Municipal Building 625 52nd Street – Room 202	***Kenosha Historic Preservation Commission Agenda***	**September 11, 2014 5:00 p.m.**
Alderman Jan Michalski - Chairman and Merike Phillips - Vice-Chairperson, Peter Shaw Johnson, Royanne Moon, Sue Dyke O'Day and William Siel		

Call to Order and Roll Call

Approval of Minutes from May 29, 2014

1. Certificate of Appropriateness for Residences at Library Park Apartments at 720 59th Place, Library Park Historic District. (Old YMCA) (District #2) PUBLIC HEARING

2. Certificate of Appropriateness for Gilbert M. Simmons Memorial Library at 711 59th Place, Library Park Historic District. (District #2) PUBLIC HEARING

3. Certificate of Appropriateness for Southport Beach House at 7825 3rd Avenue, Southport Park. (District #12) PUBLIC HEARING

Public Comments

Commissioner Comments

Staff Comments

Adjournment

Community Development & Inspections
625 52nd Street – Room 308
Kenosha, WI 53140
262.653.4030 phone / 262.653.4045 fax
www.kenosha.org

If you are disabled in need of assistance, please call 262.653.4030 at least 72 hours before this meeting.

Notice is hereby given that a majority of the members of the Common Council may be present at the meeting. Although this may constitute a quorum of the Common Council, the Council will not take any action at this meeting.

HISTORIC PRESERVATION COMMISSION
Minutes
May 29, 2014

MEMBERS PRESENT: Alderperson Jan Michalski, Merike Phillips, Peter Shaw Johnson, Royanne Moon and Sue Dyke O'Day

EXCUSED: Violet Ricker and William Siel

STAFF PRESENT: Mike Maki

Other present included: Alderperson Wicklund

The meeting was called to order at 5:03 p.m. by Alderperson Michalski and roll call was taken.

A motion was made by Ms. Phillips and seconded by Ms. O'Day to approve the minutes of the March 27, 2014 meeting. The motion passed unanimously. (Ayes 5; Noes 0)

1. **Certificate of Appropriateness for Alexander B. McCall House at 6334 Third Avenue, Third Avenue Historic District. (District #2) PUBLIC HEARING**

Chris Bower, Rainbow International Restoration, 1811 Seminole Drive, Kansasville, gave an overview of the work to be completed on the smoke damaged home. Mr. Bower noted that glass companies no longer make the diamond green glass that exists in many of the windows. They propose to keep the arched style and insert replacement windows. Some of the windows were replaced prior to the fire.

Public hearing closed.

Mike Maki, Community Development Specialist, said the new windows will replicated and retain the historic value as much as possible. This Commission's recommendation is advisory only.

Ms. Phillips asked the extent of the damage to the nine (9) windows with the green diamond glass. Mr. Bower said they are cracked, which would compromise ability to make them weather-tight. Ms. Phillips recommends looking into repairing the existing glass and adding a weather-tight interior storm window. Ms. Phillips also suggested if the windows cannot be repaired they should be saved instead of scrapped. The windows may be usable to someone else as an interior window broken down as parts.

Alderperson Michalski said he would love to see the beveled glass, even if it is not green glass. Mr. Bower said we could use beveled glass, but it would compromise the R-value.

Mr. Maki asked what is the condition of the sun room windows on the south side? Mr. Bower said it had severe smoke damage, but he is unsure of how many windows are cracked or broken. Mr. Bower noted his concern of replacing glass only and not entire window frame and sash. Mr. Bower is concerned that leaving the existing framework in the windows will retain some of the smoke smell within the home. Their company usually applies a treatment to contain the aroma, but they are not able to do that because of the plaster wrapping the window area.

Ms. Moon asked if any of the windows were salvageable at all. Mr. Bower said that in the coat closet and a few others just had smoke damage.

Alderperson Michalski asked how long the restoration would take. Mr. Bower said 5-6 months.

A motion was made by Ms. Phillips and seconded by Ms. Moon to approve the Certificate of Appropriateness with a recommendation to retain the remaining nine (9) arched windows with the diamond pattern glass. The motion passed. (Ayes 5, Noes 0)

Public Comments

No Public comments.

Commissioner Comments

Ms. Phillips asked what is the status of the Southport Beach House and the status of the Streetcar route. Mr. Maki said the plans for the South port Beach House are being reviewed by the State Historical Society. Regarding the streetcar route, Mr. Maki will obtain an update on the three alternatives and what changes were made.

Ms. O'Day noted she will not be attending the June meeting.

Ms. Moon said that after the last meeting she contacted the principals at Harborside and Reuther about the restoration of the Moose Lodge. They were appreciative for the notification.

Staff Comments

Mr. Maki noted that Simmons Library will be doing a roof project in the near future.

A motion was made by Ms. O'Day and seconded by Mr. Johnson to adjourn the meeting. The motion passed unanimously. (Ayes 5; Noes 0) The meeting adjourned at 5:33 p.m.

Meeting Minutes Prepared by: Kay Schueffner, Community Development & Inspections

Community Development & Inspections 625 52nd Street - Room 308 Kenosha, WI 53140 262.653.4030	Kenosha Historic Preservation Commission FACT SHEET	September 11, 2014	Item 1 Page 1

Certificate of Appropriateness for Residences at Library Park Apartments at 720 59th Place, Library Park Historic District. (Old YMCA) (District #2) PUBLIC HEARING

PURPOSE:

Review proposed alteration

HISTORIC DISTRICT:

Library Park

NOTIFICATIONS/PROCEDURES:

The alderman of the district, Alderperson Jenkins, has been notified.

ANALYSIS:

- Section 15.10 of the Zoning Ordinance requires a Certificate of Appropriateness for any exterior alteration, rehabilitation, reconstruction, or restoration of a Historic Structure that is not classified as an exempt item.
- Varin/Library Park LLC is the owner of the Old YMCA property and has submitted a Certificate of Appropriateness application for the conversion of the building into forty-five (45) apartments. The existing non-contributing 1975 addition will also be razed to accommodate parking.
- The conversion will require the modification of existing windows, including reinstalling windows that historically were on the building in the past.
- In other areas of the building, new windows are proposed within existing recessed areas where windows were not historically located, including the gymnasium area on the northern portion of the building.
- Included with the application are existing elevations depicting demolition and/or alterations, and proposed elevations following the demolition and/or alteration of all four building elevations.
- The applicant has been working with the State Historical Society since Historic Preservation tax credits will be used to renovate the building.
- The applicant has previously reviewed the project with the Historic Preservation Commission on two occasions. At the last review, the applicant informed the Commission that the State and National Park Service are requiring that some of the new windows look different than the historic divided lite windows. Where windows are being reinstalled in the same configuration (length, width and appearance) as historic windows, the applicant was permitted to install historically-matching windows. Where windows are being installed where there were never windows, or in a different configuration (length, width), those windows are required to look different.
- All windows are proposed to be extruded aluminum framed out-swing casement windows in a kynar charcoal gray color to match existing.
- Note 111 on the plans refers to new copper downspouts that will be installed to match existing downspouts.

- Limestone that is distressed and marked with an "X" on the plan will be repaired and/or replaced.
- The existing concrete steps on the northwest side of the building will be removed and replaced with a new handicapped ramp (Note 107 on Sheet A2.9 and Sheet A4.4).
- Sheet A4.1 (Note 108) shows that the main limestone steps will be repaired or replaced.
- New windows (Note 104) will be installed in the stone elevations with reconstructed stone mullions to match the existing window frame profile. These windows will not have divided lites and will also feature a spandrel panel in the middle section.
- Windows with Note 103 are lengthened from the historic windows. These windows are required to look different and will not have divided lites. Spandrel glass will also be located in the middle sections.
- Windows with Note 102 will be installed in the existing stone openings with an adjusted sill height.
- Windows with Note 101 are being reinstalled in their historic configuration with divided lites. These windows were covered up by the 1975 addition.
- A new parking lot is proposed where the 1975 building addition will be razed. The lot will be screened by a new iron fence with stone pillars on the south elevation, and by landscaping on the North.
- The project was reviewed in conformance with Section 15.10 D. of the Zoning Ordinance, pertaining to Standards for Granting Certificate of Appropriateness. The project meets Standard 10, "*New additions, exterior alterations, or related new construction do not destroy historic materials that characterize the Historic District, structure or site.*" The project is also in conformance with Standard 12 since a new ramp will be installed to provide access to the handicapped.
- The project was also reviewed against the Secretary of Interior Standards and Guidelines. The repair and/or replacement of limestone with in-kind limestone meets the guidelines and standards. Windows that are reinstalled in their historic configurations meets the standards and guidelines. Generally, changing the historic appearance of windows which changes the muntin configurations and sizes of windows is not recommended. However, it is also not recommended to create a false sense of historic identity. In this case, the State has recommended that new windows where there were never a window, and window locations that have been changed in size, are required to look different than the historic configuration.

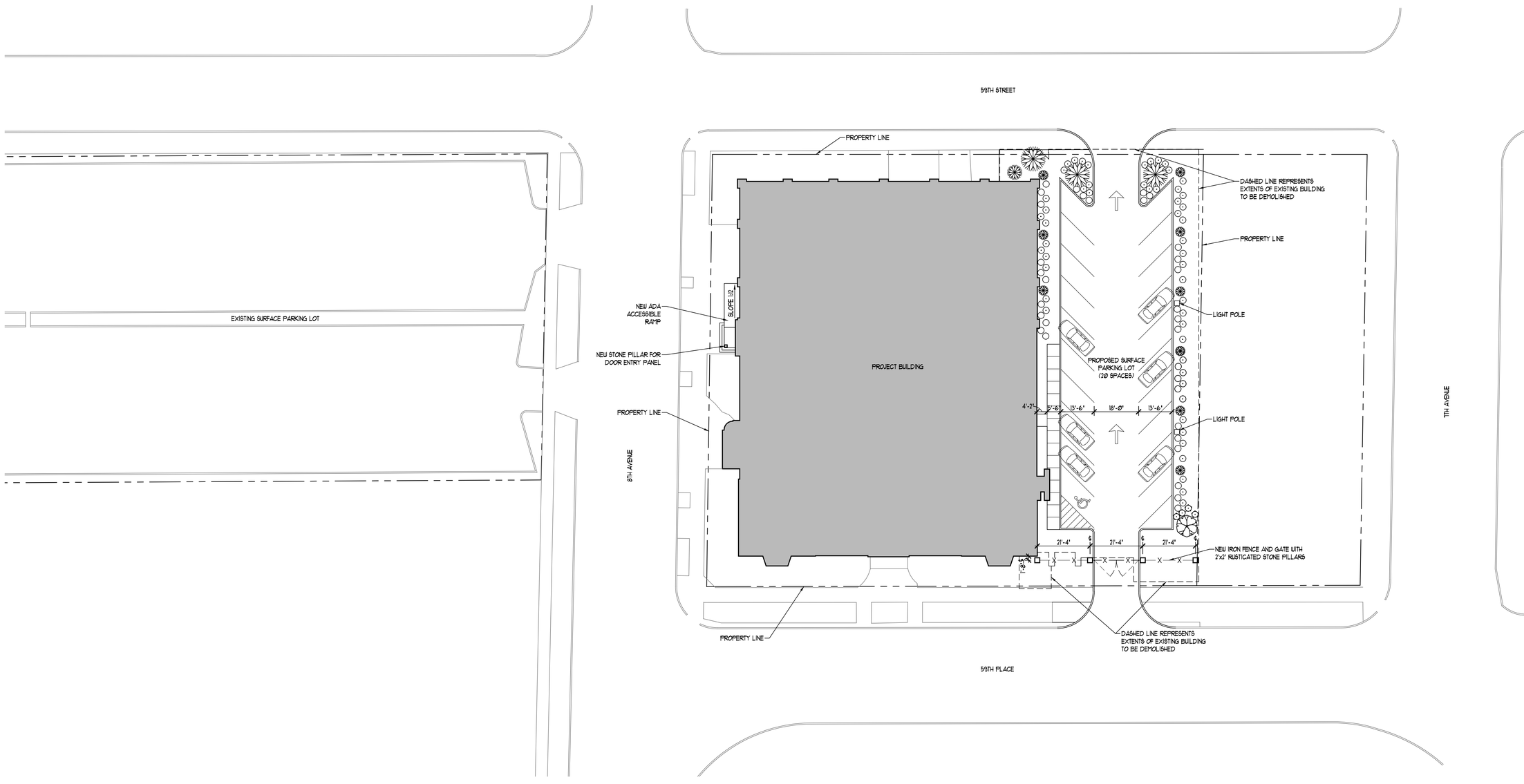
RECOMMENDATION:

A recommendation is made to approve the Certificate of Appropriateness in conformance with Standards 10 and 12 of Section 15.10 D. of the Zoning Ordinance for the City of Kenosha, in conformance with the Secretary of Interior Standards and Guidelines, as well as the Library Park Preservation Plan.

Michael Maki, A.I.C.P.

Jeffrey B. Labahn, Director

/u2/acct/cp/ckays/1HIST PRES/2014/SEP11/Fact-ResLibPark.odt



1 A1.2 ARCHITECTURAL SITE PLAN
1" = 20'

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

ARCHITECTURAL SITE PLAN

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

Partners in Design
ARCHITECTS

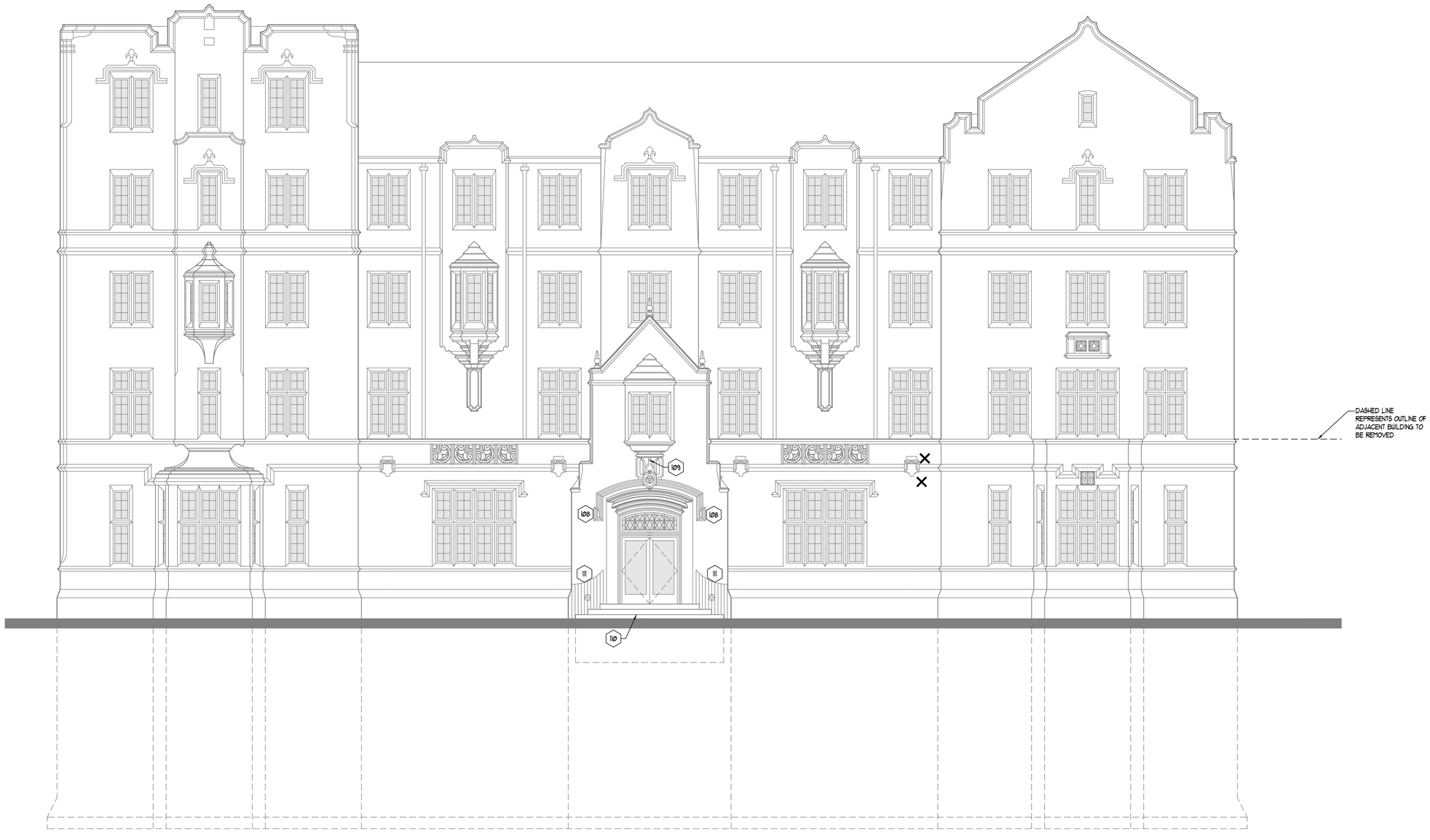
PROJECT NO.: 457.09.001
DRAWN BY: PAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A1.2

DEMOLITION ELEVATION GENERAL NOTES

1. REMOVE FAILING, DAMAGED, AND/OR SPALLING LIMESTONE MASONRY AS NEEDED AND REPLACE WITH NEW CAST STONE TO MATCH TEXTURE AND COLOR OF EXISTING.
2. DEMOLISH THE 1975 BUILDING ADDITION TO THE EAST OF THE 1929 BUILDING IN ITS ENTIRETY. ENCLOSE EXISTING OPENINGS BETWEEN THE TWO BUILDINGS AS ILLUSTRATED IN THE FLOOR PLANS AND PROPOSED ELEVATIONS.
3. SYMBOL ✕ DENOTES LOCATIONS OF DISTRESSED LIMESTONE. REPAIR OR REPLACE AS DETERMINED BY MASONRY CONSULTANT.

DEMOLITION ELEVATION KEY NOTES

- 101 REMOVE WINDOW(S) - PRESERVE STONE MULLIONS WHERE PRESENT.
- 102 REMOVE SECTION OF EXTERIOR STONE WALL FOR NEW WINDOWS.
- 103 REMOVE CONCRETE BLOCK TO RESTORE ORIGINAL WINDOW OPENING.
- 104 REMOVE STONE SPANDREL PANEL - PRESERVE STONE MULLIONS.
- 105 REMOVE DOOR AND FRAME.
- 106 REMOVE LOUVERS - PRESERVE STONE MULLIONS WHERE PRESENT.
- 107 REMOVE CONCRETE STEPS.
- 108 EXISTING EXTERIOR LIGHTING TO REMAIN.
- 109 FLAG POLES TO REMAIN.
- 110 REPAIR EXISTING LIMESTONE STEPS AS REQUIRED.
- 111 EXISTING RAILINGS TO REMAIN.



1 A2.6 DEMOLITION SOUTH ELEVATION
3/16" = 1'-0"

REVISIONS:

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

DEMOLITION SOUTH ELEVATION

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

Partners in Design ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: FAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A2.6

DEMOLITION ELEVATION GENERAL NOTES

1. REMOVE FAILING, DAMAGED, AND/OR SPALLING LIMESTONE MASONRY AS NEEDED AND REPLACE WITH NEW CAST STONE TO MATCH TEXTURE AND COLOR OF EXISTING.
2. DEMOLISH THE 1975 BUILDING ADDITION TO THE EAST OF THE 1929 BUILDING IN ITS ENTIRETY. ENCLOSE EXISTING OPENINGS BETWEEN THE TWO BUILDINGS AS ILLUSTRATED IN THE FLOOR PLANS AND PROPOSED ELEVATIONS.
3. SYMBOL ✕ DENOTES LOCATIONS OF DISTRESSED LIMESTONE. REPAIR OR REPLACE AS DETERMINED BY MASONRY CONSULTANT.

DEMOLITION ELEVATION KEY NOTES

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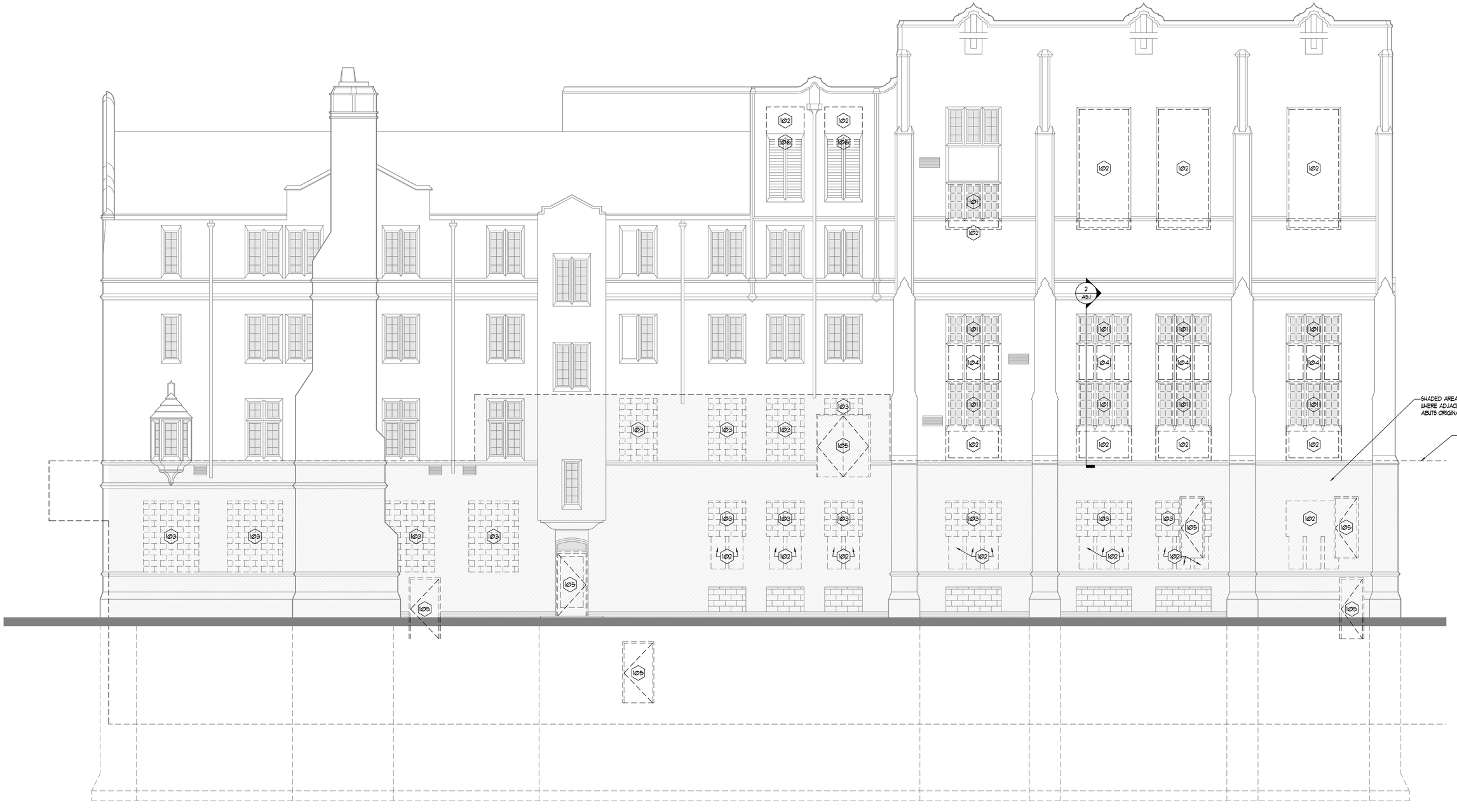

1 A2.7 DEMOLITION EAST ELEVATION
3/16" = 1'-0"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

DEMOLITION EAST ELEVATION

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

Partners in Design ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: FAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A2.7

DEMOLITION ELEVATION GENERAL NOTES

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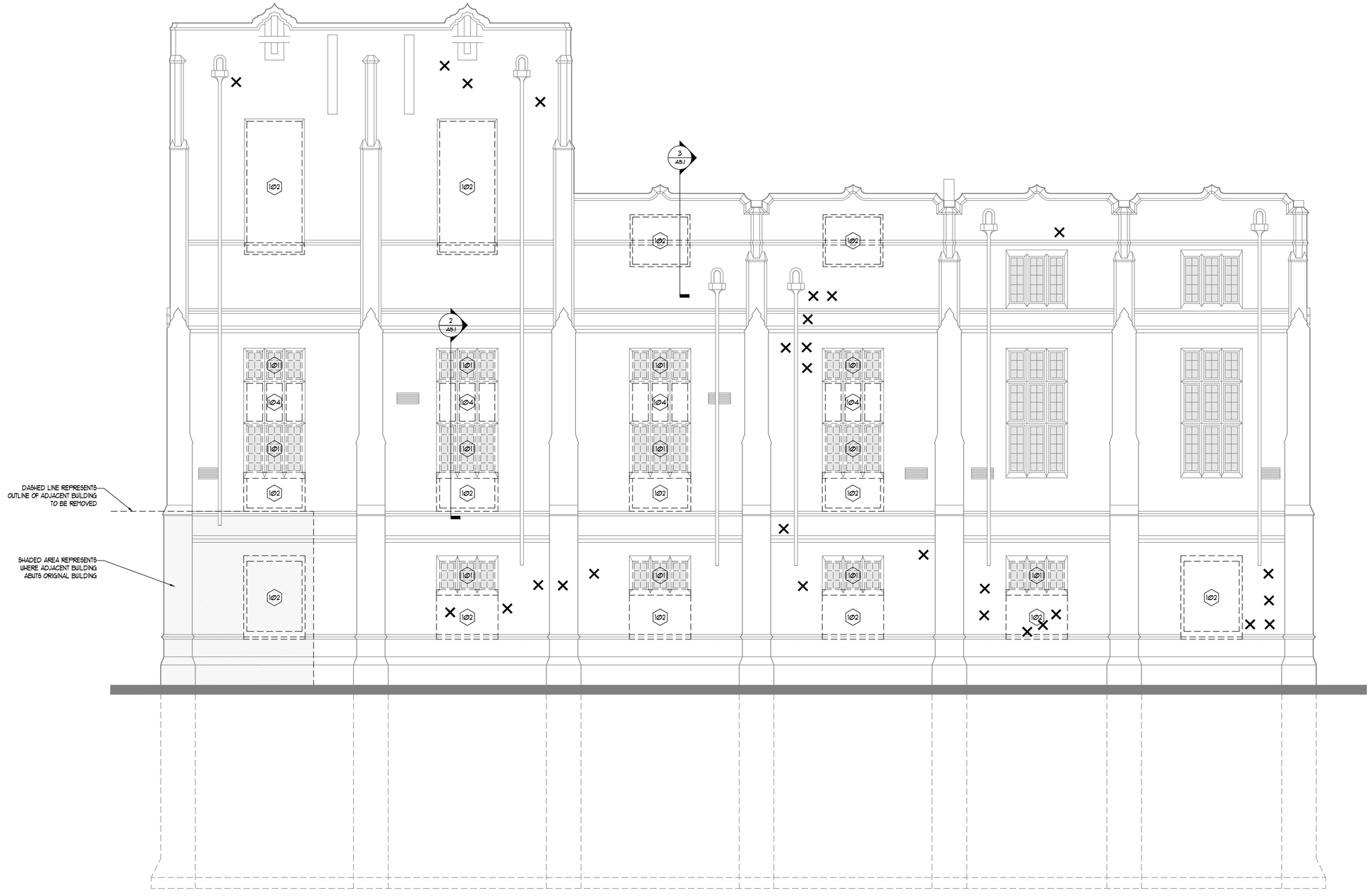

1 A2.8 DEMOLITION NORTH ELEVATION
3/16" = 1'-0"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

DEMOLITION NORTH ELEVATION

600 Fifty-Second Street
Suite 220
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Partners in Design ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: FAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A2.8

DEMOLITION ELEVATION GENERAL NOTES

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DEMOLITION ELEVATION KEY NOTES

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- 110 REPAIR EXISTING LIMESTONE STEPS AS REQUIRED.
- 111 EXISTING RAILINGS TO REMAIN.

1 / A2.9 DEMOLITION WEST ELEVATION
3/16" = 1'-0"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

DEMOLITION WEST ELEVATION

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

Partners in Design ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: FAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A2.9

LEGEND

- 4" NOMINAL OR LESS INTERIOR WALL FURRING (WALL TYPE-A3)
- 4" NOMINAL EXTERIOR WALL FURRING (WALL TYPE-A2)
- 5" NOMINAL INTERIOR WALL - TYPICAL U.N.O. (WALL TYPE-A1)
- 6" NOMINAL UNIT DEMISING WALL (WALL TYPE-B1)

GENERAL NOTES

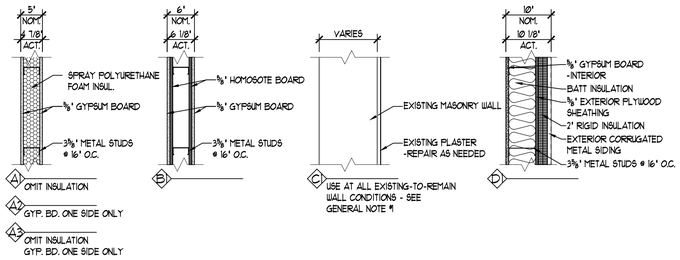
1. AT EXISTING WALL LOCATIONS TO REMAIN, REPAIR AND/OR REPLACE DAMAGED AND DETERIORATED INTERIOR FINISHES AS NECESSARY TO MATCH EXISTING.
2. WHERE EXISTING NON-SLIP TREADS EXIST AND ARE DAMAGED, REMOVE AND REPLACE WITH NEW NON-SLIP TREADS TO MATCH EXISTING.
3. WHERE EXISTING STAIR CONDITIONS ARE NOT GRANDFATHERED INTO CODE COMPLIANCE, INSTALL NEW ADA COMPLIANT RAILS AT EXISTING RAILS IN A SENSITIVE MANNER.

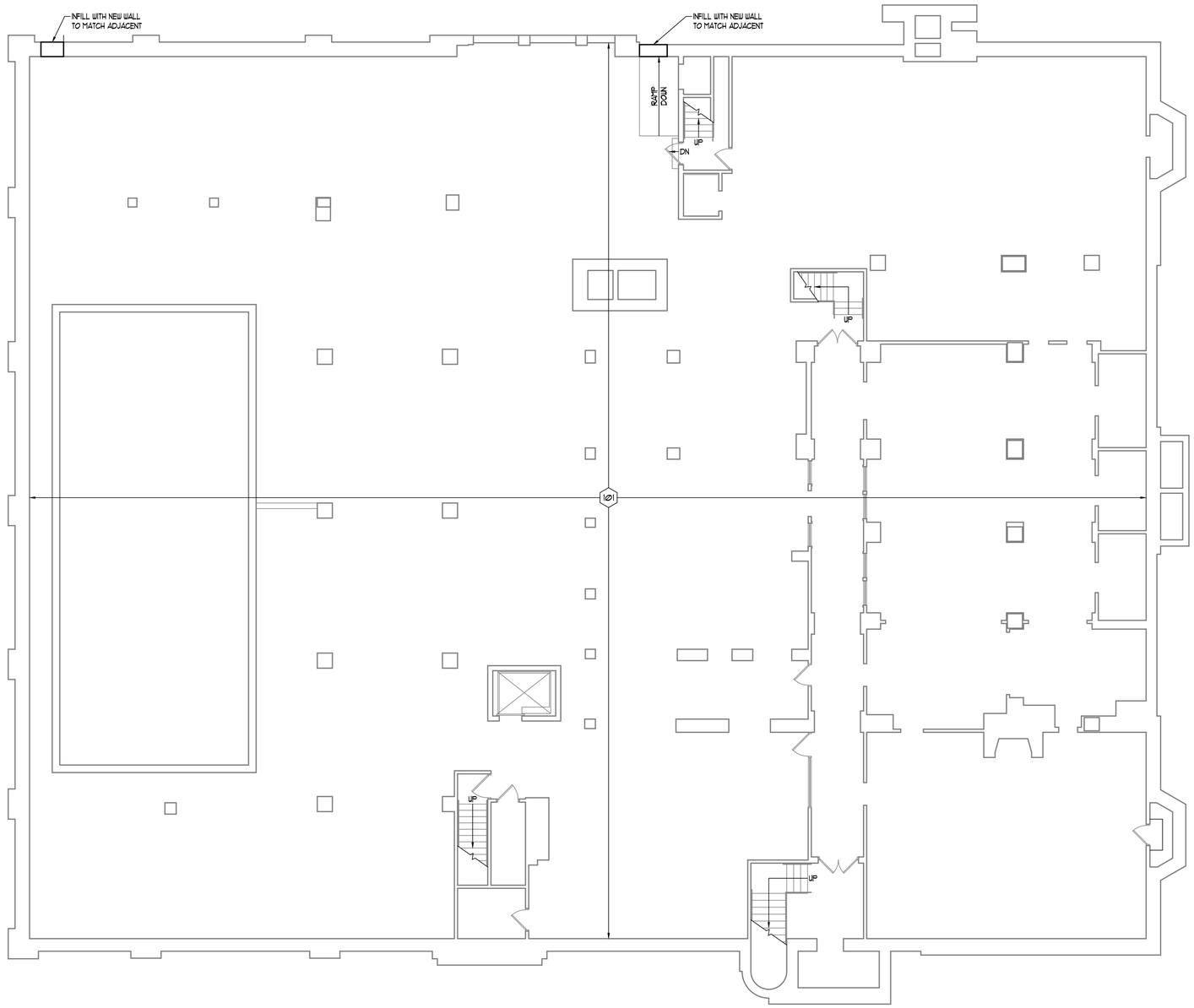
FLOOR PLAN KEY NOTES

(101) NO NEW INTERIOR CONSTRUCTION WORK IN THE BASEMENT.

WALL TYPES

3/4" = 1'-0"





1 / A3.0 BASEMENT FLOOR PLAN

1/8" = 1'-0"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

BASEMENT FLOOR PLAN

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

Partners in Design ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: PAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A3.0

1 A3.1 FIRST FLOOR PLAN

1/8" = 1'-Ø"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

FIRST FLOOR PLAN

Partners in Design ARCHITECTS
600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

PROJECT NO.: 457.09.ØØ1
DRAWN BY: PAB
CHECKED BY: TOC
DATE: Ø7.18.14
SHEET NO.: A3.1

1 A3.3 SECOND FLOOR PLAN

1/8" = 1'-0"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

SECOND FLOOR PLAN

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

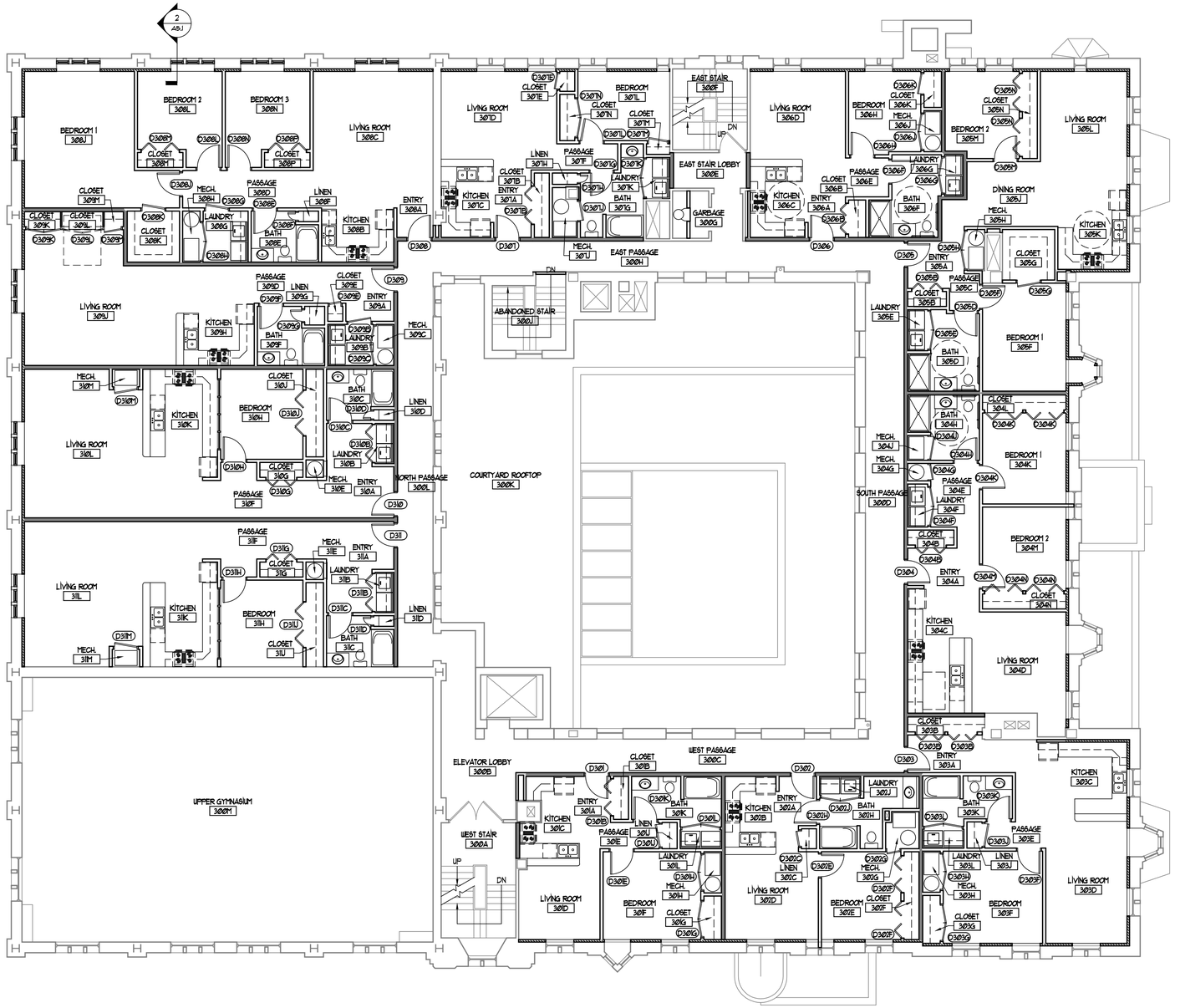
Partners in Design
ARCHITECTS

PROJECT NO.: 457.09.001

DRAWN BY: PAB
CHECKED BY: TOC

DATE: 07.18.14

SHEET NO.: A3.3



1 / A3.5 THIRD FLOOR PLAN
1/8" = 1'-0"

REVISIONS
PRELIMINARY
NOT FOR CONSTRUCTION

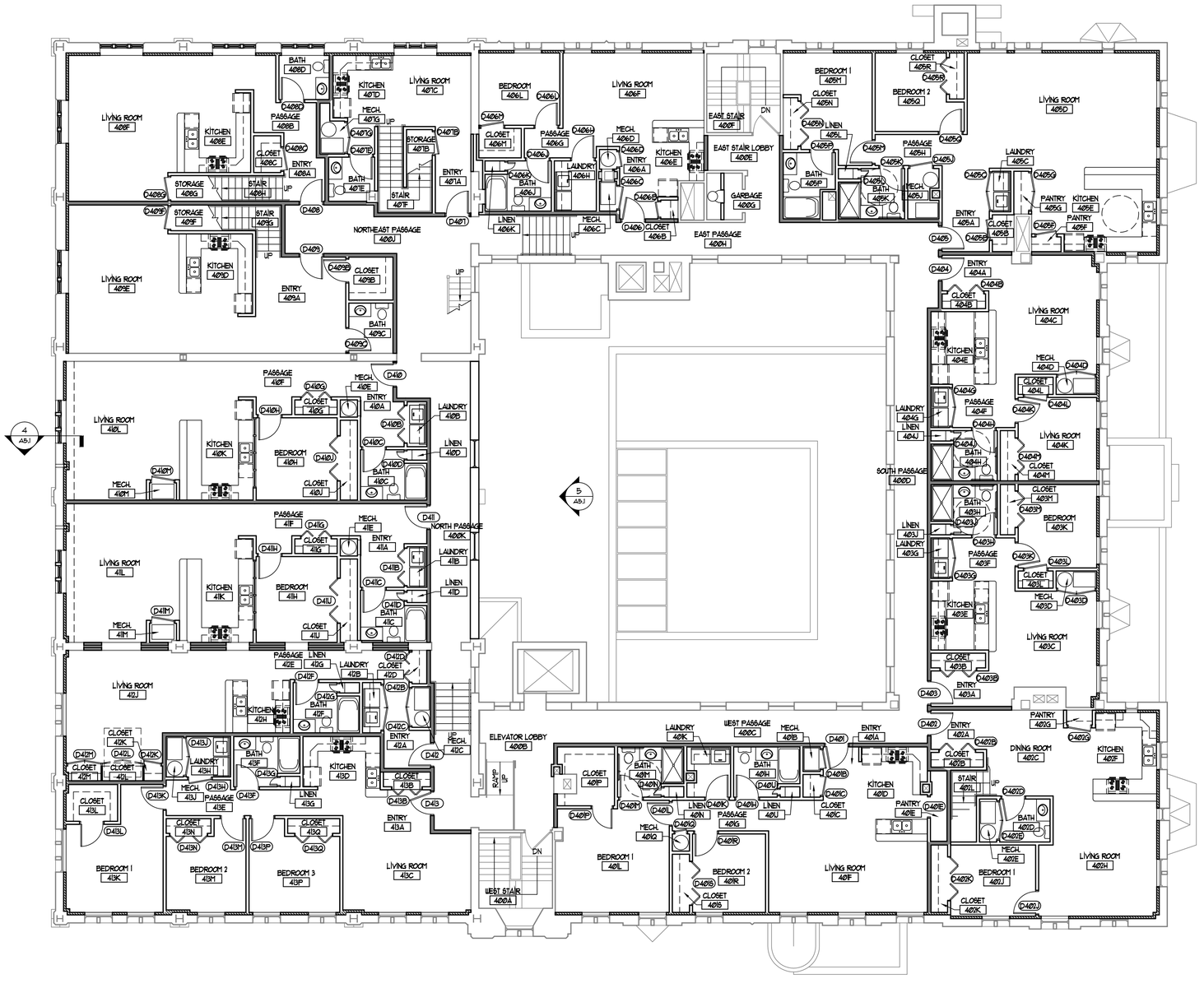
THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

THIRD FLOOR PLAN

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

Partners in Design
ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: PAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A3.5



1 A3.7 FOURTH FLOOR PLAN
1/8" = 1'-0"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

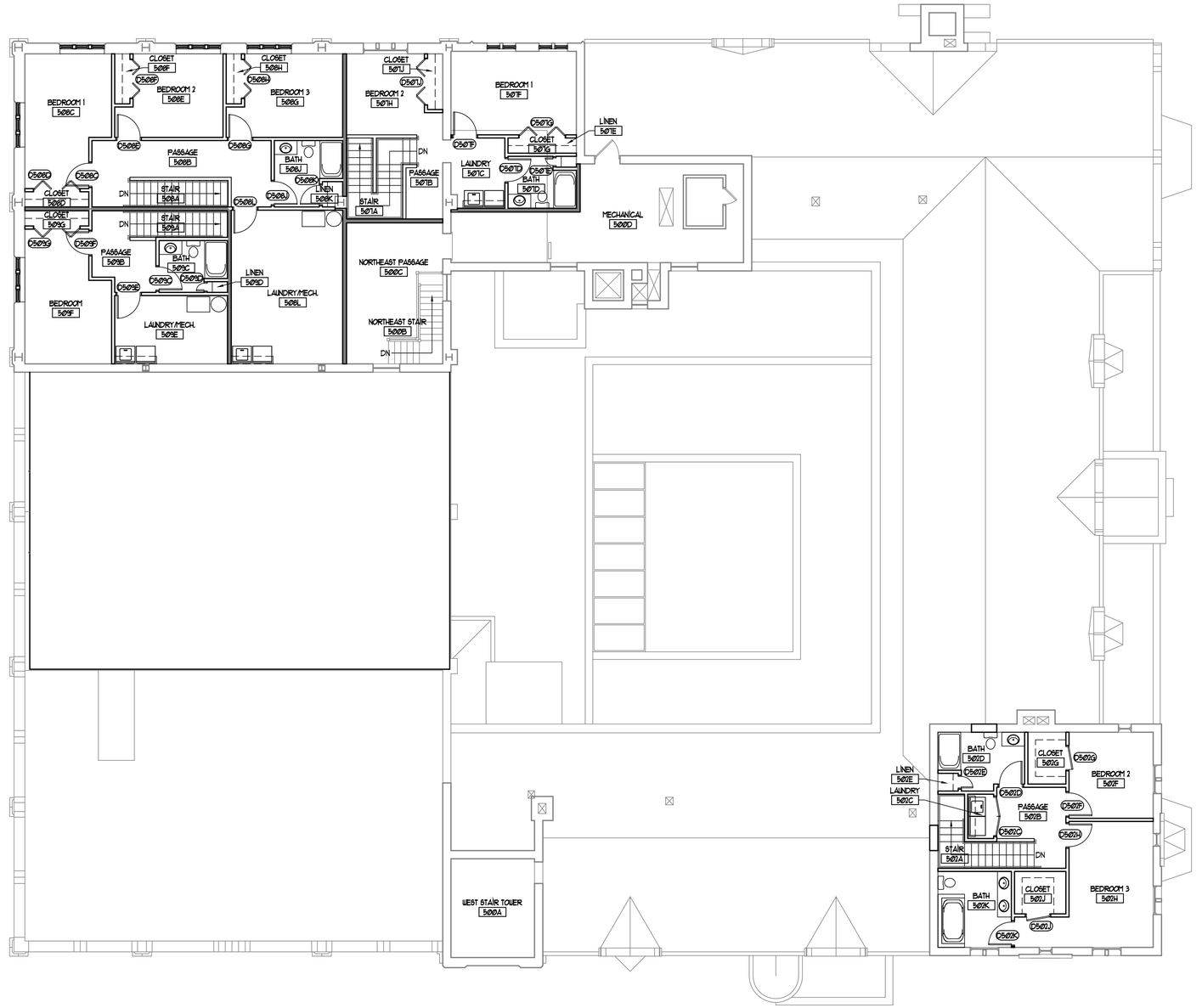
THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

FOURTH FLOOR PLAN

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

Partners in Design ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: PAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A3.7



1 A3.9 FIFTH FLOOR PLAN
1/8" = 1'-0"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

FIFTH FLOOR PLAN

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

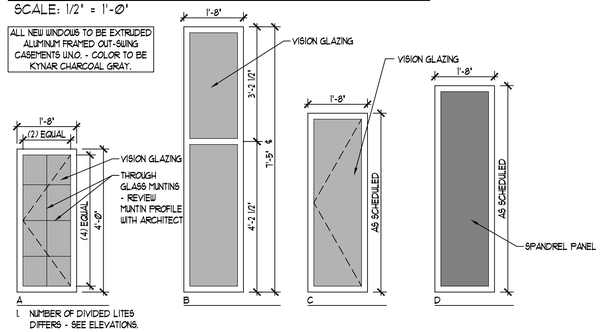
Partners in Design
ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: FAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A3.9

WINDOW TYPES

SCALE: 1/2" = 1'-0"

ALL NEW WINDOWS TO BE EXTRUDED ALUMINUM FRAMED OUT-SWING CASEMENTS U.N.O. - COLOR TO BE KYNAR CHARCOAL GRAY.



PROPOSED ELEVATION KEY NOTES

101 INSTALL WINDOWS IN RESTORED ORIGINAL STONE OPENING. WINDOW FRAME PROFILE, VISION LITE PROPORTION AND MUNTIN PROFILE TO MATCH 1929 WINDOWS.

102 INSTALL WINDOWS IN RESTORED ORIGINAL STONE OPENING WITH ADJUSTED SILL HEIGHT. WINDOW FRAME PROFILE AND MATERIAL TO MATCH 1994 WINDOWS.

103 INSTALL WINDOWS IN EXISTING ORIGINAL STONE OPENING WITH ADJUSTED SILL/HEAD HEIGHT. WINDOW FRAME PROFILE AND MATERIAL TO MATCH 1994 WINDOWS.

104 INSTALL WINDOWS IN NEW STONE OPENING WITH RECONSTRUCTED STONE MULLIONS TO MATCH EXISTING. WINDOW FRAME PROFILE AND MATERIAL TO MATCH 1994 WINDOWS.

105 INSTALL NEW WALL IN OPENING WITH FACE STONE TO MATCH EXISTING.

106 INSTALL FACE STONE PANEL IN OPENING TO MATCH EXISTING.

107 NEW IRON FENCE WITH STONE PILLARS - SEE SITE PLAN FOR DETAILS.

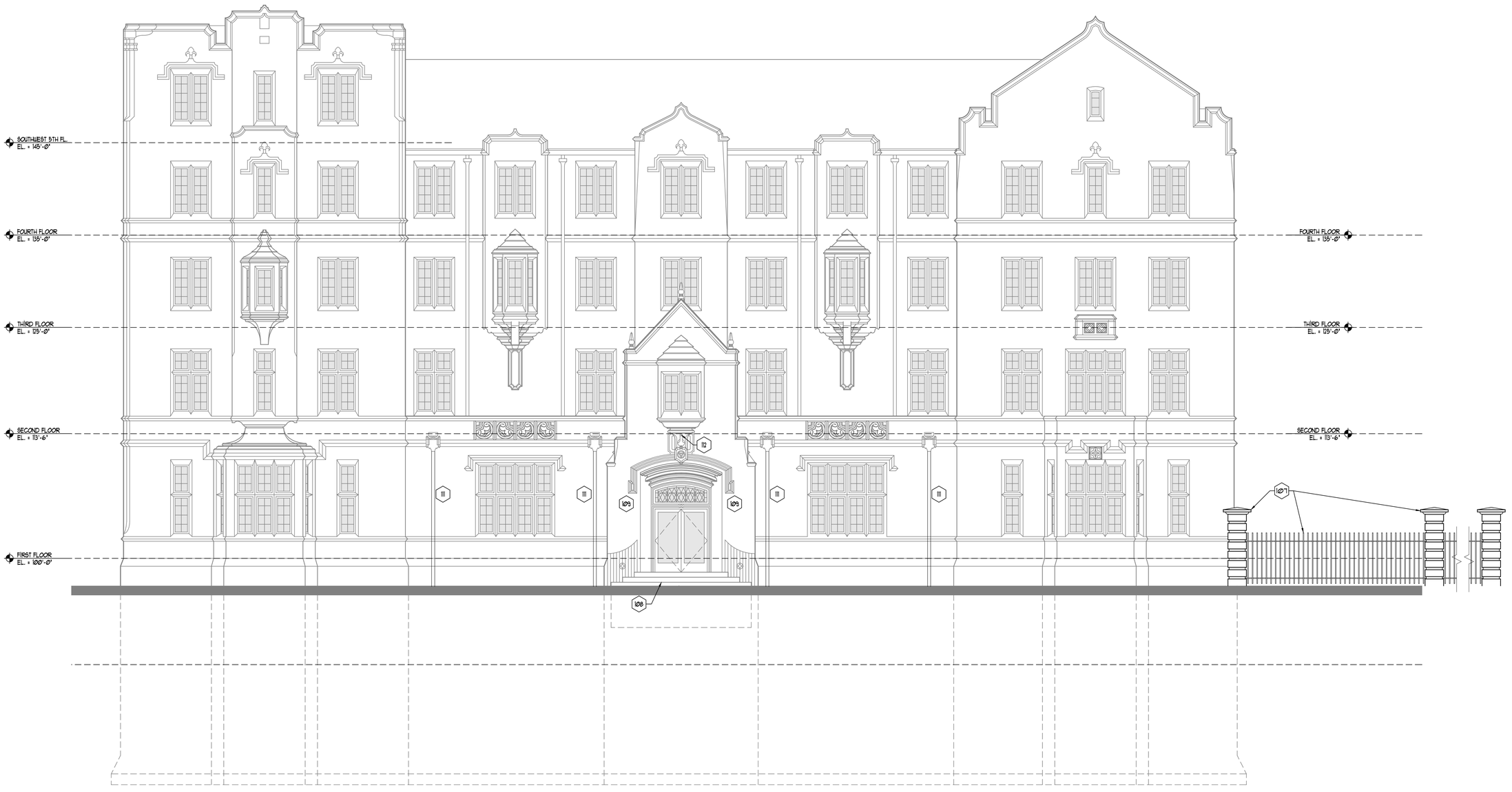
108 REPAIR OR REPLACE EXISTING LIMESTONE STEPS AS NEEDED.

109 REWIRE EXISTING EXTERIOR LIGHT FIXTURES TO OPERABILITY AS NEEDED.

111 PROVIDE NEW DOWNSPOUT AND CLIPS TO MATCH EXISTING. TIE INTO EXISTING STORM DRAIN.

112 EXISTING FLAG POLES TO REMAIN.

113 NEW SURFACE MOUNTED LIGHT FIXTURE.



1 A4.1 SOUTH ELEVATION
3/16" = 1'-0"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

SOUTH ELEVATION

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

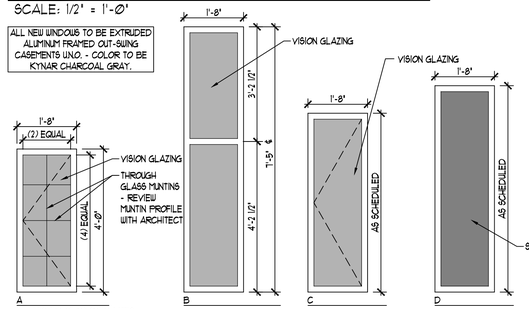
Partners in Design ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: FAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A41

WINDOW TYPES

SCALE: 1/2" = 1'-0"

ALL NEW WINDOWS TO BE EXTRUDED ALUMINUM FRAMED, OUT-SWING CASEMENTS U.N.O. - COLOR TO BE KYNAR CHARCOAL GRAY.



PROPOSED ELEVATION KEY NOTES

101 INSTALL WINDOWS IN RESTORED ORIGINAL STONE OPENING. WINDOW FRAME PROFILE, VISION LITE PROPORTION AND MUNTIN PROFILE TO MATCH 1929 WINDOWS.

102 INSTALL WINDOWS IN RESTORED ORIGINAL STONE OPENING WITH ADJUSTED SILL HEIGHT. WINDOW FRAME PROFILE AND MATERIAL TO MATCH 1994 WINDOWS.

103 INSTALL WINDOWS IN EXISTING ORIGINAL STONE OPENING WITH ADJUSTED SILL/HEAD HEIGHT. WINDOW FRAME PROFILE AND MATERIAL TO MATCH 1994 WINDOWS.

104 INSTALL WINDOWS IN NEW STONE OPENING WITH RECONSTRUCTED STONE MULLIONS TO MATCH EXISTING. WINDOW FRAME PROFILE AND MATERIAL TO MATCH 1994 WINDOWS.

105 INSTALL NEW WALL IN OPENING WITH FACE STONE TO MATCH EXISTING.

106 INSTALL FACE STONE PANEL IN OPENING TO MATCH EXISTING.

107 NEW IRON FENCE WITH STONE PILLARS - SEE SITE PLAN FOR DETAILS.

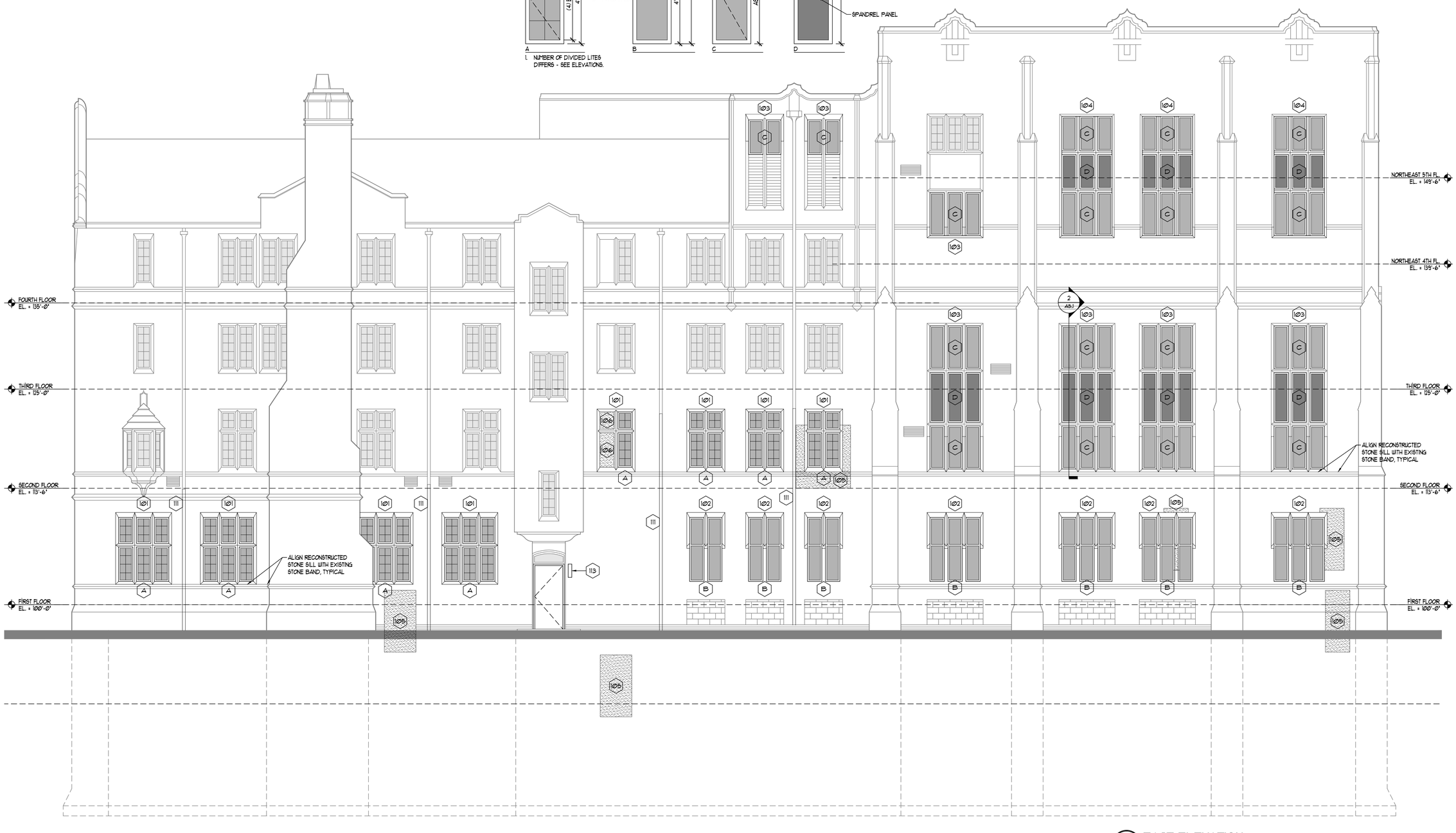
108 REPAIR OR REPLACE EXISTING LIMESTONE STEPS AS NEEDED.

109 REWIRE EXISTING EXTERIOR LIGHT FIXTURES TO OPERABILITY AS NEEDED.

111 PROVIDE NEW DOWNSPOUT AND CLIPS TO MATCH EXISTING. TIE INTO EXISTING STORM DRAIN.

112 EXISTING FLAG POLES TO REMAIN.

113 NEW SURFACE MOUNTED LIGHT FIXTURE.



1 A4.2 EAST ELEVATION
3/16" = 1'-0"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

EAST ELEVATION

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

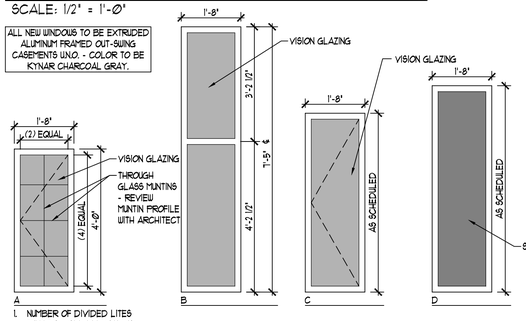
Partners in Design ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: FAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A4.2

WINDOW TYPES

SCALE: 1/2" = 1'-0"

ALL NEW WINDOWS TO BE EXTRUDED ALUMINUM FRAMED OUT-SWING CASEMENTS U.N.O. - COLOR TO BE KYNAR CHARCOAL GRAY.



PROPOSED ELEVATION KEY NOTES

101 INSTALL WINDOWS IN RESTORED ORIGINAL STONE OPENING. WINDOW FRAME PROFILE, VISION LITE PROPORTION AND MUNTIN PROFILE TO MATCH 1929 WINDOWS.

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112 EXISTING FLAG POLES TO REMAIN.

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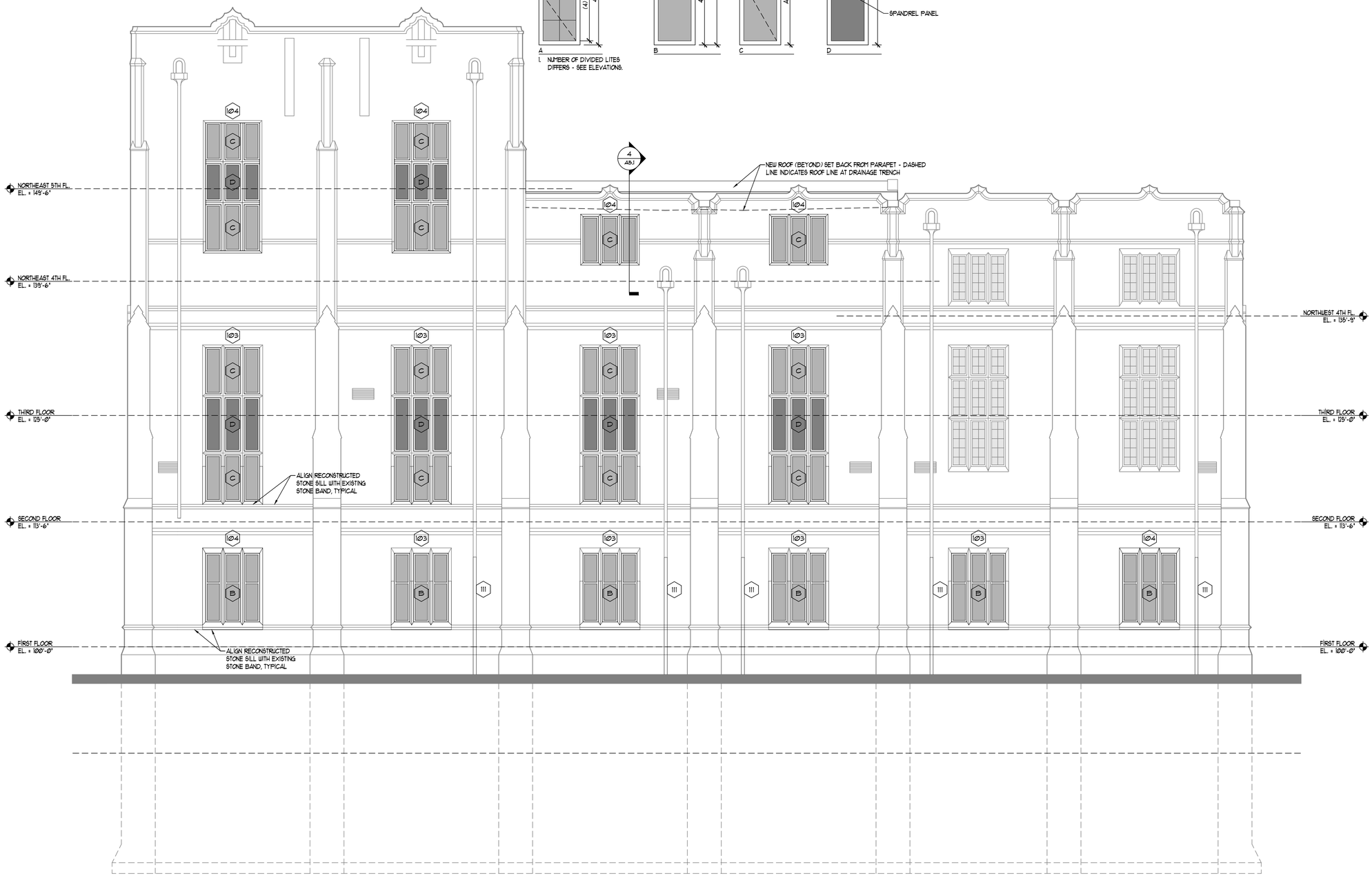


1 / A4.3 NORTH ELEVATION
3/16" = 1'-0"

REVISIONS
PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

NORTH ELEVATION

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

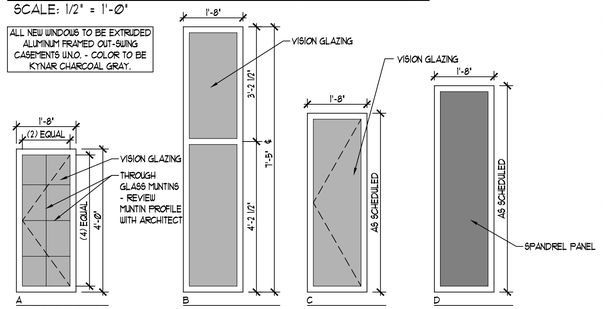
Partners in Design ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: PAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A4.3

WINDOW TYPES

SCALE: 1/2" = 1'-0"

ALL NEW WINDOWS TO BE EXTRUDED ALUMINUM FRAMED OUT-SWING CASEMENTS U.N.O. - COLOR TO BE KYNAR CHARCOAL GRAY.



PROPOSED ELEVATION KEY NOTES

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112 EXISTING FLAG POLES TO REMAIN.

113 NEW SURFACE MOUNTED LIGHT FIXTURE.

1 / A4.4 WEST ELEVATION
3/16" = 1'-0"

REVISIONS

PRELIMINARY
NOT FOR CONSTRUCTION

THE RESIDENCES AT LIBRARY PARK
720 59th Place, Kenosha, Wisconsin 53140

WEST ELEVATION

600 Fifty-Second Street
Suite 220
Kenosha, WI 53142
Ph.: (262)652-2800

Partners in Design ARCHITECTS

PROJECT NO.: 457.09.001
DRAWN BY: FAB
CHECKED BY: TOC
DATE: 07.18.14
SHEET NO.: A4.4

Community Development & Inspections 625 52nd Street - Room 308 Kenosha, WI 53140 262.653.4030	Kenosha Historic Preservation Commission FACT SHEET	September 11, 2014	Item 2 Page 1

Certificate of Appropriateness for Gilbert M. Simmons Memorial Library at 711 59th Place, Library Park Historic District. (District #2) PUBLIC HEARING

PURPOSE:

Review of proposed alteration.

HISTORIC DISTRICT:

Library Park

NOTIFICATIONS/PROCEDURES:

The alderman of the district, Alderperson Jenkins, has been notified.

ANALYSIS:

- Section 15.10 of the Zoning Ordinance requires a Certificate of Appropriateness for any exterior alteration, rehabilitation, reconstruction, or restoration of a Historic Structure that is not classified as an exempt item.
- The City of Kenosha has submitted a Certificate of Appropriateness application for repair of a built-in copper gutter on the low slope roof below the rotunda, installation of cast iron roof drains, installation of indirect lighting, repair and replacement of concrete roof tile deck on the low-slope roof and replacement of the EPDM roofing, removal and replacement of all sealant joints on the rotunda limestone panels, and the rebuild of the internal structure of the upper 3 feet of the chimney.
- A survey was completed by Industrial Roofing Services (IRS) in August, 2012 to evaluate work that may be required to be completed to maintain the library and to prioritize the work.
- The report noted the following:
  - Sealant joints within the limestone panels from the low-slope roof up to the rotunda roof line are deteriorated and oversized. Some limestone panels are also required to be repaired/replaced.
  - The built-in gutter at the at the base of the rotunda was originally copper and has since been retrofitted with EPDM single ply (rubber) roofing and believed to be leaking into the walls of the rotunda.
  - The masonry within the interior of the chimney is severely deteriorated and requires reconstruction.
  - The EPDM on the low-slope roof that surrounds the rotunda is also believed to be leaking and to be one of the sources of water damage and exterior efflorescence.
- The following work will be completed:
  - Fabrication and installation of a new copper gutter at the base of the rotunda, to replace the EPDM-lined gutter.
  - Demolition of the low-slope roof membrane, flashing, insulation, conduit and lighting, repair and replacement of the concrete roof tile deck, installation of new cast iron roof drain heads, new LED lighting, and installation of fleece-backed TPO single ply roofing.

- Removal and/or replacement of all sealant joints within the rotunda limestone from the low-slope roof up to the skylight on the rotunda dome.

- Rebuild of the internal structure of the upper 3 feet of the chimney, and installation of a new stainless steel chimney liner from the mechanical room to the top of the chimney, with a stainless steel chimney closure.

- The project was reviewed in conformance with Section 15.10 D. of the Zoning Ordinance, pertaining to Standards for Granting Certificate of Appropriateness. The project meets Standard 10, "New additions, exterior alterations, or related new construction do not destroy historic materials that characterize the Historic District, structure or site."

- The project was also reviewed against the Secretary of Interior Standards and Guidelines. The restoration of oversized sealant joints and repair/replacement of limestone on the rotunda are consistent with recommendations in the Guidelines. The replacement of the EPDM roofing on the low-slope roof is also consistent with the recommendations since it will prevent suspected water infiltration.

RECOMMENDATION:

A recommendation is made to approve the Certificate of Appropriateness in conformance with Standard 10 of Section 15.10 D. of the Zoning Ordinance for the City of Kenosha, in conformance with the Secretary of Interior Standards and Guidelines, as well as the Library Park Preservation Plan.

Michael Maki, A.I.C.P.

Jeffrey B. Labahn, Director

/u2/acct/cp/ckays/1HIST PRES/2014/SEP11/Fact-SimmonsLibrary.odt

Kenosha Historic Preservation Commission
Certificate Of Appropriateness Application

Property Address 711 59TH PLACE	**Date of Application** 8/11/14
Owner/Applicant BARB BRATTIN / KATIE WHAPLES KENOSHA PUBLIC LIBRARY / CITY OF KENOSHA	**Architect/Designer/Builder** INDUSTRIAL ROOFING SERVICES
Address 625 52ND ST, ROOM 305	**Address** 13000 W SILVER SPRING DR
City, State, Zip KENOSHA, WI 53140	**City, State, Zip** BUTLER, WI 53007
Daytime Phone Number 262-564-6324	**Daytime Phone Number** 262-432-0500

Project Description

FABRICATION & INSTALLATION OF BUILT-IN COPPER GUTTER LOW-SLOPE ROOF AT BASE OF ROTUNDA - REPAIR & RESTORATION OF CONCRETE ROOF TILES, INSTALLATION OF CAST IRON ROOF DRAIN HEADS, FABRICATION & INSTALLATION OF NEW INDIRECT OUTDOOR LIGHTING PEDESTALS, VENTING, WATERPROOFING, FABRICATION & INSTALL OF FLEECE BACKED TPO SINGLE PLY ROOFING & COPPER SHEET METAL FLASHINGS.

ROTUNDA DOME & CHIMNEY RESTORATION - SEAL JOINTS, REBUILD INTERNAL STRUCTURE OF UPPER 3' (CHIMNEY), INSTALL NEW STAINLESS STEEL CHIMNEY BREECHING FROM MECHANICAL ROOM TO TOP OF CHIMNEY AND STAINLESS STEEL CHIMNEY CLOSURE.

Project Type

- ➢ New Construction, Additions, Demolitions, and Public Improvements
  11"x17")
- ➢ New Construction, Additions, Demolitions, Exterior Alterations, Rehabilitation, Reconstruction and Restorations
- ➢ All Projects
- ➢ In the Instance of Introducing Materials Which Do Not Duplicate the Original
- ➢ In the Instance of Introducing New Architectural Details or Architectural Details Which Do Not Duplicate the Original

Required Documentation

- ☐ Site Plan
  (1 set 24"x32" and 12 sets maximum size
- ☐ Building Elevations [Existing And Proposed]
  (1 set 24"x32" and 12 sets maximum size 11"x17")
- ☐ Photographs (Digital Preferred)
- ☐ Material Samples
- ☐ Pictures or Drawings

Your Application will be forwarded to the Inspection Division of the Department of Community Development & Inspections for review and input. Required documentation must be submitted to the Department of Community Development & Inspections a Minimum of Two Weeks Prior to the meeting date in order for the application to be placed on the Historic Preservation Commission meeting agenda.

Applicant's Signature Kathryn Whaples Date: 8/11/14

/u2/accl/cp/cmikem/Web/COA-Application.odt

NOTICE TO CONTRACTORS

Director of Engineering
Department of Public Works
625 - 52nd Street, Room 305
Kenosha, Wisconsin 53140

Sealed bids will be received by the Board of Public Works of the City of Kenosha, Wisconsin in the office of Department of Public Works, 625 52nd Street, Room 305, until **2:00 PM., local time**, **Wednesday, August 20, 2014,** for furnishing all labor and materials necessary for the construction of:

Simmons Library Roof Replacement
Project #12-1526

all in accordance with specifications on file in the office of the Director of Public Works. The project includes, but is not limited to, built-in copper gutter, rotunda dome and chimney restoration, concrete tile roof deck, cast iron roof drain heads, outdoor lighting pedestals and installation of copper sheet metal counter flashings. A **mandatory pre-bid meeting will be held at the Simmons Library on Tuesday, August 12th at 10:00 AM.** Bids will be publicly opened and read aloud immediately after **2:00PM**. Each bid must contain the full name of every person or company interested in the same and must be accompanied by a contract and bid bond, a certified check, or a bank cashier's check, in the sum of five per cent (5%) of the bid, payable to the City of Kenosha as a guarantee that if the bid is accepted, a contract will be entered into and its performance properly secured within fifteen (15) days of the award of contract. Should any bid be rejected, such check will be forthwith returned to the bidder, and should any bid be accepted, such check will be returned upon the timely and proper execution and securing of the contract. In case the successful bidder shall fail to execute the contract and performance bond, the amount of the bid bond or check shall be forfeited to the City as liquidated damages.

The Department of Public Works has begun a partnership with Quest Construction Data Network. This is a web based initiative that will deliver our construction project advertisements and bid documents to you in a more timely and cost effective way. To obtain bid documents go to www.kenosha.org under Quick Links (located on the right hand side of screen) click on Public Works Bid Documents then click on PW Projects to go to Quest's website. A fee of Ten Dollars ($10.00) will be charged once plans are downloaded. No fee is charged to view the plans.
Paper copies of plans and specifications will no longer be available.

The form provided for "Bidder's Proof of Responsibility" shall be completed and returned to the Director of Engineering not less than five (5) days before the date of bid opening. Bidders can examine and obtain this form by going to http://www.kenosha.org/departments/pubsvc/index.html and access the link to the "Bidder's Proof of Responsibility" form under Department Resources.

The successful bidder shall be required to furnish Worker's Compensation and Liability Insurance as enumerated in the specifications.

In the event that Section 66.0903 of the Wisconsin Statutes, applies, on the work here bid upon, the Contractor shall pay to each of his/her workers the wage prevailing in Kenosha at the time the contract is entered into and as listed and filed in the office of the Director of Public Works. A copy of such wage rates will be incorporated in the contract documents.

The City of Kenosha reserves the right to reject any or all bids, or to accept any bid considered most advantageous to the City of Kenosha.

BOARD OF PUBLIC WORKS
Eric Haugaard, Chairman
Jan Michalski, Vice Chairman
Steve Bostrom
Scott N. Gordon
Rhonda Jenkins
Patrick Juliana

Publish: August 1, 2014 & August 8, 2014

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 PROJECT OVERVIEW

A. The Work consists of copper gutter fabrication, restoration of limestone and masonry elements, and roofing replacement at the Gilbert M. Simmons Library in Kenosha, Wisconsin for City of Kenosha, Public Library. All questions, clarifications, and requested information shall be directed to the consultant, Industrial Roofing Services, Inc. Keith Dippel is the consultant representative and can be reached at 262-432-0500 (office) or keithd@irsroof.com.

B. Contractor is to provide a containment system to protect the stained glass within the Rotunda Dome and to prevent any debris from falling and causing potential harm to staff and patrons below.

C. The Work includes related plumbing, electrical and masonry work.

Base Bid

D. **Fabrication and installation of built-in copper gutter:**
1. Demolition of the existing EPDM clad copper gutter and associated flashings.
2. Preparation, cleaning and restoration of limestone elements.
   a. Stone patching
   b. Crack injection
   c. Removal and repair of unused anchors
3. Fabrication and placement of EPDM separator.
4. Fabrication and installation of built-in copper gutter.
5. Fabrication and installation of new copper drops within gutter.
6. Fabrication of expansion joints within copper gutter.
7. Reinstallation of corrugated rectangular downspouts including straps and elbows.
8. Fabrication and installation of copper pan and reglet flashings**.**
9. Fabrication of copper counter flashings.
10. Installation of extensions at copper discharge piping placed above tile roof areas to ensure discharge water is directed into the gutters.

E. **Low-slope Roof at base of Rotunda:**
1. Demolition of existing roof membrane, flashings, insulation, sheet metal, conduit and lighting.
2. Repair and restoration of concrete tile roof deck.
3. Installation of new cast iron roof drain heads.
4. Fabrication and installation of new indirect outdoor lighting pedestals
5. Installation of new LED lighting fixtures and associated wiring.
6. Fabrication and placement of tapered lightweight topping.
7. Installation of base sheet, venting and temporary waterproofing.
8. Fabrication and installation of fleece-backed TPO single-ply roofing.
9. Fabrication and installation of copper sheet metal counter flashings.

F. **Rotunda Dome & Chimney Restoration:**
1. Removal, preparation and replacement of all sealant joints within the limestone elements of the rotunda dome. Rotunda dome shall be defined as all limestone elements from the low-slope roof at the base of the rotunda upwards to the skylight atop the rotunda dome.
2. Rebuilding of the internal structure of the upper three (3) feet of the chimney.
3. Installation of new stainless steel chimney breeching from mechanical room to top of chimney and stainless steel chimney closure.

4. Restoration and flashing of the chimney exterior from the rotunda down to the low-sloped roof.

PART 2 - PRODUCTS

2.01 SYSTEM COMPONENTS

Built-in Gutter:

A. 16 oz. cold rolled copper.

B. #42 copper rivets

C. Solder

D. Flux

E. Stainless steel concealed spreaders

F. 3" copper drops

G. Lead Wool Packing

H. 45-mil EPDM Single-ply membrane

I. One-part silicone sealant

Low-slope roof:

A. Lightweight Insulating Concrete

B. 16 oz. cold rolled copper.

C. #42 copper rivets

D. Solder

E. Cast Iron Roof Drain Heads & Bonnets

F. Lead Wool Packing

G. Roof membrane Protection Mat

H. 60-mil fleece-backed TPO Single-ply membrane
   1. Fully-adhered thermoplastic single-ply roof system:
   2. 60-mil, minimum, reinforced hot air-weldable single-ply roof membrane.
   3. Membrane bonding adhesive.

I. Roof flashings:
   1. Reinforced single-ply membrane (base flashings).
   2. Unreinforced single-ply membrane (details - corners, pipes, etc.).
   3. 3/4-inch exterior-grade plywood (wall flashing surface).
   4. Membrane bonding adhesive.

J. Foam adhesive

K. ¾" plywood

L. Stainless steel angle brackets

M. One-part silicone sealant

N. Lighting pedestals

O. Rust paint

P. Electrical components

Rotunda restoration:

A. Hydrated lime mortar

B. Open-cell backer rod.

C. Primer

D. Stainless steel anchors

E. Stone to stone adhesive

F. Stone patching compound

G. Cementitious crack filler

H. One-part silicone sealant

I. Bond breaker tape

J. Building brick

K. Chimney Breeching

L. Limestone elements

2.02 COMPONENTS SUPPLIED BY OWNER

A. None.

PART 3 - EXECUTION

3.01 WORK PERFORMED BY CONTRACTOR

Built-in Gutter:

A. Remove existing EPDM membrane, sheet metal and sealants down to the underlying limestone elements surrounding the built-in gutter.

B. Clean the exposed limestone elements of all debris and contaminants. Restore underlying limestone elements, including cracks, spalls and mortar joints.

C. Ready the built-in gutter and associated stone elements available for inspection by the consultant.

D. Restore cracks, spalls and mortar joints within the previously underlying limestone elements.

E. Fabricate and install 45-mil EPDM single-ply liner as required by the Construction Drawings.

F. Shop fabricate the built-in copper gutter to the greatest extent feasible, including pretinning, riveting, soldering and installation of concealed stainless spreaders and drop tubes.

G. Install fabricated sections of built-in copper gutter to create four (4) equal sections which shall include expansion joints between sections and one drop tube for each gutter section.

H. Fabricate and install copper counter flashings on both sides of gutter and at chimney.

I. Install sealants to reglet joints once counter flashings have been placed.

J. Install corrugated rectangular copper downspouts and associated straps, anchors and elbows.

K. Plug drop tubes and water-test installed gutter for 24 hours.

L. All perimeters and projections are to be constructed and flashed in strict accordance with the Construction Drawings provided

Low-slope Roof at base of Rotunda:

A. Remove existing roofing including flashings, sheet metal and drain inserts down to the underlying structural roof deck.

B. Provide and install new cast iron drain heads, under deck clamping rings and cast iron bonnets to existing drainage piping.

C. Fabricate and install tapered lightweight concrete topping at ¼" per lineal foot over prepared structural roof deck.

D. Install plywood sheathing to prepared parapets and sidewalls of rotunda.

E. Fully-adhere fleece-backed TPO single-ply roof membrane to fully-cured tapered lightweight concrete topping.

F. Fabricate and install associated TPO single-ply perimeter and penetration flashings.

G. Install roof membrane protection mat as indicated on Construction Drawings.

H. Fabricate and install copper counter flashings to parapet walls and rotunda sidewalls.

I. Prepare counter flashing reglet joints and place sealant.

J. All perimeters and projections are to be constructed and flashed in strict accordance with the Construction Drawings provided

Rotunda Dome & Chimney Restoration:

A. Remove existing sealants from limestone to limestone joints utilizing hand tools (grinding will not be permitted)

B. Place closed-cell backer-rod at 30% compression in prepared joints.

C. Prime prepared joints with primer as recommended by sealant manufacturer.

D. Carefully mask both sides of prepared joints.

E. Place sealant within prepared joints. Tool sealant into place.

F. Remove masking from joints.

G. Protect sealants until sealants have achieved initial cure.

H. Complete all required stone patching per approved samples.

I. Complete all required crack repairs per approved samples.

J. Rebuild the upper three (3) feet of internal chimney structure with hydrated lime and common brick.

K. Restore all limestone cladding the chimney, including but not limited to joints, cracks and spalls.

L. All perimeters and projections are to be constructed and flashed in strict accordance with the Construction Drawings provided.

M. Install chimney breeching

3.02 INCLUSIONS

A. The Contractor shall include, in his bid, any and all costs incurred in complying with the intent of the Project Documents.

END OF SECTION

SECTION 04140

MAINTENANCE OF STONE ASSEMBLIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 DESCRIPTION

A. This section provides requirements for all work, materials, labor, equipment and supervision necessary to provide for the repair, replacement and cleaning of all stonework and mortar joints and additional features required in these specifications and on the drawings.

1.03 DEFINITIONS

A. Low-pressure spray: 100 to 400 psi (690 to 2750 kPa); 4 to 6 gpm (0.25 to 0.4 L/s).

B. Medium-pressure spray: 400 to 800 psi (2750 to 5500 kPa); 4 to 6 gpm (0.25 to 0.4 L/s).

C. High-pressure spray: 800 to 1200 psi (5500 to 8250 kPa); 4 to 6 gpm (0.25 to 0.4 L/s).

1.04 SUBMITTALS

A. Product Data: For each type of product indicated. Include recommendations for application and use. Include test data substantiating that products comply with requirements.

B. Shop Drawings: For the following:
1. Replacement stone units.
2. Partial replacement stone units (Dutchmen)
3. Replacement and repair anchors, including drilled-in pins. Include details of anchors within individual stone units, with locations of anchors and dimensions of holes and recesses in stone required for anchors, including direction and angle of holes for pins.

C. Samples for Verification: submit samples of the following:
1. Each type of replacement stone; provide in-sets of at least (2) 12 x 12 inch (300 x 300 mm) samples for each type.
2. Each type of sand used for pointing mortar.
3. For blended sands, provide samples of each component and blend.
4. Identify sources, both supplier and quarry, of each type of sand.
5. Each type of pointing mortar in form of sample mortar strips, six (6) inches (150 mm) long by ½ inch (13 mm) wide, set in aluminum or plastic channels.
6. Include with each sample a list of ingredients with proportions of each. Identify sources, both supplier and quarry, of each type of sand and brand names of cementitious materials and pigments, if any.
7. Each type of masonry patching compound in form of briquettes, at least three (3) inches (75 mm) long by 1-1/2 inches (38 mm) wide. Document each sample with manufacturer and stock number or other information necessary to order additional material.
8. Each type of adhesive.

D. Qualification Data: Written certificates from mortar manufacturer should be submitted stating that all installers of the repointing mortars have successfully completed the training workshop for installation of the mortar, or have met alternative workmanship qualifications acceptable to the manufacturer, or provide written certification from the manufacturer that site training services have been contracted. This requirement includes all field supervisors associated with the installation of the repointing mortars.

E. Restoration Program: For each phase of the restoration process, provide detailed description of materials, methods, equipment, and sequence of operations to be used for each phase of restoration work including protection of surrounding materials on building and Project site.
   1. Include methods for keeping pointing mortar damp during curing period.

1.05 QUALITY ASSURANCE

A. Repointing mortar shall be prepared and placed in accordance with the **Department of Interior National Park Service Cultural Resources Preservation Briefs 2, "Repointing Mortar Joints in Historic Masonry Buildings", Revised edition October 1998**, and in compliance with the guidelines set forth by the Secretary of the Interior's Standards for Rehabilitation.

B. Restoration Specialist Qualifications:
   1. Work must be performed by a firm having not less than five (5) years successful experience in comparable masonry restoration projects and employing skilled personnel in the restoration process and operations indicated.
   2. Engage an experienced masonry restoration and cleaning firm to perform work of this Section. Firm shall have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance.
   3. At contractor's option, work may be divided between two specialist firms:
      a. One for cleaning work.
      b. One for repair work.

C. Field Supervision:
   1. Restoration specialist firms shall maintain experienced full-time supervisors on Project site during times that stone restoration and cleaning are in progress. Supervisors shall not be changed during Project except for causes beyond the control of restoration specialist firm.

D. Restoration Worker Qualifications:
   1. All repointing must be performed by a craftsperson that is familiar with historic lime mortar formulations, curing conditions and performance characteristics. Only skilled journeymen masons who are familiar and experienced with the materials and methods specified and are familiar with the design requirements shall be used for masonry restoration. When stone units are being patched, assign at least one worker among those performing patching work who is trained and certified by manufacturer of patching compound to apply its products.

E. Consolidant Manufacturer Qualifications:
   1. A firm regularly engaged in producing stone consolidants that have been used for similar applications with successful results, and with factory-trained representatives who are available for consultation and Project-site inspection and assistance with no additional cost to Owner.

F. Source Limitations:
   1. Obtain each type of material for stone restoration (stone, cement, sand, etc.) from one source with resources to provide materials of consistent quality in appearance and physical properties.

G. Mockups:
1. Prepare mockups of restoration and cleaning as follows to demonstrate aesthetic effects and qualities of materials and execution. Prepare mockups on existing walls under same weather conditions to be expected during remainder of the Work. Obtain Consultant's acceptance of visual qualities before proceeding with the work. Retain acceptable panels in undisturbed condition, suitably marked, during restoration as a standard for judging completed work.
   a. Repair an area approximately 36 inches (900 mm) high by 48 inches (1200 mm) wide as directed by Consultant for each type of stone material indicated to be rebuilt or replaced.
   b. Patch three (3) full stones approximately 18 inches (457 mm) high by 24 inches (610 mm) wide as directed by Consultant for each type of stone material indicated to be patched.
   c. Clean an area approximately 25 square feet (2.3 square meters) in area as directed by Consultant for each type of stone and surface condition.
2. Test cleaners and methods on samples of adjacent materials for possible adverse reactions unless cleaners and methods are known to have deleterious effect.

H. Stone Consolidant Testing:
1. Apply stone consolidant treatment to an area approximately four (4) square feet (0.4 square meters) in area as directed by Consultant. Allow at least seven (7) days to dry and cure. Test effectiveness of treatment using manufacturer's recommended method. Proceed only when given written approval by the Consultant.
2. Allow a waiting period of not less than seven (7) days after completion of sample cleaning to permit a study of sample panels for negative reactions.

I. Repointing:
1. Prepare two (2) separate sample areas of approximately 36 inches (900 mm) high by 36 inches (900 mm) wide for each type of repointing required, one for demonstrating methods and quality of workmanship expected in removal of mortar from joints and the other for demonstrating quality of material and workmanship expected in pointing mortar joints.
   a. Prepare, install and finish each sample according to specifications.
   b. Sample must be applied to the actual masonry.
   c. Samples should be installed in the same area that the existing mortar samples were taken for testing.
   d. Samples should cure a minimum of 14 days prior to Owners and Consultants approval.
   e. Approval shall be based on a viewing distance of ten (10) feet from the wall surface.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver stone units to Project site strapped together in suitable packs or pallets or in heavy-duty crates.

B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.

C. Store hydrated lime in manufacturer's original and unopened containers. Discard lime if containers have been damaged or have been open for more than two (2) days.

D. Store lime putty covered with water in sealed containers.

E. Store sand where grading and other required characteristics can be maintained and contamination avoided.

1.07 PROJECT CONDITIONS

A. Repoint mortar joints and repair stone only when air temperature is between 40 and 90 deg F (4 and 32 deg C) and is predicted to remain so for at least seven (7) days after completion of work.

B. Hot-Weather Requirements:
   1. Protect masonry repair and mortar-joint pointing when temperature and humidity conditions produce excessive evaporation of water from mortar and patching materials. Provide artificial shade and wind breaks and use cooled materials as required. Do not perform any masonry repointing unless air temperatures are between 40 degrees F. (13 deg. C) and 95 degrees F. (32 deg. C) and will remain so for at least forty eight (48) hours after completion of work. Phase repointing during hot weather by completing process on the shady side of the building or schedule installation of materials during cooler evening hours to prevent premature evaporation of the mortar.

C. Patch stone only when air temperatures are between 55 and 100 degrees F. (13 and 38 deg C) and are predicted to remain above 55 deg F. (13 deg C) for at least seven (7) days after completion of the work. On days when air temperature is predicted to go above 90 degrees F (32 deg C), schedule patching work to coincide with time that surface being patched will be in shade or during cooler morning hours.

D. Clean stone surfaces only when air temperature is 40 deg F (4 deg C) and above and is predicted to remain so for at least ten (10) days after completion of cleaning.

E. Apply stone consolidation treatment only when surface and air temperatures are between 50 and 90 deg F. (10 and 32 deg C) and rain is not expected within 24 hours.

F. Do not use frozen materials or materials mixed or coated with ice or frost. Do not lower the freezing point of mortar by the use of admixtures or anti-freezing agents, and do not use chlorides in the mortar.

G. Prevent repointing mortar from staining the face of masonry or other surfaces to be left exposed. Immediately remove all repointing mortar that comes in contact with such surfaces.

1.08 SEQUENCING AND SCHEDULING

A. Order replacement materials at earliest possible date, to avoid delaying completion of the Work.

B. Order sand for repointing mortar immediately after approval of mockups; take delivery of and store a sufficient quantity of sand to complete Project.

C. Perform stone restoration work in the following sequence:
   1. Repair existing stonework, including replacing existing stone with new materials.
   2. Rake out joints that are to be repointed.
   3. Point mortar joints.
   4. Inspect for open mortar joints and repair before cleaning to prevent intrusion of water and other cleaning materials into the wall.
   5. Clean stone surfaces.
   6. Add stone consolidation treatment, if used, where appropriate; some stone consolidation treatments must be done after all other work is completed because mortar and sealants will not adhere to them.

PART 2 - PRODUCTS

2.01 PRODUCTS AND MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:
   1. Products: Subject to compliance with requirements, provide one of the products specified.
   2. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.02 STONE MATERIALS

A. Stone: Provide natural building stone of variety, color, finish, size, and shape to match existing stone.
   1. For existing stone that exhibits a range of colors, finishes, sizes, or shapes, provide stone that matches that range rather than stone that matches an individual color, finish, size, or shape within that range.

B. Acceptable Known Source: Bedford Indiana Limestone

2.03 MORTAR MATERIALS

A. The repointing mortar shall match the original color, grain size and texture. The compressive strength of the repointing mortar shall be equal or less than the compressive strength of the original mortar and surrounding stone. The replacement mortar shall contain approximately the same ingredient proportions of the original mortar.

B. All replacement mortar ingredients and mortar formulations will be established from test data gathered from the original materials sampled from the site.

C. The testing laboratory shall supply a ready mixed mortar sample sufficient in size for a mockup sample at the site.

D. Mixing of individual mortar ingredients at the construction site will not be permitted.

E. Repointing mortars shall be pre-blended in single containers in a factory controlled environment. All ingredients will be converted from volume measurements to weight measurements to ensure quality production of the mortar.

F. All containers shall be marked including manufacturing date and batch number. Manufacturer is required to maintain production-sampling procedures for each batch for quality control purposes. All pre-blended products are to meet ASTM standards and project specification requirements.

G. Acceptable Known Testing Source: American Petrographic, 550 Cleveland Avenue, St. Paul, Minnesota 55114 (615) 659-9001.

H. Acceptable Mortar Materials:
   1. Pure and Natural Hydraulic Lime (NHL)3.5
   2. Aggregate for Mortar: ASTM C 144, unless otherwise indicated by testing.

2.04 MORTAR MIXES

A. Measurement and Mixing: Measure lime and aggregate material in a dry condition by volume or equivalent weight. Do no measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
   1. Mixing Pointing Mortar: Thoroughly mix lime and aggregate materials together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that will retain its form when pressed into a ball. Maintain mortar in this dampened condition for 1 to 2 hours. Add remaining water in small portions until reaching mortar of desired consistency. Use mortar within 60 minutes of final mixing; do not retemper or use partially hardened material.

B. Colored Mortar: Produce mortar of color required by using selected ingredients. Do not adjust proportions without Consultant's approval.

C. Do not use admixtures of any kind in mortar, unless otherwise indicated.

D. Mortar Proportions: Mix mortar materials in the following proportions:
   1. Pointing mortar for Stone: 1 part Pure and Natural Hydraulic Lime (NHL) 3.5 and 2 parts colored or natural mortar aggregate.
   2. Rebuilding Mortar: 1 part Pure and Natural Hydraulic Lime (NHL) 3.5 and 2-3 parts colored or natural mortar aggregate.

2.05 CLEANING MATERIALS

A. Water for cleaning: Potable.

B. Hot Water: Heat water to a temperature of 140 to 160 deg F. (60 to 71 deg C).

C. Non-acidic Gel Cleaner: Manufacturer's standard gel formulation, with pH between 6 and 9 that contains detergents and chelating agents and is specifically formulated for cleaning masonry surfaces.
   1. Products:
      a. Diedrich Technologies 707X
      b. ProSoCo; Limestone Pre-Wash.

D. Mild Acidic Cleaner: Manufacturer's standard mildly acidic cleaner containing no hydrochloric, hydrofluoric, or sulfuric acid; or chlorine bleaches.
   1. Products:
      a. Diedrich Technologies, Inc.; 707N After Wash
      b. ProSoCo; Limestone and Masonry After Wash.

2.06 MISCELLANEOUS MATERIALS

A. Stone Anchors: Type and size indicated or, if not indicated, to match existing anchors in size and type. Fabricate anchors and dowels from Type 304 stainless steel.

B. Stone-to-Stone Adhesive: 1-part cementitious stone adhesive, recommended by adhesive manufacturer for type of stone repair indicated, and matching stone color.
   1. Products:
      a. One-Part Cementitious Stone Adhesive:
         1) Cathedral Stone Products, Inc.; Jahn Restoration Adhesive.

C. Stone Patching Compound: Factory-mixed cementitious product that is custom manufactured for patching stone, is vapor and water permeable, exhibits low shrinkage, and develops high bond strength to all types of stone. Formulate in colors and textures to match stone being patched. Provide not less than three (3) colors to enable matching each piece of stone.
   1. Products:
      a. Cathedral Stone Products, Inc.; Jahn Restoration Mortar.
      b. Edison Coatings, Inc.; Custom System 45.
      c. ConProCo Corporation;

D. Factory-Mixed Patching Mortar:
   1. ConProCo Mimic Matrix
   2. Jahn Restoration Mortar; M70
   3. Edison Coatings, Inc. Custom 45

E. Cementitious Crack Filler: An ultrafine super plasticized grout that can be injected into cracks, is suitable for application to wet or dry cracks, exhibits low shrinkage, and develops high bond strength to all types of stone.
   1. Products:
      a. Cathedral Stone Products, Inc.; Jahn Injection Grout.
      b. Edison Coatings, Inc.; Pump-X 53i.
      c. Edison Chemical Systems PUMP-X53-Series.

F. Liquid Strippable Masking Agent: Manufacturer's standard liquid, film-forming, strippable masking material for protecting glass, metal, and polished stone surfaces from damaging effects of acidic and alkaline masonry cleaners.
   1. Products:
      a. American Building Restoration Products, Inc.; LM 130 Acid Shield.
      b. Diedrich Technologies, Inc.; Diedrich Acid Guard.
      c. Jahn Stone Restoration Adhesive.
      d. Price Research, Ltd.; Price Mask.
      e. ProSoCo; Sure Klean Strippable Masking.

G. Stone Consolidation Treatment: Ready-to-use product designed for consolidation of masonry materials that have deteriorated due to weathering and exposure to pollutants. Treatment shall be composed of silicic-ethyl esters, a neutral catalyst, and solvents.
   1. Products:
      a. ProSoCo; Conservare OH Stone Strengthener.

PART 3 - EXECUTION

3.01 PROTECTION

A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from stone restoration work.

B. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during course of restoration and cleaning work.

C. Apply masking agents to comply with manufacturer's written instructions. Do not apply liquid masking agent to painted or porous surfaces. When no longer needed, properly remove masking to prevent adhesive staining.

D. Keep wall wet below area being cleaned to prevent streaking from runoff.

E. Do not clean stone during winds of sufficient force to spread cleaning solutions to unprotected surfaces.

F. Dispose of runoff from cleaning operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations; damage to landscaping, and water penetration into building interiors.

G. Prevent mortar from staining face of surrounding masonry and other surfaces.

H. Cover sills, ledges, and projections to protect from mortar droppings.

I. Keep wall area wet below rebuilding and pointing work to discourage mortar from adhering.

J. Immediately remove mortar in contact with exposed masonry and other surfaces.

K. Clean mortar splatters from scaffolding at end of each day.

L. Remove gutters and downspouts adjacent to stone and store as directed by Consultant during stone restoration and cleaning. Reinstall when stone restoration and cleaning is complete.

M. Provide temporary rain drainage during work to direct water away from building.

3.02 UNUSED ANCHOR REMOVAL

A. Remove masonry anchors, brackets, wood nailers, and other extraneous items no longer in use unless identified as historically significant or indicated to remain.

B. Remove items carefully to avoid spalling or cracking stone.

C. If item cannot be removed without damaging surrounding stone, cut off item flush with surface and fore drill surrounding stone and item as close around item as practical.

D. Patch holes where items were removed unless directed to remove and replace units.

3.03 STONE REMOVAL AND REPLACEMENT

A. Before removing any deteriorated masonry units establish bonding patterns, levels and coursings.

B. At locations indicated, remove stone that has deteriorated or is damaged beyond repair. Carefully demolish or remove entire units from joint to joint, without damaging surrounding stone, in a manner that permits replacement with full size units.

C. Support and protect remaining stonework that surrounds removal area. Maintain flashing, reinforcement, lintels, and adjoining construction in an undamaged condition.

D. Notify Consultant of unforeseen detrimental conditions including voids, cracks, bulges, and loose masonry units in existing masonry backup, rotted wood, rusted metal, and other deteriorated items.

E. Remove in an undamaged condition as many whole stone units as possible.

F. Remove mortar, loose particles, and soil from stone by cleaning with hand chisels, brushes, and water.

G. Remove sealants by cutting close to stone with utility knife and cleaning with solvents.

H. Reuse salvaged stone to the fullest extent possible. Integrate new replacement stone in concealed areas or shielded from public view.

I. Deliver cleaned stone not required for reuse to Owner.

J. Match coursing, bonding, color and texture of existing masonry.

K. Clean stone surrounding removal areas by removing mortar, dust, and loose particles in preparation for replacement.

L. Replace removed stone with other removed stone, where possible, or with new stone matching existing stone, including size. Butter vertical joints for full width before setting and set units in full bed of mortar, unless otherwise indicated. Replace existing anchors with new anchors of size and type indicated.

M. Rake out mortar used for laying stone before mortar sets and point new mortar joints in repaired area to comply with requirements for repointing existing stone, and at same time as repointing of surrounding area.

3.04 PARTIAL STONE REPLACEMENT (DUTCHMAN REPAIR)

A. At locations indicated, remove rectangular portion of stone units. Carefully remove stone by making vertical and horizontal saw cuts at face of stone and demolishing corner portion of stone unit to depth required for fitting partial replacement (Dutchman). Make edges of stone at cuts smooth and square to each other and to finished surface.

B. Make back of removal area flat and parallel to stone face.

C. Remove mortar from joints that abut area of stone removal to same depth as stone which was removed. Remove loose mortar particles and other debris from surfaces to be bonded and surfaces of adjacent stone units that will receive mortar by cleaning with stiff-fiber brush.

D. Trim partial replacement (Dutchman) to accurately fit area where stone was removed.

E. Apply stone-to-stone adhesive to comply with adhesive manufacturer's written instructions. Coat bonding surfaces of existing stone and partial replacement, completely filling all crevices and voids.

F. Apply partial replacement while adhesive is still tacky and hold securely in place until adhesive has cured. Use shims, clamps, wedges, or other devices as necessary to align face of partial replacement with face of stone unit being repaired.

G. Clean residual adhesive from exposed surfaces and patch chipped areas and drill holes as specified in "Stone Patching" Article.

3.05 STONE PLUG REPAIR

A. At locations indicated, remove cylindrical piece of damaged stone by core-drilling perpendicular to stone surface.

B. Prepare a replacement plug by core-drilling replacement stone. Use a drill sized to produce a core that will fit into hole drilled in damaged stone with only minimum gap necessary for adhesive.

C. Apply stone-to-stone adhesive to comply with adhesive manufacturer's written instructions. Coat bonding surfaces of existing stone and plug, completely filling all crevices and voids.

D. Apply plug while adhesive is still tacky and hold securely in place until adhesive has cured.

E. Clean residual adhesive from exposed surfaces.

3.06 STONE REPAIR

A. Carefully remove loose stone fragments in areas indicated to be repaired. Reuse only stone fragments that are in sound condition.

B. Remove soil, loose stone particles, mortar, and other debris or foreign material from fragment surfaces to be bonded and stone from which fragments were removed by cleaning with stiff-fiber brush.

C. Apply stone-to-stone adhesive to comply with adhesive manufacturer's written instructions. Coat bonding surfaces of fragments and stone from which fragments were removed, completely filling all crevices and voids.

D. Fit stone fragments onto building stone while adhesive is still tacky and hold fragment securely in place until adhesive has cured.

E. Clean residual adhesive from exposed surfaces and patch chipped areas and drilled holes as specified in "Stone Patching" Article.

3.07 CRACK INJECTION

A. General: Comply with cementitious crack filler manufacturer's written instructions.

B. Drill 1/4 –inch-(6 mm) diameter, downward-sloping injection holes as follows:
   1. Transverse Cracks Less Than 3/8 inch (10 mm) Wide: Drill holes through center of crack at 12 to 18 inches (300 mm to 500mm) on center.
   2. Transverse Cracks More Than 3/8 inch (10 mm) Wide: Drill holes through center of crack at 18 to 36 inches (500 mm to 1000mm) on center.
   3. Delaminations: Drill holes at approximately 18 inches (500 mm) on center both vertically and horizontally. Drill holes 2 inches (50 mm) deep. Where possible drill holes in mortar joints.

C. Clean out drill holes and cracks with compressed air and water. Remove dirt and organic matter, loose material, sealants, and failed crack repair materials.

D. Place plastic injection ports in drilled holes and seal face of cracks between injection ports with clay or other non-staining, removable plugging material. Leave openings at upper ends of cracks for air release.

E. Inject cementitious crack filler through ports sequentially, beginning at one end of area and working to opposite end; where possible begin at lower end of injection area and work upward. Inject filler until it extrudes from adjacent ports. After port has been injected, plug with clay or other suitable material and begin injection filler at adjacent port, repeating process until all ports have been injected.

F. Clean cementitious crack filler from face of stone before it sets by scrubbing with water.

G. After cementitious crack filler has set, remove injection ports, plugging material, and excess filler. Patch injection holes and surface cracks as specified in "Stone Patching" Article.

3.08 STONE PATCHING

A. It is usually much less expensive to patch rather than replace slightly to moderately damaged stone units. For historic restoration projects, it is also important to retain as much of original fabric of building exterior as possible.

B. Patch the following stone units:
   1. Units indicated to be patched on drawings.
   2. Units with holes.
   3. Units with chipped edges or corners.
   4. Units with small areas of deep deterioration.

C. Remove and replace existing patches, unless otherwise indicated, or approved by Consultant.

D. Cut out deteriorated stone and adjacent stone that has begun to deteriorate. Remove additional material so patch will not have feathered edges and will be at least ¼ inch (6 mm) thick, but not less than recommended by patching compound manufacturer.

E. Remove loose particles, soil, debris, oil, and other contaminants from existing stone units at locations to be patched by cleaning with stiff-fiber brush.

F. Brush-cat stone surfaces with slurry coat of patching compound according to manufacturer's written instructions.

G. Place patching compound in layers as recommended by patching compound manufacturer, but not less than ¼ inch (6 mm) or more than 2 inches (50 mm) thick. Roughen surface of each layer to provide a key for next layer.

H. Trowel, scrape, or carve surface of patch to match texture and surface plane of surrounding stone. Shape and finish surface before or after curing, as determined by testing, to best match existing stone.

I. Build patch up ¼ inch (6 mm above surrounding stone and carve surface to match adjoining stone after patching compound has hardened.

J. Keep each layer damp for 72 hours or until patching compound has set.

K. Remove and replace patches with hairline cracks or that show separation from stone at edges, and those that do not match adjoining stone in color or texture.

3.09 CLEANING STONEWORK

A. Hot-Water Wash: Use hot water applied by medium-pressure spray.

B. Detergent Cleaning:
   1. Wet stone with hot water applied by low-pressure spray.
   2. Scrub stone with detergent solution using medium-soft brushes until soil is thoroughly dislodged and can be removed by rinsing. Use small brushes to remove soil from mortar joints and crevices. Dip brush in solution often to ensure that adequate fresh detergent is used and that stone surface remains wet.
   3. Rinse with hot water applied by low-pressure spray to remove detergent solution and soil.
   4. Apply manufacturers After Wash to neutralize the Pre Wash.
   5. Rinse the After Wash thoroughly with medium-pressure spray to remove solution.
   6. Repeat cleaning procedure above where required to produce cleaning effect established by mockup.

C. Mold, Mildew, and Algae Removal:
   1. Wet stone with hot water applied by low-pressure spray.
   2. Apply mold, mildew, and algae remover by brush.
   3. Scrub stone with medium-soft brushes until mold, mildew, and algae are thoroughly dislodged and can be removed by rinsing. Use small brushes for mortar joints and crevices. Dip brush in mold, mildew, and algae remover often to ensure that adequate fresh cleaner is used and that stone surface remains wet.

4. Rinse with hot water applied by low-pressure spray to remove mold, mildew, and algae remover and soil.
5. Repeat cleaning procedure above where required to produce cleaning effect established by mockup.

D. Nonacidic Gel Chemical Cleaning:
1. Wet stone with hot water applied by low-pressure spray.
2. Apply nonacidic gel cleaner in 1/8-inch (3 mm) thickness by brush, working into joints and crevices. Apply quickly and do not brush out excessively so area will be uniformly covered with fresh cleaner and dwell time will be uniform throughout area being cleaned.
3. Let cleaner remain on surface for period indicated below:
4. As established by mockup.
5. Remove bulk of nonacidic gel cleaner by squeegeeing into containers for disposal.
6. Rinse with hot water applied by low-pressure spray to remove chemicals and soils.
7. Repeat cleaning procedure above where required to produce cleaning effect established by mockup. Do not repeat more than once. If additional cleaning is required, use steam wash.

E. Nonacidic Liquid Chemical Cleaning:
1. Select one of two options in first subparagraph below. Alkaline cleaners work much better with hot water. Wet stone with hot water applied by low-pressure spray.
2. Apply cleaner to stone by brush or low-pressure spray. Let cleaner remain on surface for period indicated below:
3. As established by mockup.
4. Test cleaning methods on concealed area prior to applying to the entire area.
5. Rinse with hot water applied by low-pressure spray to remove chemicals and soil.
6. Repeat cleaning procedure above where required to produce cleaning effect established by mockup. Do not repeat more than once. If additional cleaning is required, use steam wash.

F. Mild Acidic Chemical Cleaning:
1. Wet stone with cold water applied by low-pressure spray.
2. Apply cleaner to stone by brush or low-pressure spray. Let cleaner remain on surface for period indicated below:
3. As established by mockup.
4. Rinse with cold water applied by low-pressure spray to remove chemicals and soil.
5. Repeat cleaning procedure above where required to produce cleaning effect established by mockup. Do not repeat more than once. If additional cleaning is required, use a steam wash.

3.10 REPOINTING STONEWORK

A. Rake out and repoint mortar joints to the following extent:
1. All joints in areas indicated.
2. Joints where mortar is missing or where they contain holes.
3. Cracked joints where crack can be penetrated at least ¼ inch (6 mm) by a knife blade 0.027 inch (0.7 mm) thick.
4. Cracked joints where cracks are 1/8 inch (3 mm) or more in width and of any depth.
5. Joints where they sound hollow when tapped by metal object.
6. Joints where they are worn back ¼ inch (6 mm) or more from surface.
7. Joints where they are deteriorated to point that mortar can be easily removed by hand.
8. Joints, other than those indicated as sealant-filled joints, where they have been filled with substances other than mortar.
9. Do not rake out and repoint joints where not required.

B. Rake out joints as follows:
1. Remove mortar from joints to depth of 2-1/2 times joint width, but not less than ½ inch (13 mm) or not less than that required to expose sound, unweathered mortar.

2. Remove mortar from stonework surfaces within raked-out joints to provide reveals with square backs and to expose stone for contact with pointing mortar. Shallow or feather edging shall not be permitted.
3. Do not spall edges of stone units or widen joints. Replace or patch damaged stone units as directed by Consultant.
4. Existing horizontal mortar joints (bed joints) that are filled with a hard Portland mortar may be raked out using a diamond blade that is narrower than the joint width. The middle one-third of the mortar joint may be cut using a rotary power saw. The remaining mortar shall be removed from the masonry joints by hand using masonry chisels or pneumatic carving tools powered by air.
5. Vertical joints (head joints) SHALL NOT be raked out using rotary power saws. All vertical head joints must be removed by hand in stonework.
6. Existing historic lime-based mortar shall be removed using only small-headed chisels that are no wider than half the width of the existing masonry joints. Pneumatic air carving chisels are not permitted.
7. Contractor shall not widen the existing mortar joints. The surrounding masonry edges shall not be spalled or chipped in the process of mortar removal. Damage to surrounding stone resulting from rotary blade over running shall not be permitted. Contractor shall replace all stone damaged during mortar removal with replacement units that match the original.
8. Brush, Vacuum, blow out or flush joints with water to remove dirt and loose debris, working from top to bottom of wall.
9. Notify Consultant of unforeseen detrimental conditions including voids in mortar joints, cracks, loose stone, rotted wood, rusted metal, and other deteriorated items.

C. Point Joints as follows:
1. Exposed surface of brick or stone adjacent to joint shall be wet prior to repointing. Maintain a water sprayer on site at all times during repointing process.
2. Walls should be presoaked with water 10 minutes prior to pointing. Walls should be misted with water for duration of at least 3 minutes at the end of the day after initial installation. Mist walls with water for 72 hours after initial installation. 3 times per day minimum – morning, noon and night.
3. Rinse stone joint with water to remove dust and mortar particles. Time the rinsing application so that at the time of pointing excess water has evaporated or run off. Joint surfaces should be damp but free from standing water.
4. The mortar material shall resemble the consistency of brown sugar during installation. This drier consistency enables the material to be tightly packed into the joint and allows for cleaner work and prevents shrinkage cracks as the mortar cures.
5. Joints should be pointed in layers or “lifts” where the joints are deeper than 1-1/4 inch. Apply in layers not greater than ½ the depth but not more than 1-1/4 inch or until a uniform depth is formed. Compact each layer thoroughly and allow it to become thumbprint hard before applying the next layer.
6. Apply pointing mortar first to areas where existing mortar was removed to depths greater than surrounding areas.
7. After low areas have been filled to same depth as remaining joints, point all joints by placing mortar in layers not greater than 3/8 inch (9 mm). Fully compact each layer and allow to become thumbprint hard before applying next layer. Where existing stone has worn or rounded edges, slightly recess finished mortar surface below face of stone to avoid widening joint faces. Take care not to spread mortar over edges onto exposed stone surfaces or to featheredge mortar.
8. When mortar is thumbprint hard, tool joints to match original appearance of joints. Remove excess mortar from edge of joint by brushing.
9. Cure mortar by maintaining in thoroughly damp condition for at least 72 hours, including weekends and holidays.
10. Acceptable curing methods include covering with wet burlap and plastic sheeting, periodic hand misting, and periodic mist spraying using system of pipes, mist heads, and timers.

11. Adjust curing methods to ensure that pointing mortar is damp throughout its depth without eroding surface of mortar.
12. Where repointing work precedes cleaning of existing stone, allow mortar to harden at least 30 days before beginning cleaning work.

3.11 STONE CONSOLIDATION TREATMENT

A. Do not proceed with stone consolidation treatment until testing is complete and written approval from Consultant has been obtained.

B. Apply treatment to clean, dry surfaces according to manufacturer's written instructions. Remove areas of blind exfoliation and delamination before applying.

C. Apply in cycles (repeated applications) to small sections of stonework, not more than 100 square feet (9 square meters) in area.

D. Each cycle shall consist of three (3) successive saturating applications, applied at 5 to 15 minute intervals, depending upon drying conditions.

E. Apply by low-pressure spray to point of rejection in each application. Apply from bottom of section to top.

F. Apply three (3) cycles, allowing treated surface to dry for 60 to 90 minutes between cycles.

G. Protect treated surfaces from rain for forty eight (48) hours after treatment.

H. Allow treated surfaces to dry for at least 21 days before repointing, patching, or applying water repellents or sealants.

3.12 FINAL CLEANING

A. Wash adjacent woodwork and other non-masonry surfaces. Use detergent and soft brushes or cloths.
   1. Do not use metal scrapers or brushes.
   2. Do not use acidic or alkaline cleaners.

B. Clean mortar and debris from roof; remove debris from gutters and downspouts. Rinse off roof and flush gutters and downspouts.

C. Sweep and rake adjacent pavement and grounds to remove mortar and debris. Where necessary, pressure wash surfaces to remove mortar, dust, dirt, and stains.

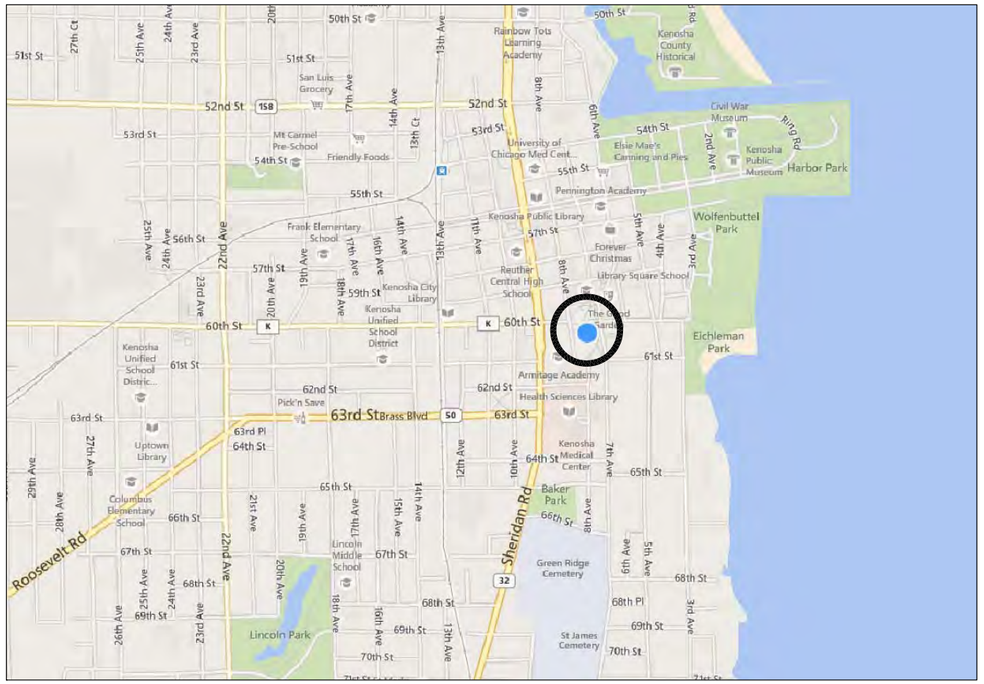
3.13 FIELD QUALITY CONTROL

A. Inspectors: Consultant will engage qualified independent inspectors to perform inspections.

B. Allow inspectors use of lift devices and scaffolding, as needed, to perform inspections.

C. Notify inspectors in advance of times when lift devices and scaffolding will be relocated. Do not relocate lift devices and scaffolding until inspectors have had reasonable opportunity to make inspections and observations of work areas at lift device or scaffold location.

END OF SECTION



711 59TH PLACE

PROJECT: SIMMONS LIBRARY
711 59TH PLACE
KENOSHA, WI 53140

OWNER: CITY OF KENOSHA
812 56TH ST - P.O BOX 1414
KENOSHA, WI 53141

CONSULTANT: INDUSTRIAL ROOFING SERVICES
13000 WEST SILVER SPRING DRIVE
BUTLER, WISCONSIN 53007
(262) 432-0500

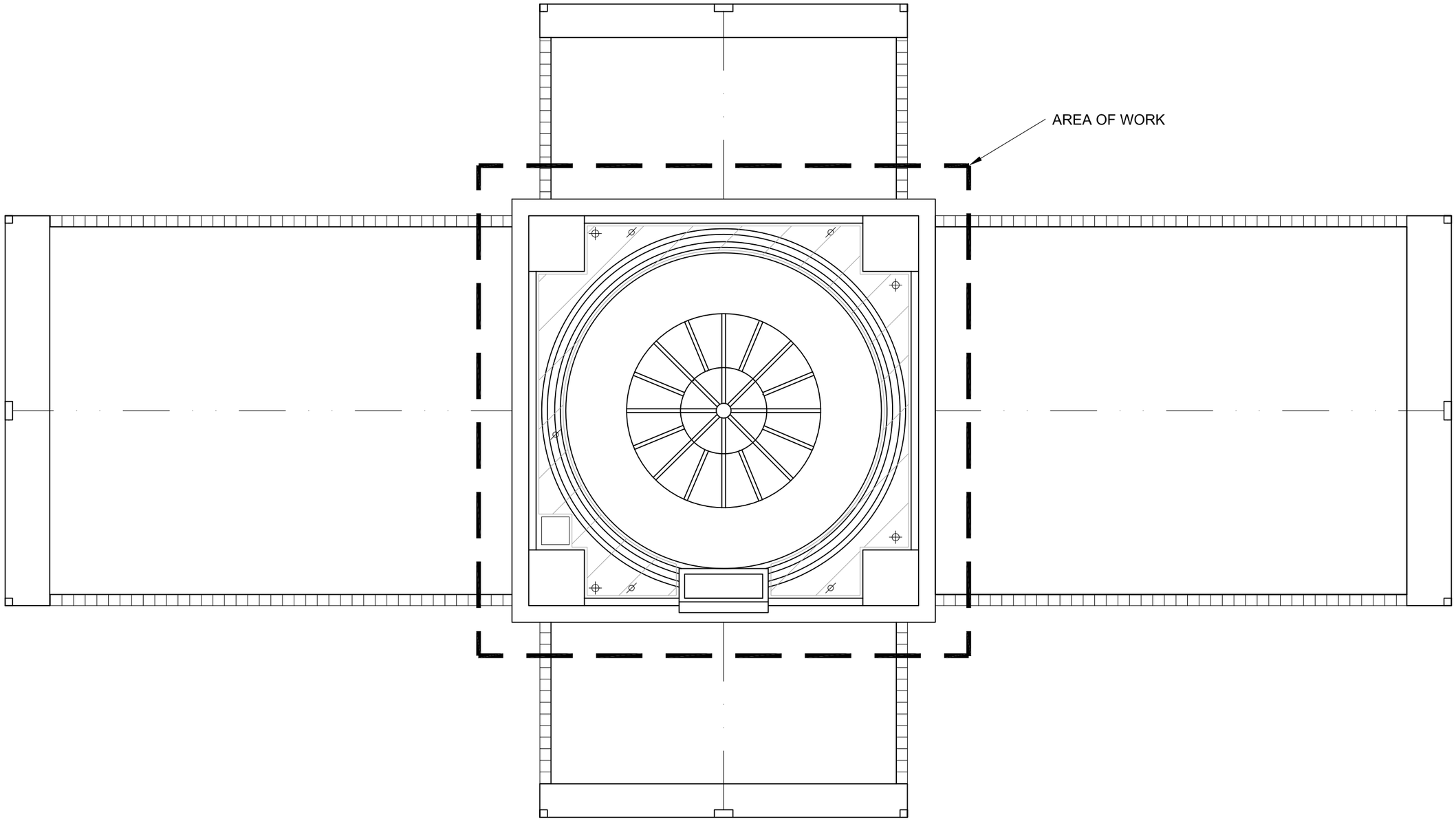
IRS JOB #: 14706

SHEET INDEX

INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	IRS SPEC NO.:	NORTH ARROW:
CITY OF KENOSHA 711 59TH PLACE– KENOSHA, WI SIMMONS LIBRARY	ASB	7/30/2014	14706	
TITLE: COVER PAGE	SCALE: N.T.S.	DRAWING NO.: 0		

NOTES: DIMENSIONS ARE FOR BIDDING PROPOSES ONLY. CONTRACTOR IS TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING AND INSTALLING PRODUCTS.



INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

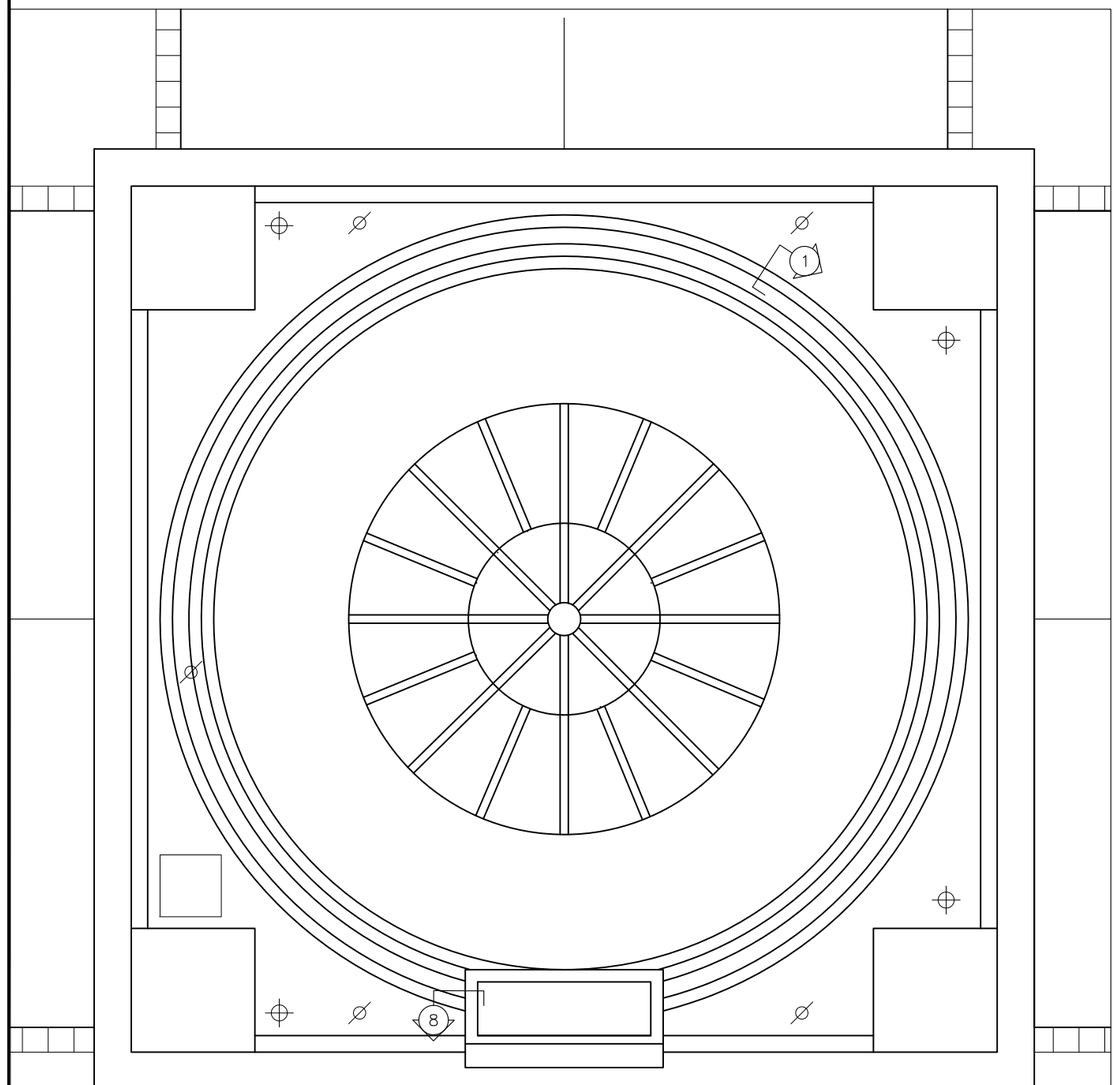
PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 711 5PTH PLACE– KENOSHA, WI SIMMONS LIBRARY	ASB	7/30/2014	14706
TITLE: ROOF REPAIR SPECIFICATION	SCALE: N.T.S.	DRAWING TYPE: A1	

NORTH ARROW:

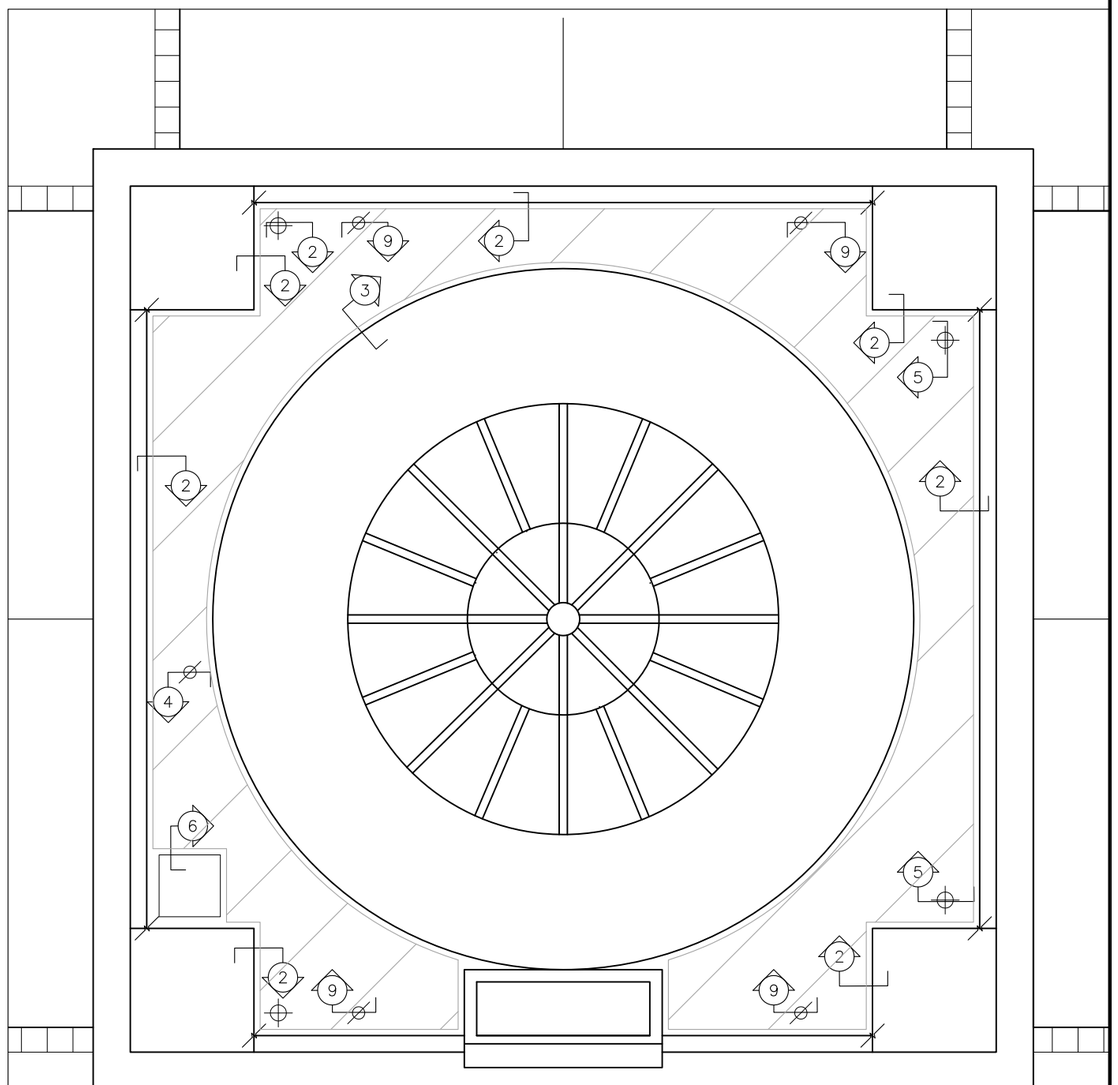
KEY:
- ROOF DRAIN
- THROUGH–WALL SCUPPER
- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
- SKYLIGHT
- CURBED PIPE VENT
- UNUSED
- CHIMNEY
- ROOF LADDER
- PIPE VENT
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREEN WALL

NOTES:

GUTTER/CHIMNEY CALLOUTS



WALL/PENETRATION CALLOUTS



IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME: CITY OF KENOSHA 711 5PTH PLACE-- KENOSHA, WI SIMMONS LIBRARY	DRAWN BY: ASB	DATE: 7/30/2014	DRAWING NO.: 14706
TITLE: ROOF DETAIL REFERENCE SHEET	SCALE: N.T.S.	DRAWING TYPE: A2	

NORTH ARROW:

KEY:
- ROOF DRAIN
- THROUGH-WALL SCUPPER
- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
- SKYLIGHT
- CURBED PIPE VENT
- UNUSED
- CHIMNEY
- ROOF LADDER
- PIPE VENT
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREEN WALL

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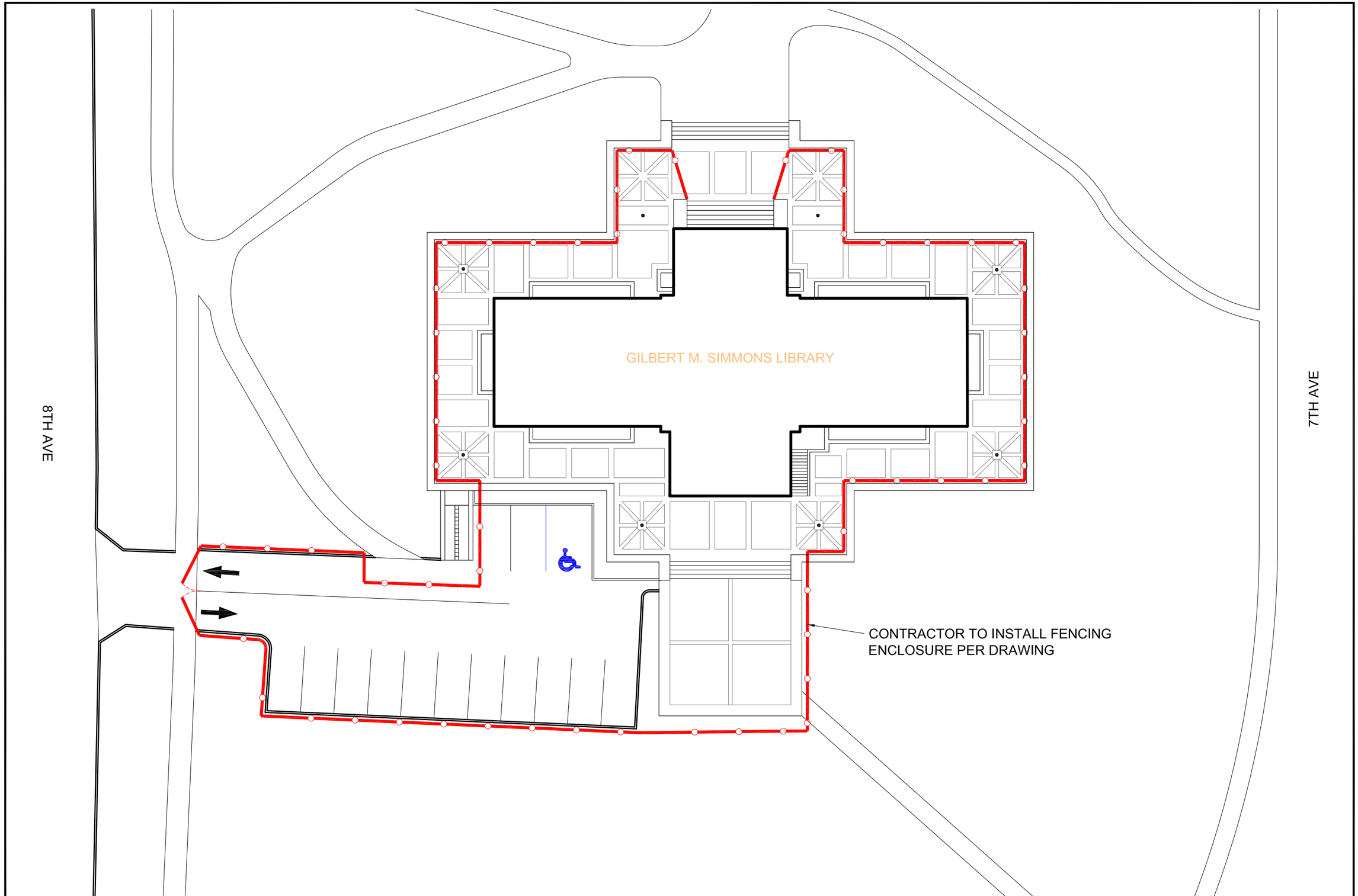


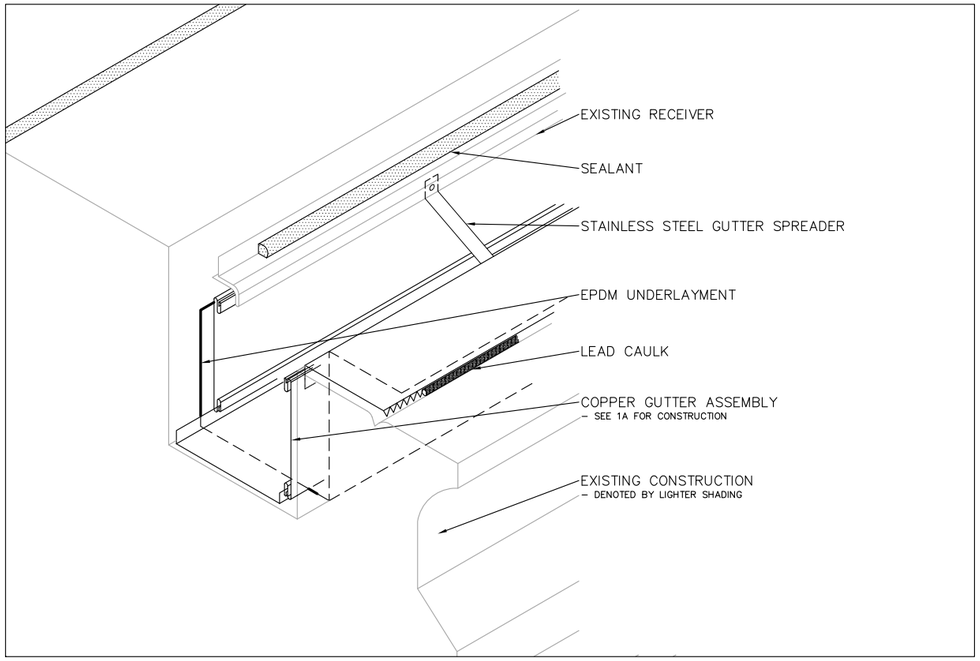
IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
KENOSHA PUBLIC LIBRARY SIMMONS LIBRARY 711 59TH PLACE– KENOSHA, WI	ASB	7/30/2014	14706
TITLE: FENCE ENCLOSURE	SCALE: N.T.S.	DRAWING: A3	

NORTH ARROW:

KEY:
- A – AREA DESIGNATION
- – AREA SEPARATOR
- – PHOTO LOCATION
- – CONCRETE
- – HANDICAP PARKING
- VA – VAN ACCESSIBLE PARKING
- – CATCH BASIN
- – CATCH BASIN WITH CONCRETE COLLAR
- – CURB INLET
- – SINGLE HEAD LIGHT POLE
- – DOUBLE HEAD LIGHT POLE
- FH – FIRE HYDRANT
- – FENCE
- – EXTRUDED ASPHALT CURB

NOTES:



DETAIL 1: DOME GUTTER

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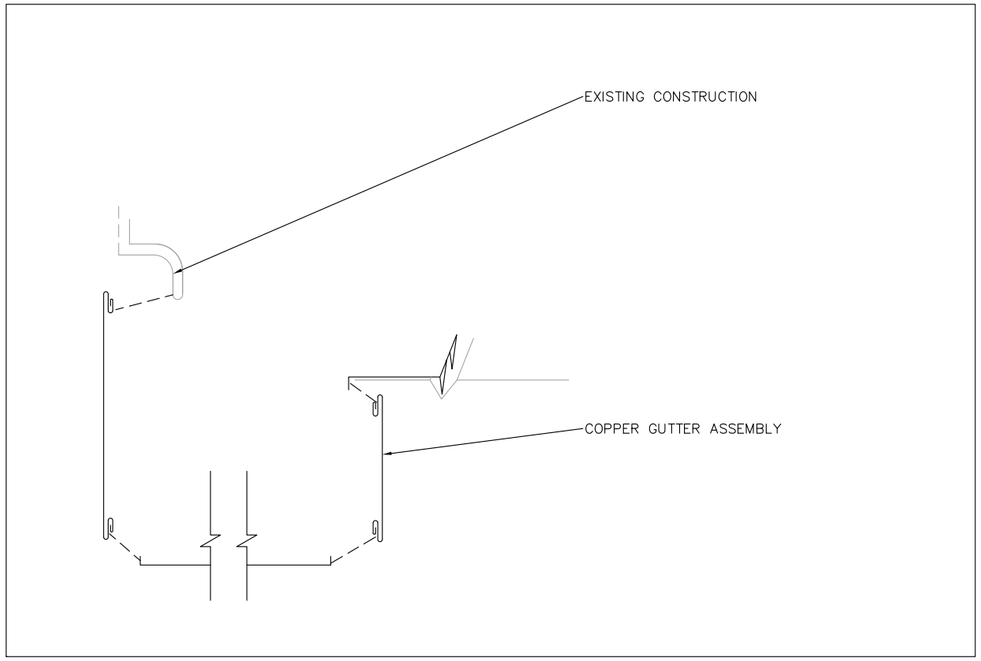

DETAIL 1A: DOME GUTTER

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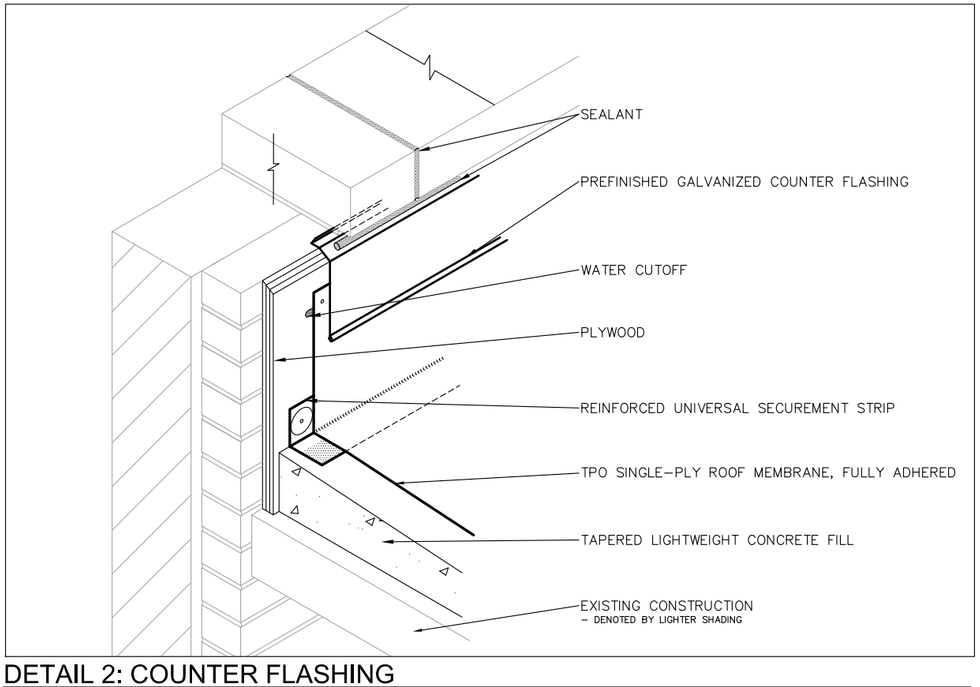
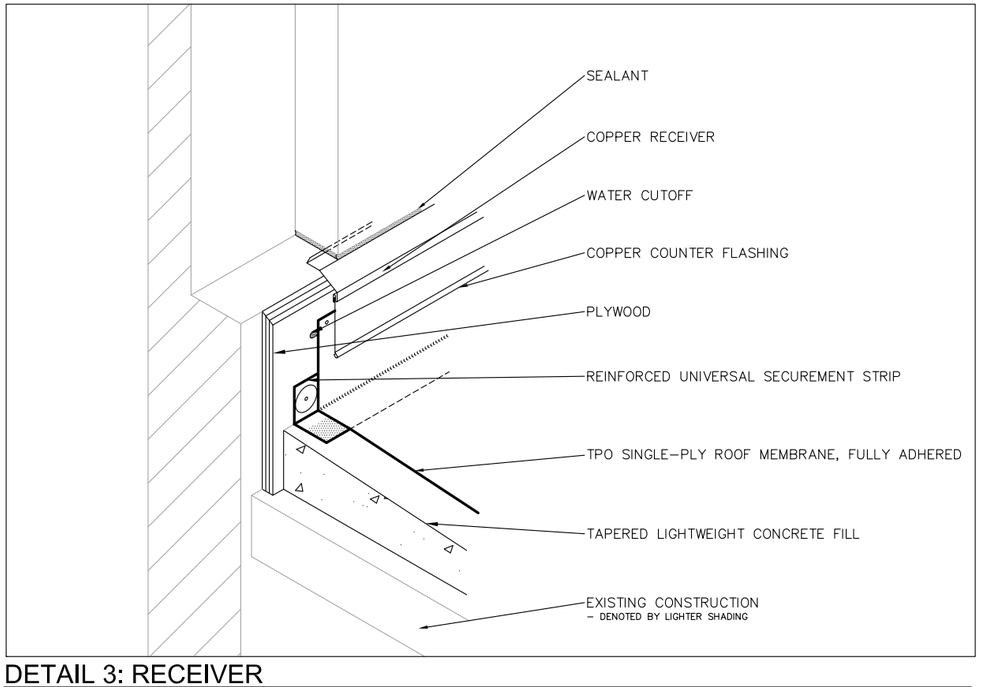


DETAIL 2: COUNTER FLASHING

NOT TO SCALE



DETAIL 3: RECEIVER

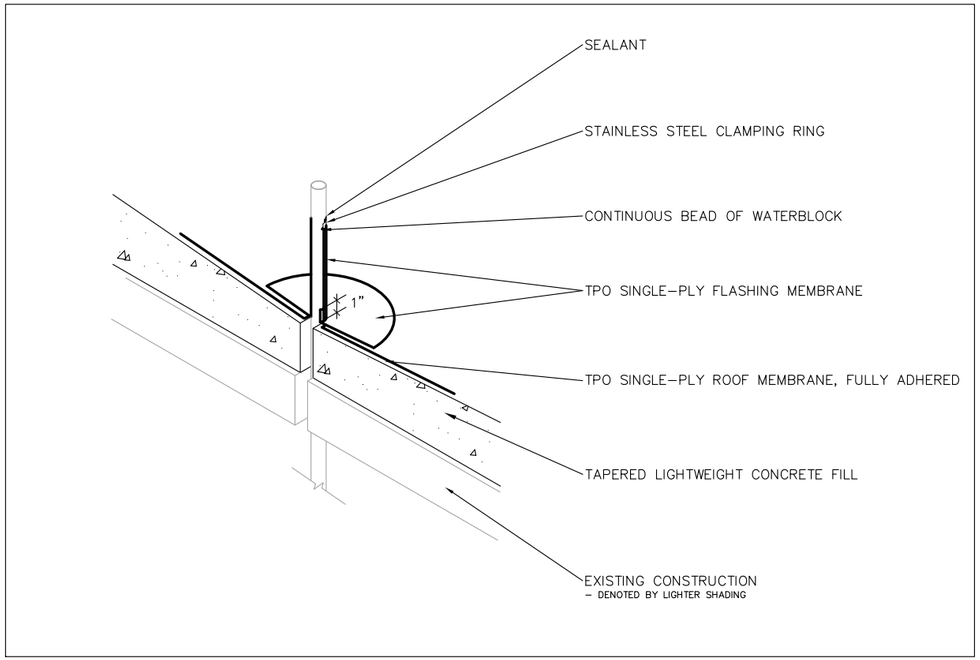
NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 711 5PTH PLACE– KENOSHA, WI SIMMONS LIBRARY	ASB	7/30/2014	14706
TITLE: ROOF REPAIR DETAILS	SCALE: N.T.S.	DRAWING TYPE: A4	

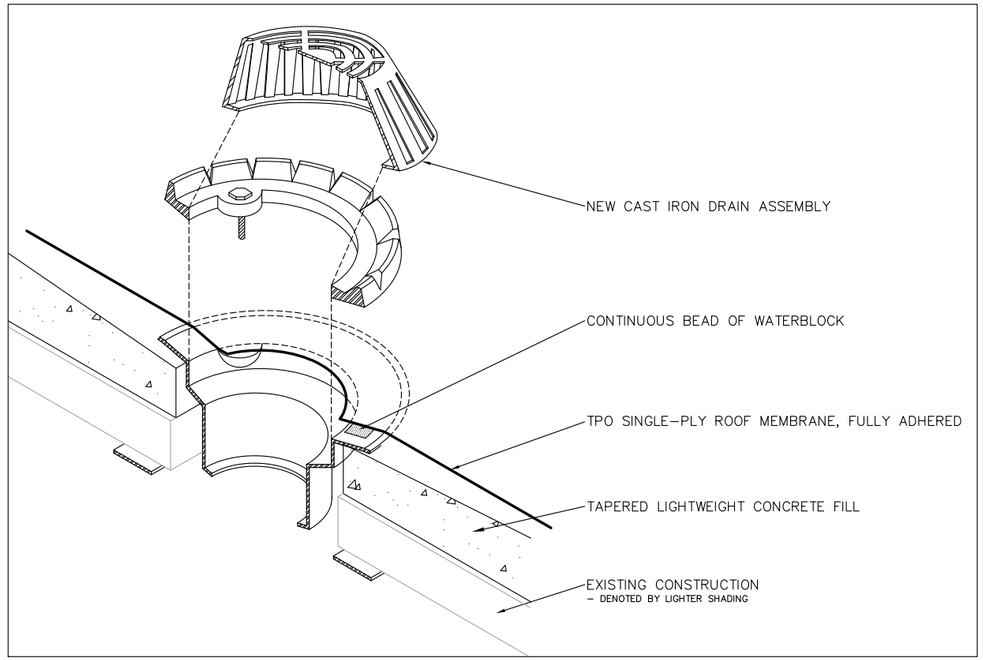
KEY:
- ROOF DRAIN
- THROUGH–WALL SCUPPER
- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
- SKYLIGHT
- CURBED PIPE VENT
- UNUSED
- CHIMNEY
- ROOF LADDER
- PIPE VENT
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREEN WALL

NOTES:



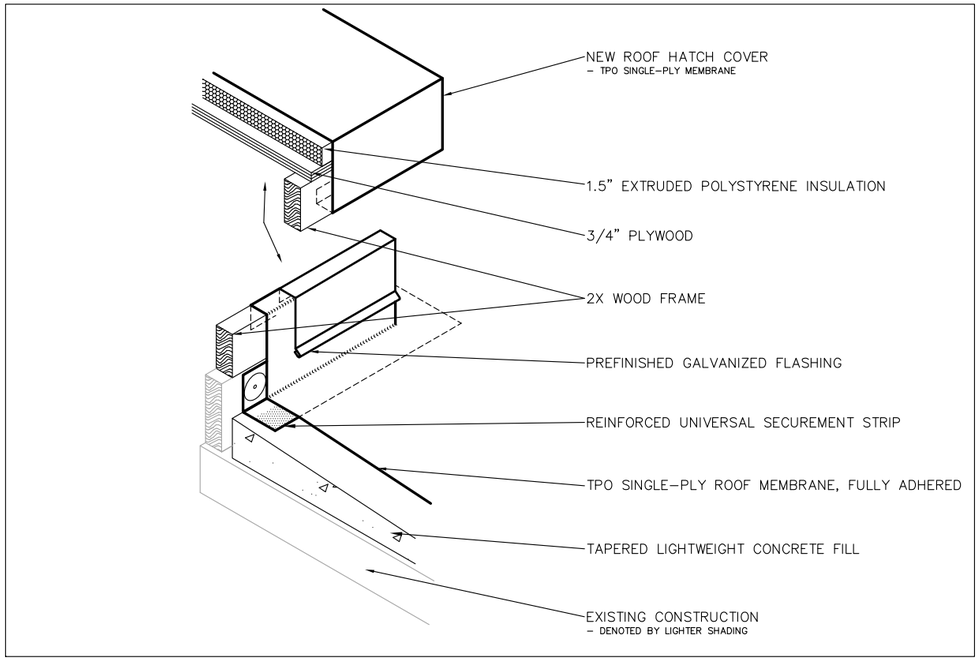
DETAIL 4: SMALL PIPE

NOT TO SCALE



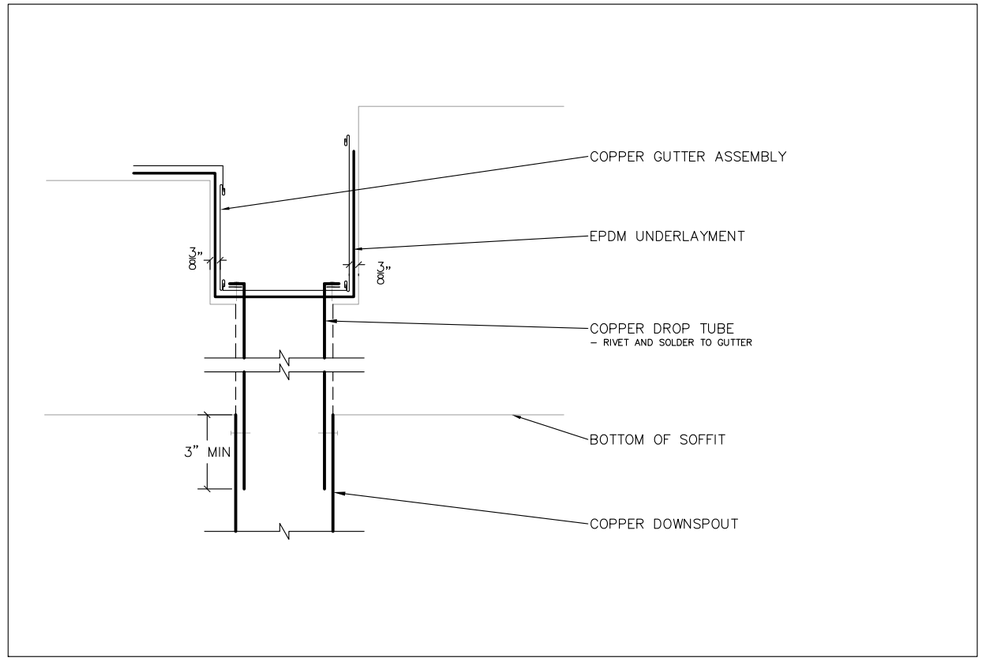
DETAIL 5: DRAIN

NOT TO SCALE



DETAIL 6: ROOF HATCH

NOT TO SCALE



DETAIL 7: DOWNSPOUT CONNECTION

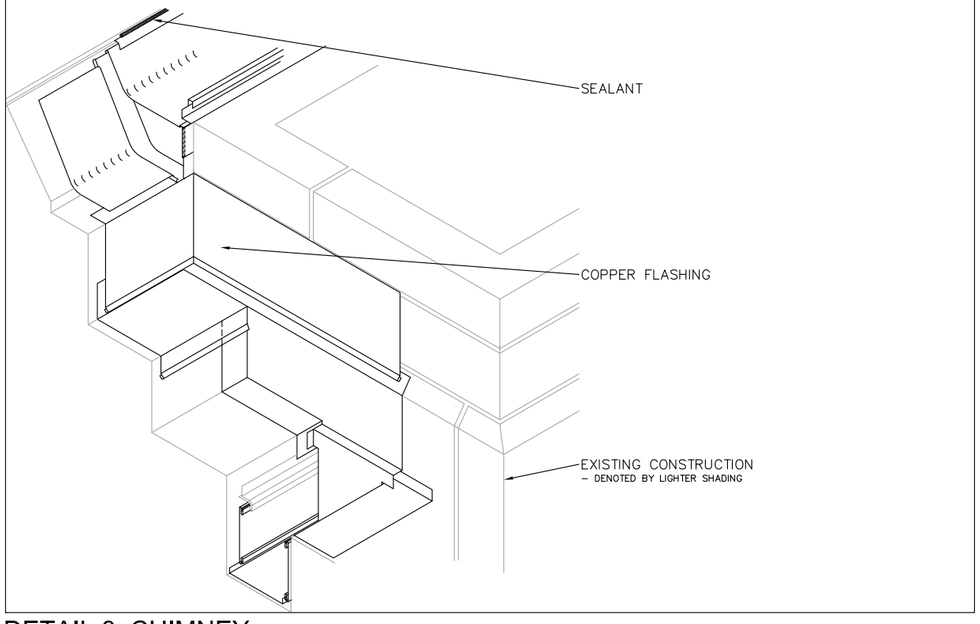
NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 711 5PTH PLACE– KENOSHA, WI SIMMONS LIBRARY	ASB	7/30/2014	14706
TITLE: ROOF REPAIR DETAILS	**SCALE:** N.T.S.	**DRAWING TYPE:** A5	

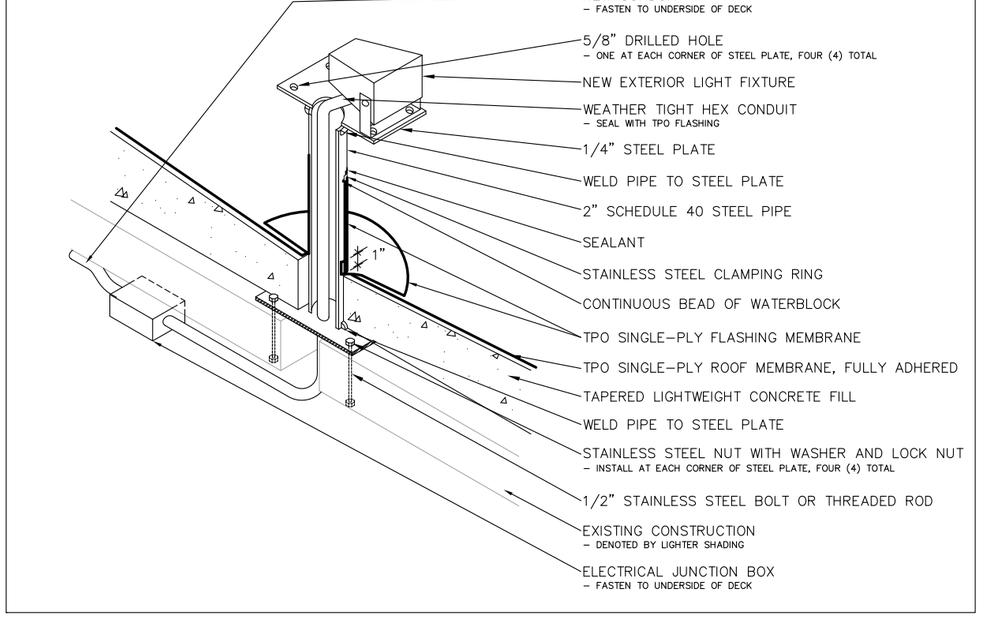
KEY:
- ROOF DRAIN
- THROUGH–WALL SCUPPER
- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
- SKYLIGHT
- CURBED PIPE VENT
- UNUSED
- CHIMNEY
- ROOF LADDER
- PIPE VENT
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREED WALL

NOTES:



DETAIL 8: CHIMNEY

NOT TO SCALE



DETAIL 9: LIGHT FIXTURE

NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 711 5PTH PLACE– KENOSHA, WI SIMMONS LIBRARY	ASB	7/30/2014	14706
TITLE: ROOF REPAIR DETAILS	**SCALE:** N.T.S.	**DRAWING TYPE:** A6	

KEY:
- ⌖ – ROOF DRAIN
- ⌖ – THROUGH–WALL SCUPPER
- ⌖ – ROOF EDGE SCUPPER
- ⌖ – GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
- SKYLIGHT
- CURBED PIPE VENT
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- ROOF LADDER
- PIPE VENT
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREEN WALL

NOTES:

IRS
Industrial Roofing Services, Inc.
13000 West Silver Spring Drive
Butler, Wisconsin 53007
Phone: (262) 432-0500
Fax: (262) 432-0504
www.irsroof.com

KENOSHA PUBLIC LIBRARY SYSTEM CORPORATION

FACADE CONDITION ASSESSMENT

Gilbert M. Simmons Library

711 50th Place
Kenosha, Wisconsin

Prepared for: Mr. Douglas Baker
Prepared by: Keith Dippel
August 17, 2012

Table of Contents

Introduction

Visual surveys of the Gilbert M. Simmons Library's building envelope were conducted over the course of several weeks throughout the month of August in 2012. The purpose of these visual surveys was to evaluate the various facades and associated waterproofing of this historic facility. (Photo 1)

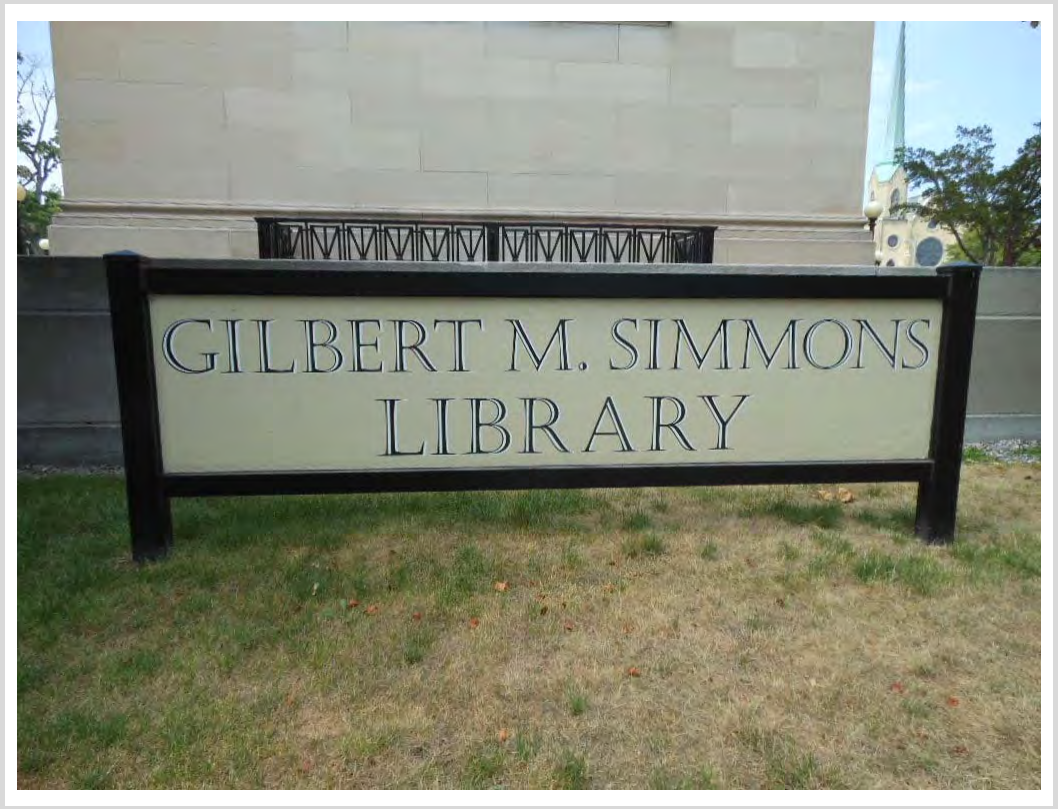


Photo 1

The goals of these surveys were to evaluate these facades, including their associated waterproofing to determine the extent of work which may be required. Additionally, we were asked to prioritize any such work items and provide an opinion of probable cost for their execution.

We were provided and reviewed some documentation from previous evaluations and renovation projects in preparation for our site surveys.

The original construction blueprints were not available and therefore were not reviewed as part of this survey.

History

Date of Construction	1899
Architect	Daniel Hudson Burnham
Architectural Style	Neo-Classical Revival
National Register of Historic Places	December 17, 1974
NRHP Registration Number	74000093
Designed Use	Public Library
Current Use	Public Library
Current Age	113 Years

The Gilbert M. Simmons Library occupies two blocks of property at 711 59th Place, in what was Central Park, which was land donated to Southport Village (Currently City of Kenosha) by the Durkee Family and Mr. George Kimball as a Commons in 1838. The building is centrally located on its site surrounded by a free-form plan of paths and vegetation that contrast the formal character of the building.

Built during a transitional period between modernism and traditionalism, the building is characterized by broad expanses of plain wall surfaces, unbroken roof lines, linteled rather arched windows and doorways and a pedimented portico making it a part of the Neo-Classical Revival of 1890-1915. Charles Atwood's Fine Arts Building (reconstructed as the Museum of Science and Industry in Chicago) foreshadowed this style in the 1893 Columbian Exposition (1). The design of the Simmons Library represents the important role exhibitions played in bringing in the Neo-Classical Revival as it was Daniel H. Burnham who coordinated the construction of the Great Chicago Exposition.

Drawings of the library were not found at the Chicago Historical Society (2) the Art Institute in Chicago (3), or the architectural archives in the Milwaukee Public Library. Further investigation might look at the Simmons Family for possible papers, photographs or drawings of the library.

Building Permit records could be researched if verification of past remodeling sequences is desired.

The Simmons Library has been on the National Register for Historic Places since December 17, 1974 (4). Since its registration, compliance with the "Secretary of Interior's Guidelines for Rehabilitation" is a prerequisite to maintaining the historical registration status. These guidelines are interpreted by the State Historical Society of Wisconsin in Madison.

(1) American Architecture since 1780, by Marcus Whiffen.
(2) The Chicago Historical Society has archived drawings from the firm of Burnham & Grahmn which branched off of Burnham's firm in 1912.
(3) The Art Institute has archived drawings from the firm of Burnham & Burnham who were D.H. Burnham's sons.
(4) August 9, 1985 report from Pfaller Herbst & Eppstein, Inc.

Synopsis

The library is a masonry load bearing structure of Bedford Limestone. The library plan consists of a central two (2) story rotunda flanked by similar east and west wings, each with a full basement.

Structure

Our site survey revealed no significant structural problems nor were any reported by the maintenance staff. Therefore no provisions for structural rehabilitation is needed or accounted for within this report.

Patio

The patio surrounding the base of the building consists of Bedford Limestone with concrete and exposed aggregate paving. Records indicate the patio was rebuilt with single-ply waterproofing and new paving pattern circa 1987 as part of a renovation project. Occupied spaces under the patio are actively leaking. The window wells were reported as suffering from occasional water infiltration, primarily due to obstructions within their drainage systems.

The CMU retaining wall of the Patio leading to the below grade entrance on the south elevation stairwell is in poor condition and improperly joined to the main building.

Window Wells

The basement spaces under each building wing (east & west) each incorporate window wells clad with Bedford Limestone. The condition of the limestone elements varied from good to severely deteriorated; with efflorescence noted in several.

Concrete Stairs

The cast in place concrete stairs leading to the Patio surround are generally sound except for the main stairs on the north elevation which suffers from localized heaving, cracking and spalling.

Concrete stairs descending to the below grade paired doors on the south elevations and those of the south approach to the Patio suffer from minor cracking.

Limestone Façade

Limestone elements within the window wells suffer from localized spalling and deterioration due to water infiltration due to the lack of a kerf within head stones.

Limestone elements from the Patio elevation up to the roof line are generally in good condition. Some joints have been tuck-pointed with Type “N” mortar rather than lime putty mortar. We noted limited cracking and spalling within the limestone elements within this portion of the elevations.

Limestone elements from the roof line upwards to the skylight atop the rotunda are in various stages of deterioration resultant from age and water infiltration.

Windows & Doors

Original wood windows remain serviceable but should be considered for restoration. All windows have been fitted with aluminum framed clear thermo pane glazing panels which serve to improve thermal efficiency and provide them protection from the elements.

The main entrance doors are original wood construction, clad with copper. These doors are structurally sound but their copper cladding is deteriorated and requires restoration. Paired exit doors below grade on the south elevation are not original.

Skylight

The upper portion of the rotunda is waterproofed via a steel framed skylight structure glazed with annealed glass and copper stiles. The skylights have been wet sealed since their original construction. Copper cladding and decorative accents associated with the skylight are deteriorated.

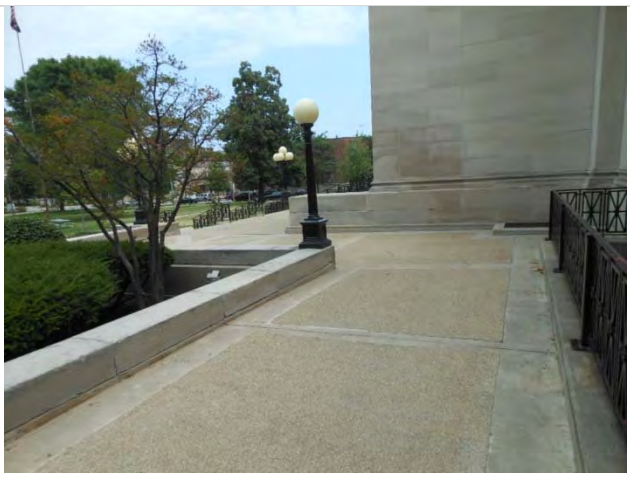
Roof

The original standing seam copper roofs on the four (4) pitched wing roofs have been replaced with clay tile roofing.

The original flat-lock copper roof system of the low-slope roof system surrounding the rotunda has been removed. Currently the low-slope roof surrounding the rotunda is waterproofed via a fully-adhered EPDM single-ply roof system which is believed to be a source of water infiltration, damaging interior finishes and causing localized efflorescence on the exterior surfaces of the limestone façade.

Patio

According to records provided, the patio was renovated circa 1987. Renovation consisted of demolition, repairs to the original structural concrete slab, installation of single-ply waterproofing membrane and placement of new concrete paving. Work on the limestone parapets and facing are believed to have been limited to resetting and sealing of their mortar joints with a one part polyurethane sealant. These sealants are in various stages of failure. The resultant water infiltration is causing shifting and additional degradation of the parapets limestone elements.



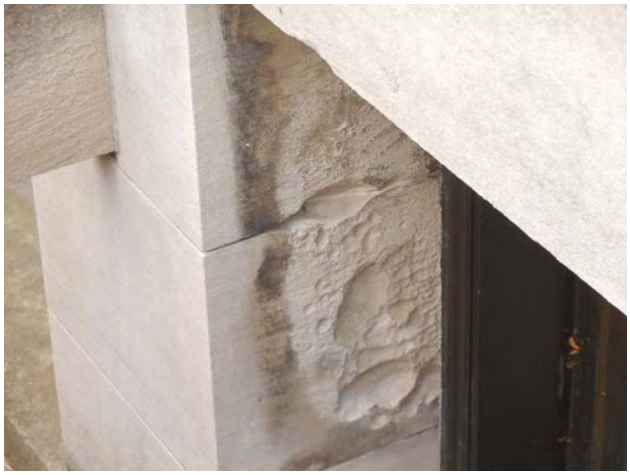
We noted cracking within the concrete banding. The cracking remains manageable but ownership may elect to replace the concrete pavements in order to address failures within the underlying waterproofing membrane.



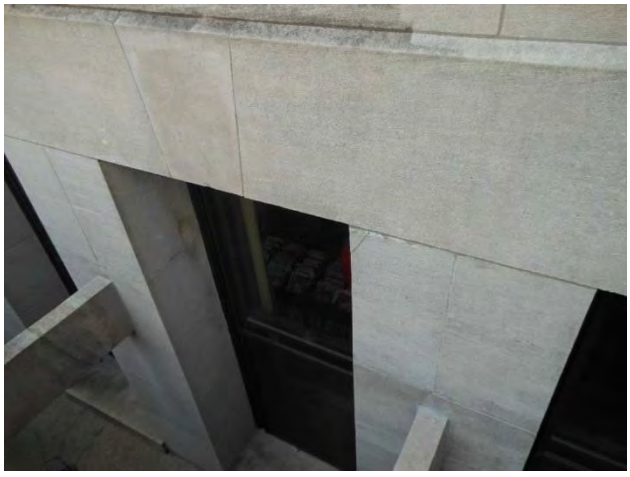


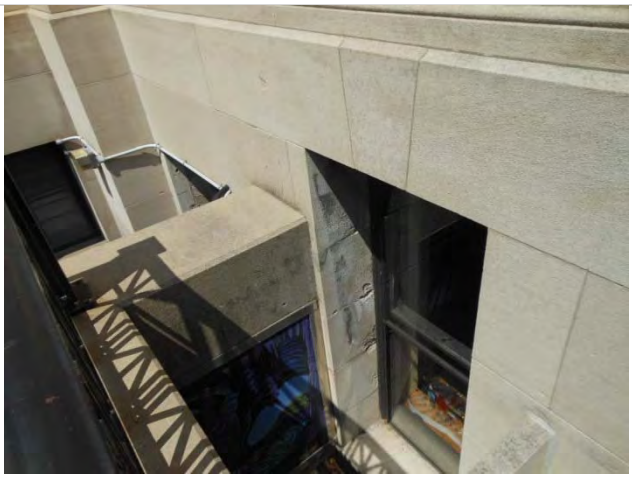

Window Wells

The limestone elements forming the window lintel lack a kerf, causing water to roll back towards the window frames and run down the limestone cladding of the jambs, causing spalling and efflorescence.

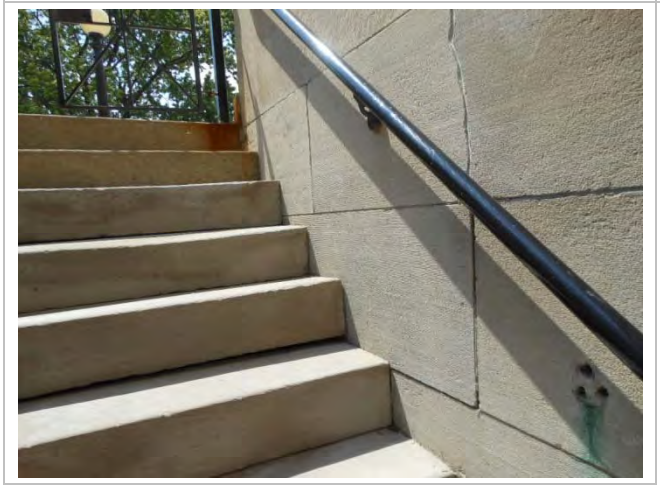






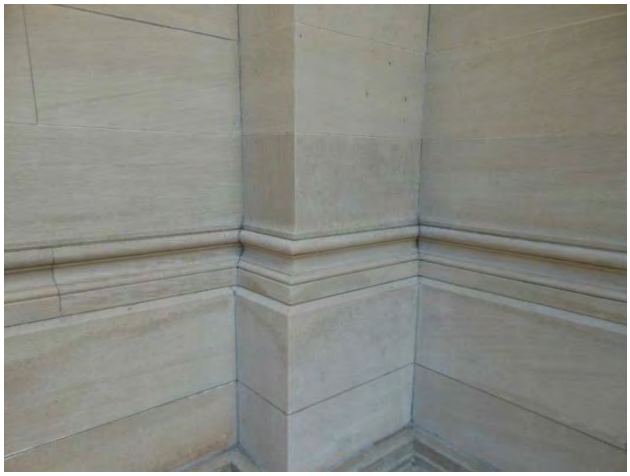
Concrete Stairs

The concrete stairs installed as part of the 1987 renovations are generally in good condition with the exception of those at the main entrance (north elevation) which incorporates one area of failure. Stairs leading to the south patio and below grade building entrance are sound but require some remedial maintenance.



Limestone Façade

Limestone elements from grade (patio) upwards to roof line are generally in good condition. The percentage of cracked and spalled limestone elements is minimal.

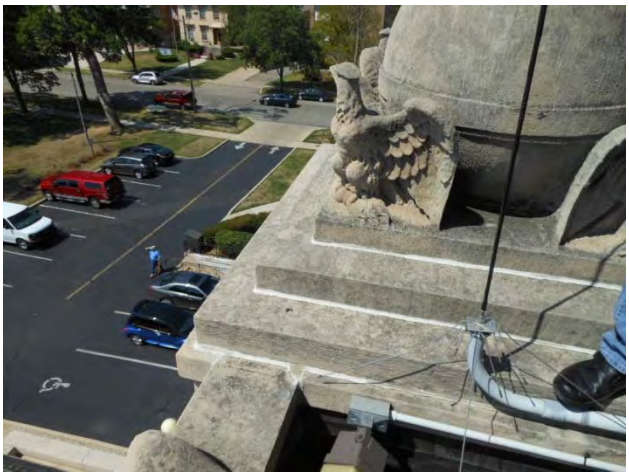
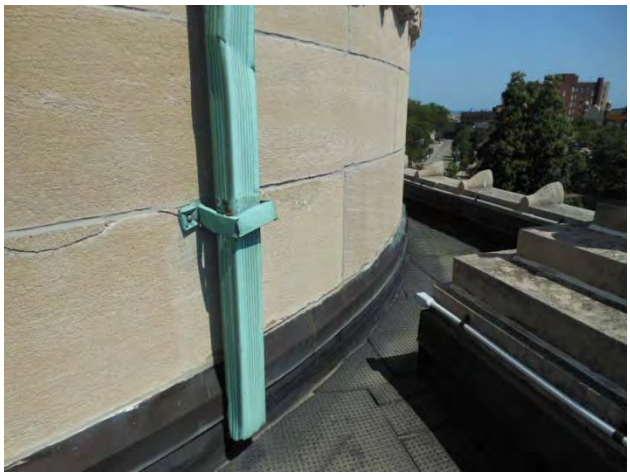





Sealant joints within the limestone elements from roof line upwards to the rotunda roof line are deteriorated. Joints between the limestone elements are oversized.





Sealant joints within limestone elements from the gutter of the rotunda, upwards to the skylight are deteriorated. Joints within limestone elements are oversized. Spalled and cracked limestone elements are prevalent around the base (gutter) of the upper rotunda.






The built-in gutter, originally copper was retrofitted with EPDM single-ply and is believed to be actively leaking into the walls of the rotunda. The masonry with the chimney's interior is severely deteriorated and requires reconstruction.






Windows & Doors

The wood frame, muntin and stiles remain sound but have deteriorated over time and require varying levels of restoration.






The windows lack adequate weather seals along their perimeters.



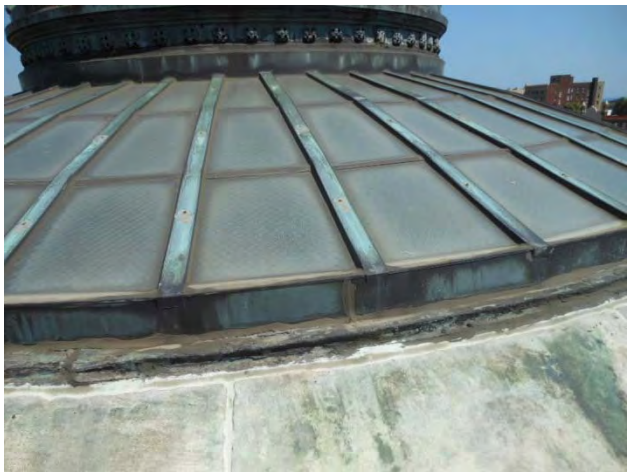
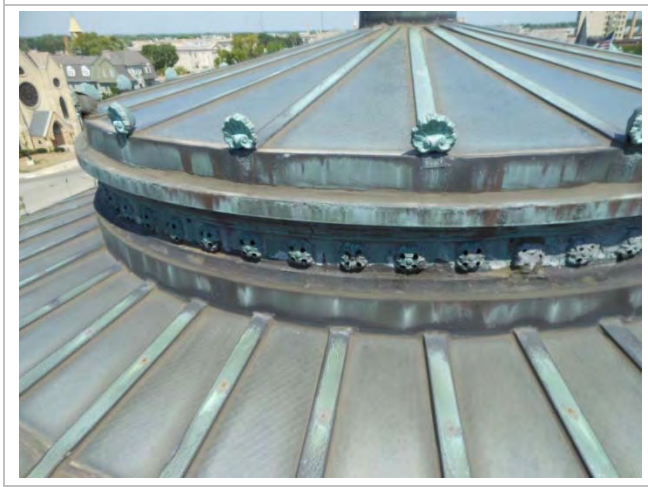
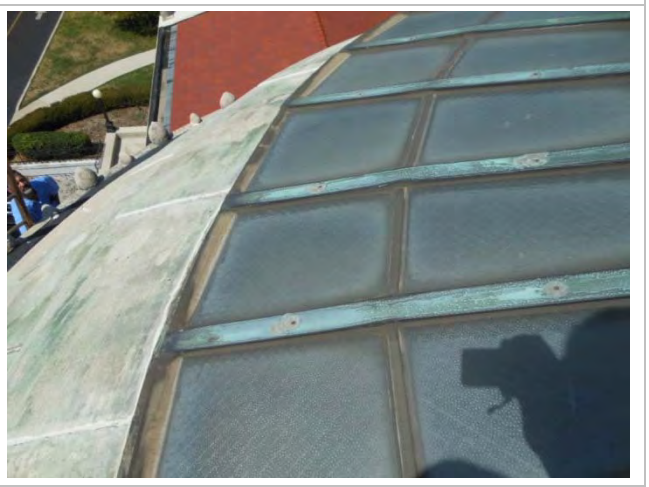



The copper clad paired doors of the main entrance are original. The doors remain functional but their copper cladding requires rehabilitation.

The original paired doors situated below grade on the south elevation have been replaced.

Skylight

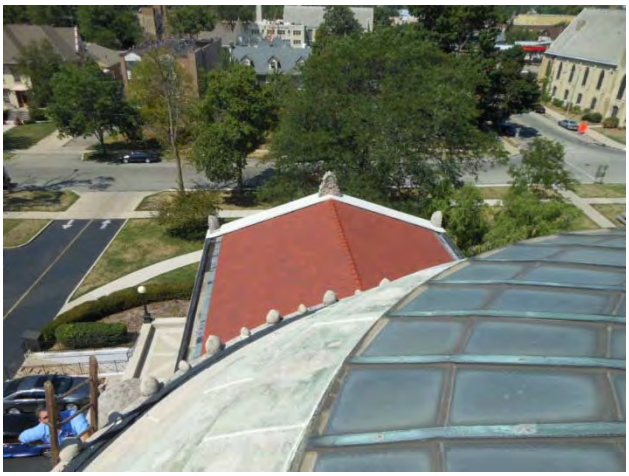
The steel framed skylight glazed with translucent glazing and copper glazing caps/flashings has been wet sealed with silicone sealant. Restoration of the skylight, including rust painting of the interior structural steel framing is recommended to address noted deterioration, leakage and condensation.

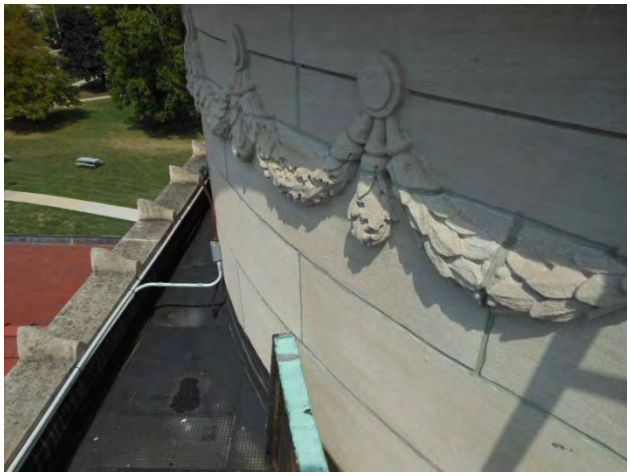
Roofing

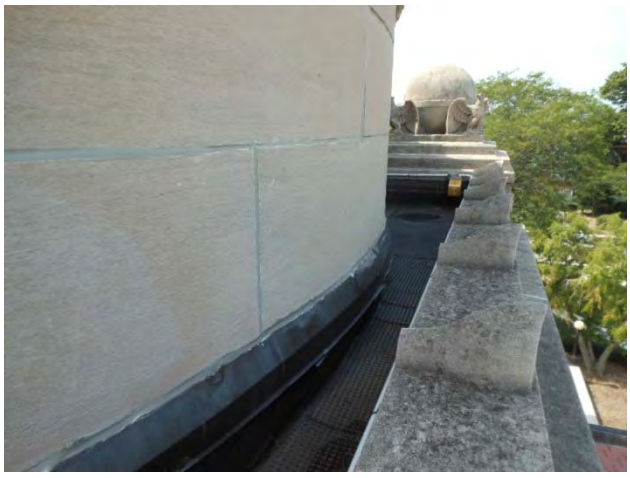
The original standing seam copper roof systems of the wing roofs have been replaced with a clay tile roof system which retained the built-in copper gutter design. Installation of the tile roof system appears to be functioning satisfactorily, requiring only normal maintenance.

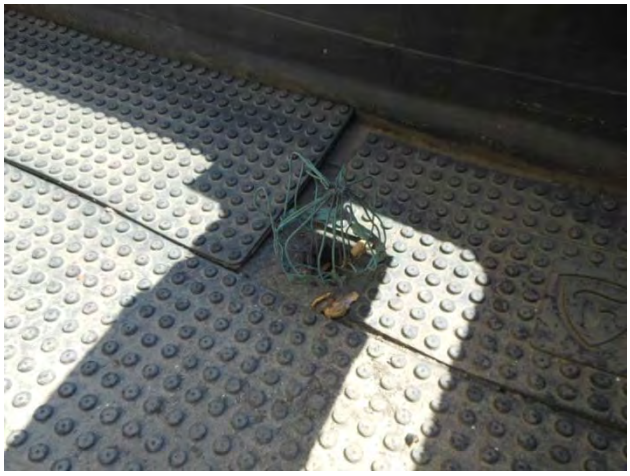





The EPDM Single-ply roof system installed on the low-slope roof area surrounding the rotunda is not original to the building and is believed to have been installed in 1987 as part of a repair project. This roof system is believed to be one of the sources of water infiltration causing the interior water damage and exterior efflorescence noted during our survey.





Water damage believed to be originating from low-slope roofing above.

Report Conclusions

Structure
No structural problems are known to exist.

Patio
The waterproofing membrane under the concrete patio is leaking, therefore in order to address the water infiltration the concrete paving would have to be removed. The CMU retaining wall of the Patio leading to the below grade entrance on the south elevation stairwell will require replacement and proper detailing at its connection with the building in conjunction with any substantial reconstruction of the patio.

Window Wells
The window openings within the window wells lack a kerf to prevent water travel back to the window units and selective replacement/repair of limestone elements. Existing drainage systems should be surveyed with a video camera to properly assess their condition.

Concrete Stairs
Cast in place concrete stairs on the north elevation leading to the Patio surround require replacement. Remaining concrete stairs require minor rehabilitation to address minor cracking.

Limestone Façade

Window Wells:	Require selective rehabilitation, including localized replacement of severely deteriorated limestone elements.
Patio upwards to Roof Line:	Requires selective rehabilitation
Roof Line upwards to Skylight:	Requires selective rehabilitation, including localized replacement of severely deteriorated limestone elements.
Built-in Gutter of Upper Rotunda:	Requires replacement.

Windows & Doors

Windows:	Wood windows require rehabilitation including selective reconstruction.
Main Entrance Doors:	Require rehabilitation of original copper cladding.
South Entrance Doors:	No work required.

Skylight

Steel Framing:	Preparation & rust painting.
Skylight:	Requires complete restoration.

Roof

Wing Roofs:	Normal maintenance.
Low-Slope Roof:	Requires replacement.

Recommendations

Structure

- No work to the structure is required at this time.

Patio

- Remove and replace the concrete paving and waterproofing membrane.
- Reconstruct the CMU retaining wall of leading to the below grade entrance on the south elevation stairwell and properly detail its connection with the building.

Window Wells

- Install kerfs at window openings.
- Conduct video assessment of existing drainage systems.

Concrete Stairs

- Replace concrete stairs on the north elevation leading to the Patio.
- Complete minor rehabilitation of remaining concrete stairs.

Limestone Façade

Window Wells:	Complete selective rehabilitation and localized replacement of severely deteriorated limestone elements.
Patio upwards to Roof Line:	Complete selective rehabilitation
Roof Line upwards to Skylight:	Complete selective rehabilitation and localized replacement of severely deteriorated limestone elements.
Built-in Gutter of Upper Rotunda:	Complete replacement.

Windows & Doors

Windows:	Complete rehabilitation including selective reconstruction.
Main Entrance Doors:	Complete rehabilitation of original copper cladding.
South Entrance Doors:	Normal maintenance.

Skylight

Steel Framing: Complete preparation & rust painting.

Skylight: Normal maintenance for short term; complete restoration for long term.

Roof

Wing Roofs: Normal maintenance.

Low-Slope Roof: Replacement.

Order of Importance

Rank	Description	Year	Budget
1	Roof (Low-Slope)	2013	$ 37,500
2	Built-in Gutter (Rotunda)	2014	$ 36,800
3	Skylight	2015	$184,000
4	Limestone (Roof Line-Skylight)	2016	$ 94,900
5	Window Wells	2017	$ 59,900
6	Doors (Main)	2018	$103,000
7	Limestone (Patio-Roof Line)	2019	$161,300
8	Concrete Stairs	2020	$ 28,925
9	Windows	2021	$115,260
10	Patio	2022	$209,000

***Capital budgets do not include costs for staging, inflation, further investigative costs, contingencies or design fees.**
****Ownership should budget separately for normal maintenance of exterior façade components.**

Community Development & Inspections 625 52nd Street - Room 308 Kenosha, WI 53140 262.653.4030	Kenosha Historic Preservation Commission FACT SHEET	September 11, 2014	Item 3 Page 1

Certificate of Appropriateness for Southport Beach House at 7825 3rd Avenue, Southport Park. (District #12) PUBLIC HEARING

PURPOSE:

Review of proposed alteration.

HISTORIC DISTRICT:

Library Park

NOTIFICATIONS/PROCEDURES:

The alderman of the district, Alderperson Bostrom, has been notified.

ANALYSIS:

- Section 15.10 of the Zoning Ordinance requires a Certificate of Appropriateness for any exterior alteration, rehabilitation, reconstruction, or restoration of a Historic Structure that is not classified as an exempt item.
- The City of Kenosha has submitted a Certificate of Appropriateness application for replacement and/or maintenance of a portion of slate roofing on the Beach House. The total roof area is 7,239 sf with 5,567 sf as slate and 1,672 sf as standing seam metal roofs (low-pitch roofs between the north and south wings).
- The Beach House was constructed as a Works Progress Administration (WPA) project during the Great Depression for out-of-work industrial workers. Work began in 1936 and was completed in 1941.
- The materials used for the building were salvaged from other buildings. Cream city brick came from the Allen Tannery buildings that were razed, slate roofing came from the 1888 Chicago and Northwestern Railroad depot in Racine, and marble came from the Old Kenosha Post Office.
- The slate roofing currently on the Beach House is comprised of the 1888 slate roof salvaged from the Racine Chicago and Northwestern Railroad depot, and other salvaged slate.
- According to Preservation Brief No. 29, *The Repair, Replacement, and Maintenance of Historic Slate Roofs*, slate roofs will last 60 to 125 years or longer depending on the slate type, roof configuration, and the geographical location of the property. It is known that much of the current slate was already previously salvaged from multiple buildings and the slate that came from the Racine Depot is 126 years old, beyond the expected life span of a slate roof.
- The Preservation Brief also notes that *"if 20% or more of the slates on a roof or roof slope are broken, cracked, missing, or sliding out of position, it is usually less expensive to replace the roof than to execute individual repairs. This is especially true of older roofs nearing the end of their serviceable lives."*
- Public Works will provide an estimate of broken, cracked, and missing slate, or slate that is sliding out of position, at the meeting.

- A 2004 draft report prepared by *Architectural Associates Ltd.* for the Restoration, Preservation and Revitalization of the Southport Beach House was shared with the Historic Preservation Commission in December, 2004. One of the future phases of work noted for the Beach House was roofing and flashing replacement, which was noted as a high priority item to be addressed as funding became available. The report noted that replacement roofing should match existing slate, or be replaced with composition shingles with similar character and quality. It went on to say that slate would be the preferred solution. However the State Historical Society had indicated that composition shingles with a similar appearance would be acceptable. The Commission recommended that the slate roof be retained in 2004. The recommendation was made when the slate was still less than the typical maximum of 125 years of useful life.

- Buildings that are owned by a municipality and are listed on the State and/or National Register of Historic Places are required to be reviewed by the State Historical Society under Section 66.111 of Wisconsin Statutes. Municipalities are required to notify the State Historic Preservation officer of any proposed action to a historic building in the earliest stage of planning.

- In conformance with the Statutory requirement, a consultant has been working with the State Historical Society since this Spring concerning the roof project. The State has approved the replacement of slate with "Slateline" asphalt shingles, but has recommended that the most prominent roof areas be maintained as salvaged slate, if feasible. These are noted on the marked-up photo and roof plan sheet, as alternate 4.

- The project is currently out for bid and includes a base bid and four (4) alternate bids.

  - The ***Base Bid*** (4,781 sf of roofing) will remove all slate roof and flashing down to the roof decking to properly inspect the decking. Any deteriorated decking will be repaired/replaced. Leak barrier, underlayment and sheet metal flashing will be replaced and Slateline shingles will be installed in an "English Gray" color, as approved by the State Historical Society.

  - ***Alternate Bid 1*** (771 sf, excluding area of slate shingles) will remove the standing seam metal roof behind the cornice at the main entrance down to the roof decking. The standing seam metal roof will be replaced with copper roofing. The portion of the upper middle roof, which is five hundred seventy-nine (579) sf, would be replaced with the salvaged slate.

  - ***Alternate Bids 2 and 3*** (450 sf, each) replace the standing seam metal roofs located in the middle of both the north and south wings with copper roofing.

  - ***Alternate Bid 4*** will retain salvaged slate in all three (3) of the most prominent areas facing west (total of 787 sf), as noted on the marked-up photo (triangular areas facing west, and larger upper middle roof area behind the west cornice above the main entrance).

- A material sample of the Slateline shingle will be available at the meeting.

- The project was reviewed in conformance with Section 15.10 D. of the Zoning Ordinance, pertaining to Standards for Granting Certificates of Appropriateness. The project meets Standard 7, *"Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials."* This standard is

met due to existing slate being at the maximum of its typical useful life. This standard will be further analyzed when Public Works provides the percentage of broken, cracked, and missing slate, or slate that is sliding out of position.

- The project was also reviewed against the Secretary of Interior Standards and Guidelines. The Guidelines do not recommend stripping the roof of sound historic material such as slate, or using a substitute material for roof replacement that does not convey the visual appearance. The Guidelines do contain a provision that a compatible substitute material may be considered if using the same kind of material (slate) is not technically or economically feasible. The slate is at the end of its useful life and it is not economically feasible to replace the entire slate roof with new slate due to the project budget.

- Staff has reviewed the project consistent with the Ordinance, consideration of typical useful life of slate roofs, approval from the State Historical Society, as well as allowances contained within the Secretary of Interior Standards and Guidelines to consider replacement. Staff, in consideration of the facts and provision for relief contained within the Ordinance and Secretary of Interior Guidelines, provides a recommendation to the Commission. Most importantly, while the Commission is required to review projects prior to work being undertaken, the determination of the Commission shall be advisory in nature for all applicants, regardless of approval or denial of the Certificate of Appropriateness.

RECOMMENDATION:

A recommendation will be withheld until the meeting so that additional information useful in the Commission's consideration of the Certificate of Appropriateness may be presented.

Michael Maki, A.I.C.P.

Jeffrey B. Labahn, Director

/u2/acct/cp/ckays/1HIST PRES/2014/SEP11/Fact-SouthportBeachHouse.odt

KENOSHA HISTORIC PRESERVATION COMMISSION
CERTIFICATE OF APPROPRIATENESS APPLICATION

PROPERTY ADDRESS 7825 3RD AVENUE	DATE OF APPLICATION 8/11/14
OWNER/APPLICANT MIKE LEMENS / KATIE WHAPLES PUBLIC WORKS	ARCHITECT/DESIGNER/BUILDER INDUSTRIAL ROOFING SERVICES
ADDRESS 625 52ND ST - ROOM 305	ADDRESS 13000 W SILVER SPRING DR
CITY, STATE, ZIP KENOSHA, WI 53140	CITY, STATE, ZIP BUTLER, WI 53007
DAYTIME PHONE NUMBER 262-653-4147	DAYTIME PHONE NUMBER 262-432-0500

PROJECT DESCRIPTION

REMOVE EXISTING ROOFING, UNDERLAYMENT + SHEET METAL FLASHINGS DOWN TO ROOF WOOD DECK. FABRICATE + INSTALL SHEET METAL COMPONENTS, SYNTHETIC SHINGLE UNDERLAYMENT, SLATE STYLE ASPHALT SHINGLE.
ALT 1: SAME AS BASE W/ ADDITION OF COPPER ROOFING AREAS + USE SALVAGED SLATE
ALT 2: COPPER ROOF - SOUTH END OF BUILDING
ALT 3: COPPER ROOF - NORTH END OF BUILDING
ALT 4: SALVAGE EXISTING SLATE SHINGLES

PROJECT TYPE

- ➢ NEW CONSTRUCTION, ADDITIONS, DEMOLITIONS, AND PUBLIC IMPROVEMENTS 11"x17")
- ➢ NEW CONSTRUCTION, ADDITIONS, DEMOLITIONS, EXTERIOR ALTERATIONS, REHABILITATION, RECONSTRUCTION AND RESTORATIONS
- ➢ ALL PROJECTS
- ➢ IN THE INSTANCE OF INTRODUCING MATERIALS WHICH DO NOT DUPLICATE THE ORIGINAL
- ➢ IN THE INSTANCE OF INTRODUCING NEW ARCHITECTURAL DETAILS OR ARCHITECTURAL DETAILS WHICH DO NOT DUPLICATE THE ORIGINAL

REQUIRED DOCUMENTATION

- ☐ SITE PLAN (1 SET 24"x32" AND 12 SETS MAXIMUM SIZE
- ☐ BUILDING ELEVATIONS [EXISTING AND PROPOSED] (1 SET 24"x32" AND 12 SETS MAXIMUM SIZE 11"x17")
- ☐ PHOTOGRAPHS (DIGITAL PREFERRED)
- ☐ MATERIAL SAMPLES
- ☐ PICTURES OR DRAWINGS

YOUR APPLICATION WILL BE FORWARDED TO THE INSPECTION DIVISION OF THE DEPARTMENT OF COMMUNITY DEVELOPMENT & INSPECTIONS FOR REVIEW AND INPUT. REQUIRED DOCUMENTATION MUST BE SUBMITTED TO THE DEPARTMENT OF COMMUNITY DEVELOPMENT & INSPECTIONS A MINIMUM OF TWO WEEKS PRIOR TO THE MEETING DATE IN ORDER FOR THE APPLICATION TO BE PLACED ON THE HISTORIC PRESERVATION COMMISSION MEETING AGENDA.

APPLICANT'S SIGNATURE: Katherine Whapler DATE: 8/11/14

NOTICE TO CONTRACTORS

Director of Engineering
Department of Public Works
625 - 52nd Street, Room 305
Kenosha, Wisconsin 53140

Sealed bids will be received by the Board of Public Works of the City of Kenosha, Wisconsin in the office of Department of Public Works, 625 52nd Street, Room 305, until **2:00 PM., local time**, **Wednesday, August 20, 2014,** for furnishing all labor and materials necessary for the construction of:

Southport Beach House Roof Replacement
Project #14-1424

all in accordance with specifications on file in the office of the Director of Public Works. The project includes, but is not limited to, asphalt shingle roofing, natural slate roofing, self-adhered bitumen roofing, copper sheet metal roofing, sheet metal flashing and trim, and joint sealants. A **mandatory pre-bid meeting will be held at the Southport Beach House on Tuesday, August 12th at 9:00 AM.** Bids will be publicly opened and read aloud immediately after **2:00PM**. Each bid must contain the full name of every person or company interested in the same and must be accompanied by a contract and bid bond, a certified check, or a bank cashier's check, in the sum of five per cent (5%) of the bid, payable to the City of Kenosha as a guarantee that if the bid is accepted, a contract will be entered into and its performance properly secured within fifteen (15) days of the award of contract. Should any bid be rejected, such check will be forthwith returned to the bidder, and should any bid be accepted, such check will be returned upon the timely and proper execution and securing of the contract. In case the successful bidder shall fail to execute the contract and performance bond, the amount of the bid bond or check shall be forfeited to the City as liquidated damages.

The Department of Public Works has begun a partnership with Quest Construction Data Network. This is a web based initiative that will deliver our construction project advertisements and bid documents to you in a more timely and cost effective way. To obtain bid documents go to www.kenosha.org under Quick Links (located on the right hand side of screen) click on Public Works Bid Documents then click on PW Projects to go to Quest's website. A fee of Ten Dollars ($10.00) will be charged once plans are downloaded. No fee is charged to view the plans.
Paper copies of plans and specifications will no longer be available.

The form provided for "Bidder's Proof of Responsibility" shall be completed and returned to the Director of Engineering not less than five (5) days before the date of bid opening. Bidders can examine and obtain this form by going to http://www.kenosha.org/departments/pubsvc/index.html and access the link to the "Bidder's Proof of Responsibility" form under Department Resources.

The successful bidder shall be required to furnish Worker's Compensation and Liability Insurance as enumerated in the specifications.

In the event that Section 66.0903 of the Wisconsin Statutes, applies, on the work here bid upon, the Contractor shall pay to each of his/her workers the wage prevailing in Kenosha at the time the contract is entered into and as listed and filed in the office of the Director of Public Works. A copy of such wage rates will be incorporated in the contract documents.

The City of Kenosha reserves the right to reject any or all bids, or to accept any bid considered most advantageous to the City of Kenosha.

BOARD OF PUBLIC WORKS
Eric Haugaard, Chairman
Jan Michalski, Vice Chairman
Steve Bostrom
Scott N. Gordon
Rhonda Jenkins
Patrick Juliana

Publish: August 1, 2014 & August 8, 2014

IRS
Industrial Roofing Services, Inc.
13000 West Silver Spring Drive
Butler, Wisconsin 53007
Phone: (262) 432-0500
Fax: (262) 432-0504
www.irsroof.com

SPECIFICATIONS

for

ROOF REPLACEMENT PROJECT

SOUTHPORT BEACH HOUSE

IRS JOB# 15055
CITY OF KENOSHA PROJECT #14-1424

Located at

7825 3RD AVENUE

KENOSHA, WISCONSIN

Prepared for

Mr. Michael Lemens
Director of Public Works

City of Kenosha
625 52nd Street
Kenosha, Wisconsin 53140

February 1, 2014

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 PROJECT OVERVIEW

A. The Work consists of roofing replacement at Southport Beach House in Kenosha, Wisconsin for City of Kenosha.

B. The Work includes related sheet metal and carpentry work.

C. The Work also includes:
1. Removal and disposal of existing roofing, underlayment and sheet metal flashings.
2. Installation of new slate style asphalt shingles, leak barrier, underlayment and sheet metal flashings.
3. Installation of standing seam copper roofing, leak barrier, underlayment and sheet metal flashings.
4. Existing prefinished galvanized sheet metal gutters and downspouts to be reused.

D. The Owner will be responsible for restoration of existing masonry under a separate contract.

PART 2 - PRODUCTS

2.01 SYSTEM COMPONENTS

A. Asphalt shingle roof system:
1. Laminated, slate style fiberglass reinforced asphalt shingles.
2. Leak barrier.
3. Synthetic underlayment.

B. Copper roof systems:
1. 20 oz. cold rolled copper roof panels.
2. Leak barrier.
3. Red Rosin underlayment.
4. Flux & Solder.

C. Low-Slope roof system:
1. Heavy Duty fiberglass base sheet.
2. Self-adhering SBS modified bitumen base sheet.
3. Self-adhering SBS modified bitumen finish membrane.

D. Sheet Metal:
1. Integral sheet metal flashings:
2. 24 gauge prefinished galvanized sheet metal
3. 16 oz. cold rolled copper

E. Miscellaneous:
1. Shingle nails (no staples will be allowed).
2. Copper nails
3. Copper rivets

F. Extruded aluminum termination bar with caulking cup.

G. Miscellaneous fasteners.

H. Miscellaneous sealants and tape caulk.

2.02 COMPONENTS SUPPLIED BY OWNER

A. None.

PART 3 - EXECUTION

3.01 WORK PERFORMED BY CONTRACTOR

BASE BID

A. Remove existing roofing, underlayment and sheet metal flashings down to the existing wood roof deck.

B. Clean the exposed deck of all debris. Repair or replace decking as required. Obtain unit price approval for Additional Work completed.

C. Install leak barrier over the entire roof deck, except areas of low-slope roofing.

D. Fabricate and install sheet metal components in sequence with roofing work.

E. Install synthetic shingle underlayment, in shingle fashion, over all areas to receive slate style shingles.

F. Install a starter shingle, with tabs removed to expose the sealing strip, along all eaves and rake edges prior to installing the slate style asphalt shingles.

G. Install the slate style asphalt shingles over the completed underlayment felt and starter shingles. Along the rake edge, if applicable, install full shingles in “racked” fashion from eave to ridge.

H. Install the remainder of the slate style asphalt shingles in accordance with the manufacturer’s instructions. Install the integral metal flashings (step flashings, valley flashings, etc.) at the same time as the shingles.

I. Install heavy-duty base sheet over prepared roof deck on low-slope roof areas.

J. Install self-adhering modified bitumen base sheet over installed heavy-duty base sheet on low-slope roof areas.

K. Install self-adhering modified bitumen finish membrane over installed modified bitumen base sheet on all low-slope roof areas.

L. All perimeters and projections are to be constructed and flashed in strict accordance with the Construction Drawings provided.

MANDATORY ALTERNATE BID No. 1

A. Remove existing roofing, underlayment and sheet metal flashings down to the existing roof deck.

B. Clean the exposed deck of all debris. Repair or replace decking as required. Obtain unit price approval for Additional Work completed.

C. Install leak barrier over the entire roof deck.

D. Copper Roof Areas
   1. Install two courses of red rosin slip sheet over installed leak barrier.
      a. Fasten with copper staples (galvanized or aluminum staples prohibited)

2. Install sheet metal components in sequence.

3. Fabricate and install standing seam and flat lock copper roof panels in accordance with Construction Drawings and approved shop drawings.

4. All perimeters and projections are to be constructed and flashed in strict accordance with the Construction Drawings provided.

E. Shingle Roof Areas
1. Install synthetic shingle underlayment, in shingle fashion, over all areas to receive slate style shingles.

2. Install a starter shingle, with tabs removed to expose the sealing strip, along all eaves and rake edges prior to installing the slate style asphalt shingles.

3. Install the slate style asphalt shingles over the completed underlayment felt and starter shingles. Along the rake edge, if applicable, install full shingles in "racked" fashion from eave to ridge.

4. Install the remainder of the slate style asphalt shingles in accordance with the manufacturer's instructions. Install the integral metal flashings (step flashings, valley flashings, etc.) at the same time as the shingles.

5. Install sheet metal components in sequence.

6. Fabricate and install standing seam and flat lock copper roof panels in accordance with Construction Drawings and approved shop drawings.

7. All perimeters and projections are to be constructed and flashed in strict accordance with the Construction Drawings provided.

MANDATORY ALTERNATE BID No. 2

A. Remove existing roofing, underlayment and sheet metal flashings down to the existing roof deck.

B. Clean the exposed deck of all debris. Repair or replace decking as required. Obtain unit price approval for Additional Work completed.

C. Install leak barrier over the entire roof deck.

D. Install two courses of red rosin slip sheet over installed leak barrier.
1. Fasten with copper staples (galvanized or aluminum staples prohibited)

E. Install sheet metal components in sequence.

F. Fabricate and install standing seam and flat lock copper roof panels in accordance with Construction Drawings and approved shop drawings.

G. All perimeters and projections are to be constructed and flashed in strict accordance with the Construction Drawings provided.

MANDATORY ALTERNATE BID No. 3

H. Remove existing roofing, underlayment and sheet metal flashings down to the existing roof deck.

I. Clean the exposed deck of all debris. Repair or replace decking as required. Obtain unit price approval for Additional Work completed.

J. Install leak barrier over the entire roof deck.

K. Install two courses of red rosin slip sheet over installed leak barrier.
   1. Fasten with copper staples (galvanized or aluminum staples prohibited)

L. Install sheet metal components in sequence.

M. Fabricate and install standing seam and flat lock copper roof panels in accordance with Construction Drawings and approved shop drawings.

N. All perimeters and projections are to be constructed and flashed in strict accordance with the Construction Drawings provided.

MANDATORY ALTERNATE BID No. 4

A. Within select areas of the Base Bid as identified within the Construction Drawings, carefully remove and store sufficient amounts of existing slate roofing tiles to complete the reinstallation of slate roofing tiles on those areas indicated on the Construction Drawings.

B. Clean the exposed deck of all debris. Repair or replace decking as required. Obtain unit price approval for Additional Work completed.

C. Install leak barrier over the entire roof deck.

D. Install sheet metal components in sequence.

E. Reinstall salvaged slate roofing tiles in accordance with Construction Drawings and approved shop drawings.

F. All perimeters and projections are to be constructed and flashed in strict accordance with the Construction Drawings provided.

3.02 INCLUSIONS

A. The Contractor shall include, in his bid, any and all costs incurred in complying with the intent of the Construction Drawings. This shall include, but not be limited to:
   1. Handling, disconnection and re-connection of rooftop equipment – crane costs, electrical work, ductwork and mechanical line extensions, temporary storage, etc.

END OF SECTION

SECTION 02900

GROUNDS REPAIR

PART 1 - GENERAL

1.01 DESCRIPTION

A. This section covers the removal, and replacement with like materials, of lawns, plantings, and pavement damaged by the Contractor during the performance of the Work.

B. The cost of all repairs covered under this section shall be the **sole** responsibility of the Contractor. If the Contractor fails to make repairs to the Owner's satisfaction, the Owner reserves the right to retain, from moneys due the Contractor, such amount as necessary to repair the grounds to their previous condition.

1.02 REQUIREMENTS

A. Verify, with the Owner, at the pre-construction meeting, as to whether re-seeding will be acceptable for repair of lawn areas; if not, areas shall be resodded.

B. All plants and planting materials shall meet "Horticultural Standards" for number one grade nursery stock as adopted by the American Association of Nurserymen.

C. All plants and planting materials shall meet or exceed applicable regulatory requirements and inspections for plant disease and insect control.

1.03 WORK SEQUENCING

A. Do not proceed with permanent replacements until after the Contractor has cleaned and vacated the project site.

B. Replacement plantings and/or sod:
   1. Place plantings and/or sod within forty-eight (48) hours of cutting; protect and maintain during transit and storage on the site to prevent dry-out.
   2. All plantings and/or sod remaining unplaced on the site longer than forty-eight (48) hours, as well as any yellowing or otherwise discolored plantings and/or sod shall be discarded.

1.04 WARRANTY

A. The Contractor shall maintain and warrant all work performed under this section for a period of ninety (90) days from the date of its completion. The Contractor shall be responsible for the correction of unsatisfactory landscaping materials or workmanship and shall repair such defects promptly upon notice, at no additional cost to the Owner.

PART 2 - PRODUCTS

2.01 ACCEPTABLE LAWN REPAIR PRODUCTS

A. Provide topsoil which is:
   1. Natural, friable, and characteristic of soil on the project site;
   2. Not extremely acidic nor alkaline, nor containing toxic substances;
   3. Free from subsoil, clay lumps, stones, roots, debris or other foreign objects;
   4. Contains 1/3, by volume, soil amendment - organic material, fortified with organic nitrogen.

B. Provide fertilizer which is:
   1. Commercially-balanced 11-8-4 composition.
   2. Free flowing to allow for mechanical spreading.

C. Provide grass seed, if acceptable, which is:
   1. Free from noxious weeds, and recleaned;
   2. Grade A recent crop seed;
   3. Treated with appropriate fungicide at time of mixing;
   4. In proportion, by weight:
      a. Kentucky Bluegrass – 35%
      b. Red Fescue – 20%
      c. Hard Fescue – 20%
      d. Improved Fine Perennial Ryegrass – 25%
      e. Mix 40 wisdot standard specs
   5. Covered with clean and weed-free straw mulch.

D. Provide sod, if grass seed is not acceptable, which is:
   1. Well established, containing dense root systems;
   2. Exhibiting vigorous, healthy root growth;
   3. Free of noxious weeds, objectionable grasses, grubs, diseases or injurious insects.

2.02 ACCEPTABLE PLANTING REPAIR PRODUCTS

A. Provide trees and/or plants which are:
   1. Of the same species and size of growth to match those being replaced;
   2. Well established, containing dense root systems;
   3. Exhibiting vigorous, healthy root growth;
   4. Free of grubs, diseases or injurious insects.

B. Provide planting bed cover consisting of:
   1. Ground mulch chips;
   2. Shredded bark.

2.03 VEHICLE & PEDESTRIAN PAVEMENTS

A. Asphalt pavement:
   1. Base course aggregate:
      a. Crushed limestone (traffic-bond) or crushed concrete, containing no pieces over three-quarter (3/4) inch in greatest dimension, for base courses less than four (4) inches thick.
      b. Crushed limestone, containing no pieces over one and one-half (1-1/2) inches in greatest dimension, for base courses over four (4) inches thick.
   2. Paving asphalt:
      a. Shall comply with applicable sections of the State Highway Specifications for binder and surface-grade paving asphalt mixes.
      b. Shall be hot, plant-mixed asphalt paving material; temperature shall be 290-320°F when leaving the plant and 280°F, minimum, at time of placement.

B. Concrete pavement: Compressive strength shall achieve a minimum of 4000 psi in twenty-eight (28) days. Mix concrete materials in accordance with ASTM C94, to comply with the following:
   1. Slump: three (3) inches, plus one (1) inch or minus one-half (1/2) inch.
   2. Air entrainment: Maximum five percent (5%) at time of placement.
   3. Maximum aggregate size: 3/4 inch.
   4. Minimum cement content: 440 lbs./cu. yd.
   5. Maximum fly ash content: 100 lbs./cu. yd.
   6. Maximum water-to-cementitious material ratio (W/C): 0.55.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine the project site and verify satisfactory conditions for performance of the work.

B. Notify the Owner and Consultant of pre-existing defects or conditions which may interfere with the requirements of this section. Absence of notice will constitute the Contractor's acceptance of the site.

C. Verify existence and location of underground utilities, water and gas lines, fire sprinkler systems, pavement heating devices, and lawn sprinkling systems.

3.02 PREPARATION

A. Provide protection of existing adjacent trees, plantings, lawns and pavement prior to commencing repairs.

B. Lawn replacement areas:
1. Fill ruts and depressions with topsoil. Work the soil to a to depth of not less than three (3) inches with a rototiller.
2. Remove stones, debris, and foreign objects larger than one (1) inch in diameter from the lawn repair area prior to seeding or sodding.
3. Grade the repair area, thoroughly remove ridges and depressions, and make area a smooth, continuous, firm plane that ensures proper drainage.

C. Planting replacement areas:
1. Remove existing damaged trees, plants or ground cover. Remove large root systems, stones, debris, of foreign objects larger than one (1) inch in diameter from the area prior to installation of new plantings.
2. Remove the topsoil, to a depth of not less than three (3) inches, from an area not less than three (3) times the width of the root ball of the new planting.
3. Dig a hole in the center of the prepared area:
   a. For a one (1) gallon plant container, twelve (12) inches wide and deep.
   b. For a five (5) gallon plant container, twenty (20) inches wide and deep.
   c. For a fifteen (15) gallon plant container, thirty (30) inches wide and deep.
   d. For larger trees, 1-1/2 times the root ball diameter wide and deep.

3.03 LAWN REPLACEMENT - SEEDING

A. When preparations are complete, seed the repair area:
1. Sow the grass seed over the area with a mechanical seeder at the rate of five (5) pounds per thousand (1,000) square feet.
2. Promptly after seeding, water until the soil is saturated to a depth of two (2) inches; apply water slowly to prevent erosion of the seed bed.
3. Apply the specified fertilizer at the rate of twenty (20) pounds per thousand (1,000) square feet; rake lightly into the soil.
4. Cover the repair area with chopped straw mulch approximately 1/2-inch thick.
5. Make arrangements to keep the seed beds moist throughout the germination process.

3.04 LAWN REPLACEMENT - SODDING

A. When preparations are complete, install sod:
1. Fit sod pieces tightly together so that no joint is visible, with alternate courses staggered. Compact sod to eliminate all air pockets, provide a true and even surface, and ensure knitting without displacement of sod or deformation of the surface of sodded areas.
2. Fill cracks between sod pieces with screened topsoil following compaction.
3. Excess soil shall be worked into the grass surface.

4. Bury edges of sod pieces flush with adjacent soil.
5. After the sod has been placed, water with a fine spray until the soil is saturated to a depth of two (2) inches.
6. Make arrangements to keep the sod moist until it is rooted into place.

3.05 TREE, PLANT AND GROUND COVER REPLACEMENT

A. When preparations are complete, install planting:
1. Fill the bottom of the hole with a backfill mixture, consisting of three (3) parts soil (removed from the hole) and one (1) part soil amendment, to support the root ball so that the top of the ball is just above or equal to the existing grade for drainage.
2. Place the root ball of the planting into the hole and adjust for height and position of the planting. Work excess soil to the sides for support of the root ball.
3. Fill the remaining area of the hole with backfill mixture around the root ball; tamp firmly to eliminate all air pockets. When the hole is 2/3 full, thoroughly water the plant to saturate the soil.
4. Fill the remainder of the area with topsoil and tamp into place until the surface is slightly sloping to the edge of the surrounding area.
5. Remove excess soil from the area.
6. Stake trees over four (4) feet high with a minimum of two (2) stakes and ties. Drive stakes a minimum of twelve (12) inches deep; provide protection for trunk at tree-tie location.
7. Apply the specified planting bed cover to a minimum depth of two (2) inches, evenly spread over the entire area.
8. Water with a fine spray to ensure that the soil is thoroughly saturated.
9. Make arrangements to water the planting regularly until it is rooted into place.

3.06 PAVEMENT REPLACEMENT

A. Removal and subgrade preparation:
1. Remove damaged areas of paving, as well as areas of unsound pavement and areas heavily stained with grease and oil.
2. Cut edges to a straight, vertical edge of 1/2-inch or more, by means of mechanical sawing. Excavate a minimum of six (6) inches below the existing, surrounding pavement surface, or as necessary to reach sound base material.
3. Provide new aggregate subbase as required to fill within three (3) inches of existing, surrounding asphalt pavement surface or to within four (4) or six (6) inches of existing, surrounding concrete pavement surface, depending on slab thickness. Compact aggregate subbase to 95% density.

B. Asphalt paving replacement:
1. Place the new asphalt paving material in two lifts:
   a. The first lift shall be 1-3/4 inches, after compaction, binder-grade asphalt.
   b. The second lift shall be 1-1/4 inches, after compaction, surface-grade asphalt.
2. Spread material in a manner which requires minimal handling.
3. After the material is placed, to proper depth, roll until the surface is hard, smooth, unyielding, and true to the specified thickness and elevation of the existing, surrounding asphalt pavement.
4. Roll surface layer in at least two directions until no roller marks are visible.
5. Finish paving surface shall be free from “birdbaths,” with no variations of more than 1/8-inch in six (6) feet.

C. Concrete paving replacement:
   1. Place wooden forms where necessary, staked into the ground, to provide straight and true edges for new pavement.
   2. Dampen the subgrade material before placing concrete.
   3. Pour concrete over the prepared subgrade. Tamp the freshly-placed concrete, using a heavy tamper, until at least 3/8-inch of mortar is brought to the surface.
   4. Trowel surface and screed with a straightedge until depressions and irregularities are worked out and the surface is true to specified thickness and elevation of the existing, surrounding concrete pavement.
   5. Float surface to a compact, smooth surface.
   6. When concrete has set sufficiently, provide a non-slip, “broomed” surface finish.

END OF SECTION

SECTION 07310

ASPHALT SHINGLE ROOFING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Roof shingles and accessories including the following:
   1. Fiberglass-based asphalt shingles.
   2. Hip and ridge shingles
   3. Starter shingles
   4. Self-adhering leak barrier
   5. Shingle underlayment
   6. Fasteners
   7. Metal flashing and trim

1.03 REFERENCES

A. ASTM International (ASTM):
   1. ASTM D 1970 – Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
      ASTM D 3018 - Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules.
   2. ASTM D 3161 - Standard Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method).
   3. ASTM D 3462 – Standard Specification for Asphalt Shingles Made From Glass Felt and Surfaced with Mineral Granules.
   4. ASTM D 6381 – Standard Test Method for Measurement of Asphalt Shingle Mechanical Uplift Resistance.
   5. ASTM D 6757 – Standard Specification for Underlayment Felt Containing Inorganic Fibers.
   6. ASTM D 7158 – Standard Test Method for Wind Resistance of Sealed Asphalt Shingles (Uplift Force/Uplift Resistance Method).
   7. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.
   8. ASTM F 1667 – Standard Specification for Driven Fasteners: Nails, Spikes, and Staples.
   9. ASTM D 4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.

B. Underwriter Laboratories (UL):
   1. UL 790 – Standard Test Methods for Fire Test of Roof Coverings.
   2. UL 2218 – Impact Resistance of Prepared Roof Covering Materials.
   3. UL 2390 – Test Method for Wind Resistant Asphalt Shingles with Sealed Tabs.

C. National Roofing Contractors Association (NRCA)

1.04 SUBMITTALS

A. Product Data: Manufacturer's data sheets and detail drawings for each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Product literature.

4. Installation methods.

B. Selection Samples: Two complete sets of samples, representing manufacturer's full range of available products and colors.

C. Verification Samples: For each product and finish specified, two samples representing actual products and colors.

D. Copy of Warranty: For warranty specified in Par. 1.10 in this Section.

1.05 QUALITY ASSURANCE

A. Shingles shall carry Underwriter's Laboratories Labels:
1. UL® 790, Class A Fire Resistance
2. UL® 997, Wind Resistance
3. ASTM D3462 - D3462M - 10a Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules

B. Manufacturer Qualifications: Provide all primary roofing products, including shingles, underlayment, leak barrier, and ventilation, by a single manufacturer.

C. Installer Qualifications: Installer must be approved for installation of all roofing products to be installed under this section.

1.06 REGULATORY REQUIREMENTS

A. Provide a roofing system achieving an Underwriters Laboratories (UL) Class A fire classification.

B. Install all roofing products in accordance with all federal, state and local building codes.

C. All work shall be performed in a manner consistent with current OSHA guidelines.

1.07 QUALITY ASSURANCE

A. Manufacturer Qualifications: Provide all primary roofing products, including shingles, underlayment, leak barrier, and ventilation, by a single manufacturer.

B. Installer Qualifications:
1. Installer shall follow shingle manufacturer's published installation instructions.
2. Installer shall be an approved applicator as defined and certified by manufacturer.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to side in manufacturer's unopened bundles with labels intact and legible.

B. Store all products in manufacturer's unopened, labeled packaging until they are ready for installation.

C. Handle and store materials on site to prevent damage. Store products in a covered, ventilated area, at temperature not more than 110 degrees F (43 degrees C); do not store near steam pipes, radiators, or in direct sunlight.

D. Store bundles on a flat surface. Do not stack product more than 2 pallets high. If stacking 2 pallets high, use separator boards to protect the shingles below. Store all rolls on end.

E. Do not install underlayment or shingles on wet surfaces.

F. Store and dispose of all solvent-based materials in accordance with all federal, state and local regulations.

G. For rooftop loading, lay shingle bundles flat. Do not bend over the ridge.

1.09 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install systems under environmental conditions outside manufacturer's recommended limits.
   1. Proceed with work only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturer's recommendations.

1.10 WARRANTY

A. Installer shall provide a 2 year labor and materials warranty.

B. Manufacturer's Warranty: Provide to the Owner manufacturer's standard prorated minimum 30 year warranty coverage for materials in the event of a material defect.

1.11 PREINSTALLATION CONFERENCE

A. Prior to scheduled commencement of the roofing installation and associated work, conduct a meeting at the project site with the installer, Consultant, Owner, Contractor and any other persons directly involved with the performance of the work. The installer shall record conference discussions to include decisions, agreements and open issues and furnish copies of recorded discussions to each attending party. The primary purpose of the meeting is to review foreseeable methods and procedures related to roofing work.
   1. Meet with Owner, Consultant, roofing Installer, and installers whose work interfaces with or affects roofing including installers of roof accessories and roof-mounted equipment.
   2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
   3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
   4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
   5. Review structural loading limitations of roof deck during and after roofing.
   6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
   7. Review governing regulations and requirements for insurance and certificates if applicable.
   8. Review temporary protection requirements for roofing system during and after installation.
   9. Review roof observation and repair procedures after roofing installation.

1.12 SEQUENCING AND SCHEDULING

A. Preparation work shall be limited to those areas that can be covered complete with the new shingle roof system on same day or before arrival of inclement weather.

B. Arrange work sequence to avoid use of newly completed roofing for storage, walking surface, or equipment traffic. Move equipment and material storage areas as work progresses.

C. Repair any and all traffic-induced damage to the roof system the same day as the damage occurs.

PART 2 - MATERIALS

2.01 ACCEPTABLE MANUFACTURERS

A. GAF Corporation, Wayne, NJ.

B. Requests for substitutions will be considered in accordance with the Engineer

2.02 ASPHALT SHINGLES

A. Asphalt shingles, (Slateline by GAF) Self-sealing, granule surfaced, asphalt shingle with a strong fiberglass reinforced core and stain protection, which prevents pronounced discoloration from blue-green algae through formulation/unique blends of granules. Architectural laminate stylings, providing a slate appearance with a 7 1/2" exposure.
   1. UL 790 Class A rated
   2. UL 2390 Wind Resistance; Class G ≤ 120 mph
   3. ASTM D 3161, Wind Resistance Type I, Class F ≤ 110 mph;

B. Color: As selected from manufacturers' full range.

C. High profile self-sealing hip and ridge cap shingle matching the color and type of selected roof shingle.

D. In addition to materials required to complete the project, provide four (4) bundles of matching shingles and one (1) bundle of matching ridge cap for the Owner's use; store where directed by the Owner.

2.03 HIPAND RIDGE SHINGLES

A. Provide hip and ridge shingles color formulated and designed for use with selected roof shingles as provided by shingle manufacturer.

2.04 STARTER STRIP

A. Self-sealing starter shingle designed for use with selected roof shingles as provided by shingle manufacturer.

2.05 LEAK BARRIER

A. Compliant with ASTM D 1970 and UL Listed.

B. Self-adhering, self-sealing, bituminous leak barrier surfaced with fine, skid-resistant granules. Approved by UL,

2.06 BITUMINOUS MATERIALS

A. Plastic roof cement: asphalt based, non-asbestos conforming to ASTM D4586, Type II.

2.07 SHINGLE UNDERLAYMENT

A. Water repellent, breather type cellulose/glass fiber composite roofing underlayment. Meets or exceed ASTM D226 and D4869 and approved by UL.

2.08 FASTENERS

A. Fasteners: Galvanized steel, stainless steel or aluminum nails; minimum 12 gauge shank with heads 3/8 inch (9.5 mm) diameter head.

B. All fasteners must be driven flush with the shingle surface and length must be sufficient to penetrate into solid wood at least 3/4 inch (19 mm) or through plywood or oriented strand board by at least 1/8 inch (3.2 mm) through APA rated roof sheathing. **Note: Staples or needle-point nails are not acceptable for attaching the shingles; however, staples may be used for attaching the underlayment felt.**

C. Fasteners must comply with ASTM F 1667. Check local building codes.

2.09 ROOFING SEALANT

A. Commercial grade roofing sealant that provides a 100% watertight seal that keeps water out at the most vulnerable areas of your roof (roof protrusions, step flashings, skylights, chimneys, vents, gutters, etc.). Meets the performance criteria of ASTM D412, ASTM D2196, ASTM D1475 and ASTM D1644.

2.10 SHEET METAL FLASHING

A. Flashing: Provide flashing as specified by Section 07620 – Sheet Metal Flashing and Trim.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Prior to starting work, examine all roof decks on which work is to be applied for defects n materials and workmanship which may be detrimental to the proper installation or long-term performance of the shingles.
   1. Underlayment and shingles installed directly over roof insulation or similar type decks is not approved.
   2. Roof deck must be dry, minimum 25/32 inch (20 mm) thick, maximum 6 inches (152 mm) wide boards, or APA rated sheathing (exposure 1); minimum 3/8 inch (9.5 mm) plywood, minimum 7/16 inch (11 mm) orientated strand board. Consult your manufacturer for other approved constructions.

B. Do not begin installation until the roof deck has been properly prepared.

C. If substrate preparation is the responsibility of another installer, notify Consultant of unsatisfactory preparation and gain written direction before proceeding. Commencement of installation constitutes acceptance of conditions and responsibility of same.

3.02 PREPARATION

A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best results for the substrate under the project conditions.

B. Remove all existing roofing, including fasteners and underlayment's down to the roof deck.

C. Verify installed roof deck is acceptable to receive shingles. Acceptable roof decks include the following:
   1. Lumber sheathing: 6-inch (152 mm) maximum width, 25/32 inch (18 mm) minimum thickness.
   2. Spacing between boards or panels shall not exceed ¼ inch (6 mm) between roof boards or between plywood or OSB sheathing panels.

D. Verify that the deck is dry, structurally sound, clean and smooth. It shall be free of any depressions, waves, and projections. Cover with sheet metal all holes over 1 inch (25 mm) in diameter, cracks over ½ inch (13 mm) in width, loose knots and excessively resinous areas.

E. Verify that the deck is structurally sound and free of deteriorated decking. All deteriorated and damaged decking shall be removed and replaced with new materials.

F. Clean deck surfaces thoroughly prior to installation of self-sealing ice and water barrier and underlayment.

3.03 INSTALLATION OF UNDERLAYMENTS

A. Leak Barrier:
1. Install self-adhering ice and water barrier at least 36 (914mm) inches wide; side laps 2 (50 mm) inches; end laps 6 inches (152mm) over the entire prepared roof deck.

B. Install shingle underlayment in accordance with manufacturer's instructions.
1. Install using methods recommended by shingle manufacturer, in accordance with local building codes. When local codes and application instructions are in conflict, the more stringent requirements shall take precedence.

C. Roof Deck:
1. If roof deck is indicated to receive 100% coverage of self-adhering leak barrier:
   a. On roofs sloped at least 4 in 12, lap horizontal edges at least 2 inches (50mm)
   b. Lap ends at least 6 inches (152mm). End laps in succeeding courses should be located at least 6 feet (1829 mm) from end laps in the preceding course.
   c. On roofs sloped between 2 in 12 to under 4 in 12, see application instructions of shingle manufacturer.
   d. Lap underlayment over valley protection at least 6 inches (152 mm).

D. Hips and Ridges:
1. Install self-adhering ice and water barrier along entire lengths.

E. Penetrations:
1. Vent pipes:
   a. Install a 24 inch (610 mm) square piece of leak barrier membrane lapping over shingle underlayment; seal tightly to pipe.
2. Vertical walls:
   a. Install leak barrier membrane extending at least 6 inches (152mm) up the wall and 12 inches (305mm) on to the roof surface. Lap the leak barrier membrane over the shingle underlayment.
3. Roof hatches:
   a. Install leak barrier membrane from under the cover and 12 inches (305mm) on to the roof surface lapping over shingle underlayment.
4. Chimneys:
   a. Install leak barrier membrane around entire chimney extending at least 6 inches (152mm) up the wall and 12 inches (305mm) on to the roof surface. Lap the leak barrier membrane over the shingle underlayment.
5. Rake Edges:
   a. Install metal edge flashing over leak barrier membrane and strip metal edge flashings into underlying leak barrier with a separate strip flashing.

3.04 SHINGLE INSTALLATION

A. General:
1. Install shingles in accordance with manufacturers printed instructions and local building codes. When local codes and application instructions are in conflict, the more stringent requirements shall take precedence.

2. Handle carefully in hot weather to avoid scuffing the surfacing, or damaging the shingle edges.

B. Placement and Nailing:
   1. Install shingles in accordance with manufacturers printed installation instructions required to achieve required wind uplift resistance and proper installation.
   2. Placement of nails varies based on the type of shingle specified. Consult the shingle manufacturer's application instructions for the specified shingle for details.
   3. Nails must be driven flush with the shingle surface. Do not overdrive or under drive the nails.
   4. Shingle offset varies based on the type of shingle specified. Consult the shingle manufacturer's application instructions for the specified shingle for details.

C. Install starter course at lowest roof edge and along rake edge of shingles extending ½ inch (13 mm) over edge of roof or installed edge metal.

D. Install first and successive courses of shingles stepping diagonally up and across roof deck with manufacturer's recommended offset at each succeeding course. Maintain uniform exposure of shingles at each succeeding course.

E. Fasten shingles to deck with manufacturer's recommended number of roofing nails per shingle but not less than six (6) per shingle.

F. Install shingles at valleys, hips and ridges in accordance with Construction Drawings.

3.05 ADJUSTING & CLEANING

A. Repair of deficiencies:
   1. Installation or details noted as deficient during Final Review must be repaired and corrected by Contractor, and made ready for review, within five (5) working days.
   2. Restore damaged surfaces in accordance with Section 02900.

B. Clean-up:
   1. Immediately upon job completion, roof, wall and flashing surfaces shall be cleaned of all debris.
   2. Collect all fasteners and debris from the site and grounds.
   3. Clean gutters and downspouts of all debris.

END OF SECTION

SECTION 07312

NATURAL SLATE ROOFING

PART 1 - GENERAL

1.01 DESCRIPTION

A. Contractor will furnish all permits, labor, materials, equipment, apparatus, tools, transportation and services necessary for, and incidental to, the proper installation and completion of a slate roof on the project indicated on the drawings and specified herein. This work will include the salvage of existing slate roof tiles to the extent indicated, removing and disposing off-site of remaining existing slate roofing or other shingles, if any; installing approved underlayment; installing new flashings as specified herein; and installing salvaged roofing slate to cover those roof areas indicated on the Construction Drawings. Note: Contractor may salvage slate to be discarded for his/her own stock.

B. All roofing work shall be executed such that the building is protected from water penetration.

1.02 QUALITY CONTROL

A. Contractor shall use workmen who are trained and experienced in laying slate, installing metal flashing, and all other skills needed to satisfactorily complete the project as specified. Contractor shall keep the building weatherproof, and make every reasonable attempt to complete the project on schedule.

B. Contractor shall make certain that the surfaces to which the roof slates are to be applied are in a suitable condition for this application or that they have been repaired to a condition satisfactory for slates.

C. Contractor shall guarantee all material to be as specified. All work is to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from these specifications involving extra costs will be executed only upon written orders and will become an extra charge over and above the estimate.

1.03 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials on manufacturer’s unopened skids with labels intact.

B. Store materials under cover, on pallets to avoid water damage, and store rolled goods on end. Comply with manufacturer's recommendations for job-site storage and protection.

C. Do not store materials on existing fire escape or low-slope roofs.

1.04 WARRANTY

A. Installer shall provide a 2 year labor and materials warranty.

PART 2 - MATERIALS

2.01 STARTER STRIP

A. Starter shingles as salvaged from existing materials.

2.02 LEAK BARRIER

A. Compliant with ASTM D 1970 and UL Listed.

B. Self-adhering, self-sealing, bituminous leak barrier surfaced with fine, skid-resistant granules. Approved by UL,

2.03 BITUMINOUS MATERIALS

A. Plastic roof cement: asphalt based, non-asbestos conforming to ASTM D4586, Type II.

2.01 FASTENERS

A. Nails and Fasteners: All nails, screws, and flashings used for the work shall be galvanically compatible. For installing slate, hard copper nails will be used not less than 11 gauge, 1.25” long. Alternatively, Type 304 stainless steel roofing nails will be used, not less than 1.25” long.

B. Nail length is dependent upon the thickness of the slate, as follows:
   1. Slate Thickness / Nail Length:
      a. 3/16" - 1/4" = 1-1/2"
      b. 1/4" - 3/8" = 1-3/4"
      c. 3/8" - 1/2" = 2"
      d. 1/2" - 3/4" = 2-1/2".

2.02 SHEET METAL FLASHING

A. Flashing: All flashing shall be minimum 16 ounce copper (or other material specified in writing and signed by both parties prior to the commencement of the work).

2.03 ROOFING SEALANT

A. Mastic: Asphalt cement shall be non-asbestos fibered asphalt cement complying with ASTM D 4586, designed for trowel application.

2.04 SLATE HOOKS

A. Slate hooks shall be three inches long, solid copper or stainless steel. Standard slate hooks are for use with slate of commercial standard thickness only. Custom slate hooks may be fabricated by the Contractor for use with slates up to 1/2" in thickness. Thicker slates will require the “nail and bib” fastening technique as described in the Slate Roof Bible, 2nd edition, when replacing existing slates in the field of the roof. Such bibs are to be 4 inches by 7 inches (minimum),16 ounce (minimum) copper or lead coated copper, per ASTM B 101, Type I, Class A. Bend lengthwise in a slightly concave shape prior to inserting. Heavy slates may require two nails for adequate fastening.

2.05 CANTS

A. Wood cants, where indicated, for starting course of slate shingles shall be minimum 1/4 inch by 1 inch plaster lath or other solid wood, not laminated material. Alternatively, 16 ounce (minimum) copper edging with a built-in cant may be used.

2.06 SLATE

A. Slate shall be as salvaged from the site and acceptable to the Engineer; free of defects, with nail holes. Drilled nail holes are acceptable.

B. Slate shall be hard, dense, sound rock of fairly uniform thickness, not less than 3/16” thick, with square cut edges.

2.07 SLATER’S TOOLS

A. The following traditional slating tools shall be used for the installation of slate shingles:
1. Slate hammers for punching and nailing slate shingles
2. Slate rippers for removing slates already installed
3. Slate cutters for trimming and cutting slate shingles
4. Slaters stakes used with slate hammers that have a cutting shank (for trimming thicker slates)
5. Roof brackets for staging the roof
6. Ladder hooks for accessing areas of the roof not staged.

PART 3 – EXECUTION

3.01 EXAMINATION

A. The Contractor shall inspect all surfaces prepared for slating. Surface shall be sound and free of all defects that may cause damage to roofing felt, flashing and slate. Any such defects of surface or decking shall be corrected prior to installation.

B. Details for slate roofing not indicated on Drawings or specified herein shall be discussed with the Engineer prior to commencing work.

3.02 PREPARATION

A. Sheet metal flashings, gutters and valleys must be installed prior to proceeding with laying of slate. To the maximum extent possible, complete masonry restoration work at chimneys, towers, parapet walls, and coping stones prior to installation of slate roofing in these areas.

3.03 SLATE INSTALLATION

A. Leak Barrier
1. Install self-adhering ice and water barrier at least 36 (914mm) inches wide; side laps 2 (50 mm) inches; end laps 6 inches (152mm) over the entire prepared roof deck.

B. Slating
1. All standard slates shall be fastened with two copper roofing nails, 1 ½" long; longer, heavier gauge nails will be used as needed on hips and ridges.
2. Eave slates shall be laid to provide a 1.5" projection beyond the furthest extent of fascia or other material at drip edge. Rake edge (gable end) slates shall extend 1”.
3. All standard field slates will be installed with a 3" head lap following chalk lines marking the top edge of each course of slates. Each course shall break joints laterally by a minimum of 3”, if possible, with the underlying or overlying course.
4. Slates at the eaves shall be doubled by using a slate starter course that is canted 1/4” to ½” (for standard thickness slates) by a solid (not laminated) wood cant strip or with a copper cant built into a minimum 16 ounce copper drip edge. A thicker cant strip will be used for thicker eave-course slates.
5. The first course of slate shall be laid over the slate starter course so that the drip edge of both courses aligns flush. The starter course shall be laid back side facing up to allow the edge bevel to merge to a point with the edge bevel of the first course (which shall be laid back side facing down, as shall all the other slates on the roof, except the starter course).
6. Slates overlapping sheet metal shall have the nails placed so as to minimize puncturing the metal.
7. Exposed nails are permissible only on the top course of some styles of slate ridge, and where otherwise unavoidable. Any exposed nail heads will be sealed with a lifetime-duration, clear or matching color caulk such as GE Silicon II, or other approved sealant.

8. Slate will be neatly fitted around any pipes, ventilators, and other roof penetrations.
9. Nails shall not be driven in so far as to produce an excessive strain on the slates, and shall instead be driven to a depth such that the nail heads lie within the counter-sunk nail hole and do not rub excessively against the overlying slates.
10. Contractor must make all reasonable efforts to avoid walking on the slates during the installation process. Upon completion, all slate shall be sound, unbroken, un-cracked, whole and clean, showing no exposed roof cement.
11. Individual slates that must be installed in the field of the roof after the installation is complete, such as where a roof bracket had been removed or where a repair has been made, shall be installed using stainless steel or copper slate hooks. Slates thicker than 1/2" may require the "nail and bib" method, rather than a slate hook fastener.
12. Use of nail guns to install slate shingles shall not be permitted. Use of grinders, saws, or other mechanical means to cut and trim roofing slates shall not be permitted unless the sawn edges are dressed after sawing to create a beveled appearance along the sawn edge.
13. In ice-dam prone areas, Contractor will install the slate with an increased headlap along the bottom three feet of the roof, such headlap increase to be not less than one inch.
14. Slates are not to be taken up onto the roof from one pallet at a time, but are to be taken from all pallets simultaneously in order to blend the various pallets uniformly on the roof.
15. Random width slate side-butt joints shall break joints in each course with the underneath course side-butts as near the mid-point of the slates in the course below as possible, and not less than 3" from any side-butt joint underneath. The first course of slates shall also break side-butt joints with the starter course side-butt joints by not less than 3".
16. Slates at valleys shall be cut in neat and straight lines. Valley slates are to be cut on the back side of the slate in order to maintain an exposed chamfered slate edge along the valley.
17. Slate shall be installed starting at the eaves and proceeding up to the ridge.

3.04 CLEANING

A. Tools, equipment, surplus materials, slate scraps, and debris resulting from the slate roof installation shall be organized and cleaned up, or removed and disposed of by Contractor, on a daily basis.

B. A dumpster may be used for storage of removed materials.

C. Gutters and roof areas will be cleaned of debris at the end of each work day and upon completion of the work.

D. Dust and dirt may infiltrate into the attic space during installation or removal of roofing slate. Building owner is advised to remove any valuable items from the roof or attic spaces and/or to cover such items with plastic, tarps, or other suitable covering. Contractor will not be held responsible for dust and dirt in attic spaces other than the broom sweep accessible areas as needed.

END OF SECTION

SECTION 07527

SELF-ADHERED SBS MODIFIED BITUMEN ROOFING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes the following:
   1. Two-ply, self-adhered, granule-surfaced SBS modified bitumen roofing system.

B. Related Sections include the following:
   1. Section 07310 – Asphalt Shingle Roofing
   2. Section 07610 – Copper Sheet Metal Roofing
   3. Section 07620 – Sheet Metal Flashing & Trim

1.03 DEFINITIONS

A. SBS: Styrene Butadiene Styrene

B. Roofing Terminology: Refer to ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

1.04 PERFORMANCE REQUIREMENTS

A. General: Provide installed roofing membrane and base flashings that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.

B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.

C. Roofing System Design: Provide membrane roofing system that is identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist uplift pressure calculated according to ASCE/SEI 7-10.

D. FM Approvals Listing: Provide membrane roofing, base flashings, and component materials that comply with requirements in FM Approvals 4450 and FM Approvals 4470 as part of a membrane roofing system, and that are listed in FM Approvals' "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Approvals' markings.
   1. Fire/Windstorm Classification: Class 1A-105.
   2. 100 mile per hour wind loads

1.05 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings:
   1. Tapered insulation plan, including slopes.
   2. Base sheet fastening pattern, pull test results, fastener data.
   3. Insulation fastening patterns, fastener data.
   4. Sheet metal terminations/closures.

C. Qualification Data for installer and manufacturer.

D. Manufacturer Certificate: Signed by roofing manufacturer certifying that membrane roofing system complies with requirements specified herein.
   1. Submit evidence of complying with performance requirements.

E. Warranties: Sample of special warranties specified in this section.

F. Inspection Report: Copy of roofing system manufacturer's inspection report of completed roofing installation.

1.06 QUALITY ASSURANCE

A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's warranty.

B. Manufacturer Qualifications: A qualified manufacturer that has UL listing or FMG approval for roofing system identical to that used for this Project.

C. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.

D. Source Limitations: Obtain components for roofing system from or approved by roofing system manufacturer.

E. Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, Factory Mutual Group, or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
   1. Exterior Fire-Test Exposure: Class A; ASTM E 108, for application and roof slopes indicated.
   2. Fire-Resistance Ratings: ASTM E 119, for fire-resistance-rated roof assemblies of which roofing system is a part.

F. Preinstallation Conference: Conduct conference at Project site. Comply with requirements in Division 1 Section "Project Meetings." Review methods and procedures related to roofing system including, but not limited to, the following:
   1. Meet with Owner, Consultant, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing including installers of roof accessories and roof-mounted equipment.
      a. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
      b. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

c. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
d. Review structural loading limitations of roof deck during and after roofing.
e. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
f. Review governing regulations and requirements for insurance and certificates if applicable.
g. Review temporary protection requirements for roofing system during and after installation.
h. Review roof observation and repair procedures after roofing installation.

1.07 DELIVERY, STORAGE AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storage.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.08 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

B. Coordination: Coordinate the work with installation of associated counter flashings installed by other sections as the work of this section proceeds.

1.09 WARRANTY

A. Special Warranty: Manufacturer's standard form, without monetary limitation, in which manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.
1. Special warranty includes roofing membrane, base flashings, roofing membrane accessories roof insulation fasteners cover boards substrate board vapor retarder roof pavers walkway products and other components of roofing system.
a. Warranty Period: Ten (10) years from date of Substantial Completion.

B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering Work of this Section, including all components of roofing system such as roofing membrane, base flashing, roof insulation, fasteners, cover boards, substrate boards, vapor retarders, roof pavers, and walkway products, for the following warranty period:
1. Warranty Period: Two (2) years from date of Substantial Completion.

1.10 SEQUENCING AND SCHEDULING

A. Preparation work shall be limited to those areas that can be covered with base and finish membrane on same day or before arrival of inclement weather. Phasing of membrane will not be acceptable.

B. The Contractor shall be responsible for protection of roof drains from entry of debris, bitumen, etc., and for ensuring that the drainage system remains free-flowing throughout the course of the Work.

C. Prevent tracking of aggregate from existing membrane into new work area where aggregate pieces can be trapped within the new roof membrane. The Contractor shall ensure that aggregate is not carried into the new work areas on workmen's shoes or equipment wheels. Discovery of entrapped aggregate within the roof membrane plies is sufficient cause for its rejection.

D. Arrange work sequence to avoid use of newly completed roofing for storage, walking surface, or equipment traffic. Move equipment and material storage areas as work progresses.

E. Allow no foot or equipment traffic over membrane until adhesive has flashed off.

F. Repair any and all traffic-induced damage to the roof membrane the same day as the damage occurs.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. CertainTeed Commercial Roofing, Valley Forge, PA.

B. GAF Building Materials Corporation, Wayne, NJ.

C. Johns-Manville Corporation, Denver, CO.

D. Soprema Roofing and Waterproofing, Inc., Wadsworth, OH.

2.02 BASE SHEET AND BASE FLASHING

A. Base Sheet: ASTM D 4601, Type II, 1.8mm, 170 gram/m² fiberglass reinforced, self-adhering SBS modified bitumen

2.03 CAP SHEET AND FINISH FLASHING

A. ASTM D6164, Grade G, Type I, 3.8mm, 170 gram/m² polyester-reinforced, self-adhering, granule-surfaced SBS modified bitumen sheet.

2.04 AUXILIARY ROOFING MEMBRANE MATERIALS

A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with built-up roofing.

B. Asphalt primer conforming to ASTM D 41.

C. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.

D. Trowel-grade modified bitumen cement conforming to ASTM D 3019, Type III.

E. Glass-Fiber Fabric: Woven glass cloth, treated with asphalt, complying with ASTM D 1668, Type I.

F. Neoprene flashing cement, asbestos free

G. Metal Flashing Sheet: Metal flashing sheet is specified in Section 07620, Sheet Metal Flashing and Trim.

H. Prefabricated Gravel Stops and Scuppers: Refer to Section 07620, Sheet Metal Flashing and Trim.

I. Miscellaneous Accessories: Provide miscellaneous accessories recommended by roofing system manufacturer.

2.05 HEAVY DUTY BASE SHEET

A. Base Sheet: ASTM D 4897, Type II, venting, non-perforated, heavyweight, asphalt-impregnated and -coated, glass-fiber base sheet with coarse granule surfacing or embossed venting channels on bottom surface.

B. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in Factory Mutual Group 4470, designed for fastening base sheet to wood roof deck.

2.06 ACCESSORIES

A. Insulation Cant Strips: ASTM C 208, Type II, Grade 1, cellulosic-fiber insulation board.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that:
1. Substrate is properly installed and free of foreign particles prior to installing the modified bitumen roof system.
2. Conditions are satisfactory for proper installation of the Work. Do not begin work until all unsatisfactory conditions have been corrected.
3. Work of other trades penetrating the roof deck or requiring men and equipment to traverse roof deck has been completed prior to installing the modified bitumen roof system.
4. Curbs, pipe projections, sleeves, ducts, vents, nailers, and blocking as secure and acceptable for the proper installation of the modified bitumen roof system

3.02 PREPARATION AND CONDITIONS

A. Raise all utility feeds and equipment to allow for eight (8) inch minimum flashing height above the surface of the new roof system.

B. Remove unused equipment, curbs and projections as directed by the Owner or the Consultant.

C. Complete all roof deck repair and/or replacement throughout the anticipated working area each day prior to any roofing application.

D. Complete all required carpentry work throughout the anticipated working area, each day, prior to any roof membrane application.

E. Sweep area clean of all dirt and debris prior to application of the built-up roof membrane.

3.03 BASE SHEET INSTALLATION

A. Install base sheet in accordance with approved shop drawings indicating type, quantity and placement of fasteners required to achieve wind-up lift resistance required.

3.04 GENERAL WORKMANSHIP

A. Installing modified bitumen base sheet:
   1. On slopes less than 1:12, lay sheets perpendicular to the slope of the roof, beginning at the lowest elevation of the roof. All sheets shall be laid in shingle fashion, placed to ensure that water will flow over or parallel to, but never against, exposed edges.

B. Installing modified bitumen finish membrane:
   1. On slopes less than 1:12, lay sheets perpendicular to the slope of the roof, beginning at the lowest elevation of the roof. All sheets shall be laid in shingle fashion, placed to ensure that water will flow over or parallel to, but never against, exposed edges.

C. Adhere base and finish plies per manufacturers requirements. Ply shall never touch ply, even at roof edges, laps, tapered edge strips or cants.

D. Repair fishmouths, blisters, wrinkles, voids, ridges and other anomalies. Cut out defects and install a patch over the affected area:
   1. On base sheet ply, install a six (6) inch square, minimum, patch.
   2. On finish membrane, install a six (6) inch square, minimum, patch.

E. Lap base sheet three (3) inches on sides and four (4) inches on ends. Lap finish membrane four (4) inches on sides and six (6) inches on ends. Stagger ply end laps three (3) feet minimum.

F. Base sheet ply or membrane and flashings shall be installed and sealed in a watertight manner on the same day of installation or before the arrival of inclement weather.

G. At the end of each work day, removal areas shall be sealed with water stops along edges to prevent water entry into the newly completed roof system. Finish membrane seams shall be hot air welded at drain or valley areas.

H. Remove temporary tie-ins and water cut-off materials before proceeding with contiguous work. Overlap previous day's work by twelve (12) inches, minimum.

3.05 ROOFING MEMBRANE INSTALLATION, GENERAL

A. Install modified bitumen roofing system according to roofing system manufacturer's written instructions.

B. Start installation of roofing membrane in presence of roofing system manufacturer's technical personnel.

C. Cooperate with testing and inspecting agencies engaged or required to perform services for installing modified bitumen roofing system.

D. Coordinate installing roofing system components so insulation and roofing membrane sheets are not exposed to precipitation or left exposed at the end of the workday or when rain is forecast.
   1. Provide temporary tie-offs at end of each day's work to cover exposed roofing membrane sheets and insulation.
   2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.
   3. Remove and discard temporary seals before beginning work on adjoining roofing.

3.06 MODIFIED BITUMEN ROOF INSTALLATION

A. Base sheet installation:
   1. Starting at the lowest point of the roof deck, the first ply of modified bitumen base sheet shall be a half sheet.
   2. The second ply of modified bitumen base sheet shall be a full-width (38-1/4 inches) sheet, laid parallel to the preceding ply, lapping three (3) inches over the top edge of the preceding ply.
   3. Continue placing additional full-width plies parallel to the preceding ply, lapping three (3) inches over the top edge of the preceding ply, until the edge of the roof area is reached.

B. Install a base flashing ply to all perimeters and projections:
   1. Prime flashing surface, from top of base sheet to flashing termination point, with asphalt primer. Apply primer at the rate of 1/2-gallon per 100 square feet; adjust depending upon surface porosity.
   2. Allow asphalt primer to dry to the touch before proceeding with installation of base flashing.
   3. Apply a uniform coating of trowel-grade modified bitumen cement to the flashing substrate with a notched trowel.
   4. Immediately, firmly embed the modified bitumen base flashing.
   5. Glove base flashing into place to eliminate all voids, wrinkles, and fishmouths.
   6. Extend base flashing from the flashing termination point to a minimum of four (4) inches, from the base of the cant, onto the roof surface.

C. Adhere the modified bitumen cap sheet to the completed base sheet and base flashing:.
   1. Starting at the low point of the roof deck, install a full-width modified bitumen cap sheet using an appropriate roll-length to ensure side-laps are offset eighteen (18) inches minimum from the underlying base sheet side-laps.
   2. Using manageable lengths for proper handling, position cap sheet with selvedge towards the high side of the roof. Once positioned, lift and fold the lower half of the membrane, remove the release film, fold back and press firmly into place. Repeat this process with the other half of the cap sheet towards the high-side of the roof.
   3. Install cap sheets with six (6) inch end-laps and stagger end laps three (3) feet minimum. Cut opposing diagonal corners of end-laps at forty-five (45) degree angles four (4) inches from the corner.
   4. Continue placing additional full-width plies parallel to the preceding ply, lapping four (4) inches over the top edge of the preceding ply, until the edge of the roof area is reached.
   5. All cap sheets are to be properly adhered to base sheet using a split-wheel, weighted roller, paying special attention to selvedge seams.

D. Where lap seams are formed with the granule surfacing present within the lap, apply a uniform coating of trowel-grade modified bitumen cement to the lap, set in place and ensure proper adhesion using hand roller.

3.07 FLASHING INSTALLATION

A. All flashing surfaces shall be smooth, dry and free of debris and obstructions.

B. Install the finish flashing ply:
   1. Over the previously installed base flashing sheet and finish membrane, apply a uniform coating of trowel-grade modified bitumen cement with a notched trowel.
   2. Immediately, firmly embed the modified bitumen finish flashing.
   3. Glove finish flashing into place to eliminate all voids, wrinkles, and fishmouths.
   4. Extend finish flashing from the flashing termination point to a minimum of eight (8) inches, from the base of the cant, onto the roof surface.
   5. Seal the exposed leading edge of the modified bitumen flashing sheet at all metal flanges with a 3/8-inch bead of neoprene cement.

C. Fasten the completed roof flashings, approximately 1/2-inch from the top:
   1. To concrete or masonry substrate:
      a. Fasten with the specified fastener and one (1) inch metal discs to the substrate at twelve (12) inches on center.
   2. To wood substrate:
      a. Fasten to the substrate at eight (8) inches on center, using ring-shanked nails placed through one (1) inch metal discs.
   3. Seal the top edge of the flashings with a three (3) course application of asphalt mastic and fiberglass reinforcing membrane.

3.08 FIELD QUALITY CONTROL

A. Testing Agency: The Contractor shall engage an independent testing agency, acceptable to the roofing manufacturer and the Owner, to conduct the testing indicated and to prepare test reports in accordance with NCRA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing."

B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report to Consultant.
   1. Notify Consultant and Owner one week in advance of date and time of inspection.

C. Repair or remove and replace components of roofing system where test results or inspections indicate that they do not comply with specified requirements.

D. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.09 ADJUSTING & CLEANING

A. Repair of deficiencies:
   1. Installation or details noted as deficient during Final Review must be repaired and corrected by Contractor, and made ready for review again, within five (5) working days.

B. Clean-up:
   1. Immediately upon job completion, roof membrane and flashing surfaces shall be cleaned of all debris.
   2. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.
   3. Clean roof drains or gutters/downspouts of all debris.

3.10 ROOFING INSTALLERS WARRANTY

A. WHEREAS <Insert name> of <Insert address>, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
   1. Owner:
   2. Address:
   3. Building Name/Type:
   4. Address: <**Insert address**.>
   5. Area of Work: <**Insert information**.>
   6. Acceptance Date: <**Insert date**.>
   7. Warranty Period: **Two (2) years**.
   8. Expiration Date: <**Insert date**.>

B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,

C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.

D. This Warranty is made subject to the following terms and conditions:
   1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
      a. lightning;
      b. peak gust wind speed exceeding 100 mph;
      c. fire;
      d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
      e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
      f. vapor condensation on bottom of roofing; and
      g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
   2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
   3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
   4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
   5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
   6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
   7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this <Insert day> day of <Insert month>, <Insert year>.

   1. Authorized Signature: <Insert signature.>

   2. Name: <Insert name.>

3. Title: <Insert title.>

END OF SECTION

SECTION 07610

COPPER SHEET METAL ROOFING

PART 1 - GENERAL

1.01 DESCRIPTION

A. This section includes acceptable manufacturers, products, and requirements for the installation of a field-fabricated, standing-seam or flat-locked copper sheet metal roof system.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM):
1. ASTM B29 Specification for Refined Lead
2. ASTM B32 Specification for Solder Metal
3. ASTM B370 Specification for Copper Sheet and Strip for Building Construction
4. ASTM D2178 Specification for Asphalt Glass Felt Used in Roofing and Waterproofing.

B. Federal Specification (FS):
1. TT-S-230 Sealing Compound: Elastomeric Type, Single Component, Chemically Curing (For Caulking, Sealing, and Glazing in Buildings and Other Structures)
2. TT-S-1543 Sealing Compound: Silicone Rubber Base (For Caulking, Sealing, and Glazing in Buildings and Other Structures)
3. UU-B-790 Building Paper, Vegetable Fiber Kraft (Waterproofed, Water Repellent and Fire Resistant)

C. Sheet Metal and Air Conditioning Contractors National Association (SMACNA):
1. SMACNA Architectural Sheet Metal Manual.

D. Underwriters Laboratories, Inc. (UL)\
1. UL 580 Tests for Uplift Resistance of Roof Assemblies
2. US 790 Tests for Fire Resistance of Roof Covering Materials

1.03 SUBMITTALS

A. General: Refer to General Requirements.

B. Shop Drawings and Product Data: Submit detailed Shop Drawings of copper roofing and related fabrications and product data for copper materials and manufactured items.

C. Samples:
1. Submit two sample squares, 8 by 10 inches in size, of the copper sheet.
2. Submit sample standing-seam panel, including fabricated seam.
3. Submit sample of pre-tinned flat lock panel.
4. Submit sample of two joined valley panels.
5. Submit samples of anchors, cleats and mechanical fasteners proposed for use in each type of substrate and/or application.

1.04 QUALITY ASSURANCE

A. Codes and Standards:
1. Comply with applicable requirements of the Wisconsin Administrative Code.
2. Roofing shall meet Underwriters Laboratories' requirements for Class A copper roofing assembly in compliance with UL 790 and Class 120 wind uplift resistance in compliance with UL 580.

3. Shop or site fabricated sheet copper roofing shall be fabricated and installed in accordance with SMACNA Architectural Sheet Metal Manual, applicable Charts and Plates, and related specifications.
4. Supervise waterproofing underlayment and flashings of roof penetrations in connection with copper roofing work.

B. Performance Requirements:
1. Copper sheet roofing work and related flashings shall be fabricated and installed by a qualified tradesman skilled and experienced in the type of work involved.
2. The Contractor and copper roofing materials manufacturer or supplier/installer shall ensure fabrication and installation of roof-edge details prevent wind-uplift and damage to the roof from high winds and storms.
3. The Contractor and copper roofing material manufacturer or supplier/installer shall determine the probability of thermal and structural movement in the roofing system and shall confirm design provides for expansion and contraction in the roofing system as required providing a serviceable roof without failures.
4. Provide copper roofing capable of withstanding thermal expansion and contraction movements for an ambient temperature change of 150 degrees F. without failure, including air and water leakage, and without noise from metal-to-metal contact in movement.

1.05 ENVIRONMENTAL CONDITIONS AND PROTECTION

A. Provide protection of all station and building roof areas from moisture and rain. Provide water repellent coverings as required. Leave no unroofed deck areas exposed to moisture and rain at any time, prior to installation of roofing.

1.06 WARRANTY

A. Copper roofing and related flashing installations shall be guaranteed against leakage, defective materials, and inferior work quality of the completed work. Any such defects or leakage occurring during the period of the guaranty shall be promptly and completely corrected, including all affected work, at no additional cost to the City of Kenosha.

B. In addition to the guaranty requirements specified elsewhere in the project documents, provide a 5-year roofing system guaranty or warranty, which shall state in essence that the Contractor and roofing installer shall, at their expense, make or cause to be made any repairs necessary to maintain the applied roof and related flashings in a watertight condition for a period of five (5) years. The guaranty shall be effective from the date of Substantial Completion, and shall be signed by the roofing installer and countersigned by the Contractor, and shall be submitted to the Engineer.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering materials that may be incorporated in the Work include, but are not limited to, the following:
1. Hussey Copper, Ltd.
2. Luvata, Inc.
3. PMX Industries, Inc.
4. Revere Copper Products, Inc.

2.02 MATERIALS

A. Roof Type: Copper roofing system shall be of the type indicated on Construction Details for site fabricated standing-seam and flat lock systems suitable for the site installation conditions. All materials for shop or site fabricated roofing system shall conform with requirements of SMACNA Architectural Sheet Metal Manual.

B. Sheet Copper: Standard cold-rolled copper sheet for building construction, conforming with ASTM B370 temper H00 , 16 oz., 20 oz., 24 oz., or 32 oz. per square foot as indicated or required. Where copper weights are not indicated, provide 16 oz. copper sheet. Provide sheets in as long lengths as practical to minimize joints. Cleats shall be minimum 20 oz. copper.

C. Solder: Grade A meeting requirements of ASTM B32, composed of 50 percent pig lead and 50 percent block tin, warranted pure. Flux shall be an approved brand of soldering flux for copper or muriatic acid neutralized with zinc such as rosin, muriatic acid neutralized with zinc.

D. Nails: Copper, "Stronghold" large head (3/8” min.) type, of length necessary to penetrate minimum of 3/4”.

E. Rivets:
1. Pop Rivets: 1/8-inch (3 mm) to ¼-inch (6 mm) diameter, with solid brass mandrels.
2. Provide solid copper rivet (tinner’s rivets) where structural integrity of seam is required.

F. Screws & Bolts: Copper, bronze, brass or passivated stainless steel (300 Series) of sufficient size and length to sustain imposed stresses.

G. Wood Nailers: Wood nailers shall be "Construction" or "No. 1" grade Douglas fir, as specified in Section 06100 - Rough Carpentry, of size and dimensions indicated or required. Moisture content shall not exceed 19 percent.

H. Leak Barrier: High Temperature Grade Water Barrier Underlayment:
1. Cold applied, self-adhering membrane composed of a high density, cross laminated polyethylene film coated on one side with a layer of butyl rubber or high temperature asphalt adhesive. Provide primer when recommended by water barrier manufacturer.
   a. Minimum Thickness: 30 mil.
   b. Tensile Strength: ASTM D 412 (Die C Modified); 250 psi.
   c. Membrane Elongation: ASTM D 412 (Die C Modified); 250%
   d. Permeance (Max): ASTM E 96; 0.05 Perms.
   e. Acceptable Products:
      1) Blueskin PE 200 HT, Henry.
      2) Ultra, W.R. Grace Company.
      3) CCW MiraDRI WIP 300 High Temperature, Carlisle Coatings and Waterproofing.

I. Building Paper (Slip Sheet): Rosin-sized, unsaturated paper, weighing approximately 6 pounds per 100 square feet, or a water-repellent smooth building paper meeting requirements of FS UUB-790.

J. Fasteners and Accessories: Furnish anchors and fasteners, washers, straps, and accessories required for a complete and finished installation. Fasteners and accessories shall conform with the following requirements:
1. Nails shall be hard copper, bronze, or brass. Where sheet metal is built in over roofing materials or other sheet metal, use nails or screws with 1-inch copper washers. Rivets shall be soft copper rivets. Screws shall be standard brass, bronze or stainless steel wood screws, as required. Sheet metal screws shall be self-drilling, self-tapping stainless steel or tempered non-corrodible steel of proper size and length to suit conditions.
2. Exposed screw heads shall be furnished with neoprene washers. Concealed screws shall be furnished with tapered Phillips heads.

3. Straps: Straps and miscellaneous fastenings, where required, shall be half-hard copper or half-hard 70-30 brass of size indicated or required. Where not indicated, provide straps of 1/8-inch thick by 1-inch wide size.

K. Sealant: Calking or sealing compound shall be a silicone synthetic rubber elastomeric sealant that cures at normal temperature to a flexible firm rubber, tack free, in gun grade consistency. Sealant shall be specially designed for adhesion to the surfaces to which it will be applied, and shall meet or exceed the minimum requirements of FS TT-S-230 or FS TT-S-1543, as applicable.

L. Dielectric Isolating Material: Alkali-resistant bituminous paint or varnish.

M. Continuous edge cleats: 24 gauge stainless steel conforming to ASTM A167 and ASTM A240, Type 304.

2.03 FABRICATION

A. Form and fabricate standing-seam copper roofing and related flashings as indicated and in accordance with the approved Shop Drawings and the SMACNA Architectural Sheet Metal Manual. Properly reinforce sheet copper roofing as required for strength and appearance.

B. Shop fabricate and Pretin flat lock copper roofing/flashing panels, standing-seam copper roofing and related flashings wherever possible as indicated and in accordance with the approved Shop Drawings and the SMACNA Architectural Sheet Metal Manual. Properly reinforce sheet copper roofing as required for strength and appearance.

PART 3 - EXECUTION

3.01 EXAMINATION AND PREPARATION OF SUBSTRATES

A. Examination of Roof Deck Surfaces: Before starting the installation of any roofing work, examine all surfaces that the copper roofing and flashings are to be applied.

B. Cleaning and Preparation of Substrates: Surfaces that copper roofing and flashings are to be applied shall be dry, clean of dirt and dust. Surfaces shall also be free from sharp protrusions and defective surfaces which will prevent a level and plane installation. Fill all joints, cracks, or depressions in substrates with patch or underlayment material.

C. Responsibility: Nothing specified herein shall be construed as relieving the Contractor of full responsibility for the waterproof quality of the finished installation. Surfaces that copper roofing and flashings are to be applied shall be in proper condition in every respect for installation of the copper roofing and flashings.

D. Protection: Protect structures to be roofed from moisture and rain until completion and acceptance of the roofing work.

3.02 INSTALLATION

A. Installation Standards:
1. Install shop or site fabricated standing-seam sheet copper roofing and related flashings as indicated and in accordance with the approved Shop Drawings and the SMACNA Architectural Sheet Metal Manual.
2. Install shop fabricated pieces of flat lock sheet copper roofing and flashings as indicated and in accordance with the approved Shop Drawings and the SMACNA Architectural Sheet Metal Manual.

B. Flashings and Metal Trim: Provide flashings, counter flashings, ridge flashings, metal trim, and any other fabricated items and miscellaneous copper sheet metalwork indicated or required to provide a complete and watertight installation.

C. Work Quality:
1. Standing-seam sheet copper roofing shall be finished straight and true. Exposed work shall be free of dents and other defects. Corners shall be reinforced and seams made waterproof. Edges of sheet copper shall be hemmed.
2. Provide for expansion and contraction in sheet copper roofing and gutters by means of expansion joints or other appropriate methods of the SMACNA Architectural Sheet Metal Manual. Provide reinforcement as required.
3. Isolate and protect dissimilar metals from contact with each other by applying a heavy coating of the specified isolation material to contact surfaces.
4. Provide waterproof neoprene washers wherever required fasteners penetrate sheet metal. Exposed fasteners will not be permitted for any portion of this work unless specifically noted in the Construction Drawings.

D. Calking and Sealing: Caulk or seal joints and laps of sheet copper as indicated or required for a waterproof installation. Beads of sealant that will be concealed in the finished work shall be continuous with no voids of materials. Interface and coordinate the calking and sealing work of this Section with the work specified in Sections 07920.

3.03 SHEET METAL FABRICATION

A. Fabricate all materials in accordance with the Construction Details and/or approved shop drawings.

B. Panel fastening cleats:
1. Fabricate cleats from 20 oz. copper sheet.
2. Fabricate the copper cleats two (2) inches wide by two (2) inches, minimum, long.

C. Flat-lock panels:
1. Fabricate flat-lock panels from 20 oz. copper sheet.
2. Fabricate panels from blanks a maximum of eighteen (18) inches by twenty four (24) inches.
3. Pre-tin all edges 1-1/2 inches on all sides, notch corners and fold over pre-tinned edges to form a 3/4-inch hem.

D. Standing-seam panels:
1. Fabricate standing seam panels from 20 oz. copper sheet.
2. Fabricate panels from blanks a maximum of twenty four (24) inches wide.
3. The height of the standing seams shall be as required to allow for machine seaming of a double roll-lock configuration.

3.04 LEAK BARRIER INSTALLATION

A. Apply full-width (36-inch) sheets to achieve 100% coverage of roof deck, centered in the valleys, directly over the clean deck surface.

B. Reposition leak barrier sheets immediately during installation to eliminate fishmouths, wrinkles, ridges, or other anomalies.

C. Flashing sheet laps:
1. Lap valley or wall sheets six (6) inches, minimum, onto ice dam flashing along eaves.
2. Lap adjacent sheet edges six (6) inches, minimum.
3. Lap sheet ends four (4) inches, minimum.

3.05 RED ROSIN PAPER SLIP SHEET INSTALLATION

A. Install red rosin paper over all leak barrier flashing just prior to installing roofing.

B. Install a double layer of red rosin paper under areas where soldering will take place.

C. Red rosin paper laps:
   1. Lap paper six (6) inches, minimum, over hips and ridges.
   2. Lap paper six (6) inches, minimum, through valleys.
   3. Lap paper sides and ends three (3) inches, minimum.
   4. Fasten red rosin using only copper or stainless staples.

3.06 SHEET METAL ROOFING INSTALLATION

A. Flat-lock panels:
   1. Lay panels as shown on Construction Details, with cross-joints staggered by one-half panel.
   2. Install pre-tinned cleats, two (2) cleats per panel side.
   3. Hook adjacent panels onto hemmed edge, fasten opposite side with cleats, as described above.
   4. Mallet down seams carefully to avoid buckling.
   5. Completely solder seams in two stages.
      a. The first pass shall pull solder fully into the seam.
      b. The second pass shall cover the edge of the seam.
   6. Clean panels of all excess solder.

B. Standing seam roofing:
   1. Install expansion cleats spaced a maximum of twelve (12) inches, on center, along panel seams.
   2. Hook adjacent panel over the installed panel edge and cleats.
   3. At bottom edge of standing seam, cut back one panel edge to create a 45° angle. Cut and fold over opposite panel edge to seal off bottom edge of seam prior to seaming.
   4. Machine seam the panel joint to create a double roll-lock seam configuration.

3.07 ADJUSTING & CLEANING

A. Repair of deficiencies:
   1. Installation or details noted as deficient during Final Review must be repaired and corrected by Contractor, and made ready for review again, within five (5) working days.

B. Clean-up:
   1. Immediately upon job completion, roof membrane and flashing surfaces shall be cleaned of all debris.
   2. Clean gutters and downspouts of all debris.

END OF SECTION


AREAS INCLUDED IN
ALTERNATE 4

PROJECT:	SOUTHPORT BEACH HOUSE 7825 3RD AVE KENOSHA, WI 53143
OWNER:	CITY OF KENOSHA- DPW 625 52nd ST - ROOM 305 KENOSHA, WI 53140
CONSULTANT:	INDUSTRIAL ROOFING SERVICES 13000 WEST SILVER SPRING DRIVE BUTLER, WISCONSIN 53007 (262) 432-0500
IRS JOB #:	15055

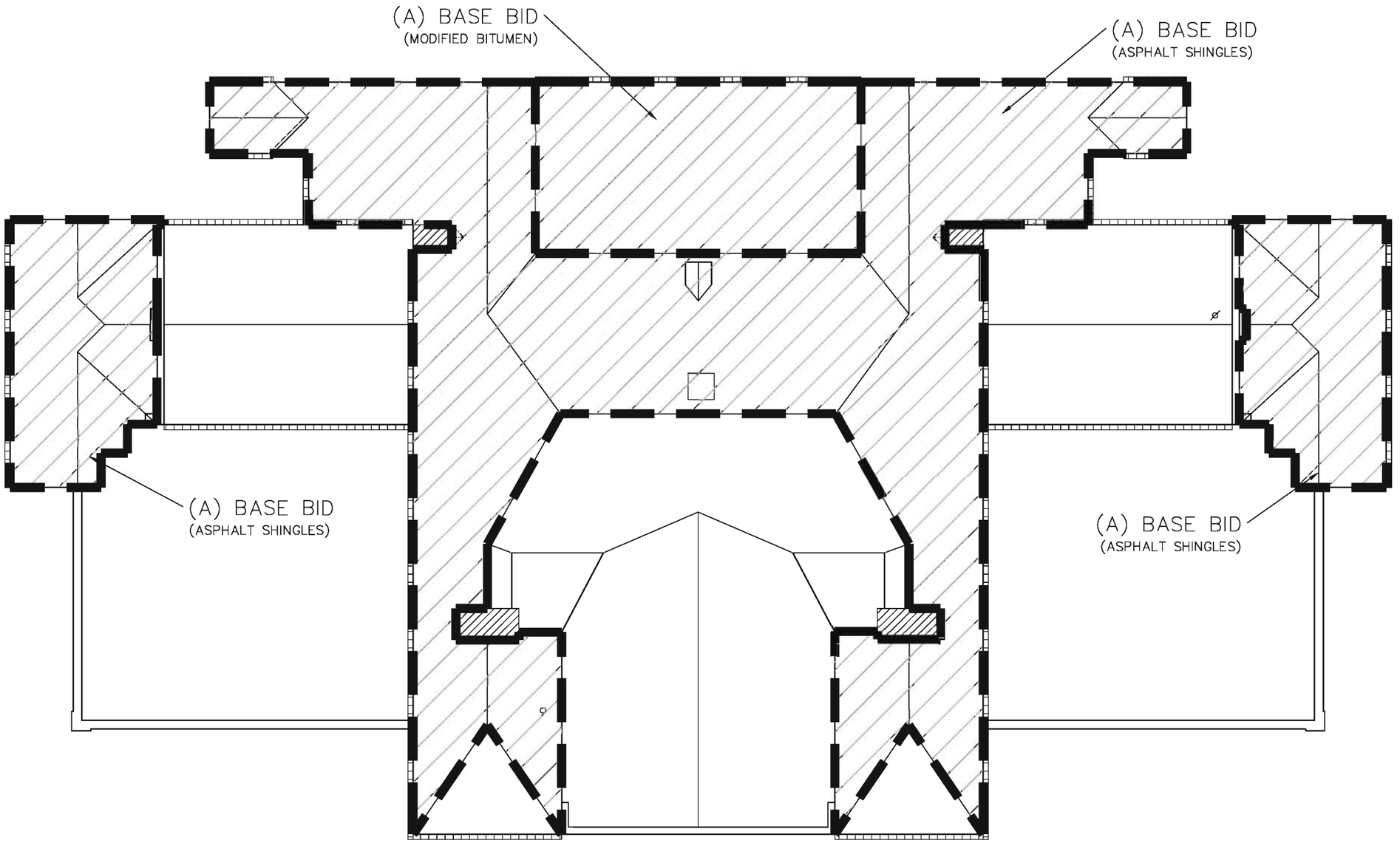
7825 3RD AVE

SHEET INDEX

INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME: CITY OF KENOSHA 7825 3RD AVE– KENOSHA, WI SOUTHPORT BEACH HOUSE	DRAWN BY: ASB	DATE: 7/30/2014	IRS SPEC NO.: 15055
TITLE: COVER PAGE	SCALE: N.T.S.	DRAWING: C0	NORTH ARROW:

NOTES: DIMENSIONS ARE FOR BIDDING PROPOSES ONLY. CONTRACTOR IS TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING AND INSTALLING PRODUCTS.



IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE – BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:	NORTH ARROW:
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- THROUGH-WALL SCUPPER
- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
- SKYLIGHT
- CURBED PIPE VENT
- UNUSED
- CHIMNEY
- ROOF LADDER
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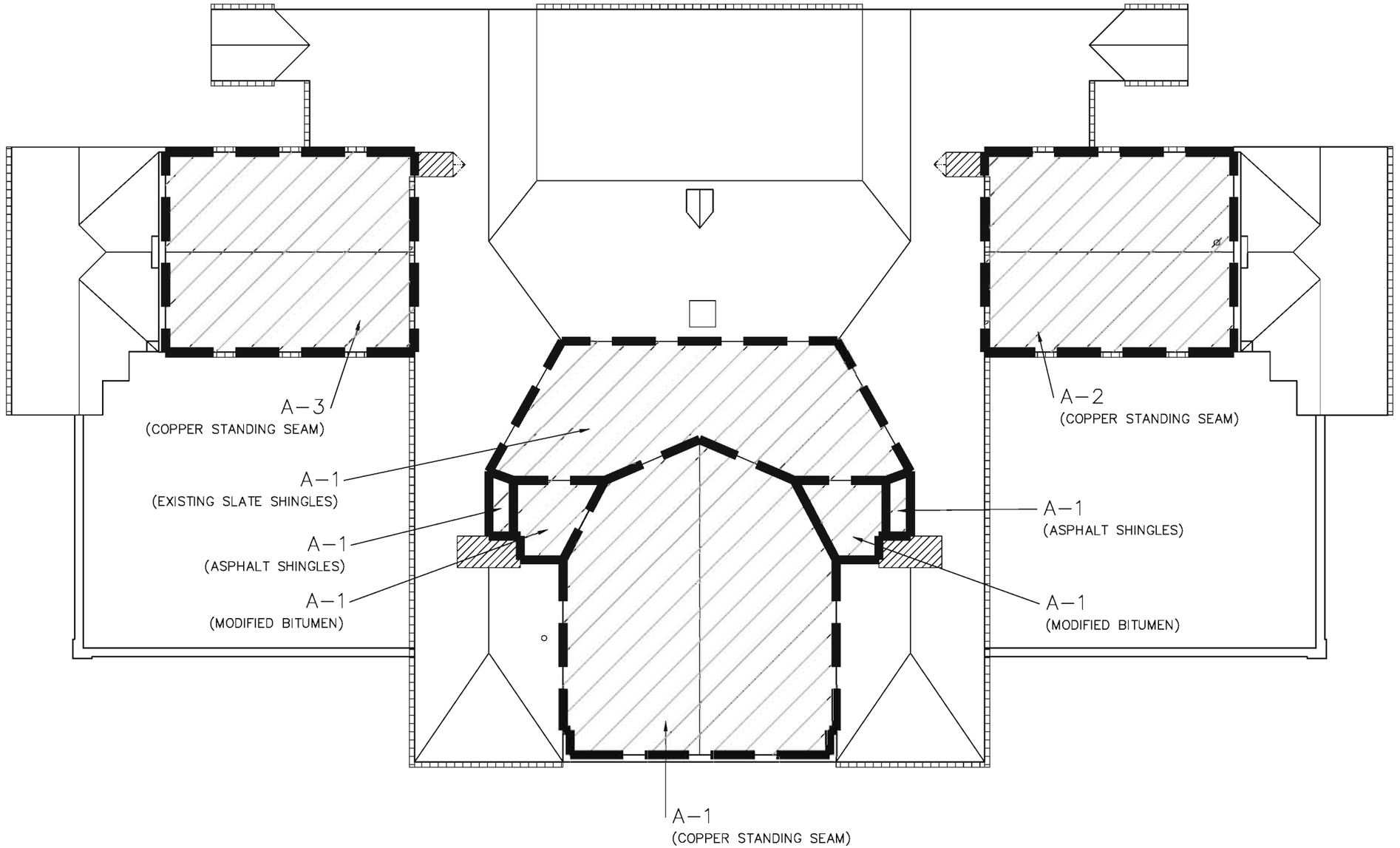
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREEN WALL



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PHONE: (800) 236–3477 / (262) 432–0500 FAX: (262) 432–0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:	NORTH ARROW:
CITY OF KENOSHA SOUTHPORT BEACH HOUSE 7825 3RD AVE– KENOSHA, WI	ASB	9/9/2014	15055	
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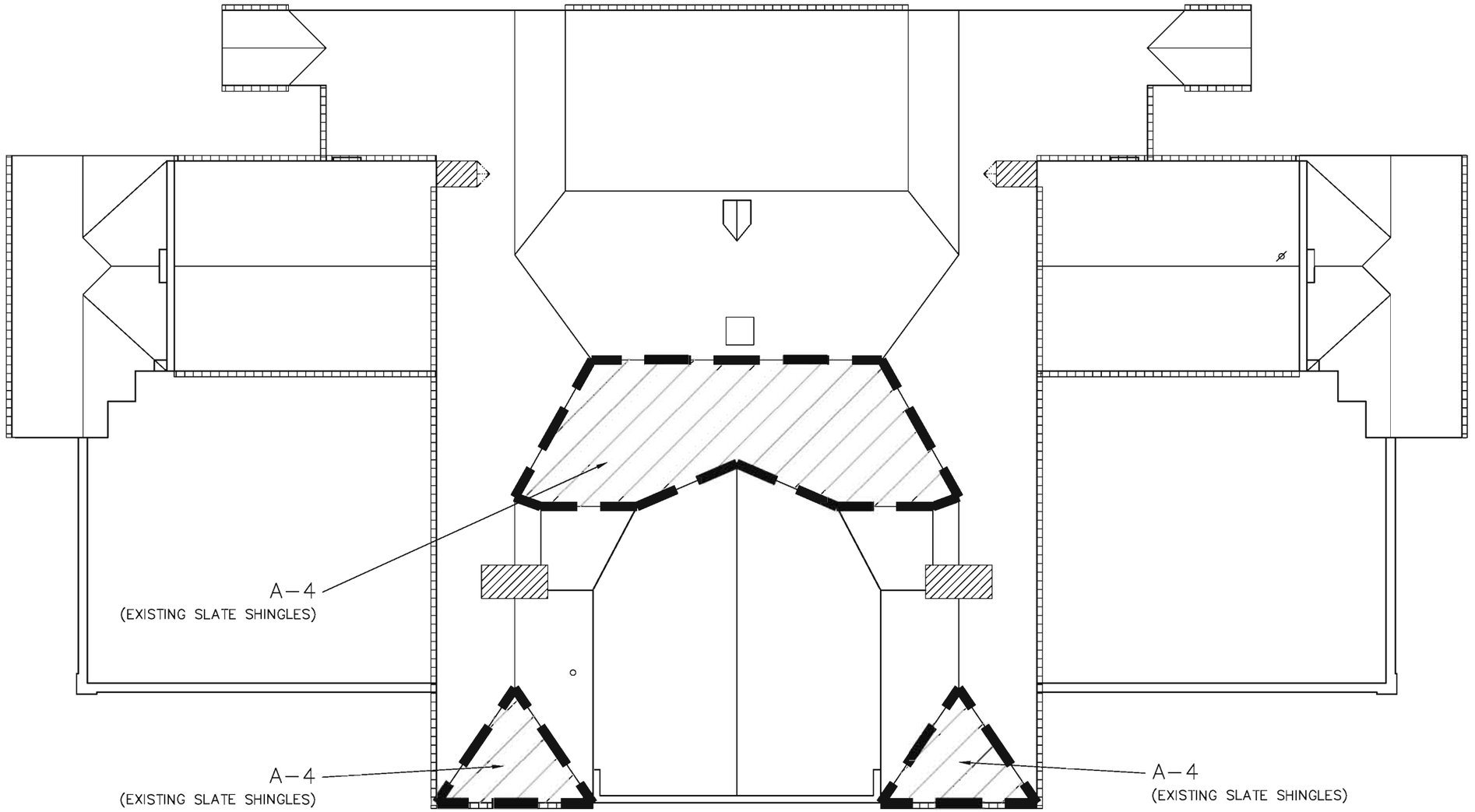

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13000 WEST SILVER SPRING DRIVE – BUTLER, WI 53007
PHONE: (800) 236–3477 / (262) 432–0500 FAX: (262) 432–0504

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CITY OF KENOSHA SOUTHPORT BEACH HOUSE 7825 3RD AVE– KENOSHA, WI	ASB	9/9/2014	15055
TITLE:	**SCALE:**	**DRAWING:**	
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- THROUGH–WALL SCUPPER
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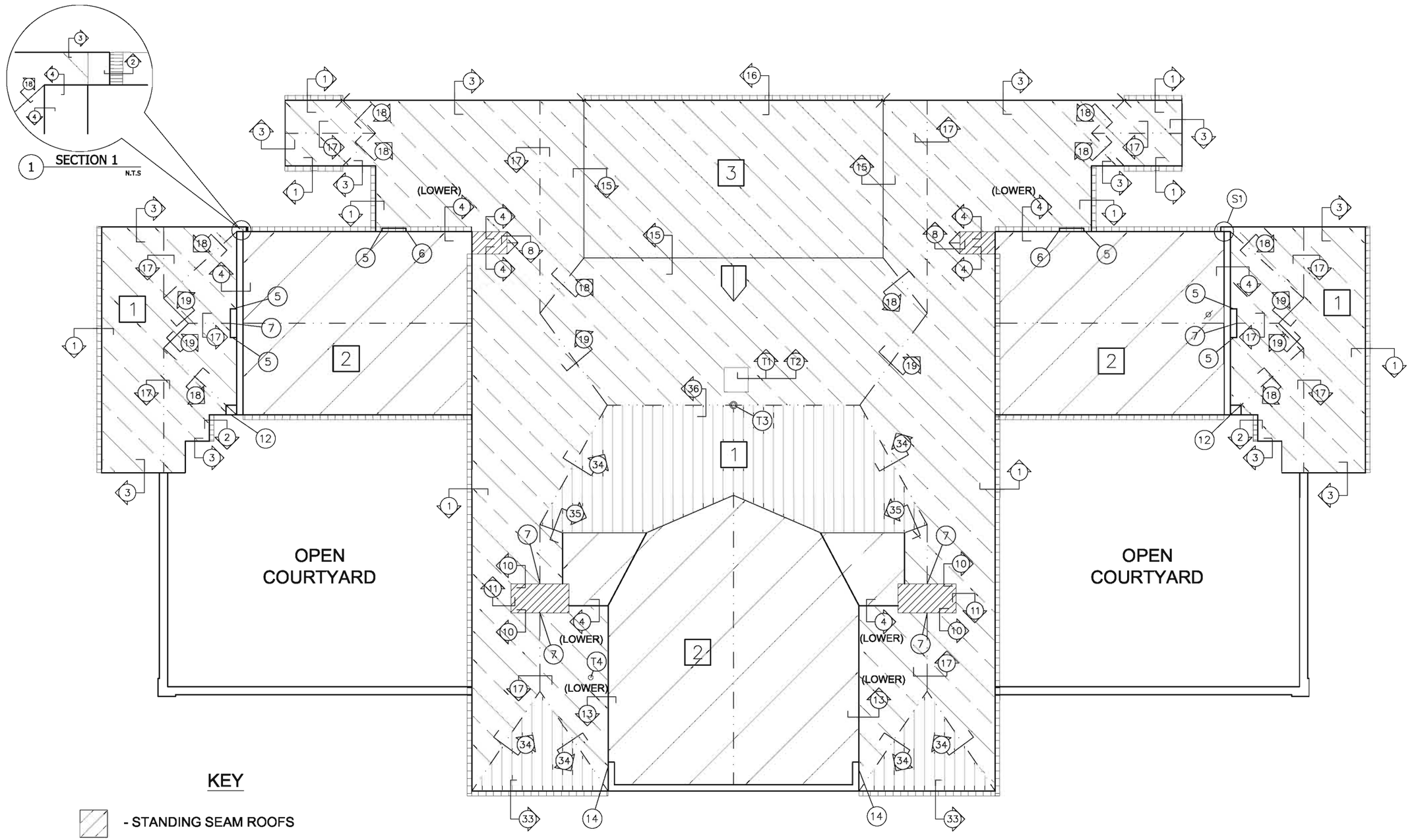

KEY

- STANDING SEAM ROOFS
- ASPHALT SHINGLE ROOFS
- SLATE SHINGLE ROOFS

ROOF AREAS 1 & 3 DETAIL CALLOUTS

INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	CITY OF KENOSHA 7825 3RD AVE– KENOSHA, WI SOUTHPORT BEACH HOUSE		
DRAWN BY:	ASB	DATE:	7/30/2014
DRAWING NO.:	15055		
TITLE:	ROOF DETAIL REFERENCE SHEET		
SCALE:	N.T.S.	DRAWING TYPE:	A2

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- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
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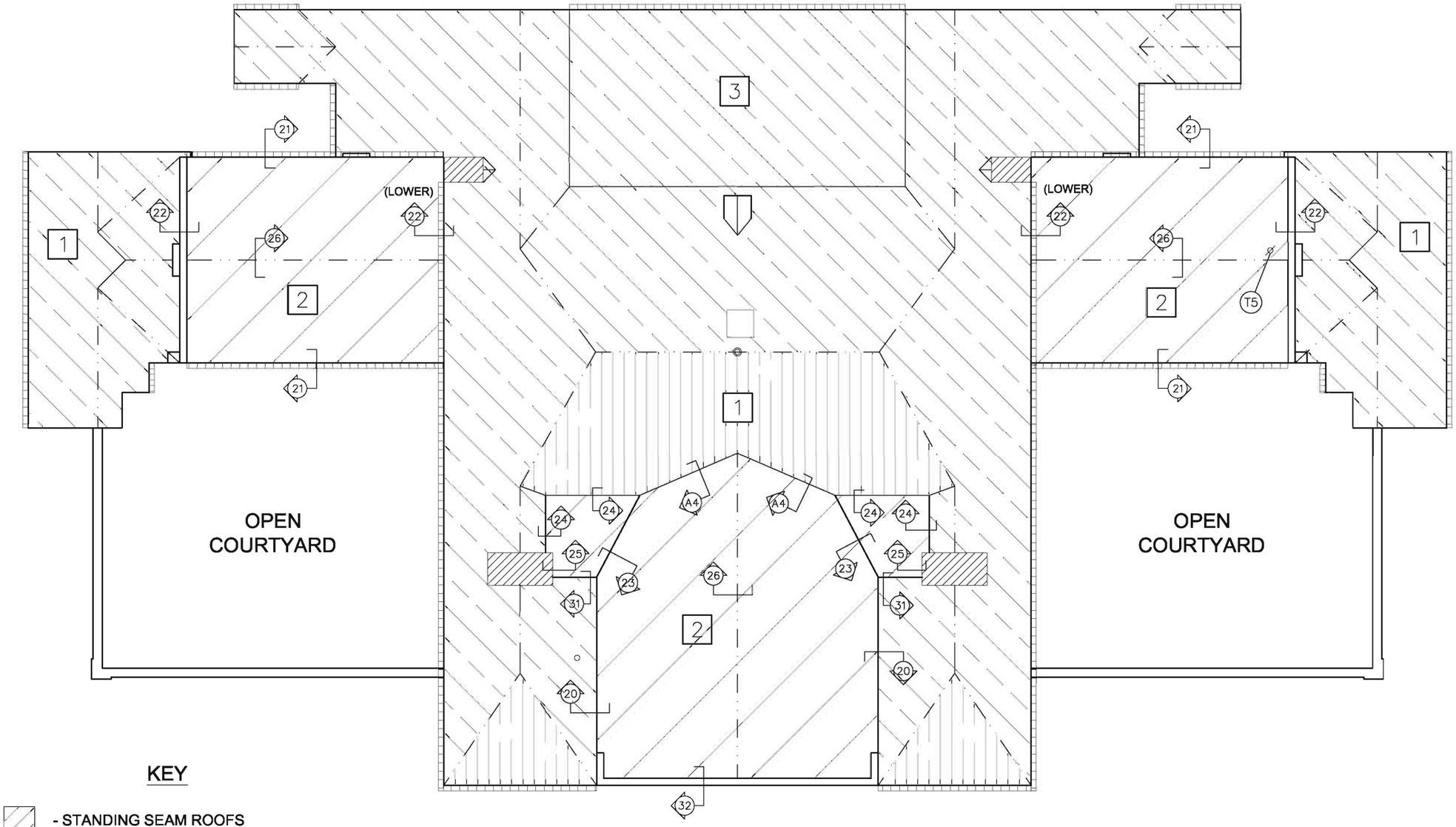

KEY

- STANDING SEAM ROOFS
- ASPHALT SHINGLE ROOFS
- SLATE SHINGLE ROOFS

ROOF AREA 2 DETAIL CALLOUTS

INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME: CITY OF KENOSHA 7825 3RD AVE– KENOSHA, WI SOUTHPORT BEACH HOUSE	DRAWN BY: ASB	DATE: 7/30/2014	DRAWING NO.: 15055
TITLE: ROOF DETAIL REFERENCE SHEET	SCALE: N.T.S.	DRAWING TYPE: A3	

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- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
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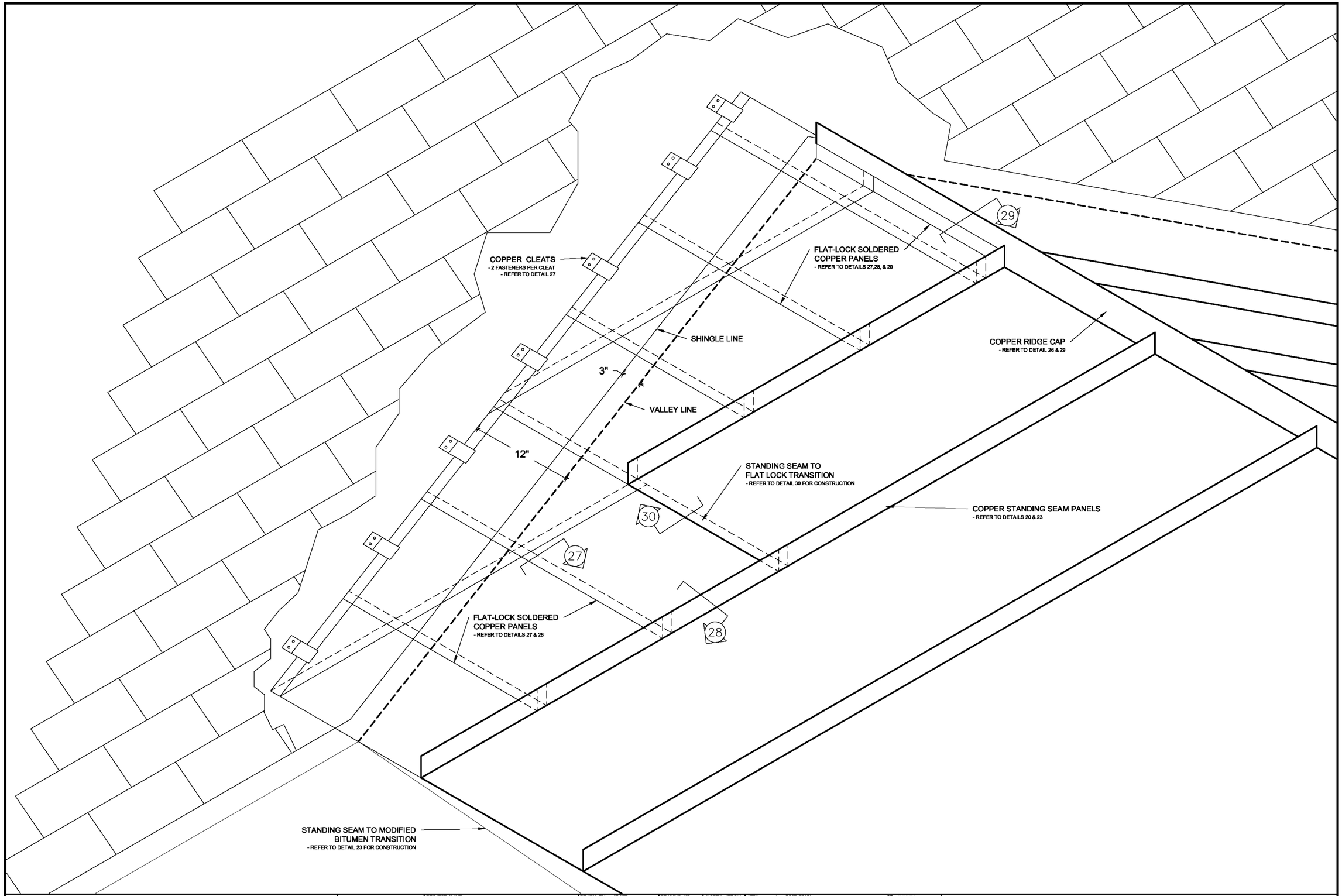

INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (282) 432-0500 FAX: (282) 432-0504

PROJECT NAME: CITY OF KENOSHA 7825 3RD AVE-- KENOSHA, WI SOUTHPORT BEACH HOUSE	DRAWN BY: ASB	DATE: 7/30/2014	DRAWING NO.: 15055
TITLE: ROOF DETAIL REFERENCE SHEET	SCALE: N.T.S.	DRAWING TYPE: A4	

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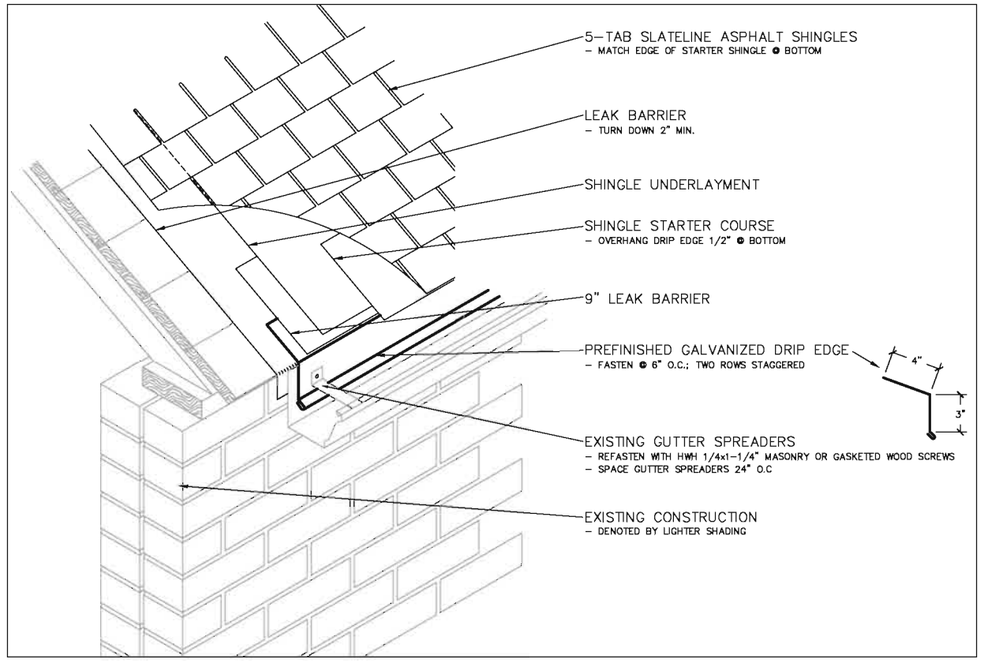

DETAIL 1: EAVE

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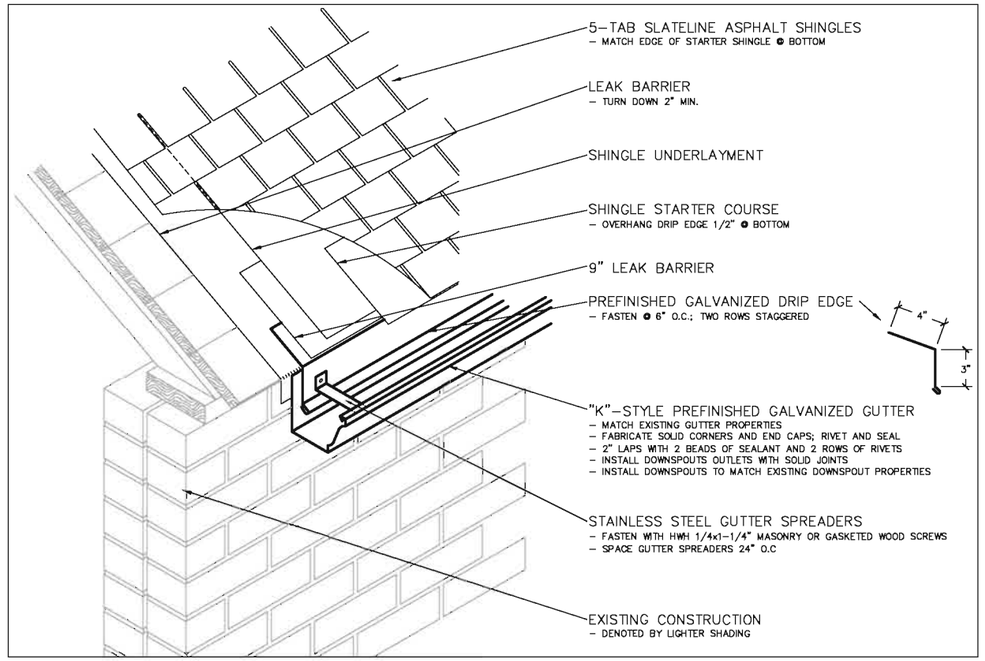

DETAIL 2: EAVE WITH GUTTER

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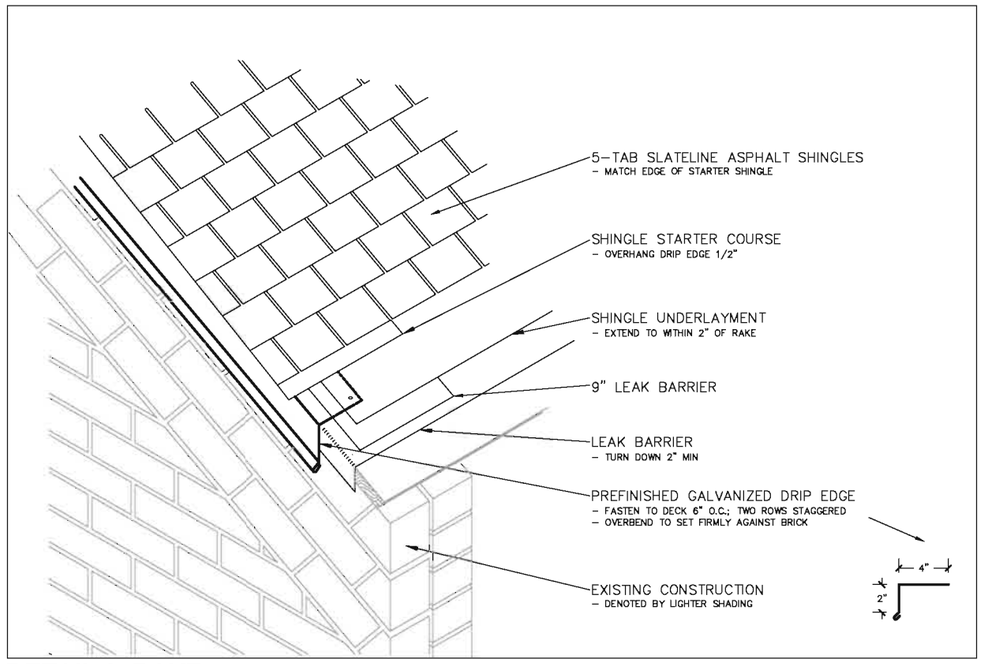

DETAIL 3: RAKE

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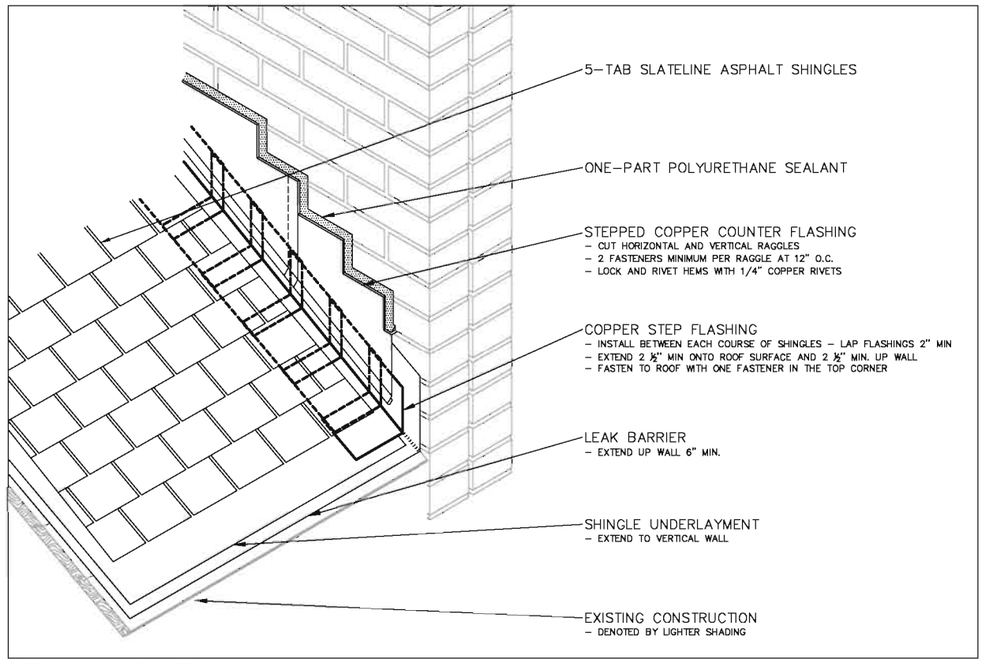

DETAIL 4: SIDEWALL

NOT TO SCALE

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INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 7825 3RD AVE– KENOSHA, WI SOUTHPORT BEACH HOUSE	ASB	7/30/2014	15055
TITLE: ROOF REPAIR DETAILS	**SCALE:** N.T.S.	**DRAWING TYPE:** A5	

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- ◇ – ROOF DRAIN
- – THROUGH–WALL SCUPPER
- – ROOF EDGE SCUPPER
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- ■ - PITCH PAN
- – EXPANSION JOINT
- – SLOPE TRANSITION
- – SCREEN WALL

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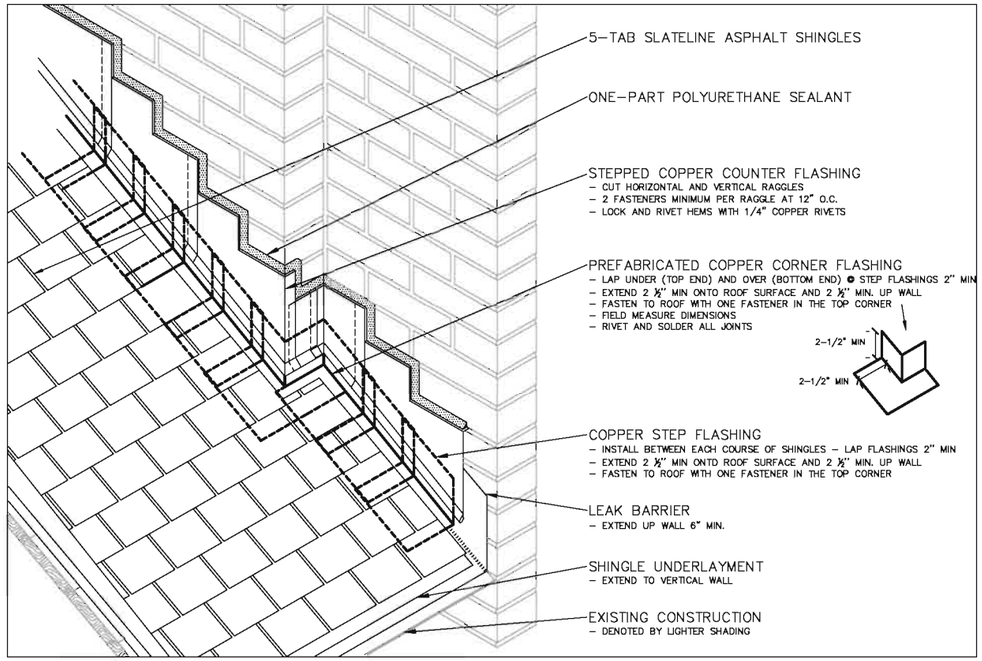

DETAIL 5: CORNER FLASHING AT SIDEWALL

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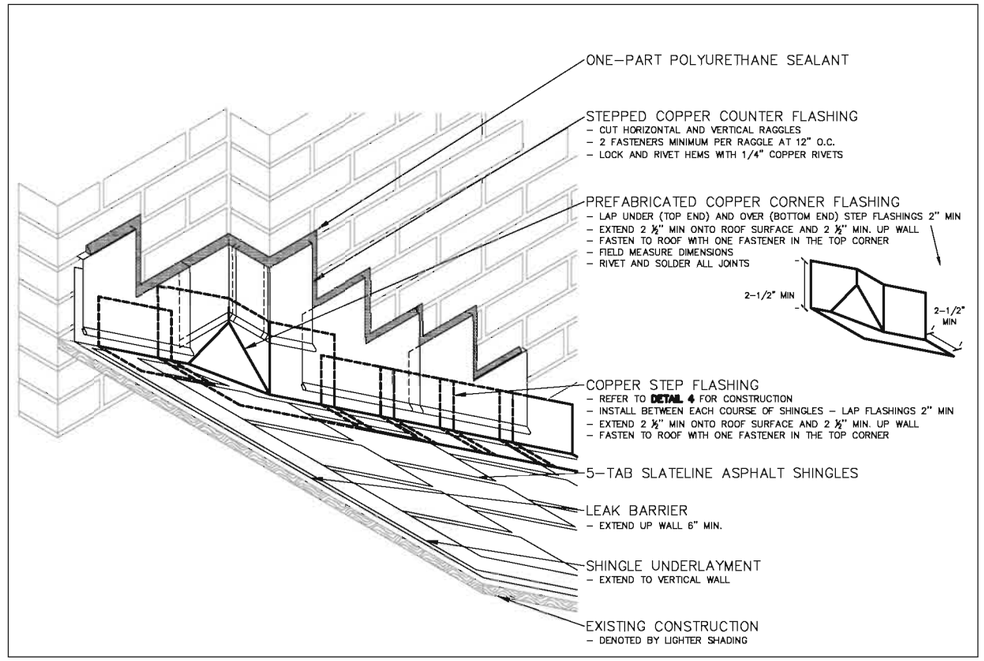

DETAIL 6: CORNER FLASHING AT SIDEWALL

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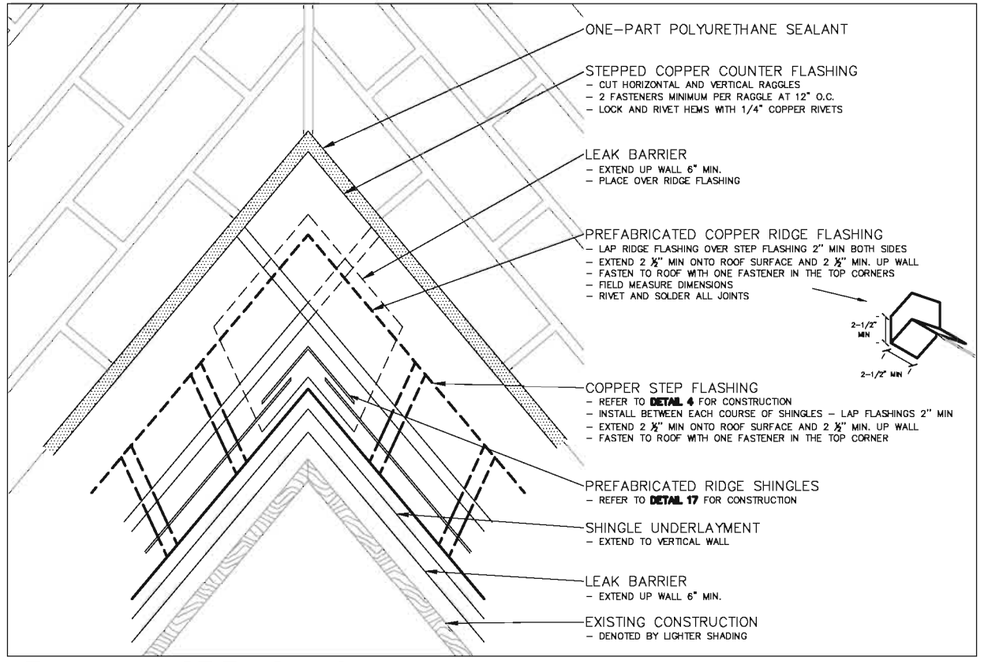

DETAIL 7: RIDGE FLASHING

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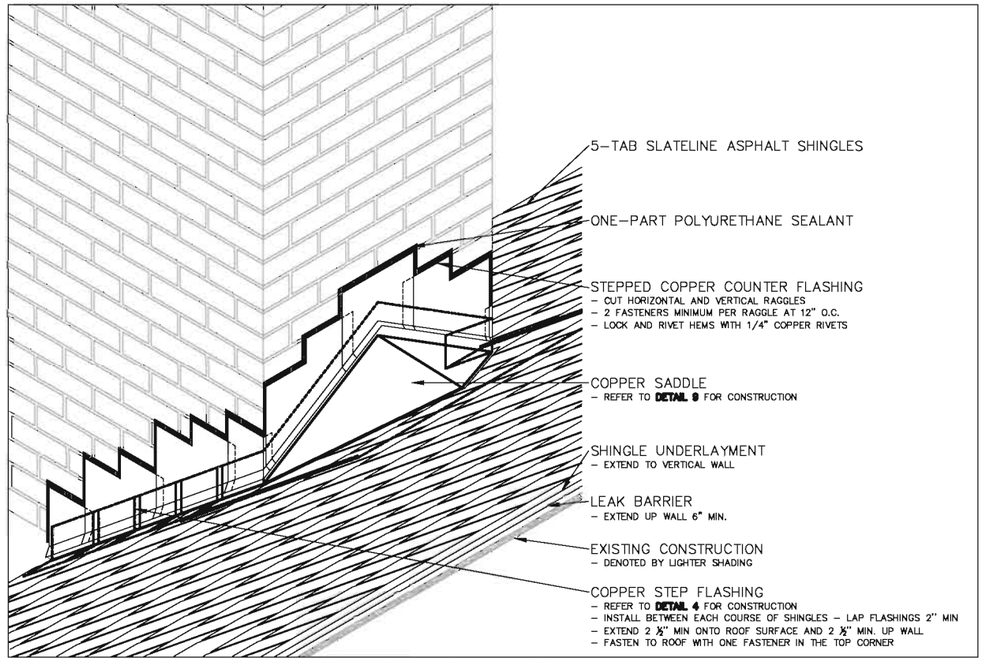

DETAIL 8: COUNTER FLASHING AT SADDLE

NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 7825 3RD AVE– KENOSHA, WI SOUTHPORT BEACH HOUSE	ASB	7/30/2014	15055
TITLE: ROOF REPAIR DETAILS	SCALE: N.T.S.	DRAWING TYPE: A5	

KEY:
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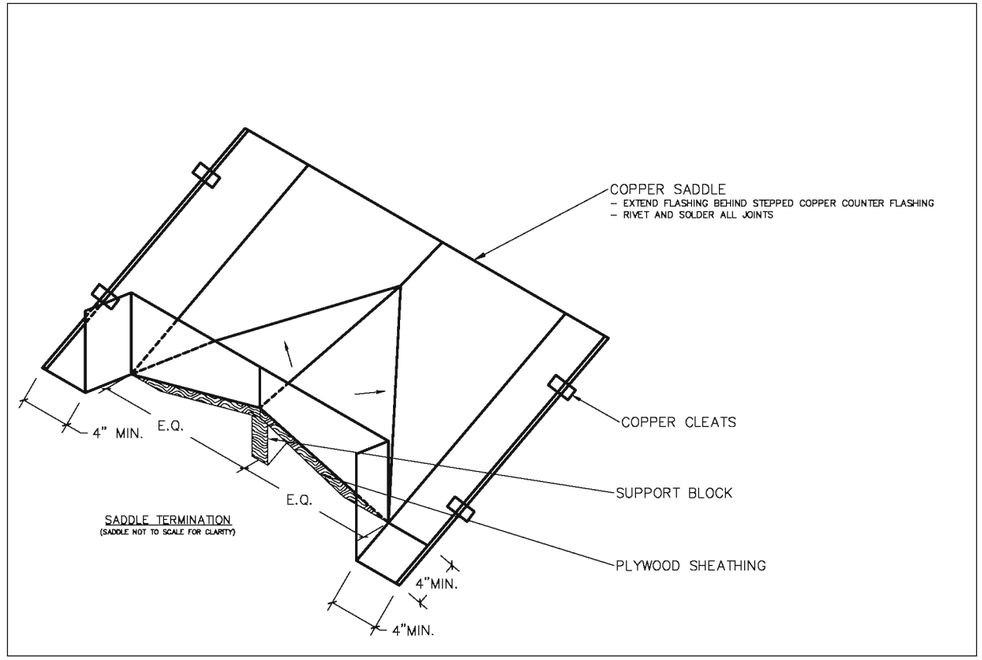
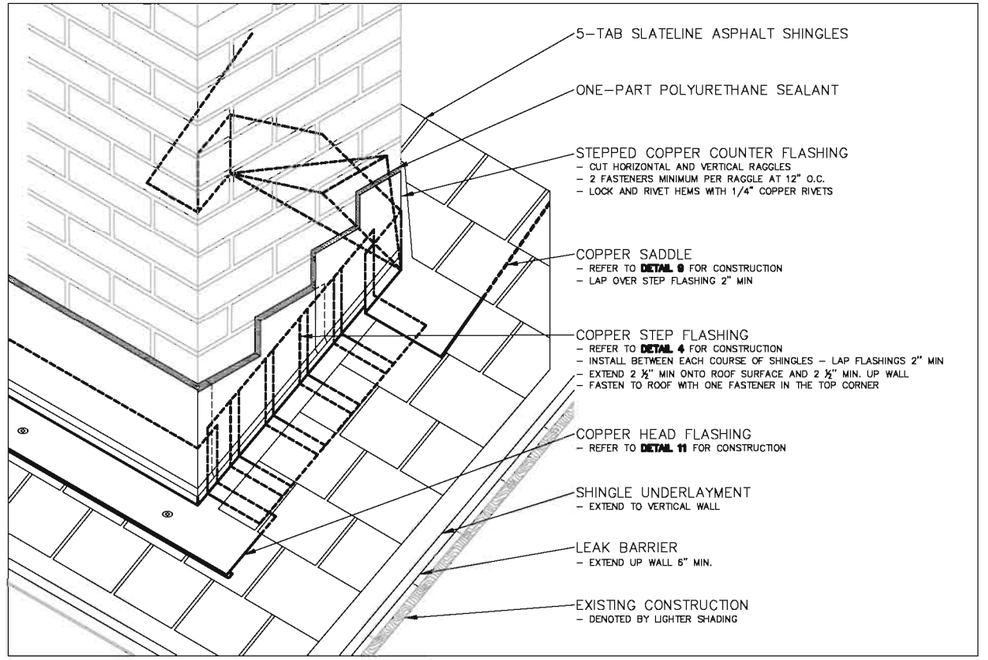
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREEN WALL

NOTES:



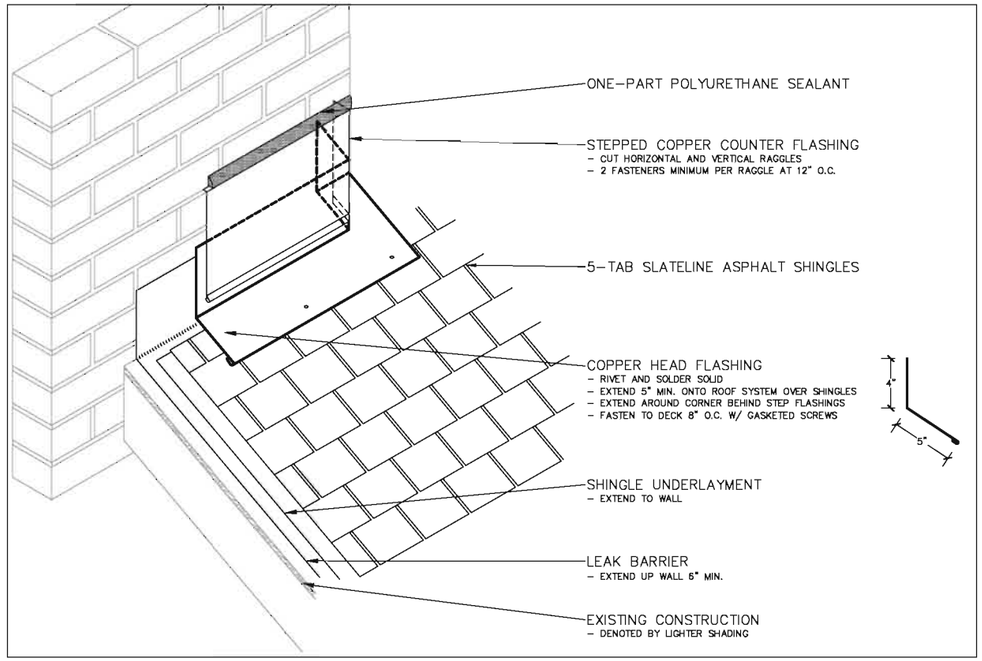
DETAIL 9: SADDLE

NOT TO SCALE



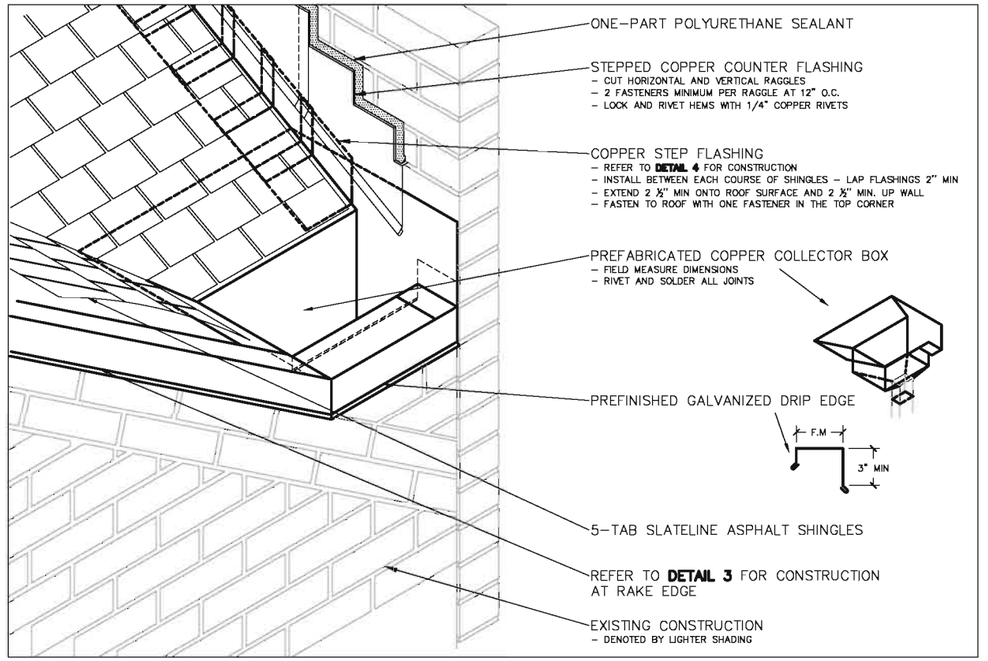
DETAIL 10: STEP FLASHING

NOT TO SCALE



DETAIL 11: HEAD FLASHING

NOT TO SCALE



DETAIL 12: COLLECTOR BOX

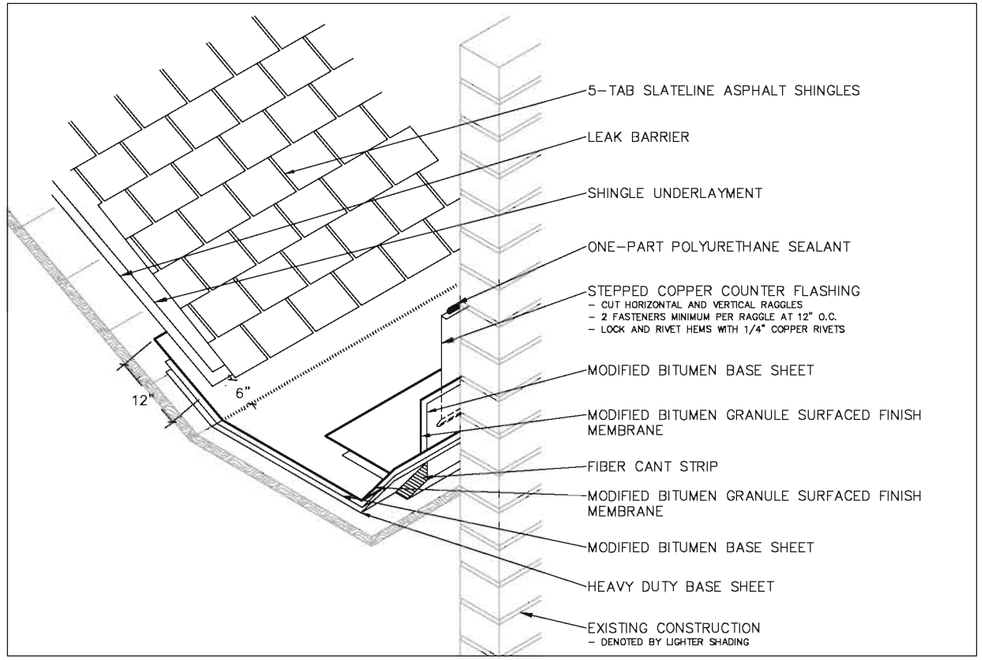
NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 7825 3RD AVE.– KENOSHA, WI SOUTHPORT BEACH HOUSE	ASB	7/30/2014	15055
TITLE: ROOF REPAIR DETAILS	SCALE: N.T.S.	DRAWING TYPE: A7	

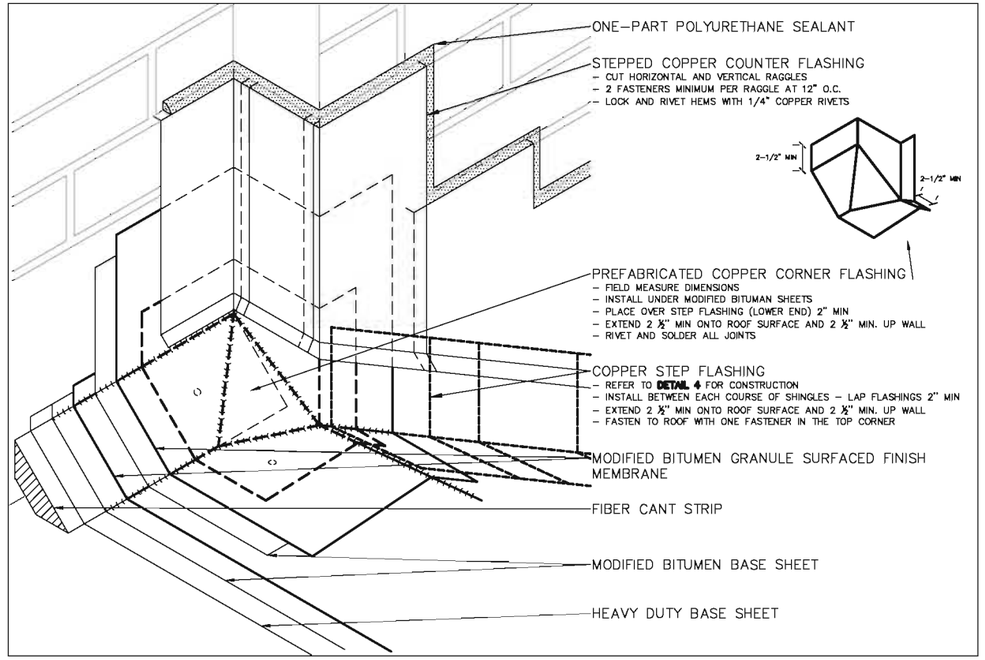
KEY:
- ROOF DRAIN
- THROUGH–WALL SCUPPER
- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
- SKYLIGHT
- CURBED PIPE VENT
- UNUSED
- CHIMNEY
- ROOF LADDER
- PIPE VENT
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREEN WALL

NOTES:



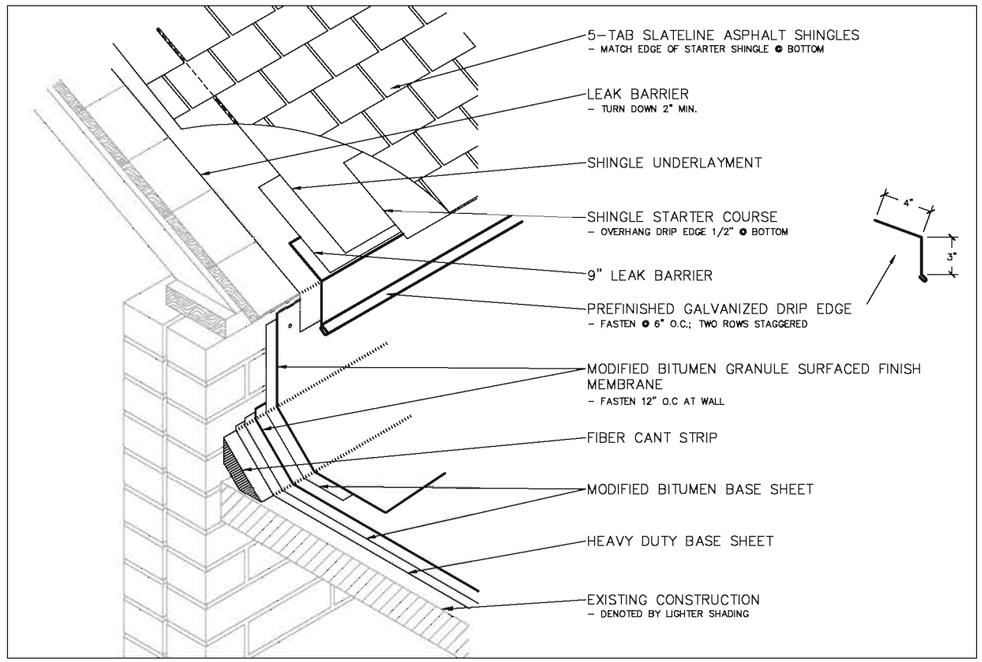
DETAIL 13: ROOF TRANSITION

NOT TO SCALE



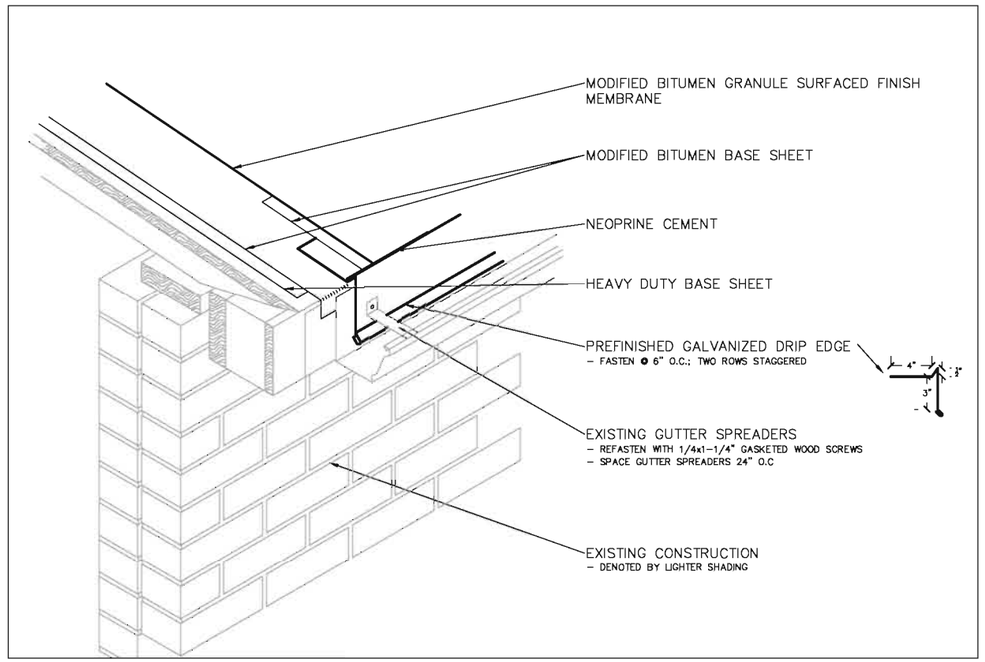
DETAIL 14: CORNER FLASHING

NOT TO SCALE



DETAIL 15: ROOF TRANSITION

NOT TO SCALE



DETAIL 16: EAVE

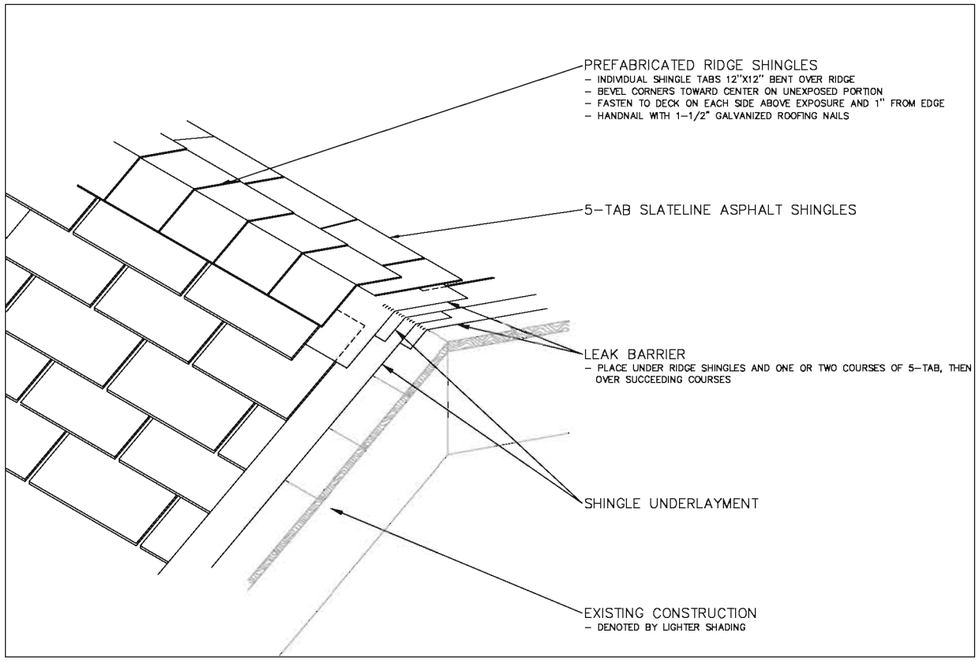
NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 7825 3RD AVE– KENOSHA, WI SOUTHPORT BEACH HOUSE	ASB	7/30/2014	15055
TITLE: ROOF REPAIR DETAILS	SCALE: N.T.S.	DRAWING TYPE: AB	

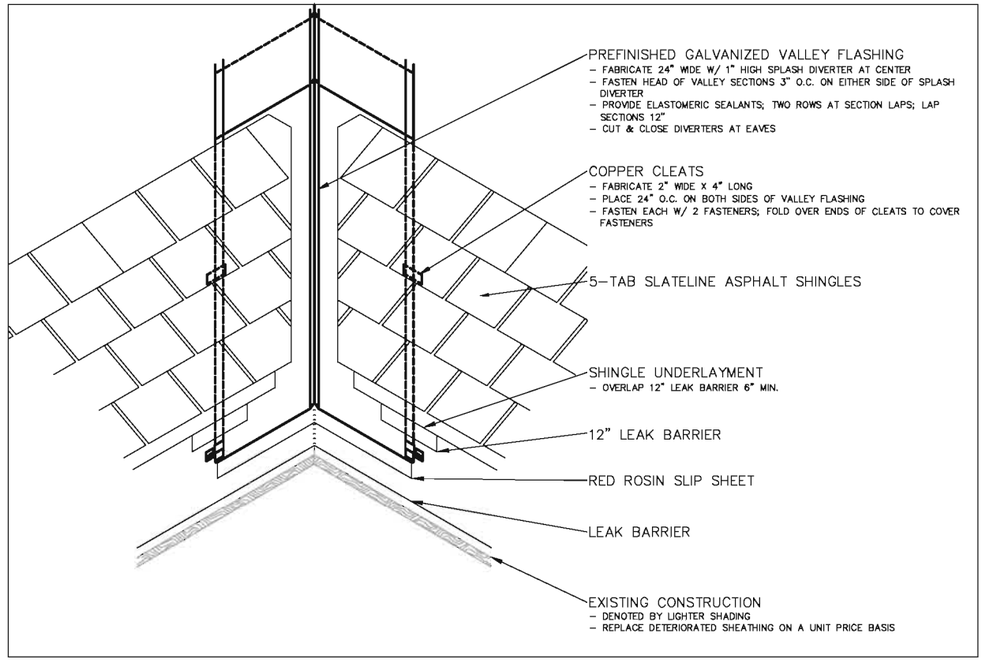
KEY:
- ◇ – ROOF DRAIN
- – THROUGH–WALL SCUPPER
- – ROOF EDGE SCUPPER
- – GUTTER EDGE
- – CURBED OPENING
- ▽ - ROOF SCUTTLE
- ▽ - SKYLIGHT
- ▽ - CURBED PIPE VENT
- - UNUSED
- - CHIMNEY
- - ROOF LADDER
- ○ - PIPE VENT
- ○ - SOIL STACK
- ✗ - PIPE PENETRATION
- ■ - PITCH PAN
- = - EXPANSION JOINT
- = - SLOPE TRANSITION
- = - SCREEN WALL

NOTES:



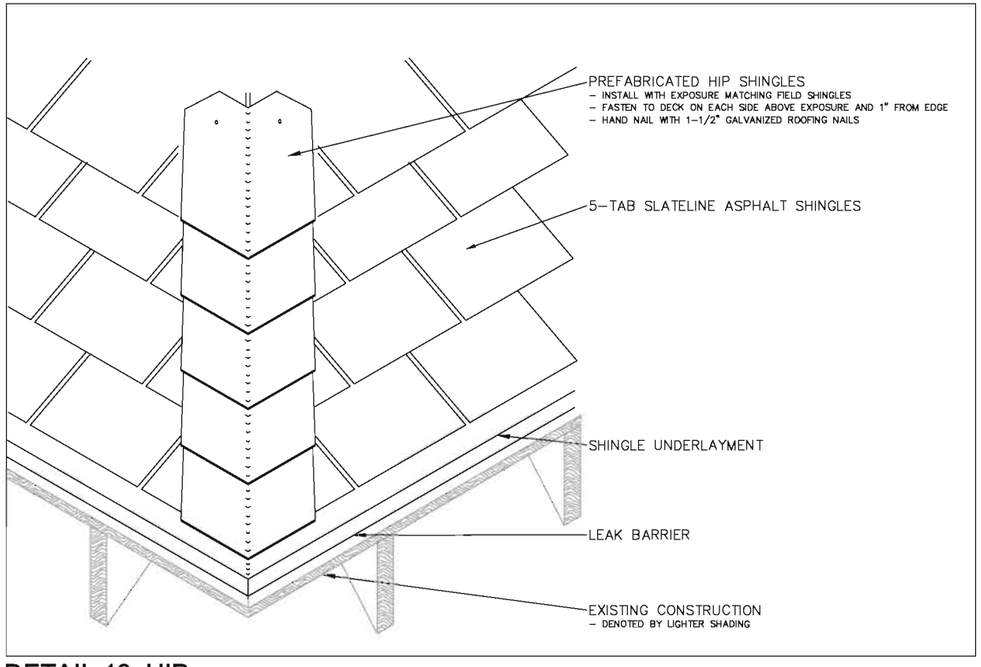
DETAIL 17: CONVENTIONAL RIDGE

NOT TO SCALE



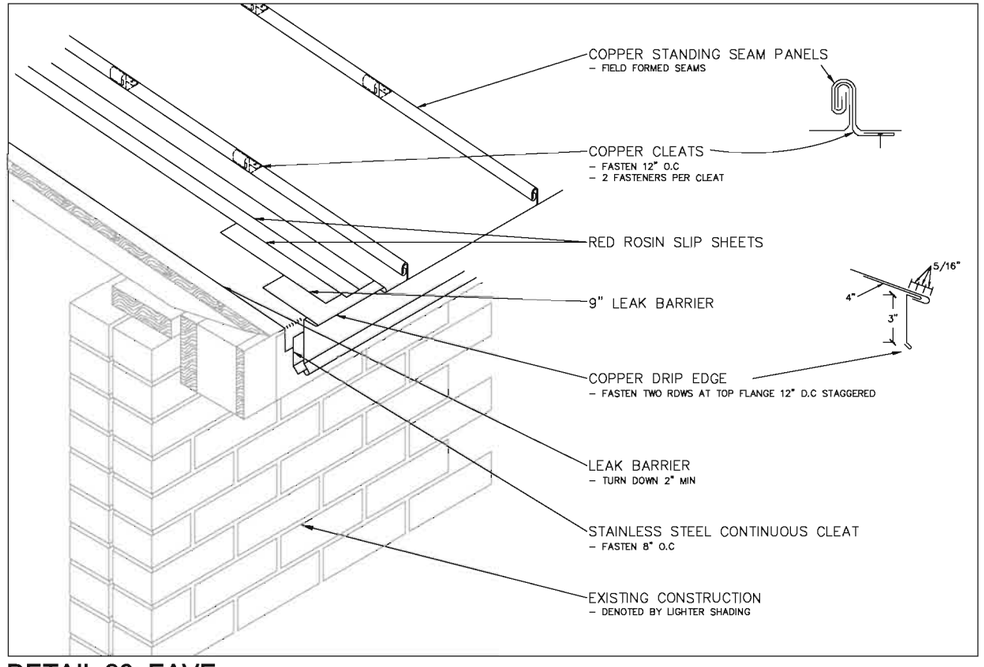
DETAIL 18: STANDARD VALLEY

NOT TO SCALE



DETAIL 19: HIP

NOT TO SCALE



DETAIL 20: EAVE

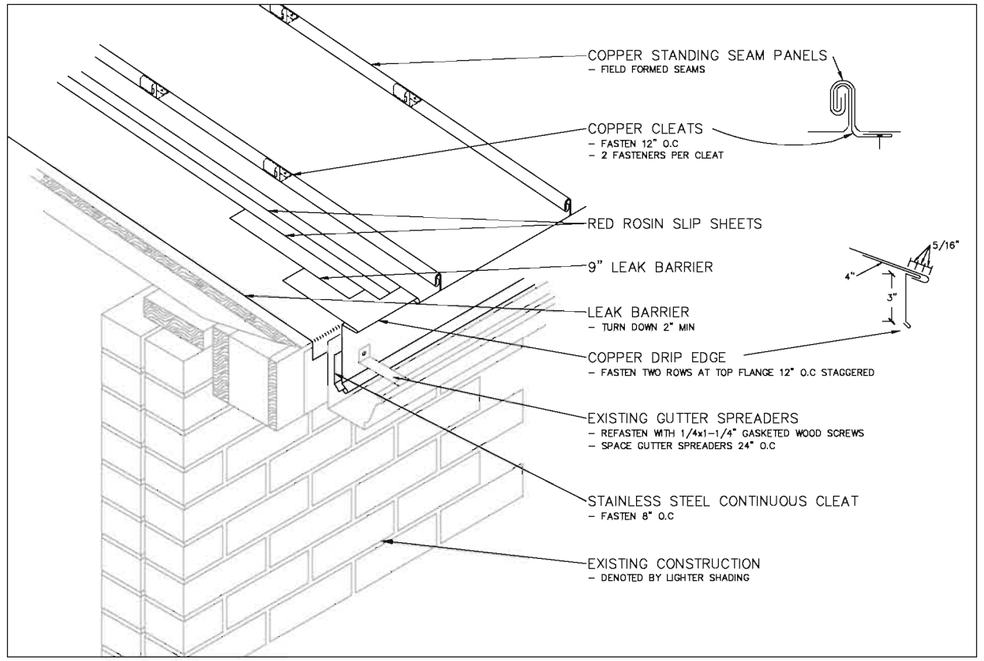
NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 7825 3RD AVE.– KENOSHA, WI SOUTHPORT BEACH HOUSE	ASB	7/30/2014	15055
TITLE: ROOF REPAIR DETAILS	SCALE: N.T.S.	DRAWING TYPE: A9	

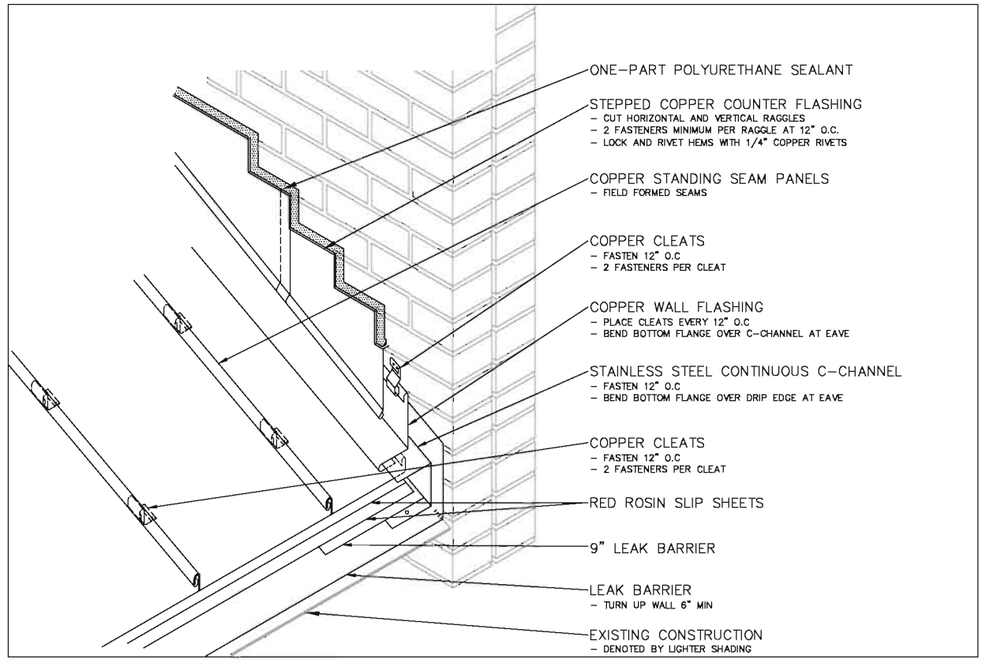
KEY:
- ROOF DRAIN
- THROUGH–WALL SCUPPER
- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
- SKYLIGHT
- CURBED PIPE VENT
- UNUSED
- CHIMNEY
- ROOF LADDER
- PIPE VENT
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREEN WALL

NOTES:



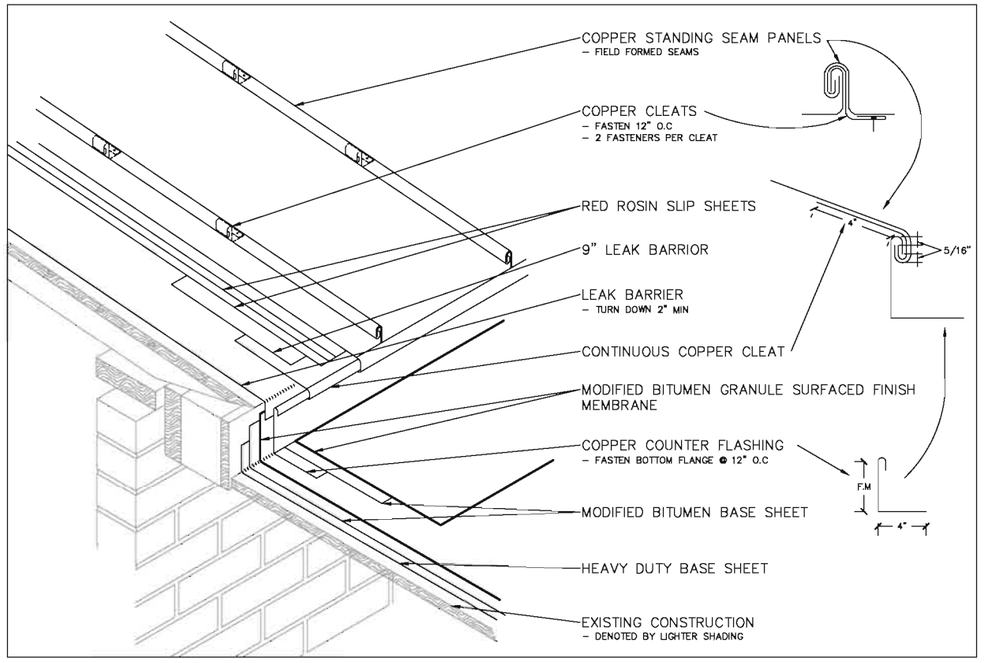
DETAIL 21: EAVE

NOT TO SCALE



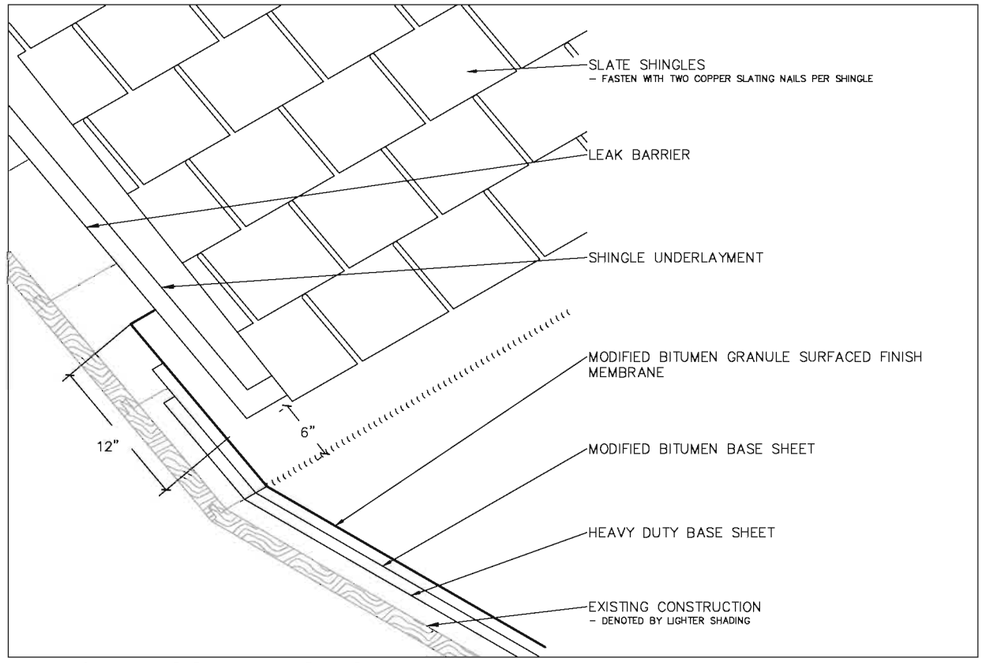
DETAIL 22: SIDEWALL

NOT TO SCALE



DETAIL 23: ROOF TRANSITION

NOT TO SCALE



DETAIL 24: ROOF TRANSITION

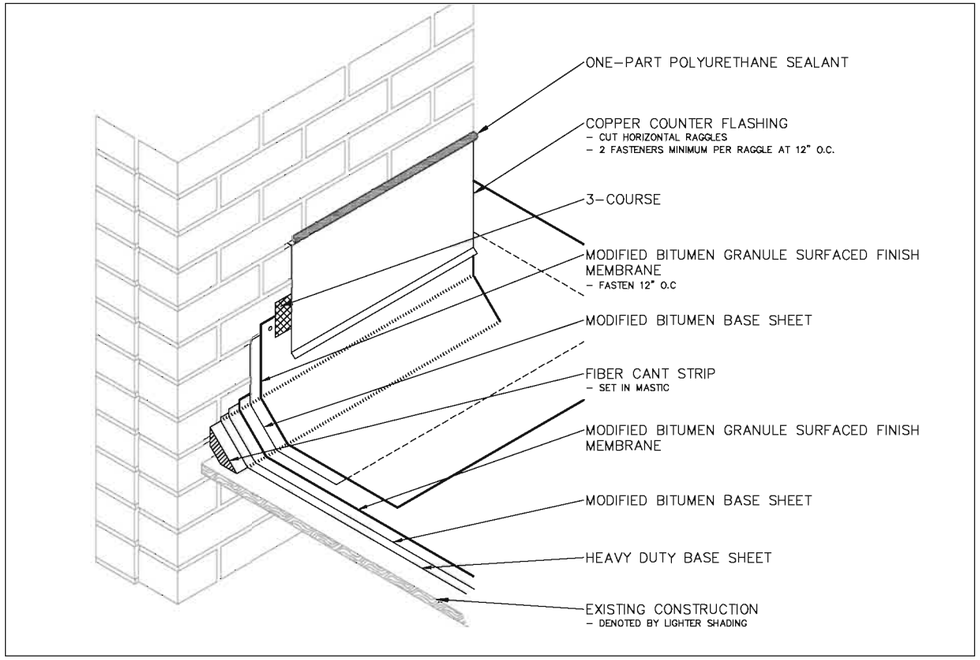
NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME: CITY OF KENOSHA 7825 3RD AVE.– KENOSHA, WI SOUTHPORT BEACH HOUSE	DRAWN BY: ASB	DATE: 7/30/2014	DRAWING NO.: 15055
TITLE: ROOF REPAIR DETAILS	SCALE: N.T.S.	DRAWING TYPE: A10	

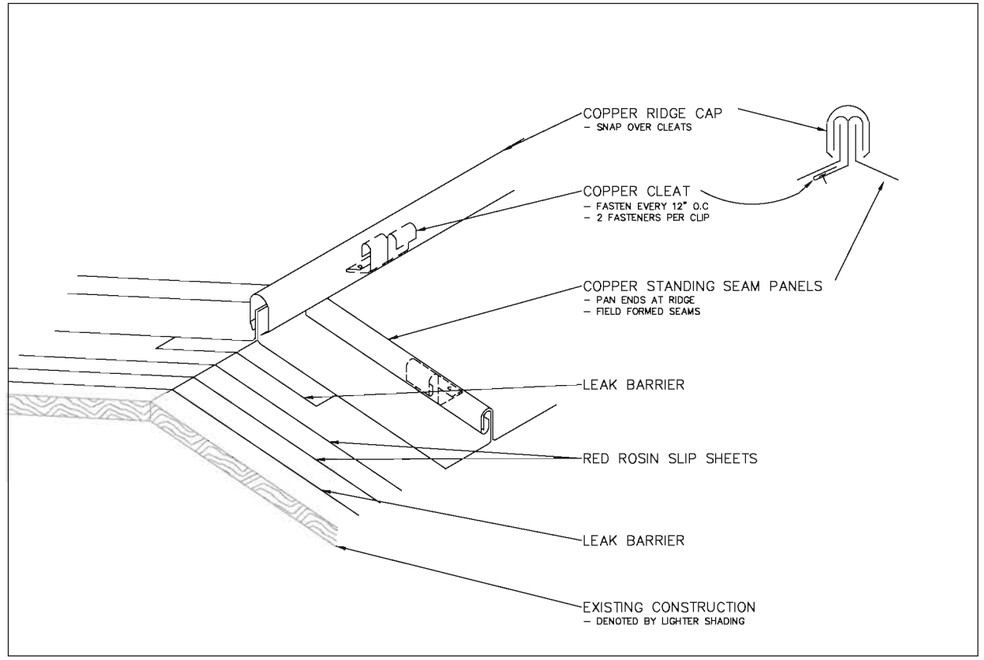
KEY:
- ◇ – ROOF DRAIN
- – THROUGH-WALL SCUPPER
- – ROOF EDGE SCUPPER
- – GUTTER EDGE
- - CURBED OPENING
- ☒ - ROOF SCUTTLE
- ☒ - SKYLIGHT
- ☒ - CURBED PIPE VENT
- - UNUSED
- ▨ - CHIMNEY
- - ROOF LADDER
- ○ - PIPE VENT
- ○ - SOIL STACK
- ✗ - PIPE PENETRATION
- ■ - PITCH PAN
- - EXPANSION JOINT
- - SLOPE TRANSITION
- - SCREEN WALL

NOTES:



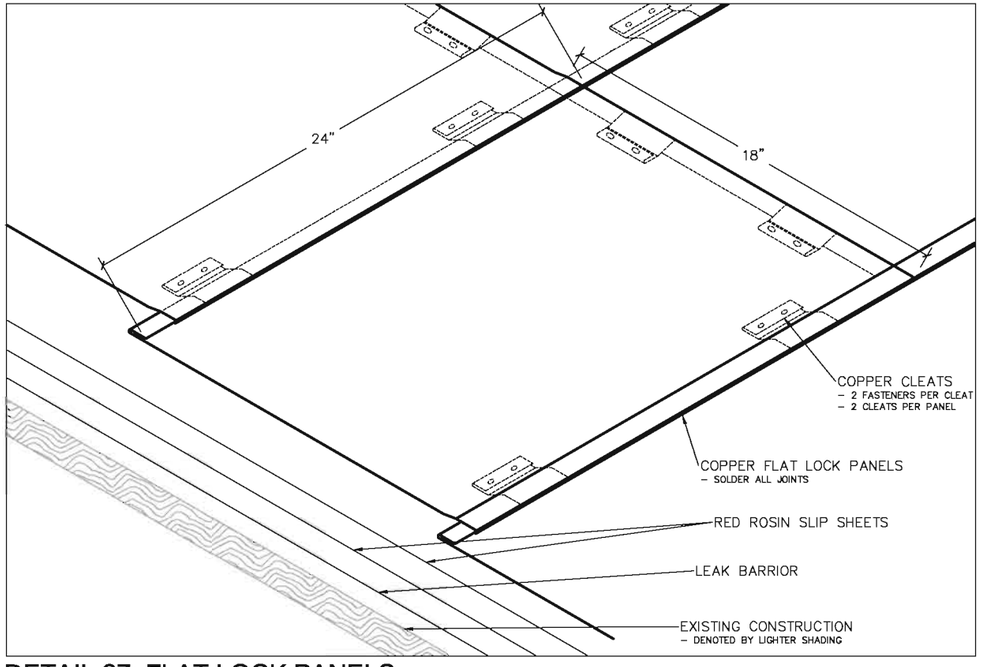
DETAIL 25: COUNTER FLASHING

NOT TO SCALE



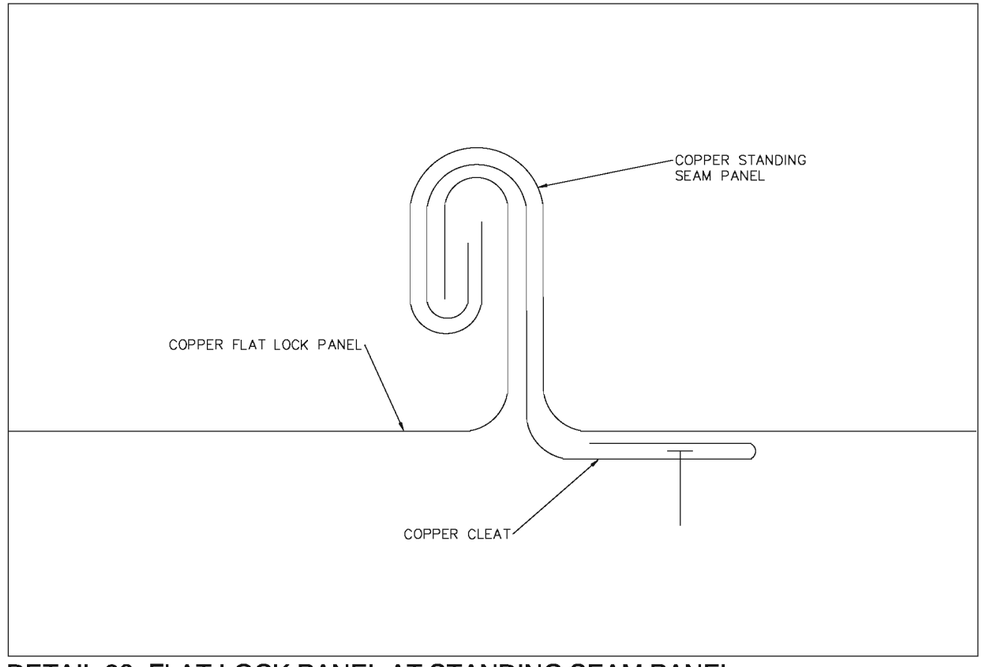
DETAIL 26: RIDGE

NOT TO SCALE



DETAIL 27: FLAT LOCK PANELS

NOT TO SCALE



DETAIL 28: FLAT LOCK PANEL AT STANDING SEAM PANEL

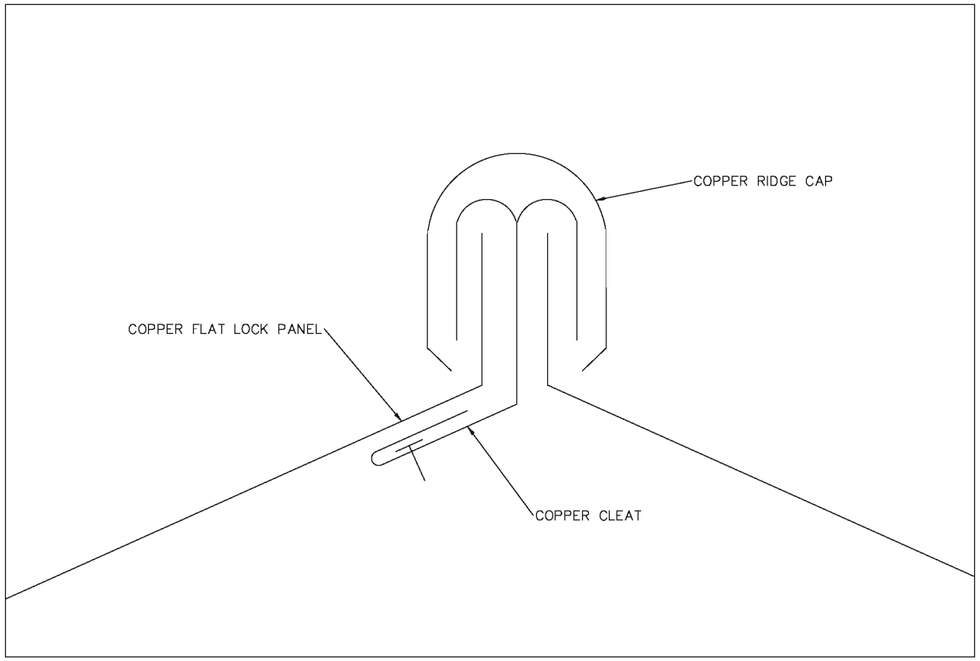
NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 7825 3RD AVE.– KENOSHA, WI SOUTHPORT BEACH HOUSE	ASB	7/30/2014	15055
TITLE: ROOF REPAIR DETAILS	**SCALE:** N.T.S.	**DRAWING TYPE:** A11	

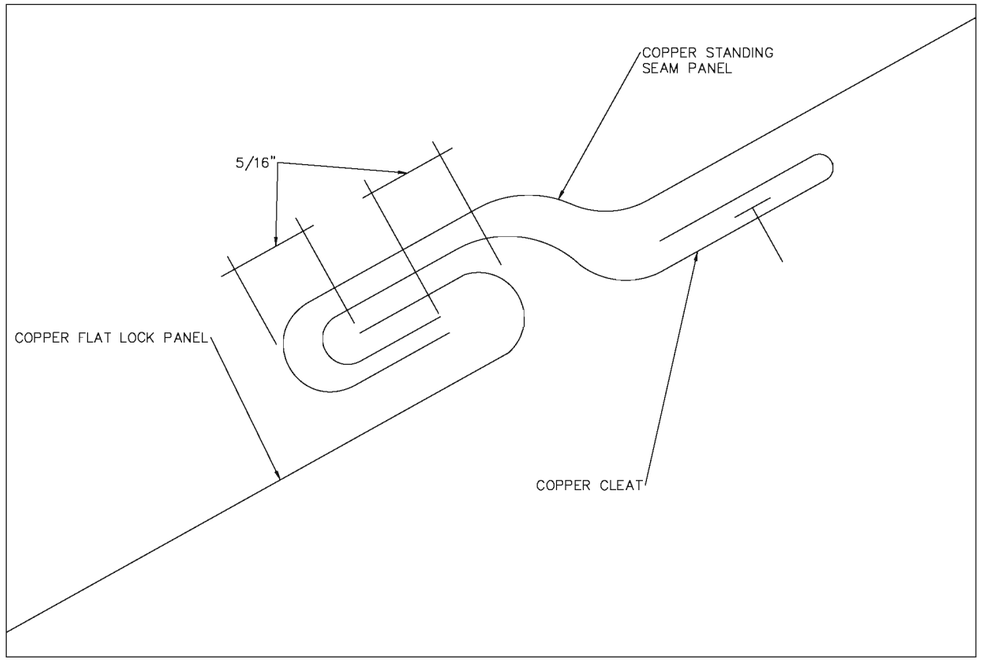
KEY:
- ROOF DRAIN
- THROUGH–WALL SCUPPER
- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
- SKYLIGHT
- CURBED PIPE VENT
- UNUSED
- CHIMNEY
- ROOF LADDER
- PIPE VENT
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREEN WALL

NOTES:



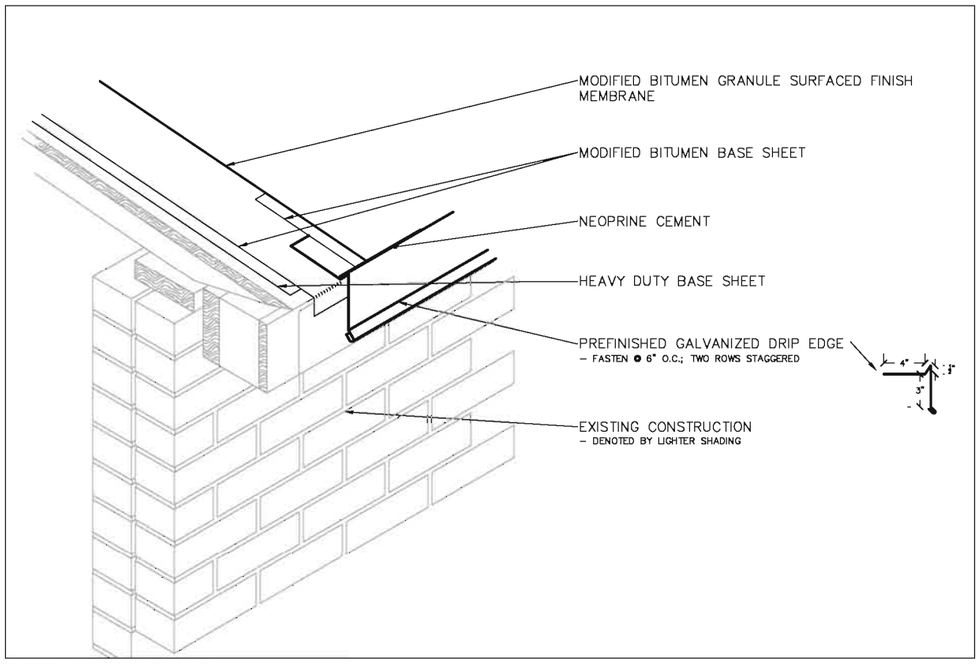
DETAIL 29: FLAT LOCK PANEL AT RIDGE

NOT TO SCALE



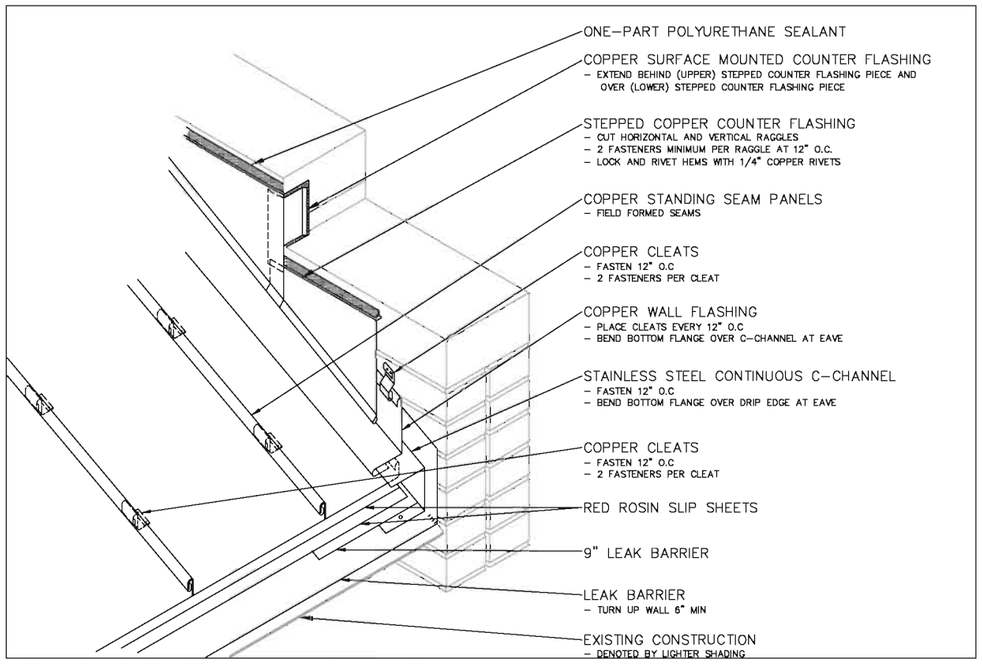
DETAIL 30: FLAT LOCK PANEL AT STANDING SEAM PANEL

NOT TO SCALE



DETAIL 31: EAVE

NOT TO SCALE



DETAIL 32: SIDEWALL AT COPING

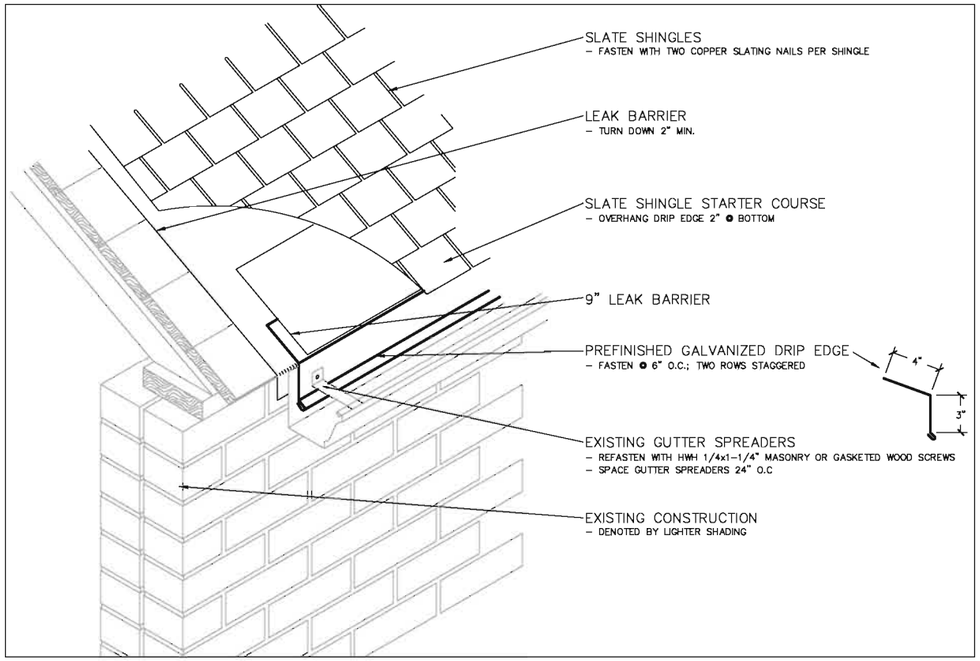
NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 7825 3RD AVE– KENOSHA, WI SOUTHPORT BEACH HOUSE	ASB	7/30/2014	15055
TITLE:	SCALE:	DRAWING TYPE:	
ROOF REPAIR DETAILS	N.T.S.	A12	

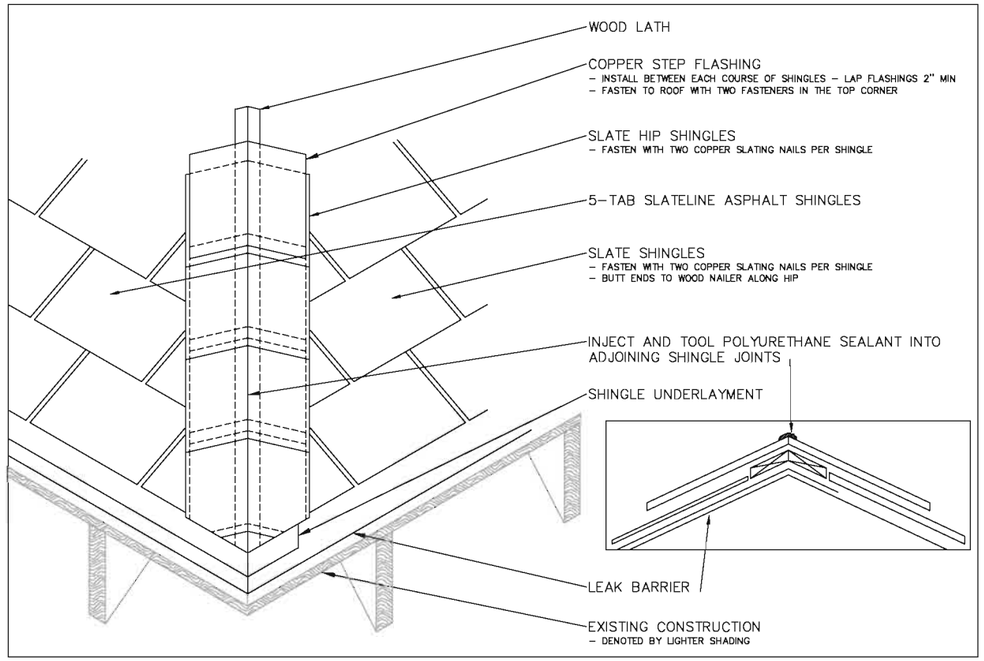
KEY:
- ◇ – ROOF DRAIN
- – THROUGH–WALL SCUPPER
- – ROOF EDGE SCUPPER
- – GUTTER EDGE
- - CURBED OPENING
- - ROOF SCUTTLE
- - SKYLIGHT
- - CURBED PIPE VENT
- - UNUSED
- - CHIMNEY
- - ROOF LADDER
- - PIPE VENT
- - SOIL STACK
- - PIPE PENETRATION
- - PITCH PAN
- - EXPANSION JOINT
- - SLOPE TRANSITION
- - SCREEN WALL

NOTES:



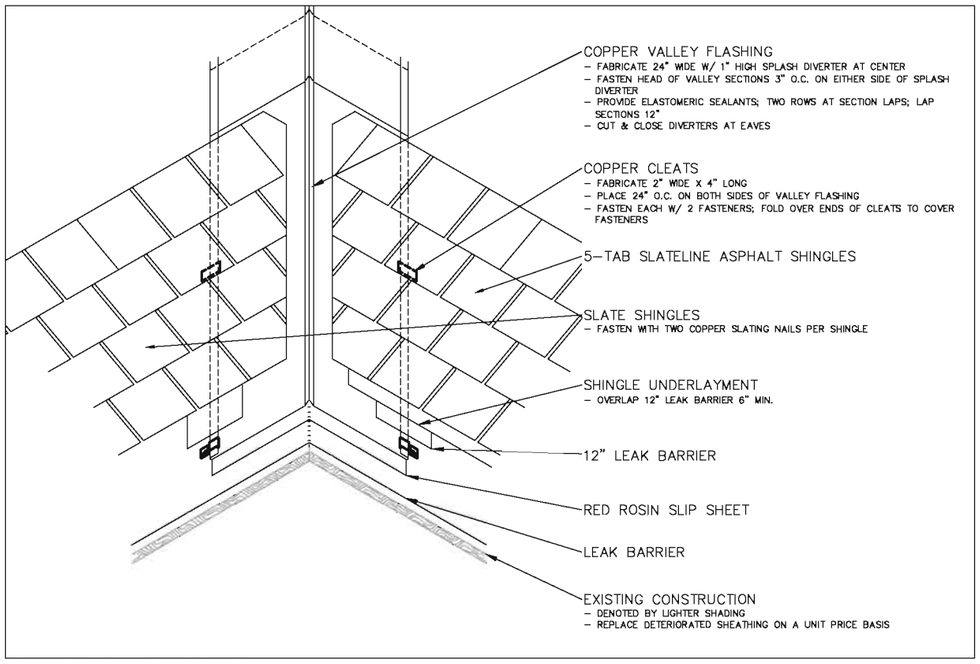
DETAIL 33: EAVE WITH GUTTER

NOT TO SCALE



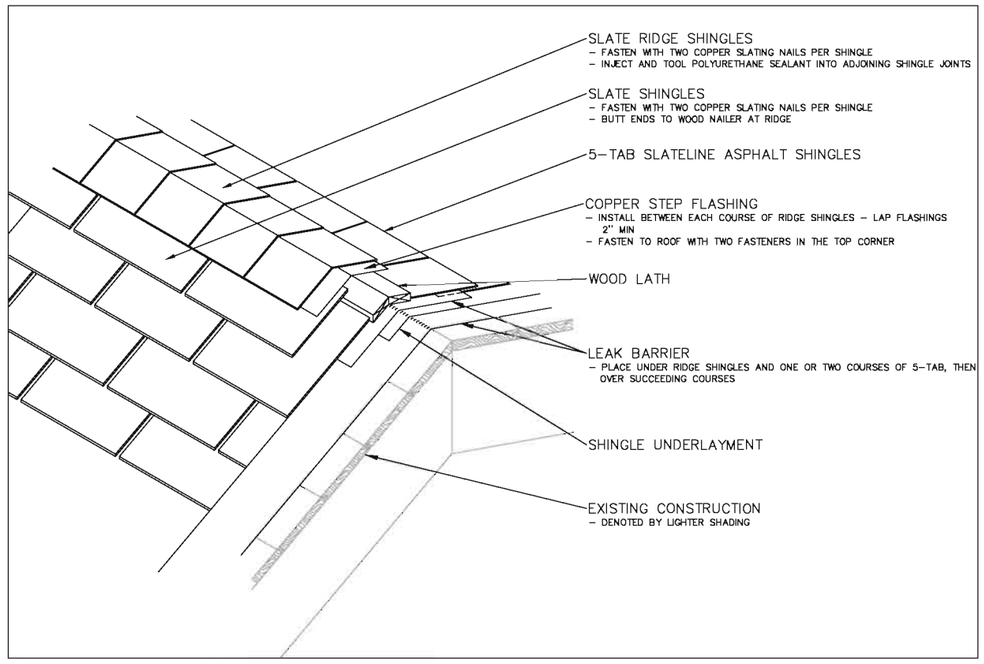
DETAIL 34: HIP

NOT TO SCALE



DETAIL 35: VALLEY

NOT TO SCALE



DETAIL 36: RIDGE

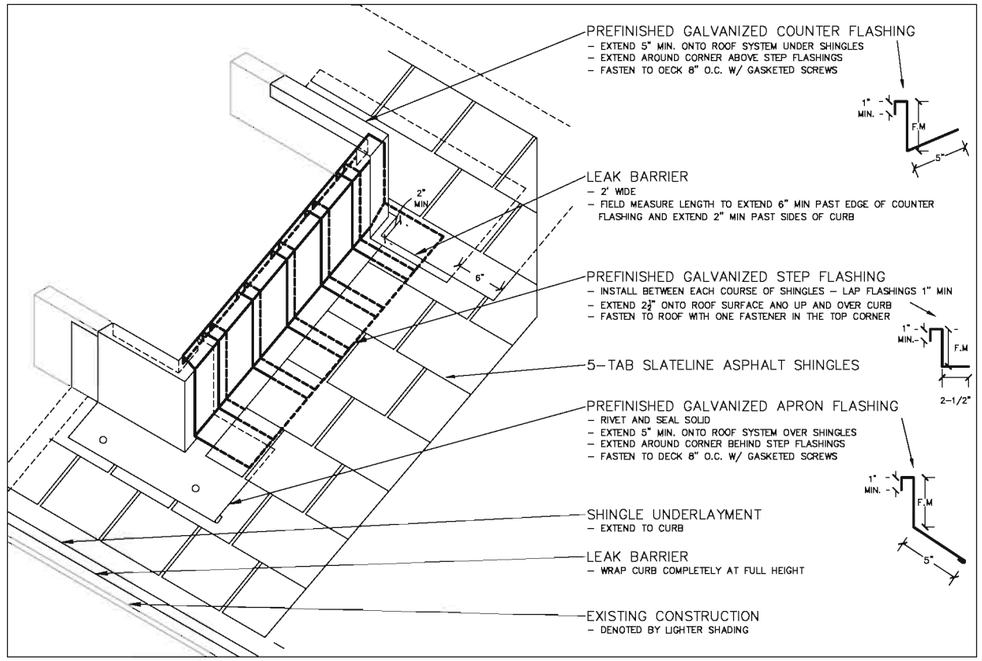
NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 7825 3RD AVE.– KENOSHA, WI SOUTHPORT BEACH HOUSE	ASB	7/30/2014	15055
TITLE: ROOF REPAIR DETAILS	**SCALE:** N.T.S.	**DRAWING TYPE:** A13	

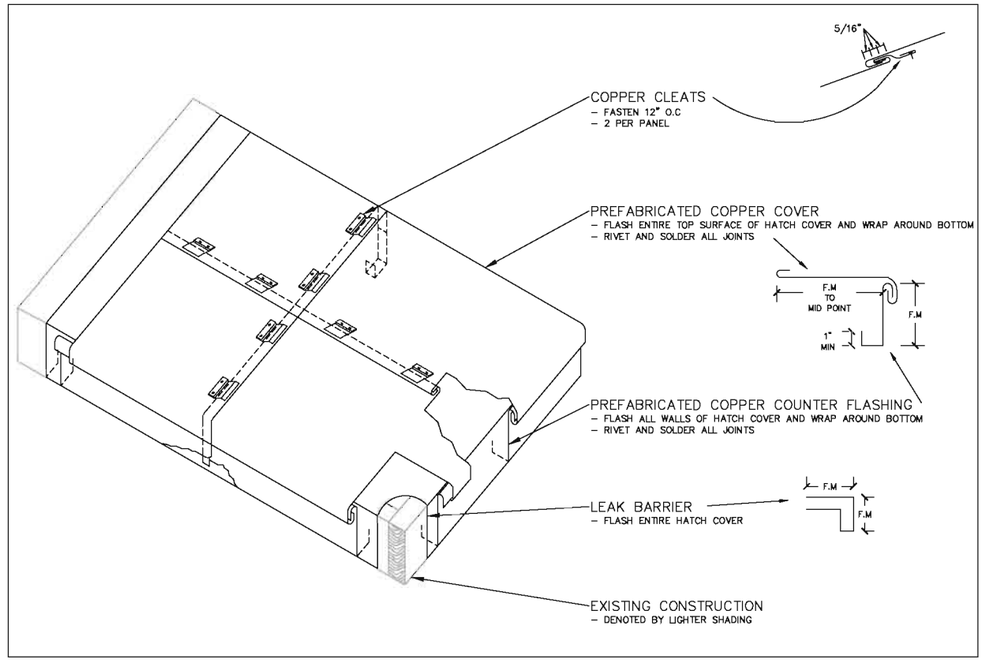
KEY:
- ◇ – ROOF DRAIN
- ⊢ – THROUGH–WALL SCUPPER
- ⊣ – ROOF EDGE SCUPPER
- – GUTTER EDGE
- – CURBED OPENING
- ▽ - ROOF SCUTTLE
- ⊠ - SKYLIGHT
- ⊠ - CURBED PIPE VENT
- – UNUSED
- ▨ - CHIMNEY
- ⊓ - ROOF LADDER
- ○ - PIPE VENT
- ○ - SOIL STACK
- ✗ - PIPE PENETRATION
- ■ - PITCH PAN
- ═══ - EXPANSION JOINT
- ═══ - SLOPE TRANSITION
- ▭ - SCREEN WALL

NOTES:



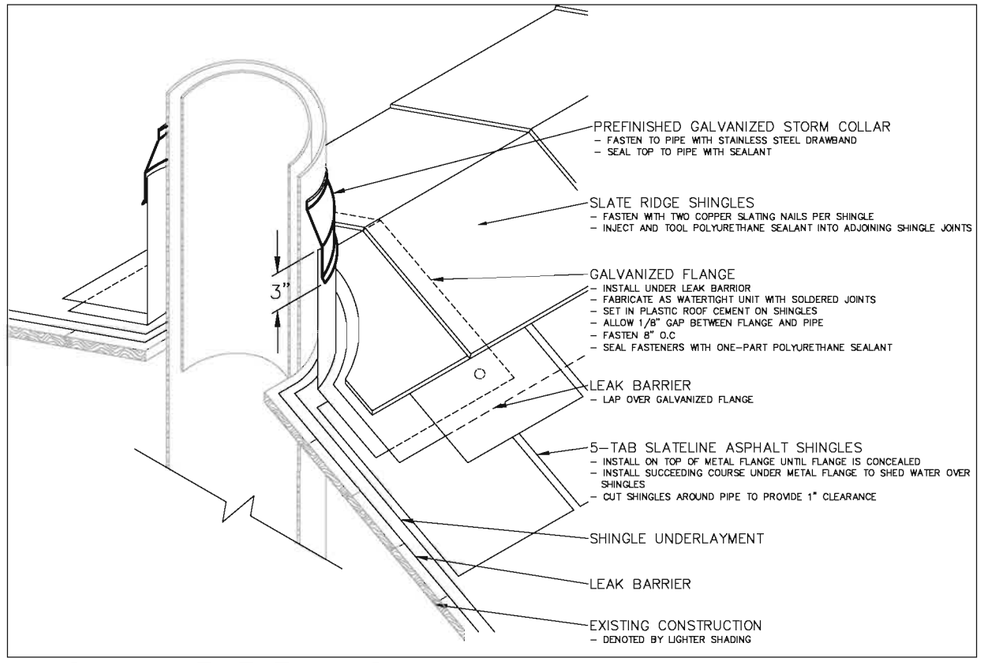
TYPICAL 1: ROOF HATCH

NOT TO SCALE



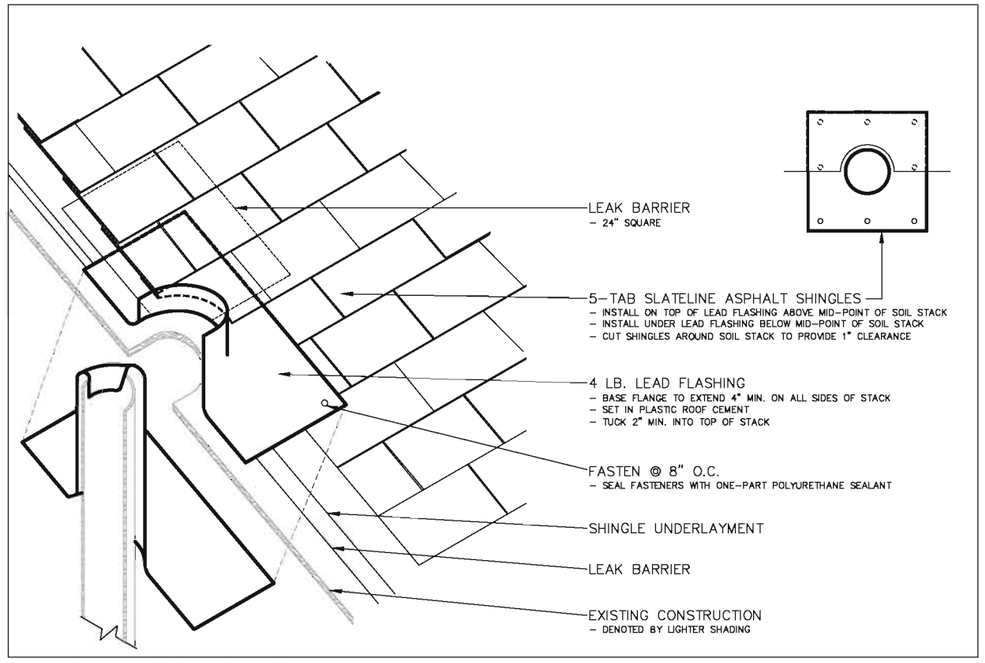
TYPICAL 2: ROOF HATCH COVER

NOT TO SCALE



TYPICAL 5: PIPE PENETRATION

NOT TO SCALE



TYPICAL 6: SOIL STACK

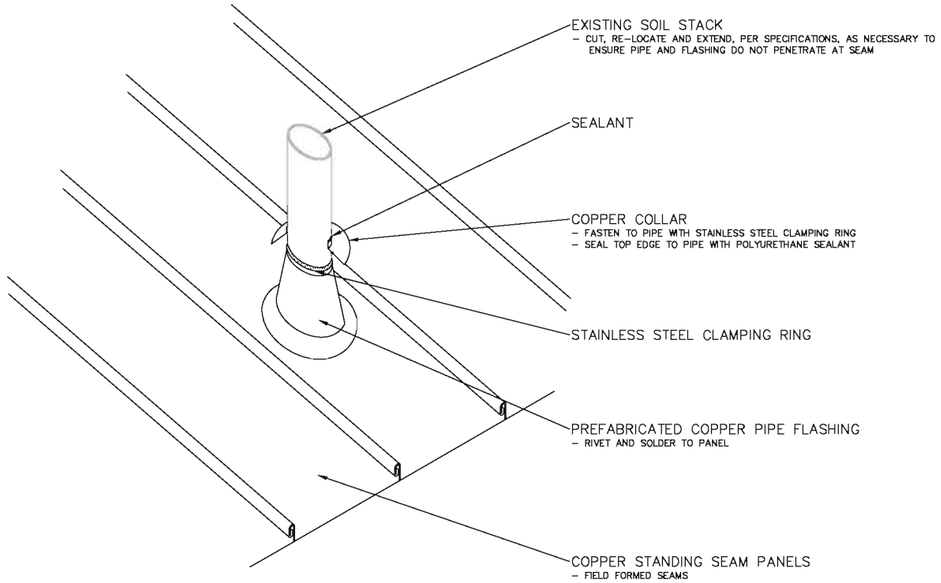
NOT TO SCALE

IRS
INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME: CITY OF KENOSHA 7825 3RD AVE– KENOSHA, WI SOUTHPORT BEACH HOUSE	DRAWN BY: ASB	DATE: 7/30/2014	DRAWING NO.: 15055
TITLE: ROOF REPAIR TYPCIALS	SCALE: N.T.S.	DRAWING TYPE: A14	

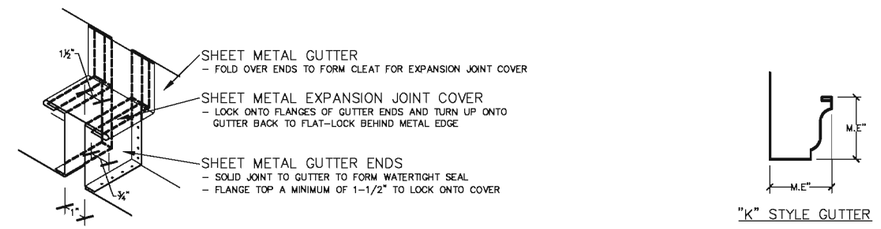
KEY:
- ROOF DRAIN
- THROUGH–WALL SCUPPER
- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- ROOF SCUTTLE
- SKYLIGHT
- CURBED PIPE VENT
- UNUSED
- CHIMNEY
- ROOF LADDER
- PIPE VENT
- SOIL STACK
- PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- SCREEN WALL

NOTES:



TYPICAL 5: PIPE FLASHING

NOT TO SCALE



TYPICAL 6: GUTTER DOWNSPOUT/EXPANSION JOINT

NOT TO SCALE

INDUSTRIAL ROOFING SERVICES, INC.
13000 WEST SILVER SPRING DRIVE - BUTLER, WI 53007
PHONE: (800) 236-3477 / (262) 432-0500 FAX: (262) 432-0504

PROJECT NAME:	DRAWN BY:	DATE:	DRAWING NO.:
CITY OF KENOSHA 7825 3RD AVE– KENOSHA, WI SOUTHPORT BEACH HOUSE	ASB	7/30/2014	15055
TITLE: ROOF REPAIR TYPCIALS	SCALE: N.T.S.	DRAWING TYPE: A15	

KEY:
- ◇ – ROOF DRAIN
- |×| – THROUGH–WALL SCUPPER
- ✳ – ROOF EDGE SCUPPER
- – GUTTER EDGE
- □ - CURBED OPENING
- ▽ - ROOF SCUTTLE
- ⊠ - SKYLIGHT
- ⊡ - CURBED PIPE VENT
- ▤ - UNUSED
- ▨ - CHIMNEY
- ⊓ - ROOF LADDER
- ○ - PIPE VENT
- ◦ - SOIL STACK
- ✓ - PIPE PENETRATION
- ■ - PITCH PAN
- ═══ - EXPANSION JOINT
- ——— - SLOPE TRANSITION
- ▪SCREEN WALL

NOTES:

Zimbra **kwhaples@kenosha.org**

Re: Southport Beachhouse

From : Keith Dippel <KeithD@irsroof.com> Thu, May 22, 2014 08:10 AM
Subject : Re: Southport Beachhouse
To : Katie Whaples <kwhaples@kenosha.org>

I will speak with chip brown at the state

Keith Dippel
Industrial Roofing Services, Inc.
13000 W Silver Spring Drive
Butler, WI 53007
office (262) 432-0500
Fax. (262) 432-0504
Cell. (414) 719-4091
KeithD@irsroof.com<mailto:KeithD@irsroof.com>
www.irsroof.com<http://www.irsroof.com>

On May 22, 2014, at 8:08 AM, "Katie Whaples" <kwhaples@kenosha.org<mailto:kwhaples@kenosha.org>> wrote:

Keith -

We can't use the Ludowici project as we do not have the funds. Please urge the State that the only other feasible option is the Slateline Shingles. Do you know why the State did not approve these originally? Do they look significantly different or was it because we had proposed the Grand Slate? We need to make sure they understand this is not a random decision and that it is due to GAF misadvertising the information.

Thank you!

Katie Whaples, E.I.T.
Civil Engineer II
City of Kenosha
Desk: 262.653.4055
Cell: 262.945.0496

From: "Keith Dippel" <KeithD@irsroof.com<mailto:KeithD@irsroof.com>>
To: "Katie Whaples

(kwhaples@kenosha.org<mailto:kwhaples@kenosha.org>)"
<kwhaples@kenosha.org<mailto:kwhaples@kenosha.org>>
Cc: mlemens@kenosha.org<mailto:mlemens@kenosha.org>, "Butch Winterfeldt" <ButchW@irsroof.com<mailto:ButchW@irsroof.com>>
Sent: Thursday, May 22, 2014 7:11:56 AM
Subject: Southport Beachhouse

Katie, Mike

I have run into a snag, the Grand Slate shingle I got approved by the state stopped being manufactured last October by GAF but their website still indicates its available. I have verified this with corporate and there are going to correct the error on their website. In the meantime they are trying to find 90 squares of the shingles left in distribution or warehousing somewhere around the country. They did not seem very hopeful on being able to find them.

With that being said we have two alternatives, one within budget, (Slateline Shingles) the state rejected and the second would be a ceramic tile made by Ludowici which will be priced close to the synthetic the state wanted to see which blows the budget but which is a better value/quality than the synthetics.

Therefore, I can either push for the state to accept the Slateline Shingles or move forward with the Ludowici product which will require redesign and recreation of the project documents.

Please let me know your thoughts assuming I cannot find any of the Grand Slate in distribution or warehousing.

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Zimbra **kwhaples@kenosha.org**

RE: Southport Beach House

From : Jennifer N Davel - WHS <Jennifer.Davel@wisconsinhistory.org> Thu, Jul 03, 2014 01:34 PM

Subject : RE: Southport Beach House

To : 'Keith Dippel' <KeithD@irsroof.com>

Cc : Katie Whaples <kwhaples@kenosha.org>, Butch Winterfeldt <ButchW@irsroof.com>, Chip L Brown - WHS <Chip.Brown@wisconsinhistory.org>

Hi Keith,

We think you should salvage as much as possible and re-install it as a blend or calico as we feel that was the original design.

For the less prominent roofs, let's do the English Grey.

Please give us an update on the amount of slate salvaged and the proposed installation locations for slate and asphalt.

Thank you,

Jen Davel
Preservation Architect
Wisconsin Historical Society
816 State St, Rm 312, Madison WI 53706
Phone: 608-264-6490
FAX: 608-264-6504
Email: Jen.Davel@wisconsinhistory.org

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From: Keith Dippel [mailto:KeithD@irsroof.com]
Sent: Wednesday, July 02, 2014 9:31 AM
To: Davel, Jennifer N - WHS
Cc: Katie Whaples; Butch Winterfeldt
Subject: Southport Beach House

Jen

Here is a link to the potential colors. I was considering Antique Slate or English Grey

http://www.gaf.com/Roofing/Residential/Products/Shingles/Designer/Slateline?postal=53140

What are your thoughts

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WISCONSIN HISTORICAL SOCIETY

MEMO

Date: April 21, 2014

To: Daniel Kabara

From: Chip Brown

Re: Proposed Southport Beach House Rehabilitation
WHS Case # 0164/KN

We have received the information you provided us regarding the above-referenced project. In consultation with Senior Preservation Architect Jen Davel, I have reviewed the information, and pursuant to Wis. Stat. §§ 44.42 and 66.1111, I offer the following comments.

As you and I discussed by telephone last week, your project will satisfy the Secretary of the interior's "Standards for Rehabilitation," provided that the following caveats are incorporated into your plans and specifications.

1) Because the original roof is a character-defining feature of the Southport beach House, the replacement asphalt shingles should match the exposure and coloring of the original slate shingles. One example of an appropriate replacement shingle is CertainTeed Symphony, color: "capitol blend." Installing a monochrome shingle will greatly alter the historic building's appearance and may constitute an adverse effect;

2) Any new glass installed should be clear with a Visual Light Transmittance (VLT) of 72 or higher. Any replacement window with a VLT lower than 72 may constitute an adverse effect;

3) Replacing steel sash windows with aluminum can be appropriate, but it is vital the muntin profiles match the dimensions of the original. When this detail is overlooked (not replicated), the new windows appear much different than the originals and may constitute an adverse effect.

If it is not possible to incorporate the above conditions into your plans and specifications, please contact me to commence negotiation of a mitigation plan to address adverse effects to the historic Southport Beach House rehabilitation.

With questions, please contact Ms. Davel directly at (608) 264-6490 or jen.davel@wisconsinhistory.org; or me at (608) 264-6508 or chip.brown@wisconsinhistory.org. Thank you very much for your continued attention to this matter.

FW: Southport Beach House - Kenosha, WI

From : Butch Winterfeldt <ButchW@irsroof.com> Wed, May 07, 2014 05:03 PM
Subject : FW: Southport Beach House - Kenosha, WI 5 attachments
To : Katie Whaples (kwhaples@kenosha.org) <kwhaples@kenosha.org>

Katie,
Please see below.

Thanks,

Butch

Butch Winterfeldt
Industrial Roofing Services, Inc.
Office: 262-432-0500
Cell: 920-427-7400

From: Keith Dippel
Sent: Wednesday, May 07, 2014 4:19 PM
To: Chip Brown (chip.brown@wisconsinhistory.org)
Subject: Southport Beach House - Kenosha, WI

Chip

1) As discussed the existing building has at least 4 different variations of color within the installed slate. It is difficult to definitively say which color/style of slate was installed originally.

2) The GAF Grand Slate Asphalt Shingles or similar provide a 7-1/2-inch exposure which reasonably matches the existing exposure of 7-inches +/- a half inch. The slate style asphalt shingles provide us an acceptable rendition of slate within budget constraints. Here is a link to some installed photos https://www.flickr.com/photos/gafroofing/page2/

3) The suggested Symphony Slate Series are a composite polymer knock-off whose material costs are close to that of slate and whose installation costs equal that of slate. The formulations within these type of composite polymer shingles can and have changed over time with many experiencing UV degradation and embrittlement. Our experience with these type of products has been marginal, the primary benefit derived is the reduced weight of the product vs traditional slate.

We are not in a position to expend the funds necessary to install new slate shingles given the total

needs of the facility. With that being said we believe there is little benefit to choosing the composite polymer shingles which bear similar installation costs to that of traditional slate. The Grand Slate of similar type asphalt shingles mimicking the appearance of slate comply with the intent of the Secretary of the Interior's "Standards for Rehabilitation" especially given the type, use and location of this facility.

Thank you for your consideration.

Keith Dippel
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DSCN0558.JPG
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DSCN4012.JPG
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DSCN4013.JPG
215 KB

Photo 145.jpg
147 KB

Zimbra **kwhaples@kenosha.org**

Fwd: Southport Beach House - Kenosha, WI

From : Keith Dippel <KeithD@irsroof.com> Wed, May 14, 2014 06:12 PM
Subject : Fwd: Southport Beach House - Kenosha, WI
To : Butch Winterfeldt <ButchW@irsroof.com>
Cc : Katie Whaples <kwhaples@kenosha.org>, Michael Lemens <mlemens@kenosha.org>

FYI

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Begin forwarded message:

From: "Brown, Chip L - WHS" <Chip.Brown@wisconsinhistory.org<mailto:Chip.Brown@wisconsinhistory.org>>
Date: May 14, 2014 at 6:43:33 PM EDT
To: Keith Dippel <KeithD@irsroof.com<mailto:KeithD@irsroof.com>>
Subject: RE: Southport Beach House - Kenosha, WI

Hi Keith,

Thank you for forwarding the additional information for our consideration describing the proposed specifications for new roof material to replace the existing (failing) slate roof. Jen Davel and I have reviewed this information, and are able to agree that the proposed "GAF Grand Slate Asphalt Shingles" - so long as they are of the straight/flat edge (no "puzzle-cut" look) type (shown here: https://www.flickr.com/photos/gafroofing/6255422074/in/set-72157627917914042, and here: https://www.flickr.com/photos/gafroofing/6255417972/in/set-72157627917914042/) will suffice. While there may be other replacement shingle varieties, if you should require a change, you must submit details of that replacement shingle for our review and comments. Our response here is specifically directed to the "GAF Grand Slate Asphalt Shingles," as described above. Please advise as to which color you have chosen to install.

With questions, please contact me. If you agree with the above comments, then we have no further concerns with this project, though we look forward to hearing from you which color shingle you will install on the Beach House roof. Again, thank you for your continued attention to this matter.

Sincerely,

Chip Brown

Chip Harry L. Brown III, J.D.
Government Assistance and Training Specialist
Wisconsin Historical Society
816 State Street
Madison, WI 53706

608-264-6508 (voice)
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chip.brown@wisconsinhistory.org<mailto:chip.brown@wisconsinhistory.org>
www.wisconsinhistory.org<file:///C:\Documents%20and%20Settings\chb\Application%20Data\Microsoft\Signatures\www.wisconsinhistory.org>

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From: Keith Dippel [mailto:KeithD@irsroof.com]
Sent: Wednesday, May 07, 2014 4:19 PM
To: Brown, Chip L - WHS
Subject: Southport Beach House - Kenosha, WI

Chip

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