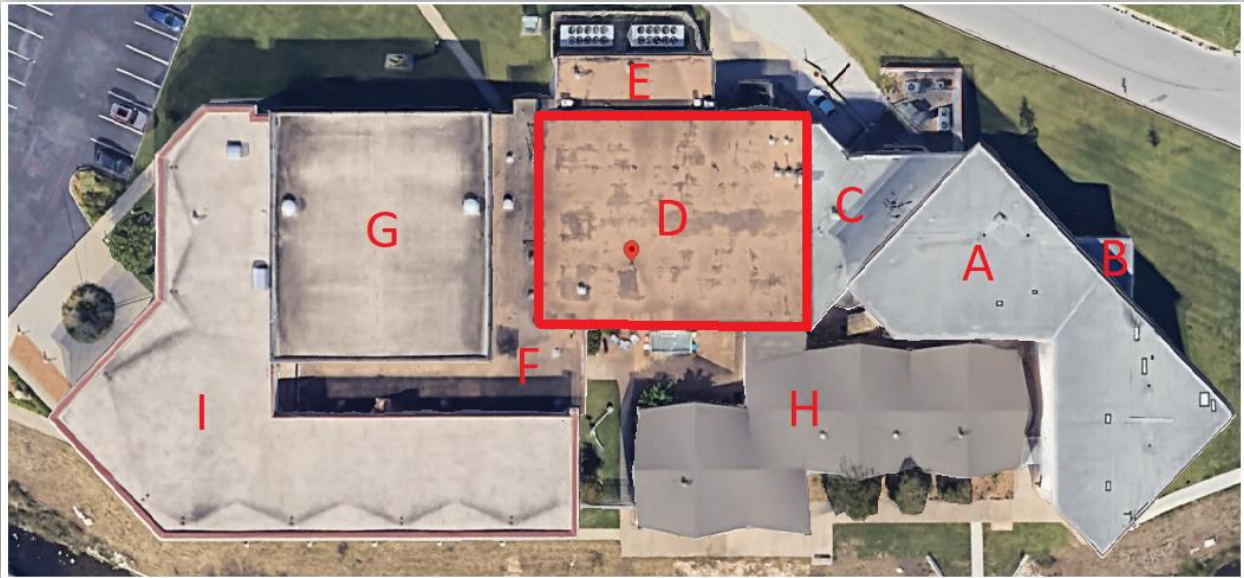
Roof	Blister with cracking	
C		

Roof	Holes in the flashing	
C		

Roof	Holes in flashing	
C		

Roof	Roof edges deteriorating	
C		

Roof D Weisel/Kelly/BOH



General Information:

Year installed – 1990.

Roof Size – 7,178 sqft

Warranty – **Not Under Warranty**

Installation Contractor – No Info

Roof Type – Asphalt

Ply Information –

- 3 ply Fiberglass
- .5" Fiberboard
- 2.5" Polystyrene

Deck Type - Metal

Replacement Estimate - **\$86,136.00** based on \$12.00 Sqft assessment by warranty company.

Current condition: Fair, No issues other than age

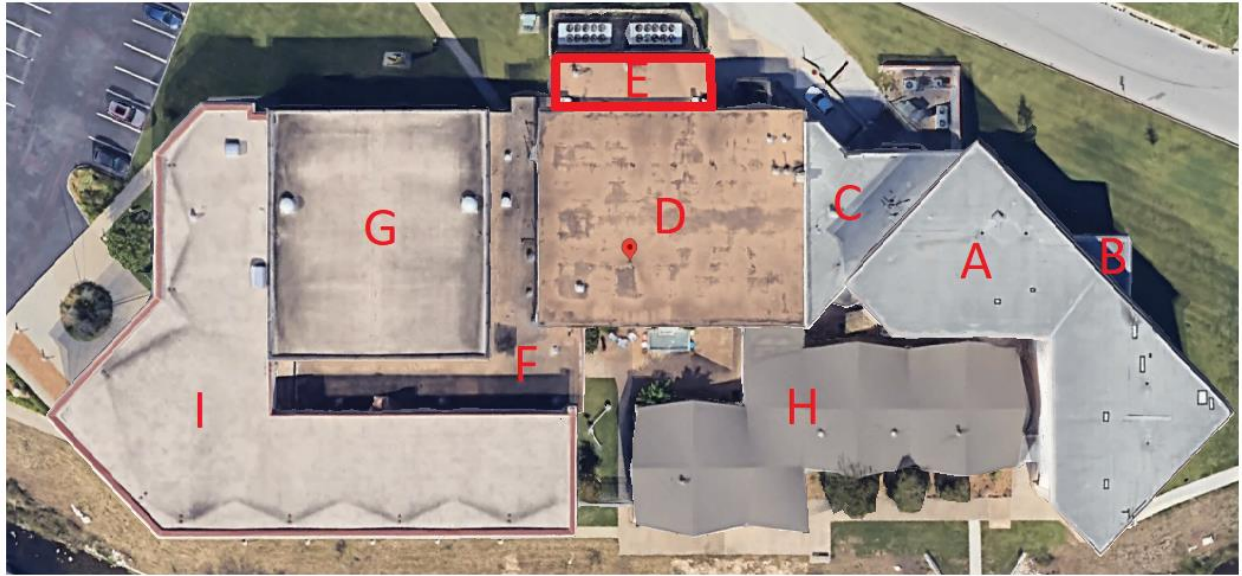
Monthly Roof Inspection Report

Month Ending:	March	Roof:	Rood D Weisel/BOH			
Property Name:	Springfield Art Museum					
Inspected By/Date:	James Sowers					
Signature:						
Roof System	Check For/Possible Issues	Good	Fair	Poor	N/A	Resolution/ Steps Taken
Field of Roof	Inspect Roofing material is free from rips, tears, holes, soft areas, and any other deficiencies. Make sure there are no plants/weeds growing on roof.	Good				
Expansion Joints	Movement, missing caulk, or cracking	Good				
Walls/Parapets	Settling cracks, missing mortar, does it need to be cleaned/painted	Good				
Coping/Facia	Look for separation in the seems, missing caulk. Are they rusted, need to be painted.	Good				
Base Flashing	Check attachment, is the caulk dry rotted. In need of replacement.				N/A	
HVAC Units	Are they in working condition, is there units that are abandoned and need to be removed. Check for rusted pans and open duck work. Check curbs	Good				
Penetrations	Are the pitch pans full and in good shape. Are the pipe boots in good condition. Check weather heads.	Good				
Drainage Systems	Check all gutters, downspouts, roof drains, and scuppers. Make sure they are free from debris and plant material. Clean out gutters if needed.	Good				
Interior Roof Deck	Look for cracking, water spots, and signs of movement.	Good				
Ceilings	Stained or missing tiles/dry wall	Good				
Metal	attachment and rusting	Good				
Roof Edges	Deterioration	Good				
Davits/Roof anchors	Are they tight, corrosion, Are they inspected annually				N/A	
Lightning Protection	Attached, rusted, and cable cleats still attached.				N/A	
Cleanliness	Look for building materials left behind by contractors. Mildew, plant material, and or moss. Does the roof need walk mats.	Good				
Roof ladders/Access	Attachment, and in working order. Is it locked or need to be locked. Does the access door work properly.				N/A	
Other	Abandoned antenna dishes, Grease guards, hoods or vents, are the cables ran properly, does all the lighting work, electrical outlets and switches.				N/A	

Roof	Slight rusting on exhausts	
D		

Roof	Overall roof	
D		

Roof E Mechanical/Shop



General Information:

Year installed – 1990.

Roof Size – 1,200 sqft

Warranty – **Not Under Warranty**

Installation Contractor – No Info

Roof Type – Asphalt

Ply Information –

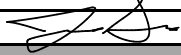
- 3 ply Fiberglass
- .5" Fiberboard
- 2.5" Polystyrene

Deck Type - Metal

Replacement Estimate - **\$14,400.00** based on \$12.00 Sqft assessment by warranty company.

Current condition: Fair, No issues other than age

Monthly Roof Inspection Report

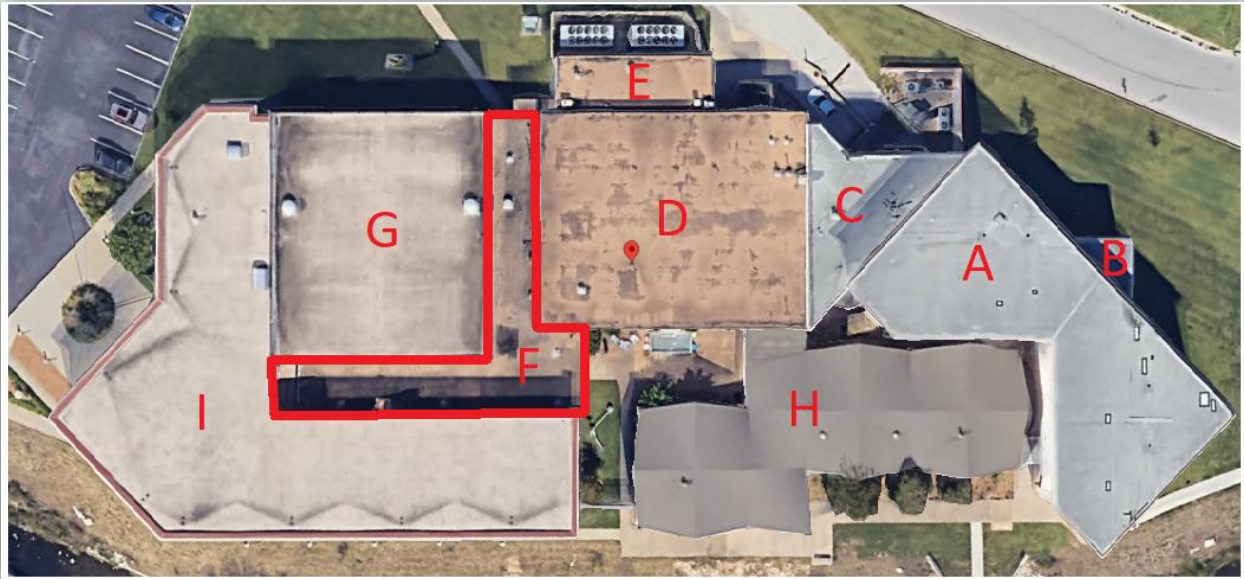
Month Ending:	March	Roof:	Roof E Mechanical/Shop			
Property Name:	Springfield Art Museum					
Inspected By/Date:	James Sowers					
Signature:						
Roof System	Check For/Possible Issues	Good	Fair	Poor	N/A	Resolution/ Steps Taken
Field of Roof	Inspect Roofing material is free from rips, tears, holes, soft areas, and any other deficiencies. Make sure there are no plants/weeds growing on roof.		Fair			A couple soft areas. Moss growing on roof
Expansion Joints	Movement, missing caulk, or cracking	Good				
Walls/Parapets	Settling cracks, missing mortar, does it need to be cleaned/painted	Good				
Coping/Facia	Look for separation in the seems, missing caulk. Are they rusted, need to be painted.				N/A	
Base Flashing	Check attachment, is the caulk dry rotted. In need of replacement.				N/A	
HVAC Units	Are they in working condition, is there units that are abandoned and need to be removed. Check for rusted pans and open duck work. Check curbs			Poor		Old unit/ needs replacement
Penetrations	Are the pitch pans full and in good shape. Are the pipe boots in good condition. Check weather heads.	Good				
Drainage Systems	Check all gutters, downspouts, roof drains, and scuppers. Make sure they are free from debris and plant material. Clean out gutters if needed.	Good				
Interior Roof Deck	Look for cracking, water spots, and signs of movement.	Good				
Ceilings	Stained or missing tiles/dry wall				N/A	
Metal	attachment and rusting	Good				
Roof Edges	Deterioration		Fair			Minor repairs needed
Davits/Roof anchors	Are they tight, corrosion, Are they inspected annually				N/A	
Lightning Protection	Attached, rusted, and cable cleats still attached.				N/A	
Cleanliness	Look for building materials left behind by contractors. Mildew, plant material, and or moss. Does the roof need walk mats.		Fair			Some moss
Roof ladders/Access	Attachment, and in working order. Is it locked or need to be locked. Does the access door work properly.				N/A	
Other	Abandoned antenna dishes, Grease guards, hoods or vents, are the cables ran properly, does all the lighting work, electrical outlets and switches.				N/A	

Roof	Moss growing in some areas	
E		

Roof	Old HVAC units need to be replaced	
E		

Roof	A couple soft areas	
E		

Roof F East Hall/Courtyard Hartman Galleries



General Information:

Year installed – 1996.

Roof Size – 4,574 sqft

Warranty – **Not Under Warranty**

Installation Contractor – No Info

Roof Type – Asphalt

Ply Information –

- 3 ply Fiberglass
- .5" Fiberboard
- 2.5" Polystyrene

Deck Type - Metal

Replacement Estimate - **\$54,888.00** based on \$12.00 Sqft assessment by warranty company.

Current condition: Poor, Soft areas, Fasteners failing – **Replace immediately.**

Monthly Roof Inspection Report

Month Ending:	March		Roof:	Roof F Courtyard/Hartman galleries		
Property Name:	Springfield Art Museum					
Inspected By/Date:	James Sowers					
Signature:						
Roof System	Check For/Possible Issues	Good	Fair	Poor	N/A	Resolution/ Steps Taken
Field of Roof	Inspect Roofing material is free from rips, tears, holes, soft areas, and any other deficiencies. Make sure there are no plants/weeds growing on roof.			Poor		
Expansion Joints	Movement, missing caulk, or cracking	Good				
Walls/Parapets	Settling cracks, missing mortar, does it need to be cleaned/painted	Good				
Coping/Facia	Look for separation in the seems, missing caulk. Are they rusted, need to be painted.				N/A	
Base Flashing	Check attachment, is the caulk dry rotted. In need of replacement.			Poor		
HVAC Units	Are they in working condition, is there units that are abandoned and need to be removed. Check for rusted pans and open duck work. Check curbs			Poor		
Penetrations	Are the pitch pans full and in good shape. Are the pipe boots in good condition. Check weather heads.		Fair			
Drainage Systems	Check all gutters, downspouts, roof drains, and scuppers. Make sure they are free from debris and plant material. Clean out gutters if needed.		Fair			
Interior Roof Deck	Look for cracking, water spots, and signs of movement.	Good				
Ceilings	Stained or missing tiles/dry wall				N/A	
Metal	attachment and rusting		Fair			
Roof Edges	Deterioration		Fair			
Davits/Roof anchors	Are they tight, corrosion, Are they inspected annually				N/A	
Lightning Protection	Attached, rusted, and cable cleats still attached.				N/A	
Cleanliness	Look for building materials left behind by contractors. Mildew, plant material, and or moss. Does the roof need walk mats.		Fair			Some minor plant debris
Roof ladders/Access	Attachment, and in working order. Is it locked or need to be locked. Does the access door work properly.				N/A	
Other	Abandoned antenna dishes, Grease guards, hoods or vents, are the cables ran properly, does all the lighting work, electrical outlets and switches.				N/A	

Roof	Hole in flashing on curb	
F		

Roof	Hole In flashing on curb	
F		

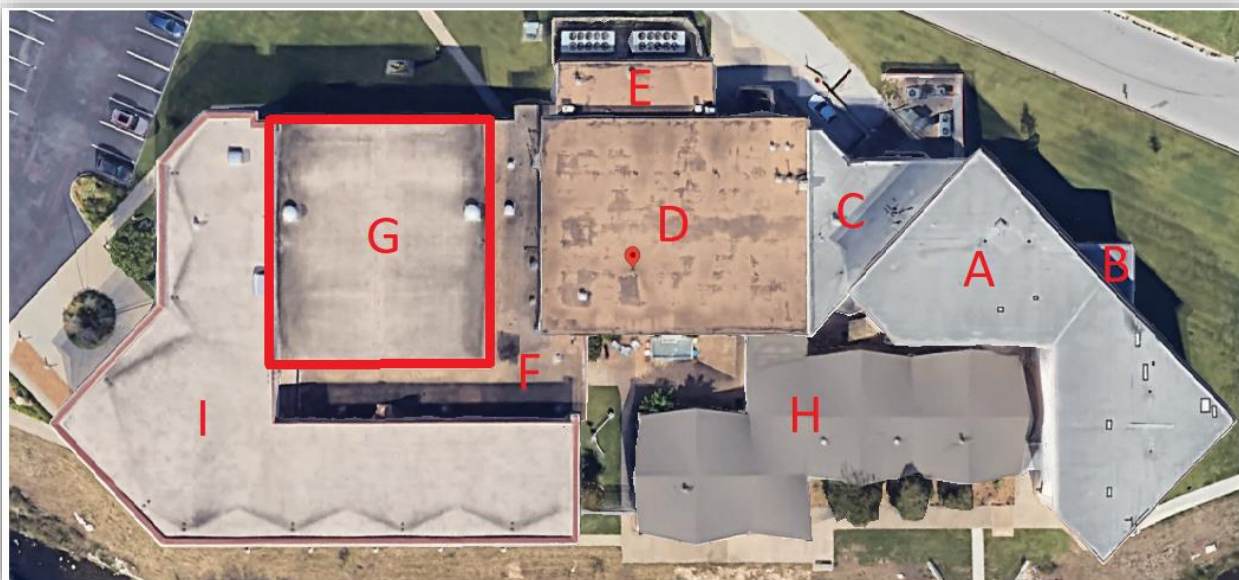
Roof	Soft areas throughout	
F		

Roof	Roof drain was clogged, cleaned out during inspection	
F		

Roof	Fasteners beginning to fail	
F		

Roof	Multiple repair to flashing	
F		

Roof G Auditorium



General Information:

Year installed – 1996.

Roof Size – 7,052 sqft

Warranty – **Not Under Warranty**

Installation Contractor – No Info

Roof Type – Asphalt

Ply Information –

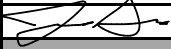
- 3 ply Fiberglass
- .5" Fiberboard
- 2.5" Polystyrene

Deck Type - Metal

Replacement Estimate - **\$84,624.00** based on \$12.00 Sqft assessment by warranty company.

Current condition: Fair

Monthly Roof Inspection Report

Month Ending:	March	Roof:	Roof G Auditorium			
Property Name:	Springfield Art Museum					
Inspected By/Date:	James Sowers					
Signature:						
Roof System	Check For/Possible Issues	Good	Fair	Poor	N/A	Resolution/ Steps Taken
Field of Roof	Inspect Roofing material is free from rips, tears, holes, soft areas, and any other deficiencies. Make sure there are no plants/weeds growing on roof.	Good				
Expansion Joints	Movement, missing caulk, or cracking		Fair			Needs to be redone
Walls/Parapets	Settling cracks, missing mortar, does it need to be cleaned/painted	Good				
Coping/Facia	Look for separation in the seems, missing caulk. Are they rusted, need to be painted.		Fair			Seams starting to fail
Base Flashing	Check attachment, is the caulk dry rotted. In need of replacement.		Fair			Holes found in corners
HVAC Units	Are they in working condition, is there units that are abandoned and need to be removed. Check for rusted pans and open duck work. Check curbs	Good				
Penetrations	Are the pitch pans full and in good shape. Are the pipe boots in good condition. Check weather heads.	Good				
Drainage Systems	Check all gutters, downspouts, roof drains, and scuppers. Make sure they are free from debris and plant material. Clean out gutters if needed.	Good				
Interior Roof Deck	Look for cracking, water spots, and signs of movement.	Good				
Ceilings	Stained or missing tiles/dry wall	Good				
Metal	attachment and rusting					
Roof Edges	Deterioration			Poor		Holes found in previous repairs
Davits/Roof anchors	Are they tight, corrosion, Are they inspected annually				N/A	
Lightning Protection	Attached, rusted, and cable cleats still attached.				N/A	
Cleanliness	Look for building materials left behind by contractors. Mildew, plant material, and or moss. Does the roof need walk mats.	Good				
Roof ladders/Access	Attachment, and in working order. Is it locked or need to be locked. Does the access door work properly.				N/A	
Other	Abandoned antenna dishes, Grease guards, hoods or vents, are the cables ran properly, does all the lighting work, electrical outlets and switches.				N/A	

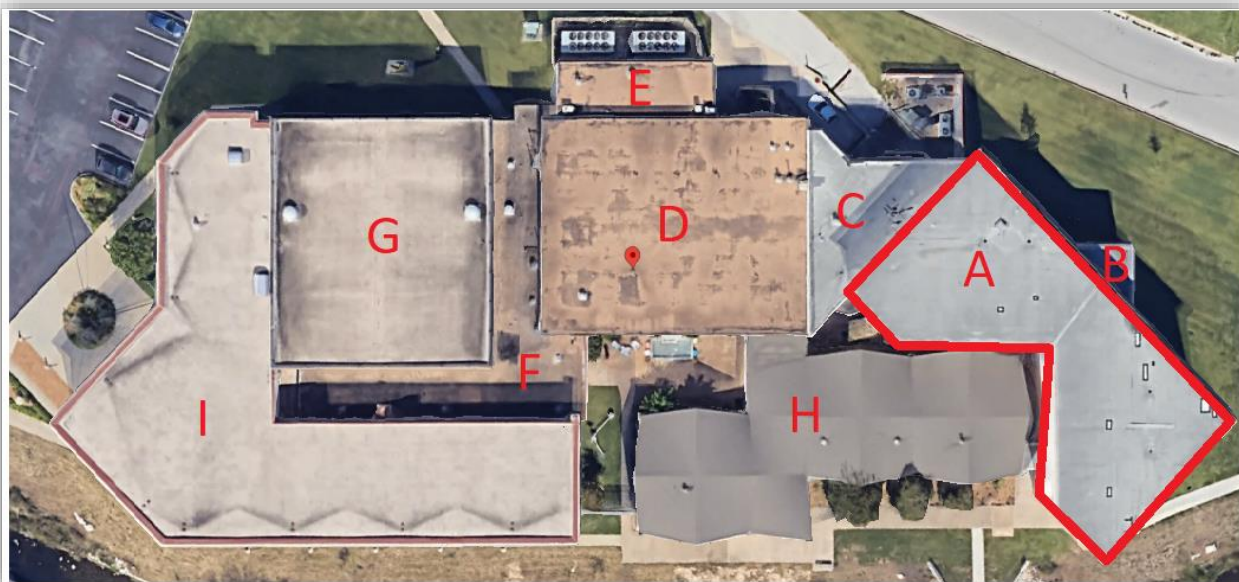
Roof	Hole in flashing	
G		

Roof	Hole in corner patch	
G		

Roof	Hole in flashing	
G		

Roof	Coping seams are failing	
G		

Roof H Education Wing



General Information:

Year installed – 2015.

Roof Size – 7,419 sqft

Warranty – Not under warranty

Installation Contractor – NA

Roof Type – Modified Bitumen

Ply Information –

- 1 Ply Modified Bit
- .5" Fiberboard
- 2.5" Polystyrene

Deck Type - Wood

Replacement Estimate - **\$89,028.00** based on \$12.00 Sqft assessment by warranty company.

Current condition: Good

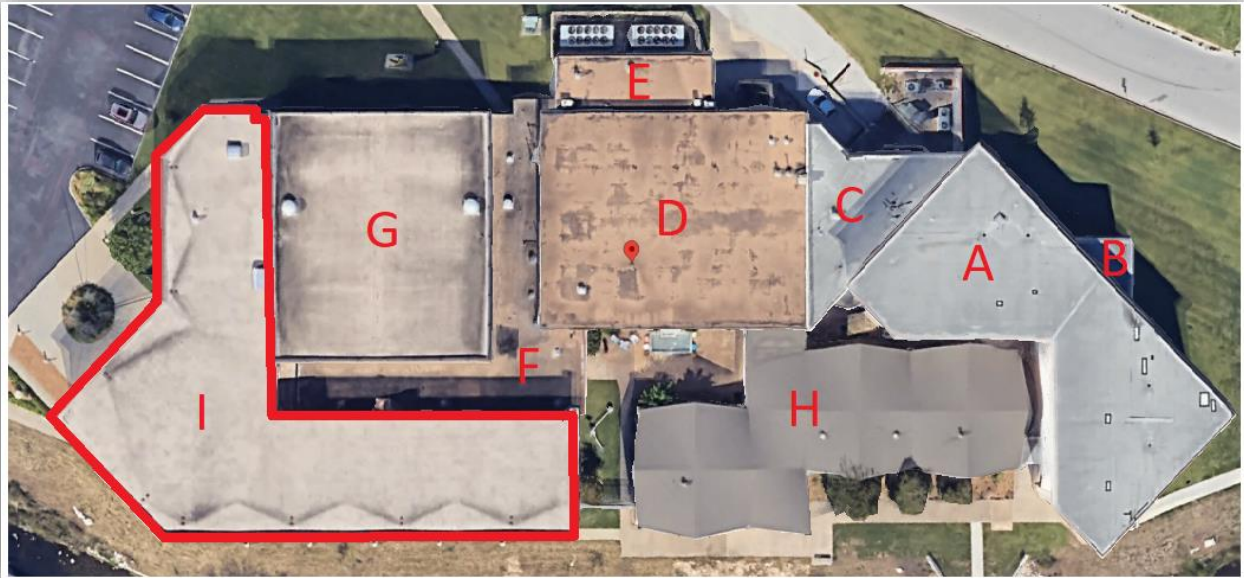
Monthly Roof Inspection Report

Month Ending:	March	Roof:	Roof H Ed Wing			
Property Name:	Springfield Art Museum					
Inspected By/Date:	James Sowers					
Signature:						
Roof System	Check For/Possible Issues	Good	Fair	Poor	N/A	Resolution/ Steps Taken
Field of Roof	Inspect Roofing material is free from rips, tears, holes, soft areas, and any other deficiencies. Make sure there are no plants/weeds growing on roof.	Good				
Expansion Joints	Movement, missing caulk, or cracking	Good				
Walls/Parapets	Settling cracks, missing mortar, does it need to be cleaned/painted	Good				
Coping/Facia	Look for separation in the seems, missing caulk. Are they rusted, need to be painted.					
Base Flashing	Check attachment, is the caulk dry rotted. In need of replacement.	Good				
HVAC Units	Are they in working condition, is there units that are abandoned and need to be removed. Check for rusted pans and open duck work. Check curbs	Good				
Penetrations	Are the pitch pans full and in good shape. Are the pipe boots in good condition. Check weather heads.	Good				
Drainage Systems	Check all gutters, downspouts, roof drains, and scuppers. Make sure they are free from debris and plant material. Clean out gutters if needed.	Good				
Interior Roof Deck	Look for cracking, water spots, and signs of movement.	Good				
Ceilings	Stained or missing tiles/dry wall	Good				
Metal	attachment and rusting	Good				
Roof Edges	Deterioration	Good				
Davits/Roof anchors	Are they tight, corrosion, Are they inspected annually				N/A	
Lightning Protection	Attached, rusted, and cable cleats still attached.				N/A	
Cleanliness	Look for building materials left behind by contractors. Mildew, plant material, and or moss. Does the roof need walk mats.	Good				
Roof ladders/Access	Attachment, and in working order. Is it locked or need to be locked. Does the access door work properly.				N/A	
Other	Abandoned antenna dishes, Grease guards, hoods or vents, are the cables ran properly, does all the lighting work, electrical outlets and switches.				N/A	

Roof	Overall	
H		

Roof	Overall	
H		

Roof I New Wing



General Information:

Year installed – 2008.

Roof Size – 11,720 sqft

Warranty – Not under warranty

Installation Contractor – NA

Roof Type – Modified Bitumen

Ply Information –

- 3 Ply Fiberglass
- 1 Ply Fiberglass Base
- .5" Fiberboard
- 3" Polyisocyanurate

Deck Type - Metal

Replacement Estimate - **\$175,800.00** based on \$15.00 Sqft assessment by warranty company.

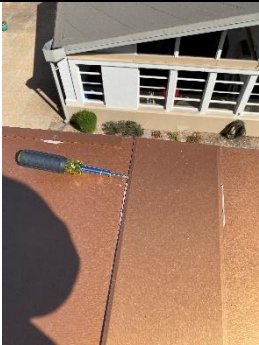
Current condition: Good

Monthly Roof Inspection Report

Month Ending:	March	Roof:	Roof I New Wing			
Property Name:	Springfield Art Museum					
Inspected By/Date:	James Sowers					
Signature:						
Roof System	Check For/Possible Issues	Good	Fair	Poor	N/A	Resolution/ Steps Taken
Field of Roof	Inspect Roofing material is free from rips, tears, holes, soft areas, and any other deficiencies. Make sure there are no plants/weeds growing on roof.		Fair			A couple soft areas
Expansion Joints	Movement, missing caulk, or cracking	Good				
Walls/Parapets	Settling cracks, missing mortar, does it need to be cleaned/painted	Good				
Coping/Facia	Look for separation in the seems, missing caulk. Are they rusted, need to be painted.		Fair			Some seams need to be sealed
Base Flashing	Check attachment, is the caulk dry rotted. In need of replacement.		Fair			Showing dryrot in some areas
HVAC Units	Are they in working condition, is there units that are abandoned and need to be removed. Check for rusted pans and open duck work. Check curbs	Good				
Penetrations	Are the pitch pans full and in good shape. Are the pipe boots in good condition. Check weather heads.	Good				
Drainage Systems	Check all gutters, downspouts, roof drains, and scuppers. Make sure they are free from debris and plant material. Clean out gutters if needed.	Good				
Interior Roof Deck	Look for cracking, water spots, and signs of movement.	Good				
Ceilings	Stained or missing tiles/dry wall	Good				
Metal	attachment and rusting	Good				
Roof Edges	Deterioration	Good				
Davits/Roof anchors	Are they tight, corrosion, Are they inspected annually				N/A	
Lightning Protection	Attached, rusted, and cable cleats still attached.				N/A	
Cleanliness	Look for building materials left behind by contractors. Mildew, plant material, and or moss. Does the roof need walk mats.	Good				
Roof ladders/Access	Attachment, and in working order. Is it locked or need to be locked. Does the access door work properly.	Good				
Other	Abandoned antenna dishes, Grease guards, hoods or vents, are the cables ran properly, does all the lighting work, electrical outlets and switches.				N/A	

Roof	Overall	
I		

Roof	Multiple repairs to the flashing	
I		

Roof	Open seam in coping	
I		

Roof	A couple soft areas	
I		

Review:

The Roofs in the table below need immediate Replacement. This is due to previous repairs, failures, current condition, and, or age. The value of the roofs was provided by the warranty company and are estimates for materials only, this does not include labor or other fees.

Roof F Courtyard/Hartman galleries Age, and failures 28 yrs. old	\$54,888.00
Roof C Musgrave/Loading dock Under warranty. The warranty will not cover to repair blisters as they are not considered an active leak. Multiple holes in flashing	\$19,770.00
Roof D Weisel/Shop This is due to age only, roof is sound. 34 yrs. old	\$86,136.00
Roof E Mechanical/Shop Soft areas and age 34 yrs. old	\$14,400
Roof G Auditorium Due to age and past repairs/leaks 28 yrs. old	\$84,624.00
SE Canopy Past repairs, current condition.	\$375.00
NW Canopy Failures, current condition.	\$585.00

Total = **\$260,000.00**

To calculate an estimate for total project costs, I found a previous contract for replacement of the Education Wing roof. Taking the total cost and dividing it by square foot equaled to \$30 per square foot. Multiplying 3% for each year since this project for inflation = \$37 sqft Using this comparison on the above roofs:

Total square footage = 21,386 x \$37sqft = Estimated project cost of **\$791,282**

The roofs in this table are still under warranty and need some repairs.

Roof	Estimated repair cost	Replacement cost
Roof A Musgrave Coping and flashing sealing. Drain cover. Roof access refurb	\$8,000.00	\$107,220.00
Roof B Musgrave Sealing	\$800.00	\$5,460.00
Roof I New Wing Sealing	\$2,500.00	\$175,800
Main Canopy Sealing	\$200.00	\$975.00

Totals = \$11,500.00 \$280,455

The following roofs have no issues at this time.

Roof H Education Wing	\$89,028.00
-----------------------	-------------

Total estimated material value for all roofs. \$629,483

Using the same estimate equation as the immediate estimate for all roofs:

Total sqft = 48,102 x \$37 sqft = Estimated project cost for all roofs =
\$1,779,774.00



[Concept as seen from the West Lawn, looking NE]

Springfield Art Museum

Art / Park Eatery Concept

April 2019

Version 2

Concept Development Goals

- Bring life to the grounds and demonstrate momentum and engagement for the vision and master plan of the SAM.
- Create a F&B offering that provides a beloved amenity and a sense of place for the SAM and adjacent neighborhoods.
- Extend the stay of visitors to the art/park experience, and provide an additional revenue source for the SAM.

Perspective

The Museum

The Springfield Art Museum continues to grow in community engagement, and foster cultural growth. A development such as is detailed below, has the ability to add to both of these goals while providing greater exposure to Springfield and an additional source of revenue.

The Neighborhood

Neighborhoods desire a sense of community, especially those as historic and engaged as Phelps Grove and University Heights. Nothing fills this need quite like an authentic neighborhood eatery. This is demonstrated locally in Rountree at Pickwick and Cherry.

The Concept

The specifics detailed in this document aren't meant to narrow the vision of what this concept can be. It is meant to demonstrate the benefit and feasibility of this concept, or something similar.

Inspiration Images



The Building

Location

North side of the West Lawn. This location is ideal to interact with the Museum Grounds, as well as Phelps Grove Park, and will serve its purpose equally well before and after the physical changes coming to the site via the Master Plan.



Size

Interior: 49 Seats : 1,800 sqft (1,000 FOH / 800 BOH)
Exterior Patio: 750 sqft

Style / Soul / Architecture

The architecture should pull from the historic style of the neighborhood, with a nod to the modern design of the SAM, creating a stylistic bridge between the SAM and surrounding homes. An example of this historic neighborhood aesthetic is shown in this old photograph of the original East entrance of Phelps Grove Park, near where the Springfield Art Museum is now. A similar entrance still exists at the North entrance, and this style of stone is a key piece to make this place feel authentic.



Offerings

Experience

The concept at its core is designed for guests to interact with exterior space of the Museum grounds. It will operate as a walkable hub where adjacent neighborhoods come to experience community in a place that they feel is “their own”.

Food

Lunch and dinner served. Upscale ingredients in simple, approachable dishes. Local product where feasible. Expedient, shareable. Picnic basket option is a meal packaged in a basket (blanket included), ready to be enjoyed on the museum lawn or in the park.

Picnic	\$18 - \$30
Charcuterie Boards	\$12 - \$15
Sandwiches	\$8 - \$11
Salads	\$8 - \$11
Shareables	\$6 - \$12

Beverage

Mid to upscale offerings in wine, beer and a few draft cocktails. No liquor or traditional back bar. Soft drinks, coffee and specialty pre-packaged juices/smoothies.

Wine	\$8 - \$14
Beer	\$5 - \$8
Cocktails	\$8 - \$10

Package

A very small area of shelves of retail items for sale, and to take home: wine, and non-perishable food items.

Hours

Mon - Sat	11am - 11pm
Sun	12pm - 8pm