

June 27, 2016

Mr. Harold Henagin, Physical Plant Director
Minnesota Correctional Facility - St. Cloud
2305 Minnesota Boulevard SE
St. Cloud, MN 56304

Re: Facility Asset Preservation Study
Minnesota Correction Facility - St. Cloud
St. Cloud, Minnesota

Architects Project No. 1618
RECS Project ID: 78SC0053

Dear Mr. Henagin,

HMA Architects is pleased to present the following report for the Facility Asset Preservation Study. The intent of the study and report is to determine the feasibility and costs for preserving the top five priorities at this facility. This study includes an overview of the study purpose, a summary of requested work, proposed solutions, and probable costs.

If you have any questions or concerns on this report, please feel free to contact me at your convenience.

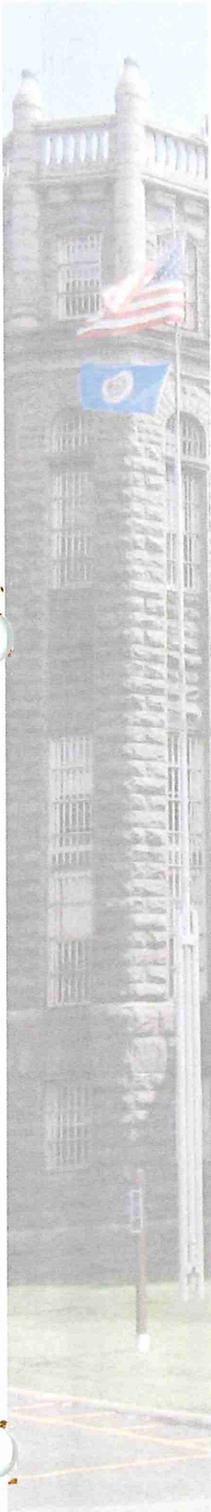
Thank you for considering HMA Architects for this study.

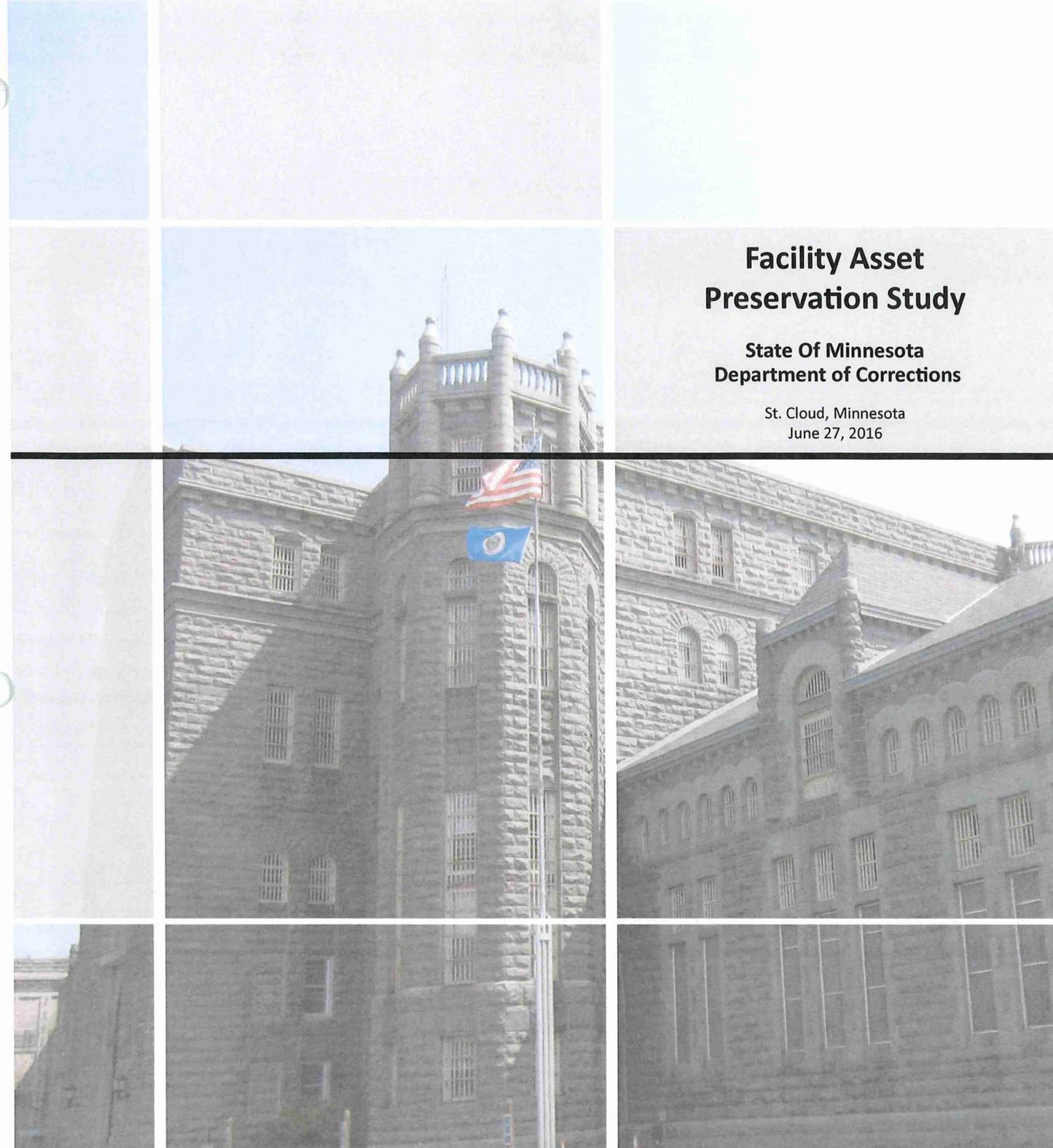
Sincerely,
HMA Architects, Ltd.



Tom Peck, CSI
Sr. Project Architect

c: Gary Krocak, RECS
Jim Aleckson, DOC





Facility Asset Preservation Study

State Of Minnesota
Department of Corrections

St. Cloud, Minnesota
June 27, 2016



hma
ARCHITECTS

700 West St. Germain Street
Suite 200
St. Cloud, MN 56301-3507
phone: (320) 251-9155

email: hma@hma-archs.com
website: www.hma-archs.com

TABLE OF CONTENTS

Executive Summary	2
Study Project Team.....	3
Owner's Stated Need.....	4
Project Overview	4
Meetings.....	5
Priority 1 - Living Unit E Reroofing	6
Existing Conditions	
Recommendations	
Cost	
Schedule	
Priority 2 - Mason Shop Reroofing	8
Existing Conditions	
Recommendations	
Cost	
Schedule	
Priority 3 - Auto Body /Maintenance Shop Reroofing	10
Existing Conditions	
Recommendations	
Cost	
Schedule	
Priority 4 - License Plant Building Fire Sprinkler	13
Existing Conditions	
Recommendations	
Cost	
Schedule	
Priority 5 - License Plant Building Reroofing	15
Existing Conditions	
Recommendations	
Cost	
Schedule	
Sustainability	17
Codes.....	17
Project Costs.....	17
Appendix A - Meeting Notes	A1
Appendix B - Drawings	B1
Appendix C - Photographs.....	C1
Appendix D - Cost Management Report.....	D1

EXECUTIVE SUMMARY

Background

To assist with developing budgets and allocating funds, the State of Minnesota Department of Corrections is requesting each correctional facility in the State of Minnesota evaluate the scope and cost of each of their top five asset preservation projects. Based on the results, the DOC will review and allocate funds for asset preservation to each facility based on actual amounts awarded during the FY 2016 Capital Budget legislative session.

The Minnesota Correctional Facility - St. Cloud has indicated their top five asset preservation projects, in the order of priority, are:

1. Roof replacement of Living Unit E.
2. Roof replacement of Mason Shop, and adjoining metal roof storage shed.
3. Roof replacement of Auto Body / Maintenance Shop.
4. Install fire sprinkler system in the License Plant Building.
5. Reroof the License Plant Building, and adjoining metal roof storage structure.

For each roof replacement project we recommend they include complete tear-off of existing roofing and insulation systems, and installation of new roof insulation and a 4-ply built-up roofing system. The work will include associated flashings, removal and replacement of mechanical and electrical equipment, and coordination with existing security fencing and surveillance equipment. Roof insulation systems will comply with current Energy Code requirements. For the installation of the fire sprinkler system in the License Plant Building, and anticipating the building will be utilized for storage or industrial use, we recommend the existing fire sprinkler system in adjoining buildings be extended to this building based on the requirements for an Ordinary (Level II) hazard occupancy.

For each of the facility's top five asset preservation projects, it is anticipated the project cost, including design, construction, contingencies, and escalation adjustments, is as follows:

1. Roof replacement of Living Unit E:.....\$ 658,000
2. Roof replacement of Mason Shop, and adjoining metal roof storage shed:.....\$ 423,000
3. Roof replacement of Auto Body / Maintenance Shop:.....\$ 570,000
 Alternate No. 1: Remove skylights and patch roof:.....\$ 76,000
4. Install fire sprinkler system in the License Plant Building:\$ 131,000
5. Reroof the License Plant Building, and adjoining metal roof storage structure:.....\$ 350,000

Project costs are calculated separately for each asset preservation and include design, construction, contingencies, and escalation adjustments.





STUDY PROJECT TEAM

FACILITY

Minnesota Correctional Facility - St. Cloud

Carol Krippner, Associate Warden Administration
Harold Henagin, Physical Plant Director

AGENCY

Minnesota Department of Corrections

Jim Aleckson, Capital Resource Administrator
Bill Montgomery, Capital Resource Administrator

OWNER REPRESENTATIVE

Real Estate and Construction Services

Gary Krocak, Project Manager

CONSULTANTS

HMA Architects
Architectural

Tom Peck, Sr. Project Architect
Mike Juhl, Project Architect

Larson Engineering
Structural

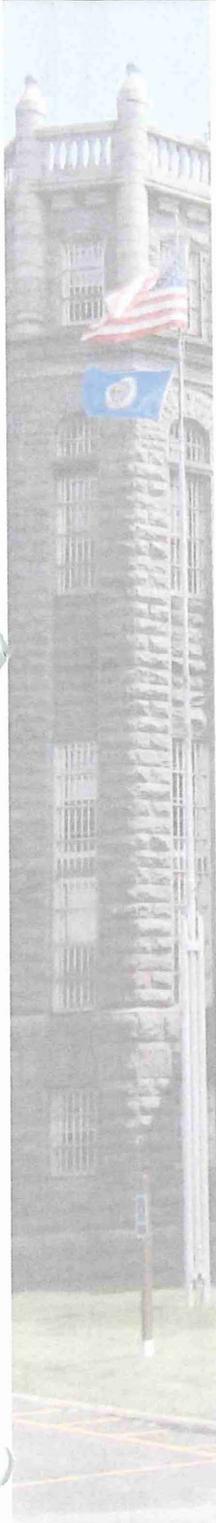
Kesh Ramdular, PE

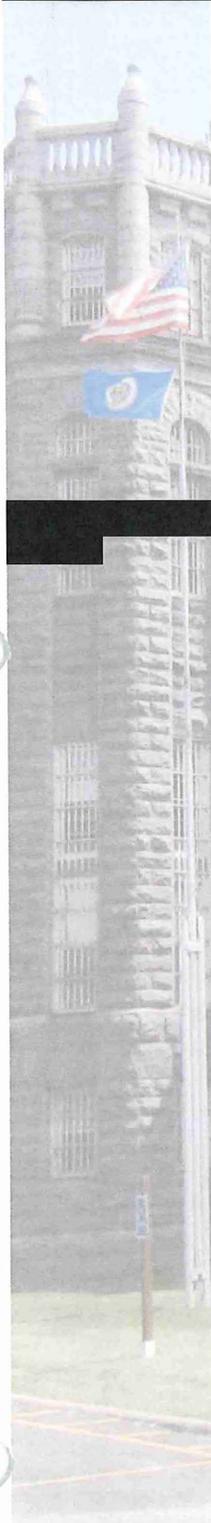
EEA Engineers
Fire Protection

Jim Art, PE

CPMI International
Cost Estimating

Bryan Bertrand, Chief Cost Estimator





OWNER'S STATED NEED

The State of Minnesota Department of Corrections (DOC), working with the Department of Administration, Real Estate and Construction Services Division (RECS), is in need of professional architectural and engineering services to assist the Minnesota Correctional Facility – St Cloud (MCF-SCL) Physical Plant Director (PPD) to re-affirm the scope and project costs, and evaluate and prioritize the top five Asset Preservation budget requests. The results of this study will be used by the DOC's Capital Resource Administrator in evaluating, prioritizing, and allocating funds to the facility based on the actual amounts awarded during the FY 2016 Capital Budget legislative session.

The top five priorities identified by the MCF-SCL include the following:

1. Living Unit E: Replace roofing and flashing.
2. Mason Shop: Replace roofing and flashing.
3. Auto Body / Maintenance Shop: Replace roofing and flashing.
4. License Plant Building: Install automatic fire sprinkler system.
5. License Plant Building: Replace roofing and flashing.

PROJECT OVERVIEW

HISTORY

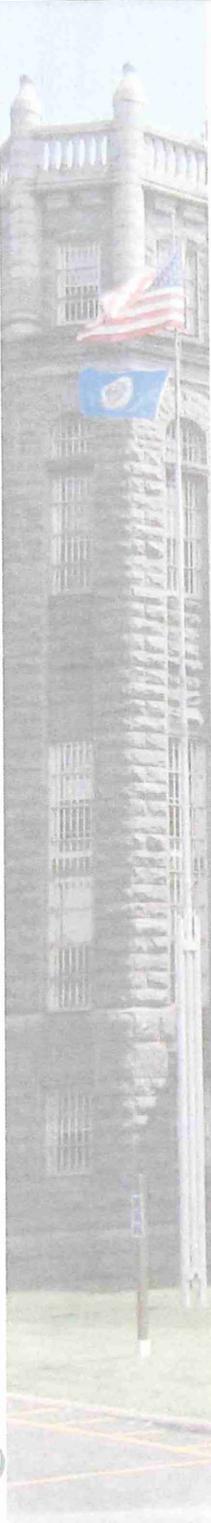
The Minnesota Correctional Facility - St. Cloud is a Level 4, Close Custody correctional facility located in SE St. Cloud, Minnesota. MCF-SCL was originally built in 1889, with various remodeling, expansion, and new construction occurring since the original construction.

DESCRIPTION

The study represents a plan to provide the MCF-SCL with a cost estimate to preserve the top five priorities.

SCOPE

1. Meet with key facility staff to gather available information on current AP budget requests.
2. Complete a cursory inspection of the existing facilities under consideration.
3. Produce a quantitative and qualitative assessment of the top five AP priorities.
4. Establish a preliminary cost estimate based upon RSMeans Unit Costs, indexed for Minnesota.
5. Prepare a report and deliver five 3-ring bound copies and five CD's of findings, prioritized recommendations, and costs of capital repairs, replacements and improvements identified.



MEETINGS

INITIAL MEETING

On April 12, 2016, HMA Architects met with the staff of MCF-SCL, RECS, and DOC to review the intent and scope of the study (see attached meeting notes).

The study will address reroofing projects and extension of a fire sprinkler system into one building.

SITE VISIT

On April 22nd, 2016, HMA Architects met with Harold Henagin to visually inspect and photograph the four existing buildings where roof replacement projects are anticipated.

Inspections of the existing License Plant Building for fire protection systems had recently been completed as a portion of a separate study to convert the building to a Living Unit.

50% DRAFT REPORT REVIEW MEETING

On May 10, 2016, HMA Architects met with the staff of MCF-SCL, RECS, and DOC to review the intent and scope of the study (see attached meeting notes).

The study will address four reroofing projects and extension of a fire sprinkler system into one building.

95% DRAFT REPORT REVIEW MEETING

On May 24, 2016, HMA Architects met with the staff of MCF-SCL, RECS, and DOC to review the scope of the study (see attached meeting notes).

PRIORITY 1: LIVING UNIT E REROOFING

EXISTING CONDITIONS

Living Unit E is a four-story building constructed in 1938 with approximately 11,625 SF of flat roof area. The roof is accessed via a swinging gate in a security fence separating this roof from the E-Complex roof to the NE.

The existing roofing system has substantially exceeded its life expectancy, and consists of a fully adhered single ply EPDM membrane roof on tapered rigid insulation installed over an existing wood framed sloped system. Perimeter flashings terminate to existing stone parapet caps at the north, east, and south sides, and to existing wall and/or shingled roofs to the west. For drainage purposes, the overall roof is divided into three separate areas with short knee wall curbing - East, Center, and West - with a primary roof drain centered in each section. Overflow drainage is accomplished with one overflow drain and two roof scuppers at the East Section, and two overflow scuppers each at the Center and West sections. The membrane at the perimeter of each section has been replaced, likely due to shrinkage issues encountered with EPDM membranes manufactured in the 1980s. Multiple penetrations for plumbing and HVAC vents are present in each roof section, flashings at several are failing. Numerous patches to the membrane were observed, several are failing. A variety of membrane seams were also observed as failing. Several soft spots in the underlying insulation were observed across the roof, likely evidence of moisture intrusion into the insulation resulting in reduced thermal values and potential for mold or mildew growth. Sealant and/or mortar joints in stone parapet caps are failing. Security fencing, electrical conduits, lighting, cameras, control boxes, and other electrical items are mounted to the stone parapets along the north side.

Existing insulation thermal values for this roof are unknown. Compliance with current Energy Codes will require a continuous insulation value of R-30.

RECOMMENDATIONS

To prevent further deterioration of the roof system and prevent water intrusion into the existing building interior and structure, and improve thermal efficiency of the building, the following upgrades are recommended:

1. Remove the existing adhered roofing system, including the following; plumbing vent frost flashing, ventilation system roof mounted equipment, membrane flashing, all roof insulation, metal counter flashing, and metal flashing and scuppers.
2. Mechanically fasten new ASTM 1289 polyisocyanurate roof insulation to existing wood deck and a hot-mop cover board over roof insulation.
3. If the thickness of the new insulation is greater than the existing was, then extend the existing roof curbs to provide a minimum of 8 inches between the top of the top of the roof surface and the top of the roof curb.
4. Install base flashing at transitions to vertical or canted surfaces. Mechanically secure flashing to substrate and seal top edge.
5. Terminate new asphalt roofing to existing sloped shingled roof at north half of west side of E-Unit building.
6. Replace existing sheet metal insert/counterflashing at roof/wall transition at south half of west side of E-Unit building.
7. Install prefinished sheet metal scupper assemblies.
8. A short section of the east end of the north parapet was reroofed/flashed during a recent reroofing project. However, approximately 20ft of security fencing is installed to the outside face of the stone parapets that will need to be reflashed under this project. Existing fencing and razor ribbon will need to be temporarily supported and loosened from the parapet to accommodate the reroofing process, and resecured.
9. Install asphalt interplies and flood coats in accordance with manufacturer's instructions to achieve a 4 ply built-up roof with a manufacturer's total system 20 year warranty from date of Substantial Completion.
10. Install 60 mil EPDM flashing over the vertical and horizontal faces of existing stone parapets and secure. Install prefinished sheet metal flashing to protect parapet EPDM flashings. Existing electrical conduit, light fixture

brackets, camera control raceway, and other appurtenances will need to be temporarily raised/loosened to accomplish this work, and resecured. All penetrations thru the parapet cap flashing will be sealed with butyl sealants.

11. Install 3 power roof ventilators with motorized dampers and 3 roof ventilators with motorized dampers.
12. Reinstall existing plumbing and mechanical equipment.

PROJECT COSTS

CONSTRUCTION (DIV 01-34)	\$ 310,557
OH/P	\$ 118,012
DESIGN CONTINGENCY	\$ 42,857
CONSTRUCTION CONTINGENCY	\$ 23,571
ESCALATION FACTOR (MID POINT OF AUGUST 2017)	\$ <u>19,800</u>
CONSTRUCTION COST (SUB TOTAL)	\$ 514,797
DESIGN FEES	\$ 51,480
FACILITY COST (SECURITY ESCORTS, ETC.)	\$ 50,000
EXISTING CONDITIONS VERIFICATION/TESTING	\$ 10,000
PROJECT CONTINGENCY	\$ <u>31,314</u>
NON-BUILDING COSTS (SUB TOTAL)	\$ 142,794
PROJECT COST (TOTAL)	\$ 657,591
PROJECT COST (USE)	\$ 658,000

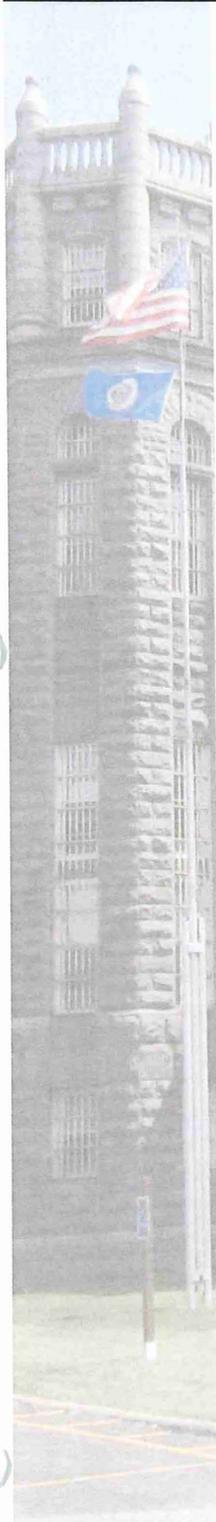
SEE APPENDIX D FOR A DETAILED COST BREAKDOWN

PROJECT SCHEDULE

RFP, CONSULTANT SELECTION and CONTRACTING, NTP	3 MONTHS
SCHEMATIC DESIGN/DESIGN DEVELOPMENT PHASE	2 MONTHS
CONSTRUCTION DOCUMENT PHASE	2 MONTHS
BIDDING AND NEGOTIATIONS	2 MONTHS
CONSTRUCTION PHASE	4 MONTHS
POST CONSTRUCTION	<u>1 MONTH</u>
TOTAL	14 MONTHS

PHOTOGRAPHS, EXISTING CONDITIONS

SEE APPENDIX B.



PRIORITY 2: MASON SHOP REROOFING

EXISTING CONDITIONS

The Mason Shop is a single-story building constructed in 1978 with approximately 7,250 SF of flat roof area. This roof is accessed via a vertical ladder thru a roof hatch. A lower single story addition was constructed on the north side of the building that includes approximately 260 SF of corrugated metal roofing. Due to it being a 4:12 pitched roof, no means of access is provided. This building is enclosed on portions of the north, east, and south sides with an 8ft tall chain link fence.

The existing roofing system has substantially exceeded its life expectancy, and includes a flat roofing system consists of a built-up (BUR) roofing system on rigid insulation installed over a structurally sloped metal joist and deck roof system. The ridge of the roof structure is oriented East-West, so drainage occurs towards the north and south edges of the roof. The BUR roofing terminates to parapet caps at the perimeter. For drainage purposes, the overall roof is divided into two separate areas with a area divider curbing - East and West - with primary roof drainage occurring via scuppers and downspouts to grade on the north and south sides of each section. Since scuppers are used for drainage, no overflow drainage is provided. Multiple penetrations for plumbing vents, exhaust fans, and relief exhaust are present, flashings at several are failing. Numerous patches to the BUR system were observed. Numerous locations were observed where the existing BUR system is blistering. Perimeter sheet metal parapet cap flashings have been painted; paint is deteriorated and counterflashings in multiple locations are loose and pulling away from parapets. Existing scuppers and downspouts are showing signs of rust, including pin holes thru the material. At several locations, the downspout has been removed and moisture is entering existing exterior wall construction. Multiple locations around the roof show signs that temporary asphalt patches have been installed.

The existing lower roof area includes sloped corrugated sheet metal roofing likely installed on wood roof sheathing. The corrugated roofing is installed with exposed fasteners. The sloped roof terminates to the existing wall with a two-piece flashing inserted into the existing break-off block exterior wall at the same elevation where the sloped roof intersects. It appears when the low slope structure was constructed, the full height of a downspout from the upper roof was removed. As roof water from the upper roof crosses the BUR roofing system, it appears to pick up contaminants that have caused the portion of corrugated roofing to rust excessively. Further, with removal of the downspout, water splashes onto the existing exterior wall resulting in moisture damage (mold and mildew) to the wall material.

Existing insulation thermal values for the upper roof are unknown. Compliance with current Energy Codes will require a continuous insulation value of R-30. Since the addition on the north side of the building is unheated, compliance with the Energy Code is not required.

RECOMMENDATIONS

To prevent further deterioration of the roof system and prevent water intrusion into the existing building interior and structure, and improve thermal efficiency of the building, the following upgrades are recommended:

Upper Roof:

1. Remove the existing BUR roofing system, including the following; plumbing vent frost flashing, ventilation system roof mounted equipment, membrane flashing, all roof insulation, metal counter flashing, and metal flashing and scuppers.
2. Mechanically fasten new ASTM 1289 polyisocyanurate roof insulation to existing wood deck and a hot-mop cover board over roof insulation.
3. If the thickness of the new insulation is greater than the existing was, then extend the existing roof curbs to provide a minimum of 8 inches between the top of the top of the roof surface and the top of the roof curb.

3. Inspect and replace/extend existing wood roof area divider curbs.
4. Hot-mop cover board over roof insulation.
5. Install base flashing at transitions to vertical or canted surfaces. Mechanically secure flashing to substrate and seal top edge.
6. Install prefinished sheet metal scupper and downspout assemblies with downspouts extending to within 12 inches of grade. Install splashblocks.
7. Install asphalt interplies and flood coats in accordance with manufacturer's instructions to achieve a 4 ply built-up roof with a manufacturer's total system 20 year warranty from date of Substantial Completion.
8. Install 60 mil EPDM flashing over the vertical and horizontal faces of existing stone parapets and secure. Install prefinished sheet metal flashing to protect parapet EPDM flashings.
9. Reinstall existing plumbing and mechanical equipment.

Lower Roof:

1. Remove the existing corrugated metal roofing and underlayment at the lower roof. Inspect the existing wood roof sheathing condition and replace deteriorated sections as required.
2. Install self-sealing, self-adhering roof underlayment.
3. Install new corrugated metal roofing with exposed fasteners with neoprene washers.

PROJECT COSTS

CONSTRUCTION (DIV 01-34)	\$ 188,148
OH/P	\$ 71,496
DESIGN CONTINGENCY	\$ 25,964
CONSTRUCTION CONTINGENCY	\$ 14,280
ESCALATION FACTOR (MID POINT OF AUGUST 2017)	\$ <u>11,996</u>
CONSTRUCTION COST	\$ 311,884

DESIGN FEES	\$ 31,188
STATE PROJECT MANAGEMENT	\$ 50,000
FACILITY COST (SECURITY ESCORTS, ETC.)	\$ 10,000
PROJECT CONTINGENCY	\$ <u>20,154</u>
NON-BUILDING COSTS (SUB TOTAL)	\$ 111,342

PROJECT COST (TOTAL)	\$ 423,226
PROJECT COST (USE)	\$ 423,000

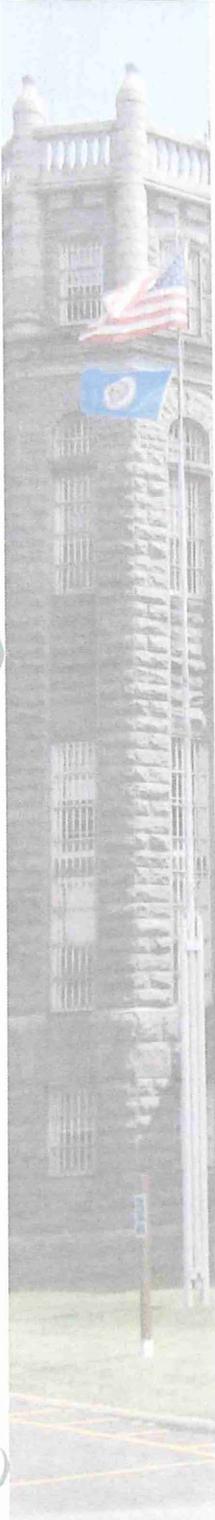
SEE APPENDIX D FOR A DETAILED COST BREAKDOWN

PROJECT SCHEDULE

RFP, CONSULTANT SELECTION and CONTRACTING, NTP	3 MONTHS
SCHEMATIC DESIGN/DESIGN DEVELOPMENT PHASE	2 MONTHS
CONSTRUCTION DOCUMENT PHASE	2 MONTHS
BIDDING AND NEGOTIATIONS	2 MONTHS
CONSTRUCTION PHASE	4 MONTHS
POST CONSTRUCTION	<u>1 MONTH</u>
TOTAL	14 MONTHS

PHOTOGRAPHS, EXISTING CONDITIONS

SEE APPENDIX B.



PRIORITY 3: AUTO BODY / MAINTENANCE SHOP REROOFING

EXISTING CONDITIONS

The Auto Shop is a single-story building constructed in 1915 with approximately 8,600 SF of flat roof area. This building was the original power plant for the facility, but has been converted to other uses since construction in the 1960s of the current power plant on the exterior of the facility's secure perimeter. This roof is accessed via an interior stair and thru Security Tower 9 in the SW corner of the roof. A small elevated structure in the NE corner (originally the power plant's coal bunker) now includes Security Tower 9 1/2 and includes approximately 355 SF of flat roof area. This building is the first constructed to which a series of additions have been completed.

The existing roofing system has substantially exceeded its life expectancy, and includes a flat roof system consisting of a ballasted single ply EPDM membrane roof on rigid insulation installed over structurally sloped roof construction. While Tower 9 in the SW corner is actually located within an adjacent roof area, a stone catwalk and guardrail system cantilevers 3ft over the existing ballasted roof. Access between Tower 9 and Tower 9 1/2 is achieved by a section of 2ft wide elevated wood framed catwalk and metal railing supported off the roof surface and south parapet that transitions to 3ft wide wood decking secured to wood sleepers set on the roofing membrane. The wood decking extends to an existing metal stair that provides access to Tower 9 1/2. When necessary, the wood framed catwalk along the south parapet affords security guards a view of activities in the yard below. At Tower 9, the cantilevered stone catwalk was extended approximately 3ft by construction of a concrete catwalk. This section is deteriorating from exposure to the elements and is a safety hazard. Security also uses the tops of the parapets along the west side of this roof for viewing activities in the yard. The portion of parapet that separates this roof from the roof to the west is protected with membrane flashing, sheet metal cap flashing, and adhered walkway pads installed when the adjacent roof was replaced.

An original hip-shaped skylight structure, approximately 20x18 ft, is located in the SE quadrant of the roof, and an original rectangular hip-shaped skylight structure, approximately 50x18 ft, is located across the north half of the roof. Each skylight is covered with adhered EPDM membrane. The ridge of the roof structure is oriented North-South, so drainage occurs towards the East and West edges of the roof. At the perimeters, the membrane extends up the interior face of the parapets and is terminated to the underside of existing stone parapet cap stones with galvanized metal sheet metal counterflashing. Multiple locations were observed where the membrane flashing is not secured to the parapets and where the top edge of the membrane flashing is not tucked behind the metal flashing, leading to water intrusion into the roof system and building. Further, the membrane has shrunk or is being pulled by wind action from the perimeter resulting in areas where the membrane is not supported by the underlying insulation which increases the potential for punctures or tears in the membrane, or has pulled loose from the perimeter attachment leading to water intrusion into the roof system and building. Primary roof drainage is provided via three roof drains located adjacent to the East parapet and three roof drains located adjacent to the west parapet. No overflow drainage is provided. Multiple penetrations for plumbing vents, exhaust fans, and relief exhaust are present, flashings at several are failing. In several areas where the ballast is removed, tears in the existing roof membrane were observed.

Sealant and/or mortar joints in stone parapet caps are failing.

The existing upper roof area surrounding Tower 9 1/2 includes a flat roofing system consists of a ballasted single ply EPDM membrane roof on rigid insulation. This roof is constructed similar to the main roof, including membrane flashing and metal counterflashing at perimeter parapets, and is experiencing many of the same issues as the main roof. In addition, there is a hoist bracket and conduit mounted to the stone parapets, and a metal guardrail mounted between parapets on the West side, where access is gained via the metal stair.

Existing insulation thermal values for the two roofs is unknown. Compliance with current Energy Codes will require a continuous insulation value of R-30.



RECOMMENDATIONS

To prevent further deterioration of the roof system and prevent water intrusion into the existing building interior and structure, and improve thermal efficiency of the building, the following upgrades are recommended:

Main and Upper Roofs:

1. Remove the existing ballasted EPDM roofing system, including the following; plumbing vent frost flashing, ventilation system roof mounted equipment, membrane flashing, all roof insulation, metal counter flashing, and metal flashing and scuppers. Remove existing wood catwalks and supports, and existing wood walkways.
2. Mechanically fasten new ASTM 1289 polyisocyanurate roof insulation to existing roof deck. Hot-mop cover board over roof insulation.
3. If the thickness of the new insulation is greater than the existing was, then extend the existing roof curbs to provide a minimum of 8 inches between the top of the top of the roof surface and the top of the roof curb.
4. Remove existing roof drain assemblies and install new roof drains with guards and flashing clamps. Install overflow roof scuppers adjacent to each primary roof drain by cutting thru the existing stone parapets.
5. Hot-mop cover board over roof insulation.
6. Install base flashing at transitions to vertical or canted surfaces. Mechanically secure flashing to substrate and seal top edge.
7. At the upper roof, install prefinished sheet metal scupper and downspout assemblies with downspouts extending to within 12 inches of the lower roof. Install splashblocks.
8. Install asphalt interplies and flood coats in accordance with manufacturer's instructions to achieve a 4 ply built-up roof with a manufacturer's total system 20 year warranty from date of Substantial Completion.
9. Install 60 mil EPDM flashing over the vertical and horizontal faces of existing stone parapets and secure. Install prefinished sheet metal flashing to protect parapet EPDM flashings. At the north end of the west parapet, install new walkway pads over the metal cap flashing. Existing electrical conduit, hoist brackets, and guardrails will need to be temporarily raised/loosened to accomplish this work, and resecured. All penetrations thru the parapet cap flashing will be sealed with butyl sealants.
10. Temporarily remove the existing metal stair (used for Tower 9 1/2 access). Construct appropriate curbing for support of stair posts and stringers. Install membrane flashing and metal cap flashing. Modify support post lengths as required. Reinstall stair system.
11. Construct new expanded grate metal walkway system along the south parapet and for access between Towers 9 and 9 1/2. Metal walkway to be constructed of galvalume grating and framing components, Design Components Inc. ROOFTOP METALWALK AND SAFETY HANDRAIL, or similar.
12. Install new concrete walkway section at Tower 9. Resecure existing guardrails to the walkway section.
13. Reinstall existing plumbing and mechanical equipment.

Sloped skylight structures - Base Design:

- B1. Remove existing fully adhered EPDM membrane and related flashing.
- B2. Inspect the existing roof insulation condition and replace with ASTM 1289 polyisocyanurate roof insulation as required.
- B3. Install new 60 mil fully adhered EPDM roofing system and related flashings.

Sloped skylight structures - Alternate Design:

- A1. Remove existing fully adhered EPDM membrane and related flashing.
- A2. Remove existing sloped structure.
- A3. Infill roof openings with metal framed joists and deck.
- A4. Install rigid insulation, flush with adjacent roof insulation surfaces.
- A5. Install roof BUR roofing system to match main roof.



PROJECT COSTS

CONSTRUCTION (DIV 01-34)	\$ 264,633
OH/P	\$ 100,561
DESIGN CONTINGENCY	\$ 36,519
CONSTRUCTION CONTINGENCY	\$ 20,086
ESCALATION FACTOR (MID POINT OF AUGUST 2017)	\$ <u>16,872</u>
CONSTRUCTION COST	\$ 438,671

DESIGN FEES	\$ 43,867
FACILITY COST (SECURITY ESCORTS, ETC.)	\$ 50,000
EXISTING CONDITIONS VERIFICATION/TESTING	\$ 10,000
PROJECT CONTINGENCY	\$ <u>27,127</u>
NON-BUILDING COSTS (SUB TOTAL)	\$ 130,994

PROJECT COST (TOTAL)	\$ 569,665
PROJECT COST (USE)	\$ 570,000

ALTERNATE - REMOVE SKYLIGHTS AND PATCH ROOF	
CONSTRUCTION (DIV 01-34)	\$ 39,874
OH/P	\$ 15,153
DESIGN CONTINGENCY	\$ 5,503
CONSTRUCTION CONTINGENCY	\$ 3,027
ESCALATION FACTOR (MID POINT OF AUGUST 2017)	\$ <u>2,543</u>
CONSTRUCTION COST	\$ 66,100

DESIGN FEES	\$ 6,610
STATE PROJECT MANAGEMENT	\$ 0
FACILITY COST (SECURITY ESCORTS, ETC.)	\$ 0
PROJECT CONTINGENCY	\$ <u>3,636</u>
NON-BUILDING COSTS (SUB TOTAL)	\$ 10,246

PROJECT COST (TOTAL)	\$ 76,346
PROJECT COST (USE)	\$ 76,000

SEE APPENDIX D FOR A DETAILED COST BREAKDOWN

PROJECT SCHEDULE

RFP, CONSULTANT SELECTION and CONTRACTING, NTP	3 MONTHS
SCHEMATIC DESIGN/DESIGN DEVELOPMENT PHASE	2 MONTHS
CONSTRUCTION DOCUMENT PHASE	2 MONTHS
BIDDING AND NEGOTIATIONS	2 MONTHS
CONSTRUCTION PHASE	4 MONTHS
POST CONSTRUCTION	<u>1 MONTH</u>
TOTAL	14 MONTHS

PHOTOGRAPHS, EXISTING CONDITIONS

SEE APPENDIX B.

PRIORITY 4: LICENSE PLANT BUILDING FIRE SPRINKLER SYSTEM

EXISTING CONDITIONS

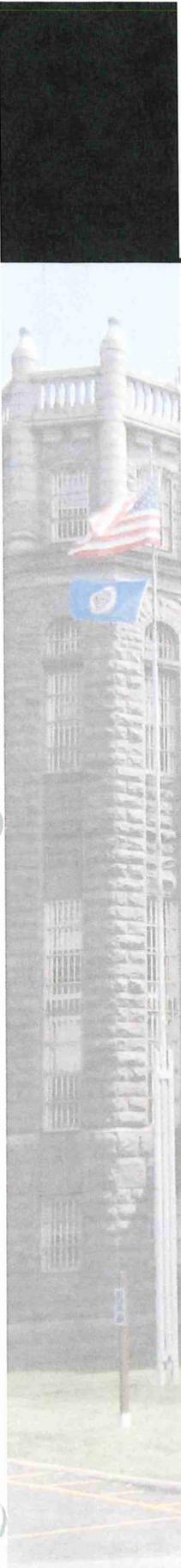
The License Plant building was originally constructed in 1915 as one of the additions to the west of the original boiler plant. The building has an upper level and a lower level which is a walk-out basement. In the mid-1970's, an addition was constructed on the north side of the building that provided space for expanded finishing and operations. By 2009, license plates ceased being fabricated as a Department of Corrections function, resulting in the fabrication equipment being removed. Since then, the building has had a variety of uses. The basement is used for welding. The upper floor is used for miscellaneous storage. The original License Plant building and its north extension are not protected with a fire sprinkler system.

Presently, the separate group of buildings on the north side of the Facility has limited fire sprinkler protection. The present water source is the private water tower, next to the present boiler plant. This is fed with City Water, using pumps in the plant. A combination domestic water and fire water main runs through basements and tunnels from the present boiler plant to the separate group of buildings. In 1985, a water pipe for fire suppression was connected to the 6" water main just east of the tunnel connection to the Paint Shop (formerly the Auto Repair Shop, in the original boiler plant structure). This was extended to that and other buildings in the group. In addition to the Paint Shop, the other buildings which are protected with fire sprinklers include the Plumbing Shop, to the west of the License Plant, and the General Production Plant (GPP1), to the east of the License Plant. The Old (former) Paint Shop, north of the license Plant has a dry-pipe sprinkler system. All of these are monitored as a separate fire sprinkler zone at the existing fire alarm panel. Other buildings in the group, including Carpentry and various storage buildings do not have fire sprinklers. The building group has indoor standpipes for use by firefighter. There is a fire department hose connection on the outside wall of the License Plant and also one on the outside wall of GPP1. In the event of a fire, if the Fire Department is summoned, they are able to bring a truck to the building. They can opt to connect their hoses to a hydrant and a building hose connection and use the truck pump to boost the water pressure.

Currently, a new system of fire sprinklers and standpipes, with a permanent booster fire pump, is being installed as part of Phase 1 of the Intake & Health Services project. The pump will be located in the basement of E Complex, in the south-central part of the Facility. This pump will receive water from the existing water tower, and all of the pipes downstream of the new pump will be new. During the design phase of the project, the DOC, the Facility, and the Design team has been meeting with the Saint Cloud Fire Marshal. The City has been promoting a Facility-wide upgrade of the fire suppression systems at MCF St. Cloud.

RECOMMENDATIONS

It is uncertain how the former License Plant building will be utilized in the future. A recent study was conducted to consider how the building might be converted to a cell block. It might instead be used for storage, industrial use, or something else. When adding fire sprinklers, it is recommended that this be designed for flexibility. The design criteria should be based on the rules for an Ordinary (Level II) hazard occupancy. This could prevent its use for high-piled storage of some commodities, but it would be suitable for nearly all of the likely uses. Using these criteria, the existing fire sprinkler system in the north building group could cover the License Plant. This involves extending the 4" sprinkler main in the structure which is just to the east. In the future, as part of a large upgrade, the Facility could consider a larger-scale upgrade, involving other buildings in this group and a possible connection to the newer booster fire pump system. As part of that potential upgrade, it is likely that fire department connections and standpipes would be upgraded. However, for the present build-out of the fire sprinkler system to serve the License Plant, the existing system will merely be extended but a re-evaluation of the occupancy type should be conducted during the Design Phase in case the occupancy type or needs have changed.



PROJECT COSTS

CONSTRUCTION (DIV 01-34)	\$ 44,059
OH/P	\$ 19,827
DESIGN CONTINGENCY	\$ 6,389
CONSTRUCTION CONTINGENCY	\$ 3,514
ESCALATION FACTOR (MID POINT OF AUGUST 2017)	\$ <u>2,952</u>
CONSTRUCTION COST	\$ 76,741
DESIGN FEES	\$ 7,674
FACILITY COST (SECURITY ESCORTS, ETC.)	\$ 30,000
EXISTING CONDITIONS VERIFICATION / TESTING	\$ 10,000
PROJECT CONTINGENCY	\$ <u>6,221</u>
NON-BUILDING COSTS (SUB TOTAL)	\$ 53,895
PROJECT COST (TOTAL)	\$ 130,636
PROJECT COST (USE)	\$ 131,000

SEE APPENDIX D FOR A DETAILED COST BREAKDOWN

PROJECT SCHEDULE

RFP, CONSULTANT SELECTION and CONTRACTING, NTP	2 MONTHS
SCHEMATIC DESIGN/DESIGN DEVELOPMENT PHASE	1 MONTH
CONSTRUCTION DOCUMENT PHASE	2 MONTHS
BIDDING AND NEGOTIATIONS	1 MONTH
CONSTRUCTION PHASE	3 MONTHS
POST CONSTRUCTION	<u>1 MONTH</u>
TOTAL	10 MONTHS

PHOTOGRAPHS, EXISTING CONDITIONS

SEE APPENDIX B.

PRIORITY 5: LICENSE PLANT BUILDING REROOFING

EXISTING CONDITIONS

The License Plant Building is a single-story building constructed in 1915 with approximately 5,050SF of flat roof area. This roof is accessed from Tower 9 (See Priority 3). A lower single story addition was constructed in 1970s on the north side of the building that includes approximately 1,350SF of corrugated metal roofing.

The existing roofing system has substantially exceeded its life expectancy, and consists of a ballasted single ply EPDM membrane roof on tapered rigid insulation installed over an existing metal joists and deck roof structure that structurally slopes to the north. Perimeter flashings terminate to existing stone parapet caps on the North, East, and West, and to a stucco finished wall on the West. Membrane flashings and metal counterflashings were observed to be failing in multiple locations. Two primary roof drains are provided along the north parapet, overflow drainage is accomplished with roof scuppers. Two pipe penetrations and two large exhaust ducts (not in service) are present. Sealant and/or mortar joints in stone parapet caps are failing. Support brackets for four chimneys located off the north side of the building are mounted to the stone parapets along the north side.

The existing lower roof area includes sloped corrugated sheet metal roofing likely installed on metal decking. The corrugated roofing is installed with exposed fasteners. The sloped roof terminates to the existing wall with a two-piece flashing inserted into the existing stone exterior wall above where the sloped roof intersects. Two unused chimneys extend up through the corrugated metal roofing.

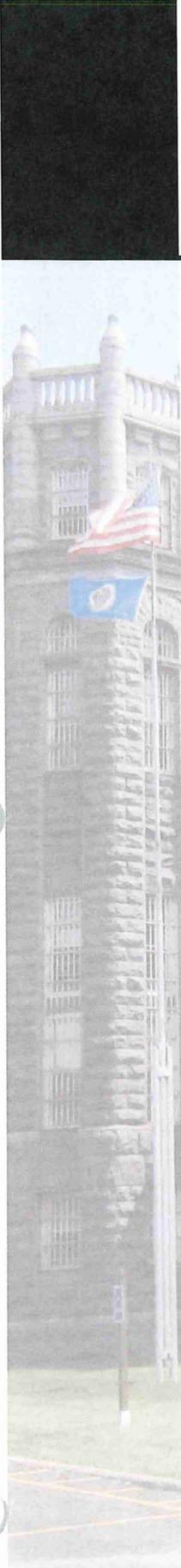
Existing insulation thermal values for the upper roof are unknown. Compliance with current Energy Codes will require a continuous insulation value of R-30.

RECOMMENDATIONS

To prevent further deterioration of the roof system and prevent water intrusion into the existing building interior and structure, and improve thermal efficiency of the building, the following upgrades are recommended:

Main Roof:

1. Remove the existing ballasted EPDM roofing system, including the following; pipe penetrations, exhaust ducts, membrane flashing, all roof insulation, metal counter flashing, and metal flashing and scuppers.
2. Mechanically fasten new ASTM 1289 polyisocyanurate roof insulation to existing roof deck. Hot-mop cover board over roof insulation.
3. If the thickness of the new insulation is greater than the existing was, then extend the existing roof curbs to provide a minimum of 8 inches between the top of the top of the roof surface and the top of the roof curb.
4. Remove existing stucco finish over stone/masonry on adjacent west wall.
5. Remove 4 existing chimneys at north side of the building.
6. Install base flashing at transitions to vertical or canted surfaces. Mechanically secure flashing to substrate and seal top edge.
7. Install asphalt interplies and flood coats in accordance with manufacturer's instructions to achieve a 4 ply built-up roof with a manufacturer's total system 20 year warranty from date of Substantial Completion.
8. Install 60 mil EPDM flashing over the vertical and horizontal faces of existing stone parapets and secure. Install prefinished sheet metal flashing to protect parapet EPDM flashings.
9. Install prefinished metal covers over metal brackets supporting existing chimneys from the lower roof.
10. Install fluid applied weather barrier to existing masonry substrates on West wall, and install hat channels (shimmed to align panels, if needed) and prefinished metal wall panels; wall panels to be Centria MODEL CS-660, or similar.



Lower Roof:

1. Remove the existing corrugated metal roofing and underlayment at the lower roof. Inspect the existing metal deck condition and replace deteriorated sections as required.
2. Patch 2 holes in the roof as a result of removing 4 chimneys. 2 chimneys did not penetrate the lower roof.
3. Install self-sealing, self-adhering roof underlayment.
4. Install new corrugated metal roofing with exposed fasteners with neoprene washers.
5. Install new insert and counterflashing at the intersection with the adjacent wall. Seal all joints.

PROJECT COSTS

CONSTRUCTION (DIV 01-34)	\$ 149,698
OH/P	\$ 56,885
DESIGN CONTINGENCY	\$ 20,658
CONSTRUCTION CONTINGENCY	\$ 11,362
ESCALATION FACTOR (MID POINT OF AUGUST 2017)	\$ <u>9,544</u>
CONSTRUCTION COST (SUB TOTAL)	\$ 248,147
DESIGN FEES	\$ 24,815
FACILITY COST (SECURITY ESCORTS, ETC.)	\$ 50,000
EXISTING CONDITIONS VERIFICATION / TESTING	\$ 10,000
PROJECT CONTINGENCY	\$ <u>16,648</u>
NON-BUILDING COSTS (SUB TOTAL)	\$ 101,463
PROJECT COST (TOTAL)	\$ 349,610
PROJECT COST (USE)	\$ 350,000

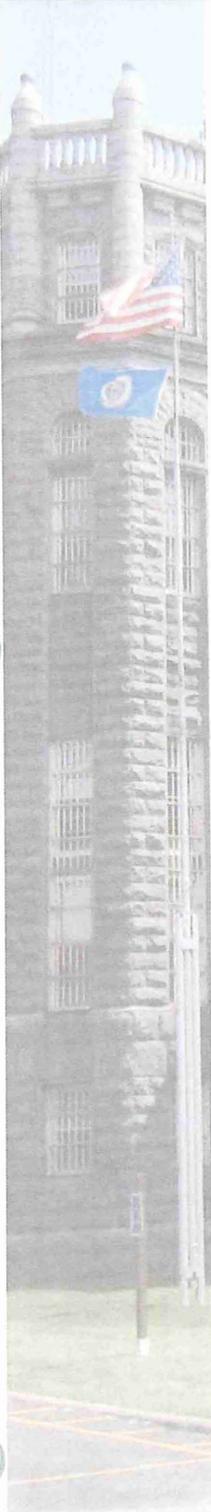
SEE APPENDIX D FOR A DETAILED COST BREAKDOWN

PROJECT SCHEDULE

RFP, CONSULTANT SELECTION and CONTRACTING, NTP	3 MONTHS
SCHEMATIC DESIGN/DESIGN DEVELOPMENT PHASE	2 MONTHS
CONSTRUCTION DOCUMENT PHASE	2 MONTHS
BIDDING AND NEGOTIATIONS	2 MONTHS
CONSTRUCTION PHASE	4 MONTHS
POST CONSTRUCTION	<u>1 MONTH</u>
TOTAL	14 MONTHS

PHOTOGRAPHS, EXISTING CONDITIONS

SEE APPENDIX B.



SUSTAINABILITY

The reroofing and sprinkler work do not constitute major renovations as defined by the State of Minnesota B3 Guidelines. Therefore, compliance with specific requirements of the State's sustainability initiative is not required.

CODES

BUILDING CODE

Materials and methods for replacing existing roofing work will comply with requirements of the State of Minnesota Building Code, Chapter 15.

Materials and methods for installation of fire sprinkler systems will comply with the State of Minnesota Building Code, Chapter 9, and NFPA 13.

ENERGY CODE

Existing roof insulation values should be evaluated and new insulation added to comply with current Minnesota Energy Code Requirements.

PROJECT COSTS

Costs for the work indicated for each Priority have been determined by our cost estimating consultant, and include historical cost indices, and Agency and Facility input. Various general costs and soft costs (general conditions, contractor overhead and profit, architecture and engineering fees, contingency, etc.) were added to the construction costs to arrive at the total construction cost. The State of Minnesota's Building Projects Inflation Schedule has been factored in the cost projections. Further, both construction and design contingencies have been included to account for unknown conditions discovered. However, with limited documentation on existing facilities and utilities, it should be noted these contingency costs may not cover all unknown conditions.

It is anticipated the work of each Priority will be completed separately, and each in one phase. Costs do not include phasing of the work that may be required to accommodate offender movement.

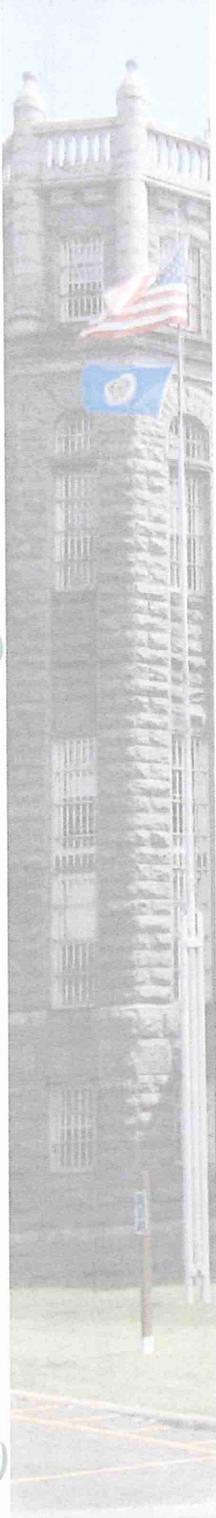
Note: Project costs are included in the narrative for each asset preservation project.

(Project costs include general conditions, overhead and profit, bond, insurance, construction contingency, escalation, design fees, and commissioning.)

(See Appendix D for details cost information calculations)

APPENDIX A - MEETING NOTES

Initial Study Introduction..... April 12, 2016
50% Draft Report Review..... May 10, 2016
95% Draft Report Review..... May 24, 2016



Date: April 12, 2016

Project Name: Facility Asset Preservation Study
MCF-SCL
St. Cloud, MN

Architect's Project No. 1618
 RECS Project No.: 78SC0053
 Purpose: Initial design meeting
 Time: 10:30 AM
 Location: MCF-SCL
 Participants: Gary Krocak RECS
 Bill Montgomery DOC
 Jim Aleckson DOC
 Harold Henagin MCF-SCL
 Tom Peck HMA

MEETING NOTES

The following information was discussed:

1. The study will review and confirm the scope and project costs of the top 5 asset preservation projects of the facility.
2. Depending on the complexity and/or cost of each priority, Gary indicated the costs associated with each could include a base cost and alternate costs for the work (eg., skylight replacement/infill on the Auto Body Shop).
3. The overall scope of the study will address four roofing projects and installation of a fire sprinkler system in one building.
4. The A-E team will consist of:

Architect: Tom Peck and Mike Juhl – HMA
 Structural engineer: Kesh Ramdular - Larson Engineering
 Fire protection engineer: Jim Art - Ericksen Ellison and Associates
 Cost estimating: Bryan Bertrand – CPMI

Based on the extent of roof work involved, HMA may consult with a roofing consultant for input on roofing assemblies and/or cost information.

5. Recent reroofing projects encountered hazardous material which required abatement (ie., E-Complex roof flashings). If hazardous materials could be encountered within the scope of this work, costs for abatement should be factored into the study.

It was noted that CAPRA funds could be tapped if there is discovery of additional hazardous materials.

6. The top five asset preservation projects include:
 - a. Living Unit E Reroofing
 - b. Auto Cluster (Mason Shop) Reroofing.
 - c. Auto Body Maintenance Shop Reroofing.
 - d. License Plate Building Fire Sprinklers.
 - e. License Plate Building Reroofing.
7. Reroofing work should address whether additional upgrades become required due to the reroofing work.
8. The study will include narratives on the deficiencies of existing conditions, scope of work, etc. Gary noted a recent study completed by EEA will forward a copy to HMA.
9. Discussed the following tentative project schedule:

Initial meeting	April 12, 2016
50 percent draft complete:	May 9, 2016
Review meeting:	May 10, 2016 at 8AM

95 percent draft complete:	May 23, 2016
Review meeting:	May 24, 2016 at 8AM
Final report complete:	June 6, 2016

10. The 50 percent draft report need not include cost information.
11. A tour of the roofs to be replaced and area to be fire sprinklered will be coordinated with Harold in the near future.

END OF MEETING NOTES

The above information and discussions constitutes the understanding by the Architect of these meetings. Any additions or corrections should be brought to the attention of the Architect within 3 days of receipt.

Attachments: None

c: Gary Krocak – RECS
Jim Aleckson – DOC
Harold Henagin – MCF-SCL
A-E team

Date: May 10, 2016

Project Name: Facility Asset Preservation Study
MCF-SCL
St. Cloud, MN

Architect's Project No. 1618
RECS Project No.: 78SC0053
Purpose: 50 percent draft report review meeting
Time: 8:00 AM
Location: MCF-SCL Balcony Boardroom
Participants: Gary Krocak RECS
Bill Montgomery DOC
Jim Aleckson DOC
Harold Henagin MCF-SCL
Jim Art EEA
Mike Juhl HMA
Tom Peck HMA

MEETING NOTES

The following information was discussed:

1. Reviewed 50 percent draft report and contents.
2. Noted the Study Project Team should include the following adjustments:
MCF-SCL: Carol Krippner, Associate Warden Administration
3. The Owner's Stated Need will include the top 5 asset preservation projects. As listed in the report, they are listed in order of priority. However, depending on the dollar value of funding provided, the priority order may change to maximize use of bonded funding.
4. Reviewed AP projects:
 - a. Priority 1 – Living Unit E Reroofing:
 - i. Existing fully adhered roof system to be replaced.
 - ii. With multiple locations of soft spots in the roofing (undoubtedly due to wet insulation), cost for reroofing should include complete removal of existing insulation.
 - iii. According to the original drawings, the sloped roof surface is achieved by installation of wood joists and plywood sheathing with 2x_ knee wall framing installed on top of the concrete ceiling structure of the Unit. This creates a void in the roof that needs to be ventilated. Existing drawings indicate, and site observation confirms, roof vents are provided for ventilation. These will be replaced, with vents along the north side of the unit being turbine type.
 - iv. If it is discovered wood sheathing is deteriorated from moisture intrusion, it will be addressed at the time the project proceeds into construction.
 - v. Primary roof drains are located in the center portions of the roof, and include overflow scuppers at edges and/or interior overflow roof drains. Harold noted a roof drain line for overflow storm was installed recently when E-Complex was reroofing extending into Unit and out the east wall. This should be accessed for overflow roof drainage from the E-Unit roof.
 - vi. Work will require adjusting existing electrical conduit, lighting, security fencing, etc. along the north parapet.
 - vii. The parapet membrane and cap flashings should extend down over the tops of stone cornices.
 - b. Priority 2 – Mason Shop Reroofing:
 - i. Existing BUR roof system to be replaced.
 - ii. Scupper and downspouts to grade will be replaced.
 - iii. The corrugated metal roofing on the lower cold storage room will be replaced.
 - c. Priority 3 – Auto Cluster Reroofing:
 - i. Existing ballasted EPDM roof system to be replaced.
 - ii. Existing stone catwalk at Tower 9 to be replaced.
 - iii. Metal roof walk system to replaced existing wood decking walkway.

- iv. Walkway to not have guardrails if installed a maximum of 6 inches above the roof surface.
- v. Base work will include reroofing of the two sloped structures (formerly skylights). By alternate, these will be removed, the roof structure patched, and roof insulation and roofing system installed.
- d. Priority 4 – License Plate Building Fire Sprinkler:
 - i. Existing water supply piping will be extended and fire sprinklers installed in the building and the addition to the north.
- e. Priority 5 – License Plate Building Reroofing:
 - i. Existing ballasted EPDM roof system to be replaced.
 - ii. The short wall above the roof surface on the building to the west will have the stucco removed, and standing seam metal wall panels installed (similar to other locations at the facility).
 - iii. The corrugated metal roofing on the north addition to be replaced.
- 5. The report should include age of roof and, if known, insulation thickness/R-value, and if available for context purposes, the build date of each building.
- 6. Due to age and likeliness of extensive amounts of wet insulation, all roofs will consider removal of all roof insulation and replacement with polyisocyanurate roof insulation. Minimum R-30 value to meet current MN Energy Code requirements.
- 7. All roofs with stone parapet caps will have joints resealed, EPDM membrane installed over the tops and down the sides of the parapets, and prefinished metal cap flashing installed; color to blend with the granite color.
- 8. All roofs will be 4 ply built up roofs with gravel surfacing.
- 9. Each priority project will include separate costs for design and construction, with contingencies, escalation factor, etc., and include a schedule for design, bidding, and construction. A cost for once per week inspection by a roofing consultant should be factored into the project cost.
- 10. Pricing should consider start of construction in Spring 2017, with appropriate mid-point of construction.
- 11. Since the work is not considered major renovation work, compliance with the State's B3 Sustainability program is not required.
- 12. Lightning protection of the roofs is not required.
- 13. Discussed the following tentative project schedule:

Initial meeting	April 12, 2016
50 percent draft complete:	May 9, 2016
Review meeting:	May 10, 2016 at 8AM
95 percent draft complete:	May 23, 2016
Review meeting:	May 24, 2016 at 8AM
Final report complete:	June 6, 2016

END OF MEETING NOTES

The above information and discussions constitutes the understanding by the Architect of these meetings. Any additions or corrections should be brought to the attention of the Architect within 3 days of receipt.

Attachments: None

c: Gary Krocak – RECS
Jim Aleckson – DOC
Harold Henagin – MCF-SCL
A-E team

Date: May 24, 2016

Project Name: Facility Asset Preservation Study
MCF-SCL
St. Cloud, MN

Architect's Project No. 1618
RECS Project No.: 78SC0053
Purpose: 50 percent draft report review meeting
Time: 8:00 AM
Location: MCF-SCL Balcony Boardroom
Participants: Gary Krocak RECS
Bill Montgomery DOC
Jim Aleckson DOC
Harold Henagin MCF-SCL
Mike Juhl HMA

MEETING NOTES

The following information was discussed:

1. Reviewed 95 percent draft report and contents.
2. A question was asked regarding all the different Contingencies listed. What is the difference between Design Contingency, Construction Contingency and Project Contingency?
3. Since the age of the existing roofs are unknown, the report should state that the existing roofs have substantially exceeded their life expectancy.
4. Reviewed AP projects:
 - a. Each of the 4 reroofing projects should include a line item cost for Existing Conditions Verification/Testing in the amount of \$10,000.
 - b. All 4 reroofing projects should include a line item cost for Quality Control Observation. An amount needs to be determined for this.
 - c. All 4 reroofing projects should indicate that the new roofs are to be 4 ply built up roofs.
 - d. Bill Montgomery stated that ¾ - 1% of the funded amount automatically gets allocated to State Project Management so the line item for this can be omitted from each project.
 - e. The Facility Cost line item in each project was discussed and a value will be added to each project.
 - f. Priority 1 – Living Unit E Reroofing:
 - i. The existing venting of the “attic” space was discussed. Currently it appears that the “attic” venting draws in outside air thru the “attic” and then exhausts it back to the exterior. This is incorrect since the roof insulation is above the “attic” and wastes energy by bringing in cold air and exhausts warm air. It was discussed that this should be changed to have the “attic” ventilated by drawing in air from the space below and exhausting it back into the space below. Would this add heat to the space below and make it uncomfortable?
 - ii. The Facility Cost line item should be \$50,000.
 - g. Priority 2 – Mason Shop Reroofing
 - i. The Facility Cost line item should be \$50,000.
 - h. Priority 3 – Auto Body Maintenance Shop
 - i. The Facility Cost line item should be \$50,000.
 - ii. Harold indicated that overflow roof scuppers should be added.
 - i. Priority 4 – License Plant Fire Protection System
 - i. The Facility Cost line item should be \$30,000.
 - ii. Type of sprinkler system was discussed and it was decided to remain at Ordinary (Level II) hazard occupancy, with further review to occur if the project moves ahead.
 - j. Priority 5 – License Plant Reroofing
 - i. Harold will confirm whether the 2 ducts on the north side of the building can be omitted.
 - ii. Harold indicated that the 2 ducts in the middle of the roof can be omitted.
 - iii. The Facility Cost line item should be \$50,000.

5. Type and quantities of Deliverables were discussed for the final report.
 - a. A final draft of the report, along with an invoice stating that the work is complete is to be e-mailed to everyone for review on June 6, 2016.
 - b. Any comments or questions are to be sent to Gary Krocak by June 15, 2016. Gary will then forward those items to HMA Architects for incorporation into the final report.
 - c. Copies of the final report is to be included on 4 CD's and 5 printed copies in 3 ring binders. An Excel spreadsheet file of the anticipated construction costs is to be included on the CD's for each of the projects.

6. Discussed the following tentative project schedule:

Initial meeting	April 12, 2016
50 percent draft complete:	May 9, 2016
Review meeting:	May 10, 2016 at 8AM
95 percent draft complete:	May 23, 2016
Review meeting:	May 24, 2016 at 8AM
Final report to be e-mailed:	June 6, 2016
Review meeting:	Not required
Review comments returned by:	June 15, 2016
Final hard copies delivered by:	June 30, 2016

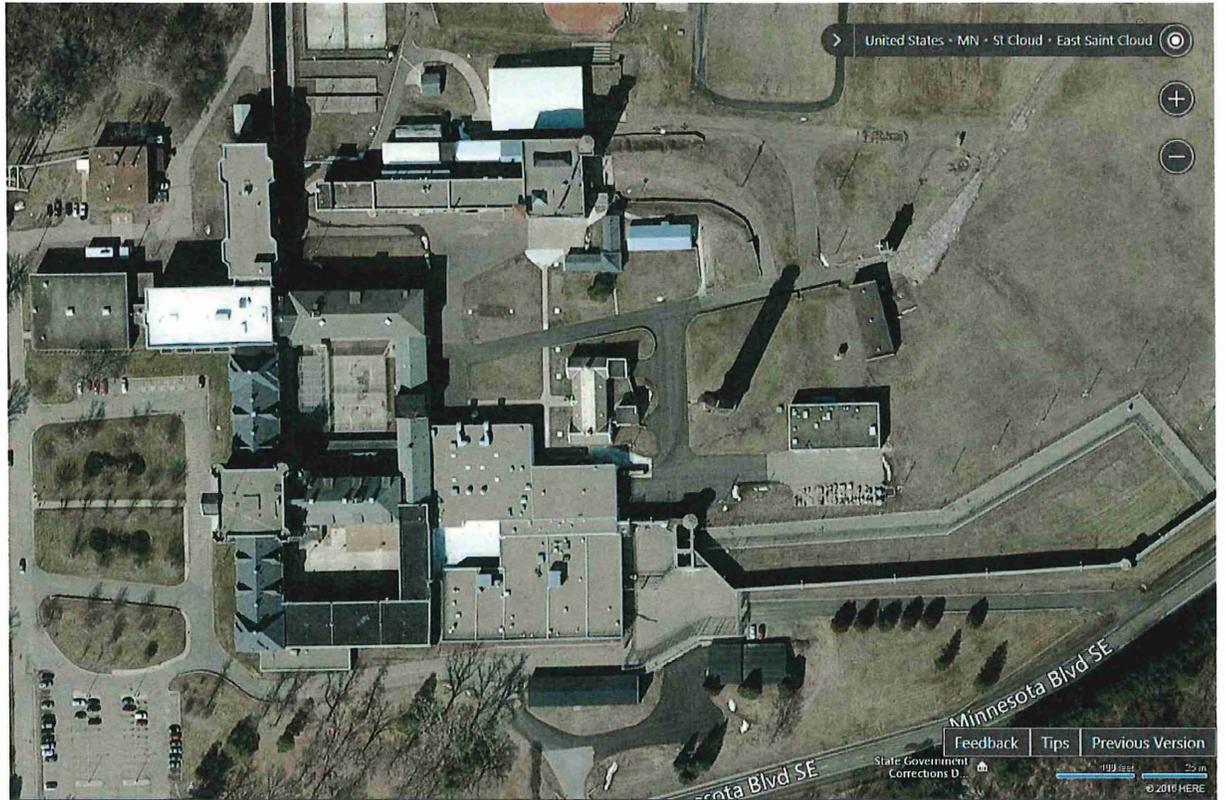
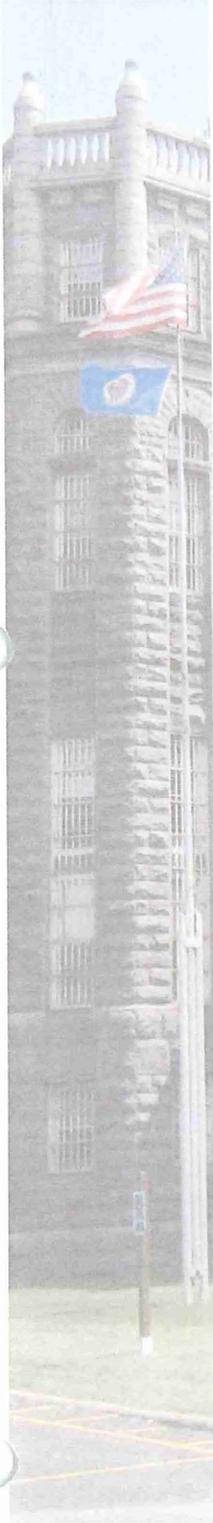
END OF MEETING NOTES

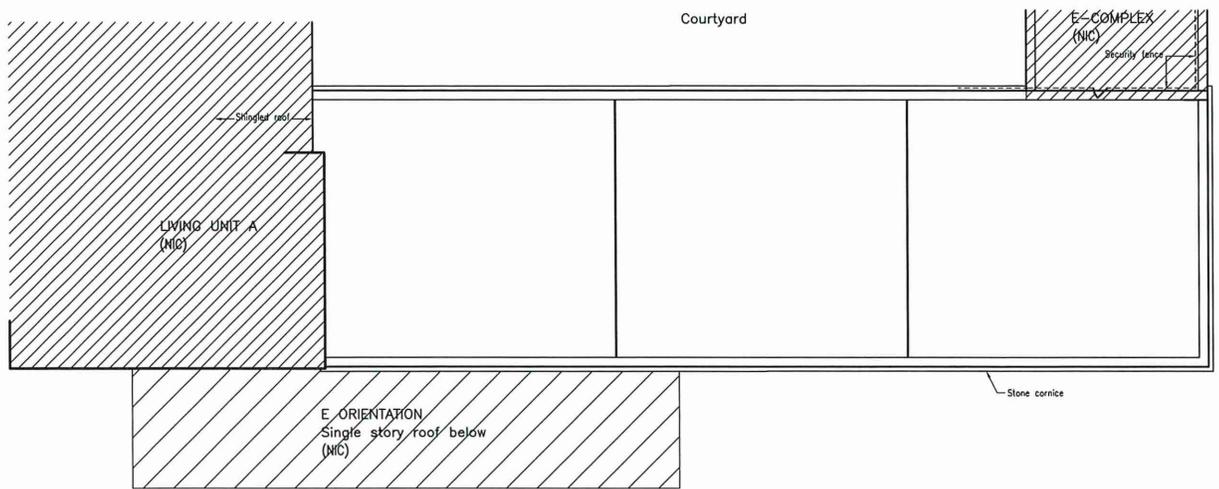
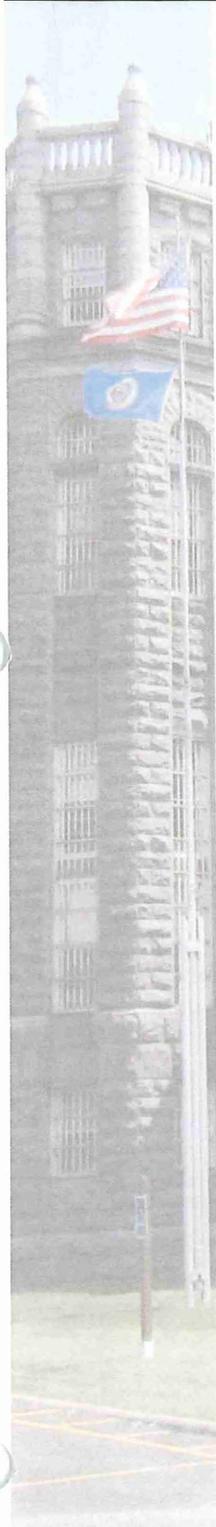
The above information and discussions constitutes the understanding by the Architect of these meetings. Any additions or corrections should be brought to the attention of the Architect within 3 days of receipt.

Attachments: None

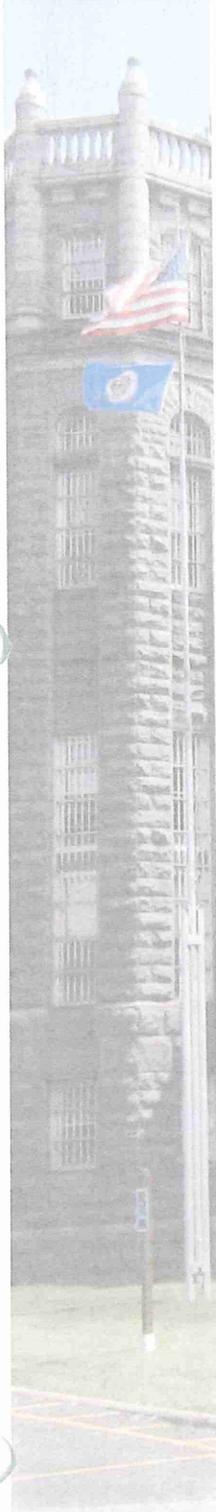
c: Gary Krocak – RECS
Jim Aleckson – DOC
Harold Henagin – MCF-SCL
A-E team

APPENDIX B - DRAWINGS

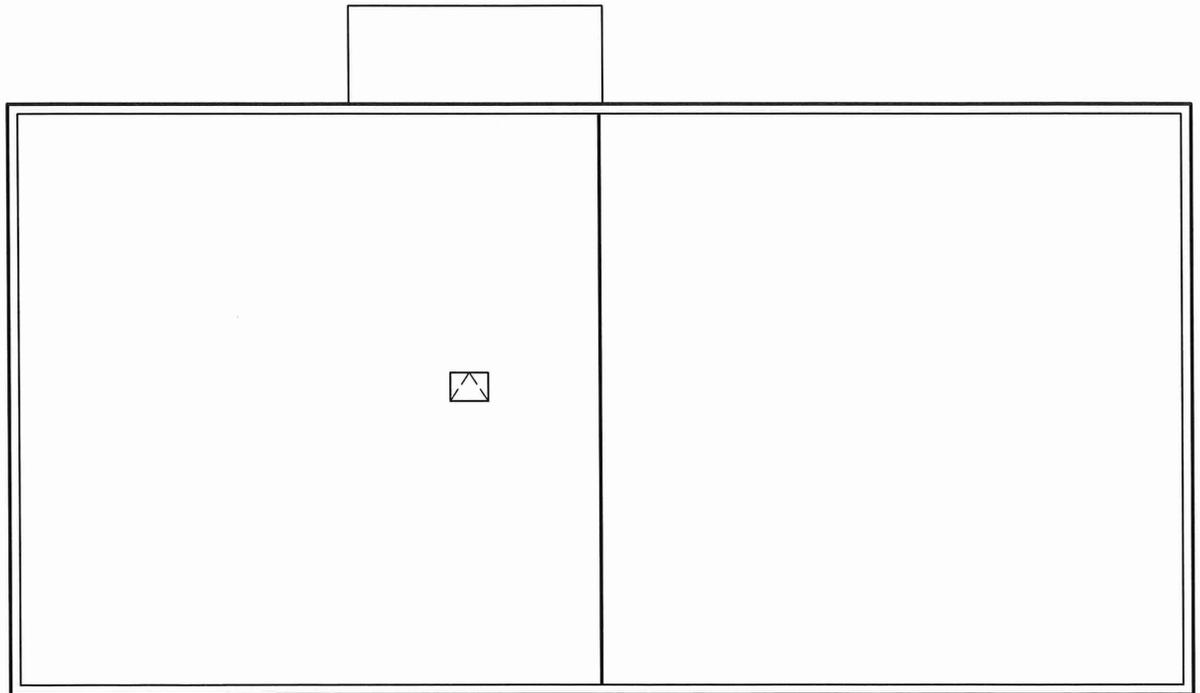




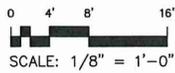
ROOF PLAN LIVING UNIT E (ballasted EPDM)
SCALE: 1/8" = 1'-0"

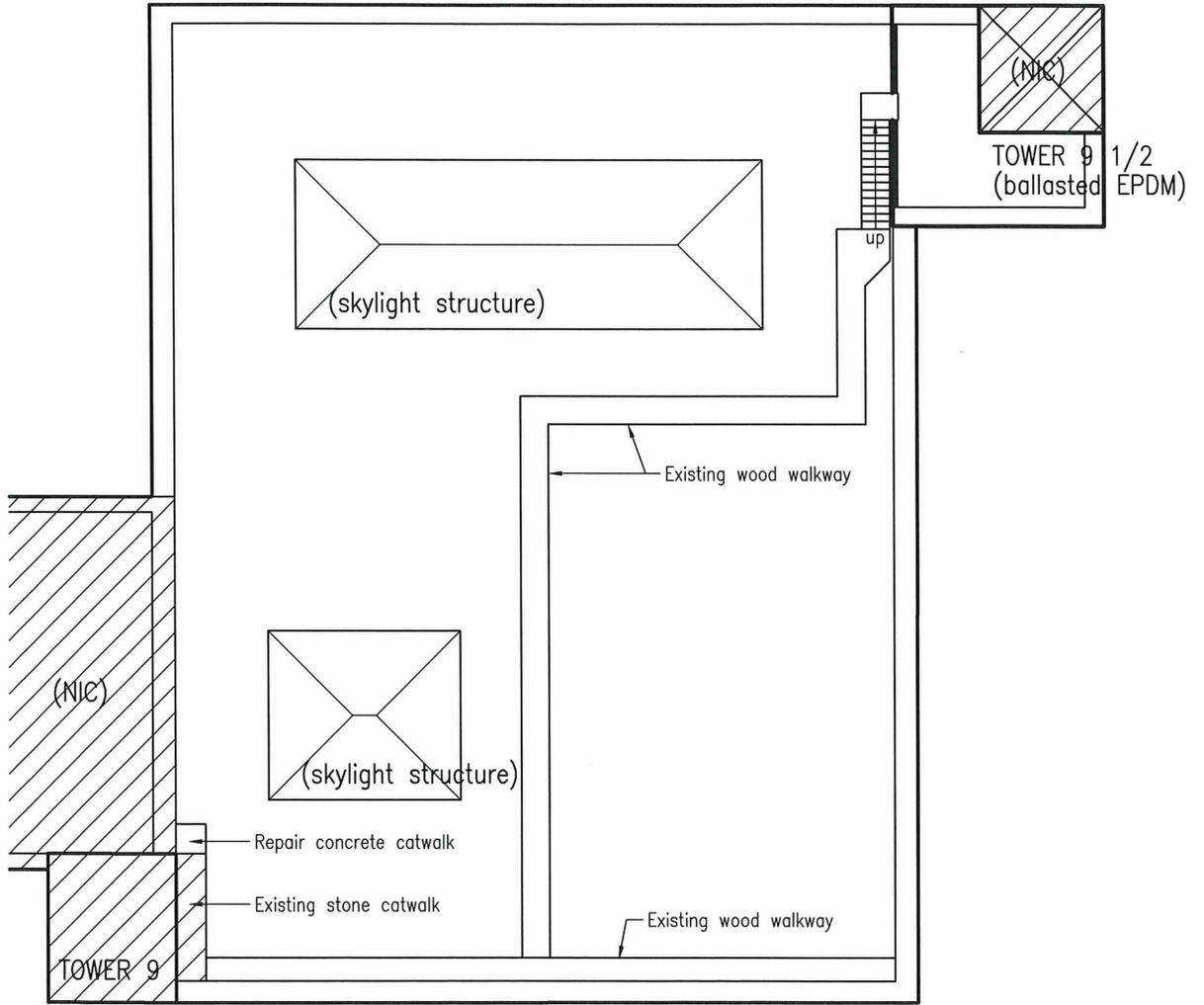


MASON SHOP STORAGE SHED
(corrugated metal)

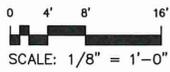


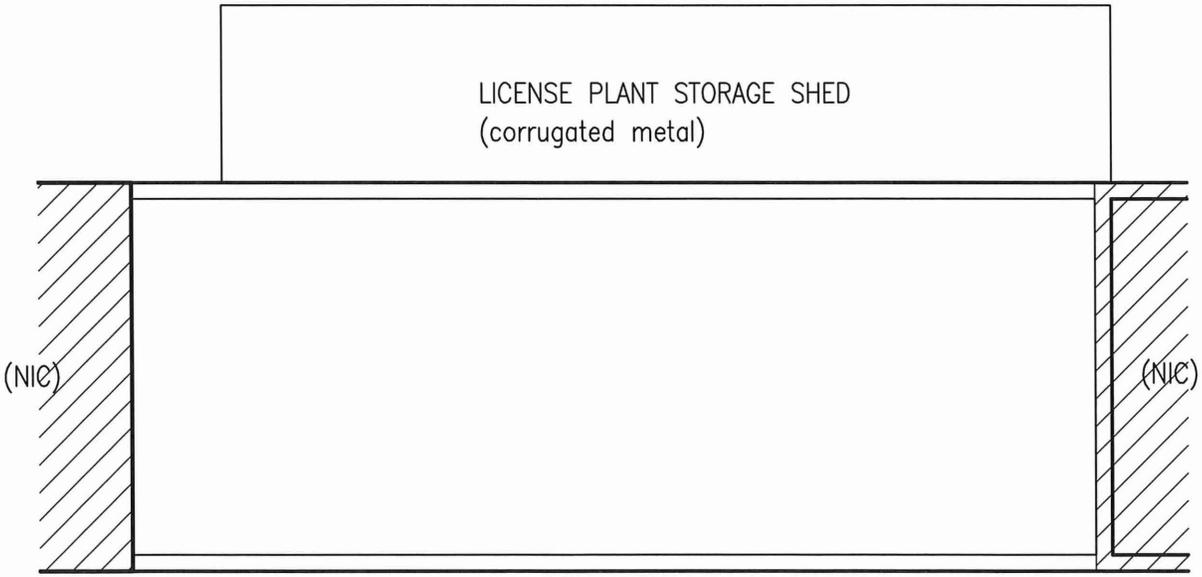
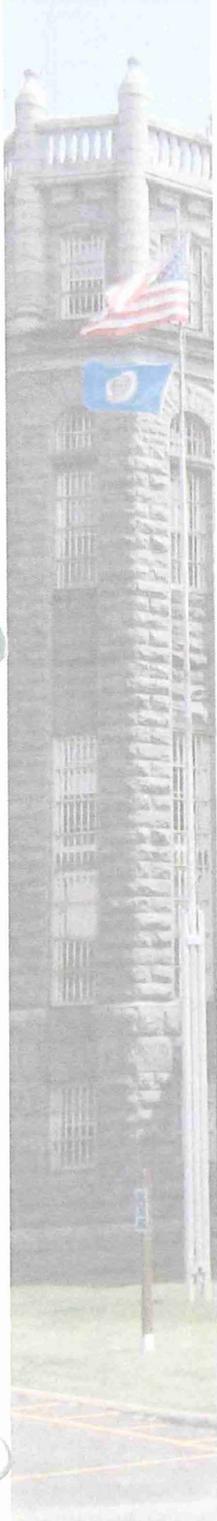
ROOF PLAN MASON SHOP (BUR)





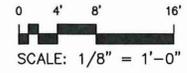
ROOF PLAN AUTO BODY / MAINTENANCE REPAIR SHOP (ballasted EPDM)



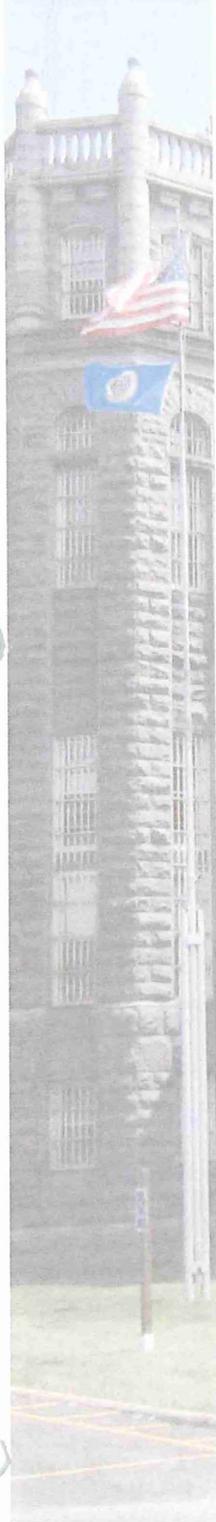


ROOF PLAN

LICENSE PLANT (ballasted EPDM)



**APPENDIX C - PHOTOGRAPHS:
PRIORITY 1: LIVING UNIT E REROOFING**



Overall view of roof looking West



Close up view of failed seam



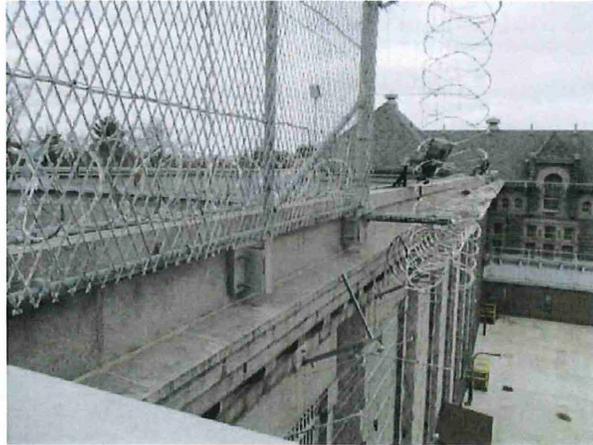
View of failed seam



view of failed patches

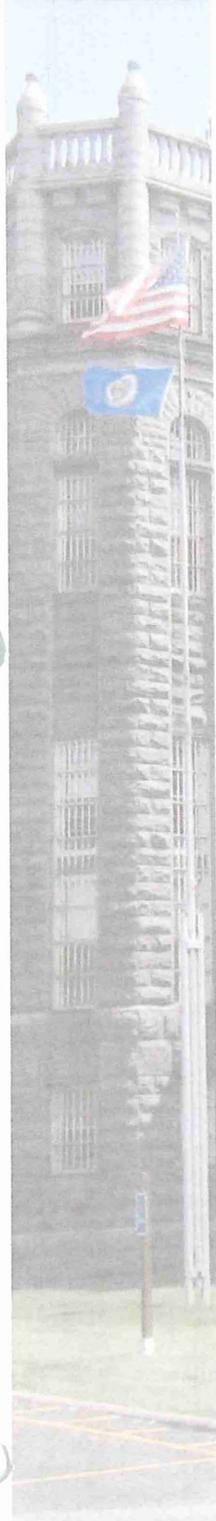


View of items mounted to North wall



View of fence on part of North wall

**APPENDIX C - PHOTOGRAPHS:
PRIORITY 2: MASON SHOP REROOFING**



Overall view of roof looking East



View of typical scupper



View of failing parapet flashing seam and finish



View of typical flashing roof to parapet transition

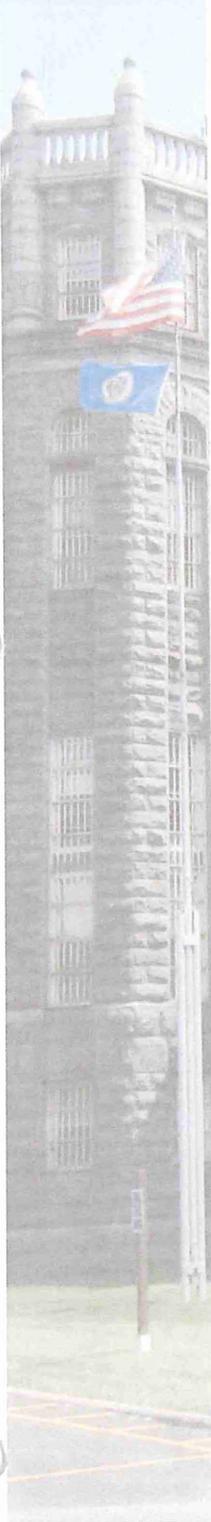


View of failing roof patches



View of shed roof on North side of building

**APPENDIX C - PHOTOGRAPHS:
PRIORITY 3: AUTO BODY / MAINTENANCE SHOP REROOFING**



Overall view of lower roof looking Southwest



View of elevated wood walkway at South wall



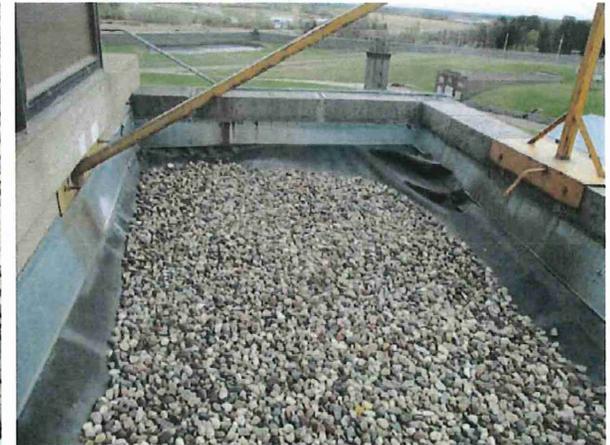
View of failing walkway slab



View of failing roof to parapet transition

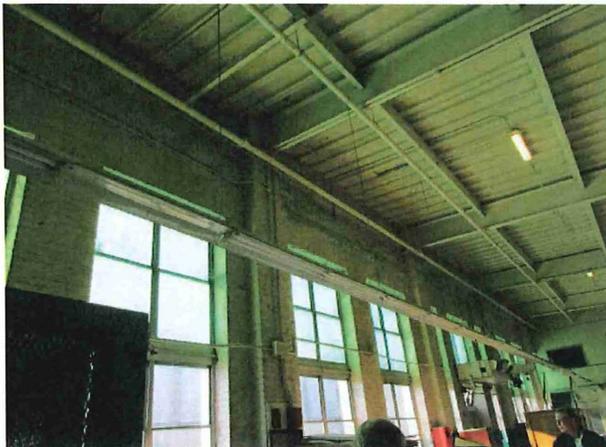
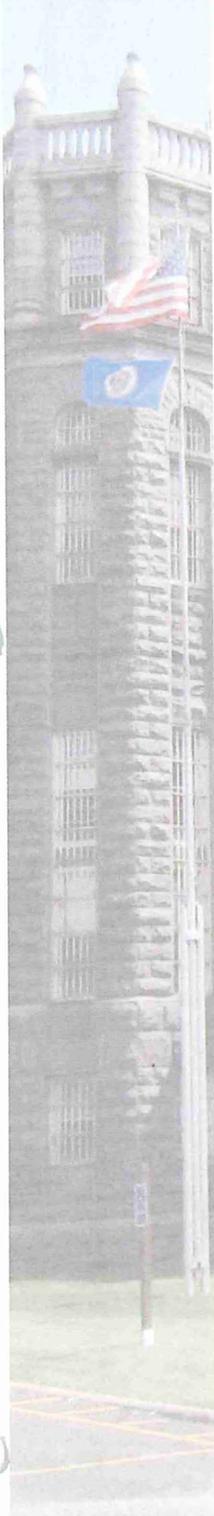


View of hole in roof membrane



View of upper roof with hoist

**APPENDIX C - PHOTOGRAPHS:
PRIORITY 4: LICENSE PLANT BUILDING FIRE SPRINKLER SYSTEM**



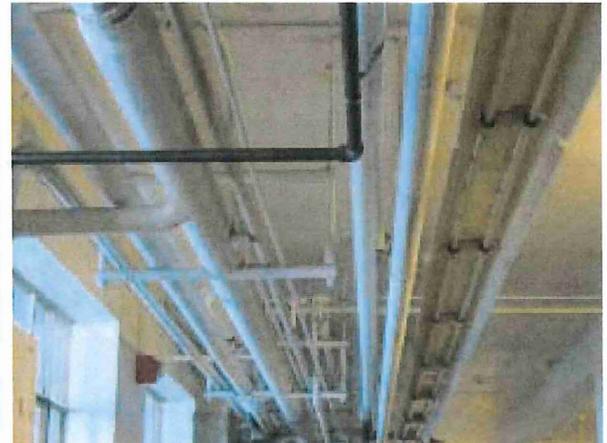
Interior view of main level



Interior view of lower level



Interior view of main level



Interior view of lower level

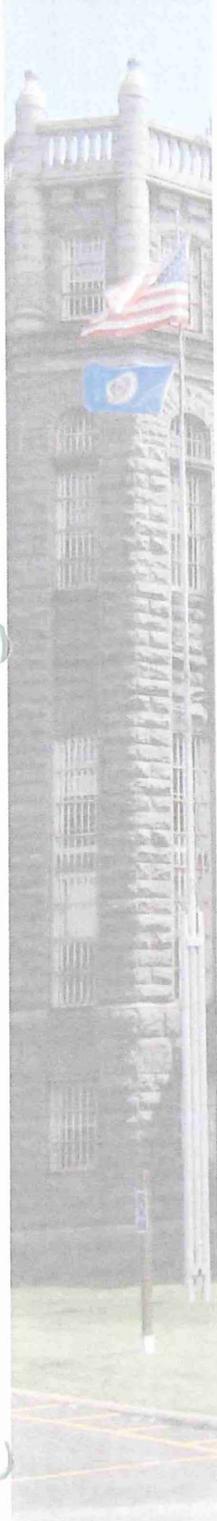


Interior view of main level



Interior view of lower level

**APPENDIX C - PHOTOGRAPHS:
PRIORITY 5: LICENSE PLANT BUILDING REROOFING**



Overall view of roof looking West



View of East parapet flashing condition



View of ductwork brackets and failing parapet joints



View of parapet transition at Northwest corner



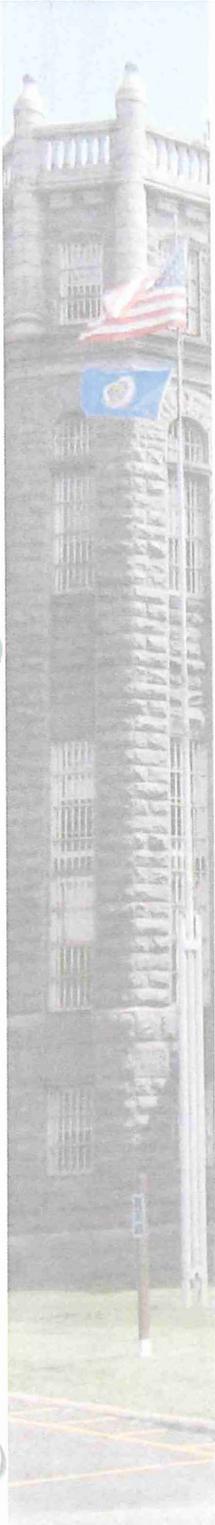
Typical view of parapet condition



View of shed roof on North side of building

APPENDIX D - COST MANAGEMENT REPORT:

**PREDESIGN
COST MANAGEMENT REPORT
FACILITY ASSET PRESERVATION STUDY
MINNESOTA CORRECTIONAL FACILITY
ST. CLOUD, MINNESOTA
20 MAY 2016 (REVISED 6/1/16)**



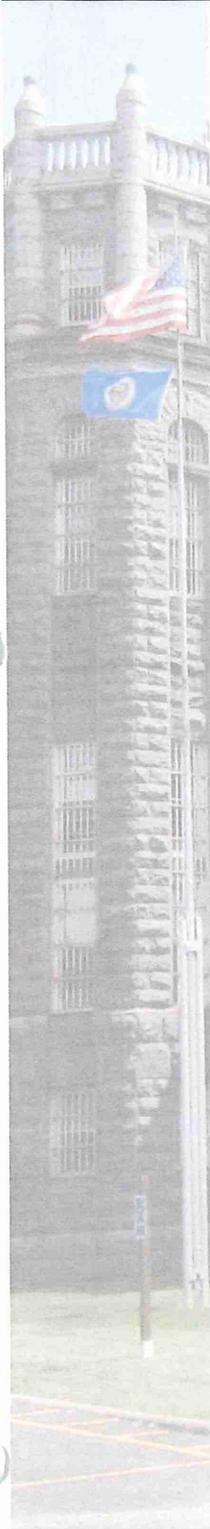
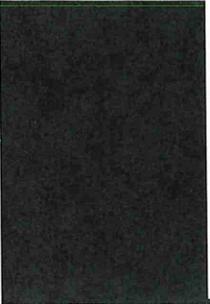
PREPARED FOR:

**HMA ARCHITECTS
ST. CLOUD, MINNESOTA**

PREPARED BY:

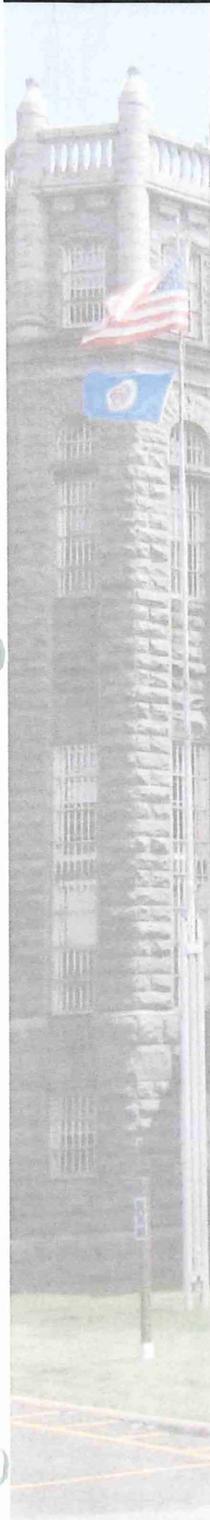
**COST, PLANNING AND MANAGEMENT INTERNATIONAL, INC.
EAGAN, MN • DES MOINES, IA**

Facility Asset Preservation Study



**PREDESIGN
COST MANAGEMENT REPORT
FACILITY ASSET PRESERVATION STUDY
MINNESOTA CORRECTIONAL FACILITY
ST. CLOUD, MINNESOTA
20 MAY 2016 (REVISED 6/1/16)**

TABLE OF CONTENTS	PAGE
<u>Project Cost Summary - Recap</u>	<u>1</u>
<u>Unit Costs</u>	<u>2 - 11</u>



**PREDESIGN
 COST MANAGEMENT REPORT
 FACILITY ASSET PRESERVATION STUDY
 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)**



CONSTRUCTION COST SUMMARY – RECAP

PRIORITY DESCRIPTION	TOTAL PROJECT COST
1. LIVING UNIT E RE-ROOFING	\$657,591
2. MASON SHOP RE-ROOFING	\$423,226
3. AUTO BODY/MAINTENANCE SHOP RE-ROOFING Alternate: Remove Skylights & Patch Roof ADD \$76,346	\$569,665
4. LICENSE PLATE BUILDING FIRE SPRINKLER	\$130,636
5. LICENSE PLATE BUILDING RE-ROOFING	<u>\$349,610</u>
TOTAL PROJECT COST	\$2,130,728

Basic Assumptions

- Items which are not in the detail of this report include, but are not limited to:
 - Provisions for liquidated or actual damages.
 - Overtime or shift work.
 - Provisions for Disadvantage Business Enterprise (DBE) et al., guidelines or goals.
 - State or Non-State project management expenses.

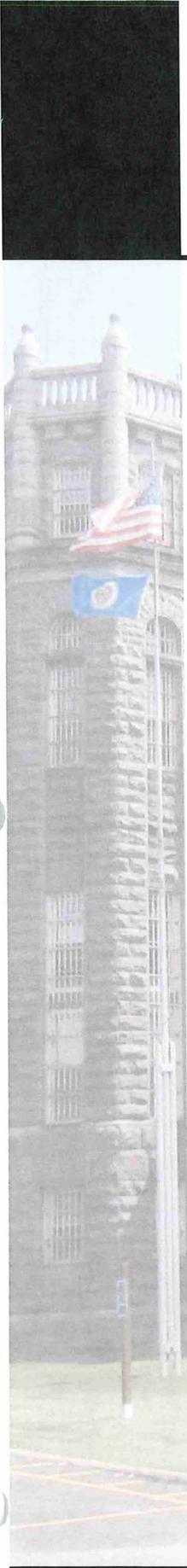


**PREDESIGN
 COST MANAGEMENT REPORT
 FACILITY ASSET PRESERVATION STUDY
 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)**



PRIORITY 1: LIVING UNIT E RE-ROOFING

DESCRIPTION	QUANTITY	UNIT COST	TOTAL \$ AMOUNT
<u>GENERAL CONSTRUCTION</u>			
Demolition			
Remove Existing Roofing Including Insulation, Flashing & Scuppers	11,625 SF	3.25	37,781
New Construction			
New Built-Up Roof Over New Roof Insulation - 20 Year Warranty	11,625 SF	16.50	191,813
60 Mil EPDM Flashing @ Vertical & Horizontal Surfaces Of Existing Stone Parapets	1,575 SF	7.50	11,813
Reflashing @ Security Fence	20 LF	200.00	4,000
Sheet Metal Cap Flashing	1,800 SF	11.50	20,700
New Pre-Painted Scupper Assemblies - Allow	5 EA	400.00	2,000
Replace Counterflashing @ Roof/Wall Transition	60 LF	35.00	2,100
Caulking/Sealants	750 LF	5.00	3,750
<u>MECHANICAL CONSTRUCTION</u>			
Demolition			
Remove Plumbing Vent Frost Flashing	1 LS	1,000.00	1,000
Remove Roof Mounted Ventilation Equipment Allowance	1 LS	2,000.00	2,000
Reinstall Plumbing & Mechanical Equipment	1 LS	2,500.00	2,500
Connect New Overflow Drain to Existing Storm Piping - Allowance	1 LS	3,500.00	3,500
Power Roof Ventilator w/Motorized Damper	3 EA	4,000.00	12,000
Roof Ventilator Hood w/Motorized Damper	3 EA	1,500.00	4,500
Tie Into Facility BAS Allowance	1 LS	5,000.00	5,000

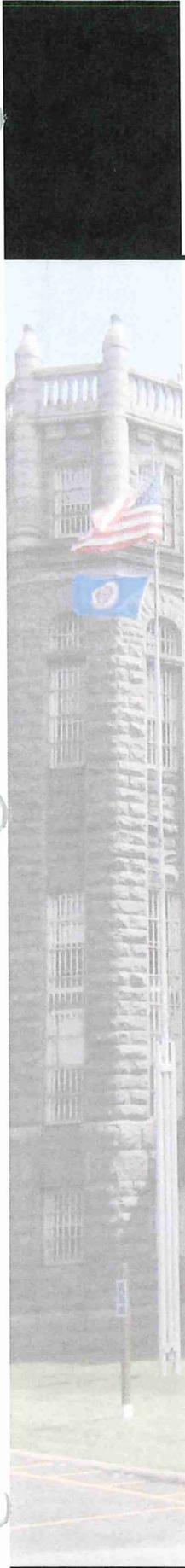


**PREDESIGN
 COST MANAGEMENT REPORT
 FACILITY ASSET PRESERVATION STUDY
 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)**

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PRIORITY 1: LIVING UNIT E RE-ROOFING

DESCRIPTION	QUANTITY	UNIT COST	TOTAL \$ AMOUNT
<u>ELECTRICAL CONSTRUCTION</u>			
Demolition			
Existing Electrical Conduit, Light Fixture, Camera Control Raceway & Other Appurtenances Will Be Temporarily Raised & Reinstall	1 LS	2,500.00	2,500
Electrical for New Power Roof Ventilators	3 EA	1,200.00	3,600
General Conditions, OH & Profit			118,012
Design Contingency - 10%			42,857
Construction Contingency - 5%			23,571
Labor/Material Escalation - 4% (08/17 Midpoint)			19,800
TOTAL CONSTRUCTION COST			\$514,797
NON-BUILDING COSTS			
Design Fees			51,480
Facility Cost (Security Escorts, Etc.)			50,000
Existing Conditions Verification/Testing			10,000
Telecommunications		n/a	0
Security Equipment		n/a	0
Project Contingency - 5%			31,314
TOTAL NON-BUILDING COSTS			\$142,794
TOTAL PROJECT COST			\$657,591



**PREDESIGN
 COST MANAGEMENT REPORT
 FACILITY ASSET PRESERVATION STUDY
 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)**

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PRIORITY 2: MASON SHOP RE-ROOFING

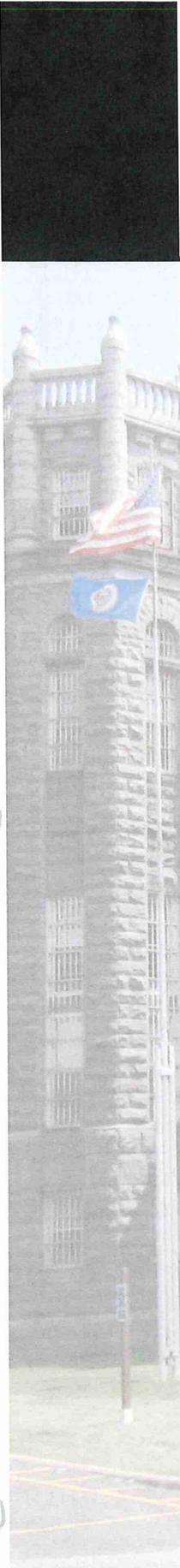
DESCRIPTION	QUANTITY	UNIT COST	TOTAL \$ AMOUNT
<u>GENERAL CONSTRUCTION</u>			
Demolition			
Remove Existing Roofing Including Insulation, Flashing & Scuppers	7,250 SF	3.25	23,563
Remove Existing Corrugated Metal Roofing & Underlayment	260 SF	2.50	650
New Construction			
New Built-Up Roof Over New Roof Insulation - 20 Year Warranty	7,250 SF	16.50	119,625
Replace/Extend Wood Divider Curbs	58 LF	40.00	2,320
60 Mil EPDM Flashing @ Vertical & Horizontal Surfaces Of Existing CMU Parapets	1,080 SF	7.50	8,100
Sheet Metal Cap Flashing	1,260 SF	11.50	14,490
New Pre-Painted Scupper Assemblies - Allow	4 EA	400.00	1,600
Downspout	80 LF	15.00	1,200
Splashblock	4 EA	40.00	160
Caulking/Sealants	600 LF	5.00	3,000
Lower Roof Area			
Replace Deteriorated Wood Deck Sections As Required - Allowance	1 LS	500.00	500
Self Adhering Roof Underlayment	260 SF	6.00	1,560
Corrugated Metal Roofing w/Exposed Fasteners	260 SF	9.50	2,470
Replace Counterflashing @ Roof/Wall Transition	26 LF	35.00	910
Caulking/Sealants	100 LF	5.00	500



**PREDESIGN
 COST MANAGEMENT REPORT
 FACILITY ASSET PRESERVATION STUDY
 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)**

PRIORITY 2: MASON SHOP RE-ROOFING

DESCRIPTION	QUANTITY	UNIT COST	TOTAL \$ AMOUNT
<u>MECHANICAL CONSTRUCTION</u>			
Demolition			
Remove Plumbing Vent Frost Flashing	1 LS	1,000.00	1,000
Remove Roof Mounted Ventilation Equipment			
Allowance	1 LS	3,000.00	3,000
Reinstall Plumbing & Mechanical Equipment	1 LS	3,500.00	3,500
General Conditions, OH & Profit			71,496
Design Contingency - 10%			25,964
Construction Contingency - 5%			14,280
Labor/Material Escalation - 4% (08/17 Midpoint)			11,996
TOTAL CONSTRUCTION COST			\$311,884
NON-BUILDING COSTS			
Design Fees			31,188
State Project Management			50,000
Facility Cost (Security Escorts, Etc.)			10,000
Telecommunications		n/a	0
Security Equipment		n/a	0
Project Contingency - 5%			20,154
TOTAL NON-BUILDING COSTS			\$111,342
TOTAL PROJECT COST			\$423,226

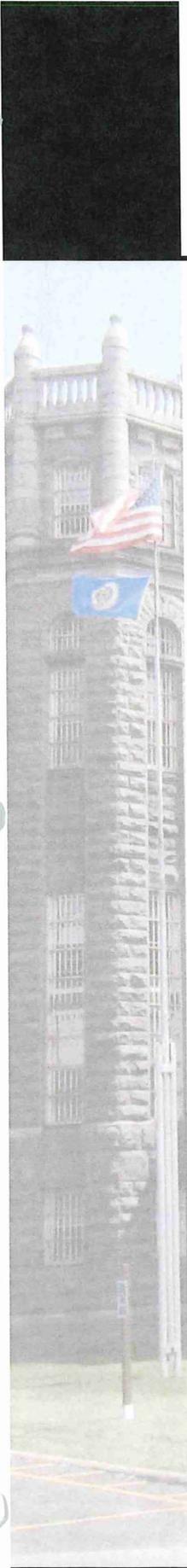


**PREDESIGN
 COST MANAGEMENT REPORT
 FACILITY ASSET PRESERVATION STUDY
 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)**



PRIORITY 3: AUTO BODY/MAINTENANCE SHOP RE-ROOFING

DESCRIPTION	QUANTITY	UNIT COST	TOTAL \$ AMOUNT
<u>GENERAL CONSTRUCTION</u>			
Demolition			
Remove Existing Roofing Including Insulation, Flashing & Scuppers	8,600 SF	3.25	27,950
Remove Wood Walkways & Supports	535 SF	6.00	3,210
New Construction			
New Built-Up Roof Over New Roof Insulation - 20 Year Warranty	7,330 SF	16.50	120,945
New 60 Mil EPDM Membrane @ Sloped Skylight Structure:	1,270 SF	10.00	12,700
60 Mil EPDM Flashing @ Vertical & Horizontal Surfaces Of Existing Stone Parapets	1,225 SF	7.50	9,188
Sheet Metal Cap Flashing	1,400 SF	11.50	16,100
New Pre-Painted Scupper Assemblies - Allow	1 EA	400.00	400
Downspout	10 LF	15.00	150
Splashblock	1 EA	40.00	40
Expanded Grate Metal Walkway	535 SF	70.00	37,450
Temporarily Remove Stair, Construct Curbing, Membrane & Metal Cap Flashing, Modify Support Posts, Reinstall Stairs	1 LS	2,000.00	2,000
Caulking/Sealants	500 LF	5.00	2,500
<u>MECHANICAL CONSTRUCTION</u>			
Demolition			
Remove Plumbing Vent Frost Flashing	1 LS	1,000.00	1,000
Remove Roof Mounted Ventilation Equipment Allowance	1 LS	2,000.00	2,000
Remove Existing Roof Drain - Allow	6 EA	350.00	2,100
New Roof Drain w/Guards & Flashing Clamps	6 EA	650.00	3,900
New Overflow Drain & Associated Piping	6 EA	3,000.00	18,000
Reinstall Plumbing & Mechanical Equipment	1 LS	2,500.00	2,500



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 COST MANAGEMENT REPORT
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 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)**

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PRIORITY 3: AUTO BODY/MAINTENANCE SHOP RE-ROOFING

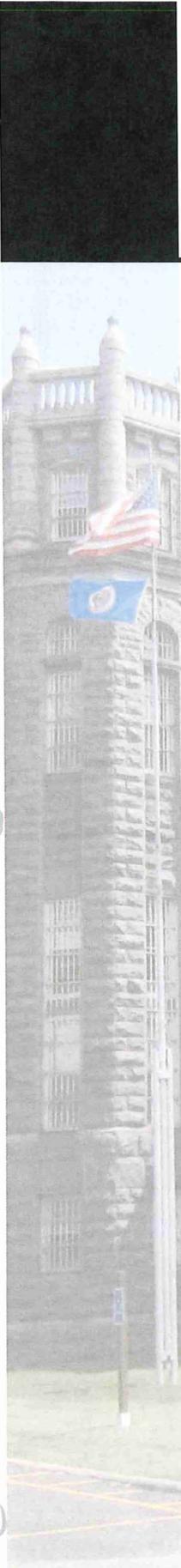
DESCRIPTION	QUANTITY	UNIT COST	TOTAL \$ AMOUNT
<u>ELECTRICAL CONSTRUCTION</u>			
Demolition			
Existing Electrical Conduit, Light Fixture, Camera Control Raceway & Other Appurtenances Will Be Temporarily Raised & Reinstall	1 LS	2,500.00	2,500
General Conditions, OH & Profit			100,561
Design Contingency - 10%			36,519
Construction Contingency - 5%			20,086
Labor/Material Escalation - 4% (08/17 Midpoint)			16,872
TOTAL CONSTRUCTION COST			\$438,671
NON-BUILDING COSTS			
Design Fees			43,867
Facility Cost (Security Escorts, Etc.)			50,000
Existing Conditions Verification/Testing			10,000
Telecommunications		n/a	0
Security Equipment		n/a	0
Project Contingency - 5%			27,127
TOTAL NON-BUILDING COSTS			\$130,994
TOTAL PROJECT COST			\$569,665

PREDESIGN
 COST MANAGEMENT REPORT
 FACILITY ASSET PRESERVATION STUDY
 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)

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PRIORITY 3: AUTO BODY/MAINTENANCE SHOP RE-ROOFING

DESCRIPTION	QUANTITY	UNIT COST	TOTAL \$ AMOUNT
ALTERNATE			
Remove skylights and patch roof.			
Deduct			
New 60 Mil EPDM Membrane @ Sloped Skylight Structure:	-1,270 SF	10.00	-12,700
Add			
Remove Existing Skylights	1,270 SF	8.50	10,795
Install W12x22 Steel Beams	252 LF	55.00	13,860
Misc Metals Allowance	1 LS	750.00	750
Metal Roof Deck	1,270 LS	4.50	5,715
New Roofing	1,270 SF	16.50	20,955
Misc Flashing	1 LS	500.00	500
General Conditions, OH & Profit			15,153
Design Contingency - 10%			5,503
Construction Contingency - 5%			3,027
Labor/Material Escalation - 4% (08/17 Midpoint)			2,542
TOTAL CONSTRUCTION COST			\$66,100
NON-BUILDING COSTS			
Design Fees			6,610
Project Management (State/Non-State)		n/a	0
FF&E		n/a	0
Telecommunications		n/a	0
Security Equipment		n/a	0
Project Contingency - 5%			3,636
TOTAL NON-BUILDING COSTS			\$10,246
TOTAL PROJECT COST – ALTERNATE		ADD	\$76,346

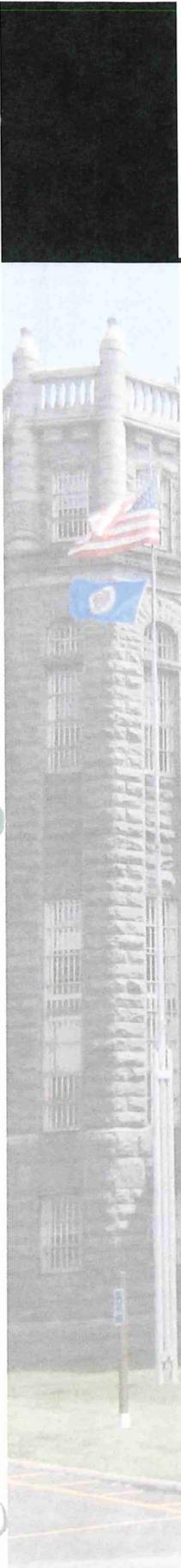


**PREDESIGN
 COST MANAGEMENT REPORT
 FACILITY ASSET PRESERVATION STUDY
 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)**

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PRIORITY 4: LICENSE PLATE BUILDING FIRE SPRINKLER

DESCRIPTION	QUANTITY	UNIT COST	TOTAL \$ AMOUNT
<u>MECHANICAL CONSTRUCTION</u>			
Extend Existing Automatic Wet Pipe Sprinkler System:			
Ordinary (Level II) Hazard Occupancy	8,960 SF	4.75	42,560
Upgrade Fire Department Connections & Standpipes	1 LS	1,500.00	1,500
General Conditions, OH & Profit			19,827
Design Contingency - 10%			6,389
Construction Contingency - 5%			3,514
Labor/Material Escalation - 4% (08/17 Midpoint)			2,952
TOTAL CONSTRUCTION COST			\$76,741
NON-BUILDING COSTS			
Design Fees			7,674
Facility Cost (Security Escorts, Etc.)			30,000
Existing Conditions Verification/Testing			10,000
Telecommunications		n/a	0
Security Equipment		n/a	0
Project Contingency - 5%			6,221
TOTAL NON-BUILDING COSTS			\$53,895
TOTAL PROJECT COST			\$130,636

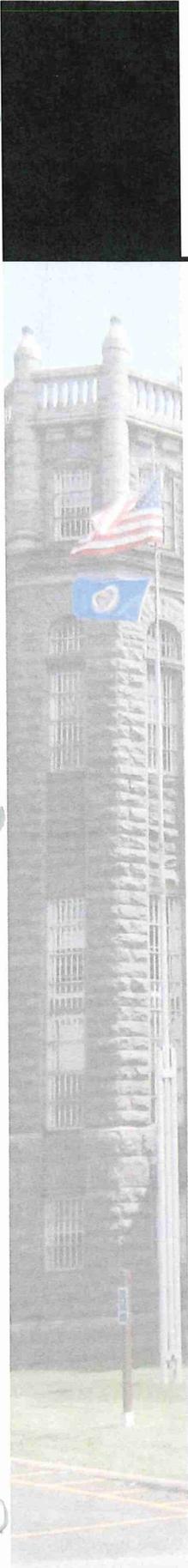


**PREDESIGN
 COST MANAGEMENT REPORT
 FACILITY ASSET PRESERVATION STUDY
 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)**

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PRIORITY 5: LICENSE PLATE BUILDING RE-ROOFING

DESCRIPTION	QUANTITY	UNIT COST	TOTAL \$ AMOUNT
<u>GENERAL CONSTRUCTION</u>			
Demolition			
Remove Existing Roofing Including Insulation, Flashing & Scuppers	3,930 SF	3.25	12,773
Remove Existing Stucco Finish @ West Wall	120 SF	7.50	900
Remove Existing Corrugated Metal Roofing & Underlayment	1,650 SF	2.50	4,125
New Construction			
New Built-Up Roof Over New Roof Insulation - 20 Year Warranty	3,930 SF	16.50	64,845
60 Mil EPDM Flashing @ Vertical & Horizontal Surfaces Of Existing Stone Parapets	700 SF	7.50	5,250
Sheet Metal Cap Flashing	800 SF	11.50	9,200
Install Prefinished Metal Covers Over Metal Brackets Supporting Existing Chimneys	1 LS	1,000.00	1,000
West Wall			
Fluid Applied Weather Barrier	120 SF	6.00	720
Prefinished Metal Wall Panels on Hat Channels	120 SF	38.00	4,560
Replace Counterflashing @ Roof/Wall Transition	40 LF	35.00	1,400
Caulking/Sealants	300 LF	5.00	1,500
Lower Roof Area			
Replace Deteriorated Metal Deck Sections As Required - Allowance	1 LS	1,000.00	1,000
Self Adhering Roof Underlayment	1,650 SF	6.00	9,900
Corrugated Metal Roofing w/Exposed Fasteners	1,650 SF	9.50	15,675
Replace Counterflashing @ Roof/Wall Transition	90 LF	35.00	3,150
Caulking/Sealants	200 LF	5.00	1,000



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 COST MANAGEMENT REPORT
 FACILITY ASSET PRESERVATION STUDY
 MINNESOTA CORRECTIONAL FACILITY
 ST. CLOUD, MINNESOTA
 20 MAY 2016 (REVISED 6/1/16)**



PRIORITY 5: LICENSE PLATE BUILDING RE-ROOFING

DESCRIPTION	QUANTITY	UNIT COST	TOTAL \$ AMOUNT
<u>MECHANICAL CONSTRUCTION</u>			
Demolition			
Remove Plumbing Vent Frost Flashing	1 LS	1,000.00	1,000
Remove Roof Mounted Ventilation Equipment Allowance	2 EA	1,000.00	2,000
Remove Ducts From Lower Roof Attached to Wall	4 EA	1,800.00	7,200
Reinstall Plumbing & Mechanical Equipment	1 LS	2,500.00	2,500
General Conditions, OH & Profit			56,885
Design Contingency - 10%			20,658
Construction Contingency - 5%			11,362
Labor/Material Escalation - 4% (08/17 Midpoint)			9,544
TOTAL CONSTRUCTION COST			\$248,147
NON-BUILDING COSTS			
Design Fees			24,815
Facility Cost (Security Escorts, Etc.)			50,000
Existing Conditions Verification/Testing			10,000
Telecommunications		n/a	0
Security Equipment		n/a	0
Project Contingency - 5%			16,648
TOTAL NON-BUILDING COSTS			\$101,463
TOTAL PROJECT COST			\$349,610