Triphahn Center
Roof Replacement
1685 West Higgins Road
Hoffman Estates, Illinois

for: Hoffman Estates Park District
1685 West Higgins Road
Hoffman Estates, Illinois

by: WJE
ENGINEERS
ARCHITECTS
MATERIAL SCIENTISTS

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A-3.1 Alternate 1: PVC Roof Details

GENERAL NOTES
1. Contractor to verify all conditions and dimensions in the field. Notify Architect/Engineer (A/E) of any variation from Drawings. Do not scale Drawings.
2. Contract shall secure and pay for Permits, Government Fees and Licenses as required by the Village of Hoffman Estates for proper execution and completion of the work.
3. All work to be performed in a manner that causes no hazard to the public during the course of the repair work. Provide adequate protection for all building occupants and pedestrians.
4. Contractor to provide close-up hands-on scaffolding access for A/E to observe all repairs during the course of the repair work.
5. Contractor shall coordinate any storage of materials with the building with the Owner.
6. Contractor shall repair any damage to the building (walls, roof, etc.), landscaping, and adjacent properties caused by the Contractor to the satisfaction of the Owner.
7. A certificate of insurance meeting the requirements as outlined by the Owner must be provided and approved prior to materials being stored on site and commencement of work.
8. Parapet hooks will not be acceptable for swing stage rigging.
9. Do not overload roof with construction materials and/or equipment. Coordinate location for storage in parking lot with building.

SUMMARY OF WORK
Basis BOT
In general, the scope of work includes the following:
1. Remove all existing roofing, flashings, and insulation down to the existing metal deck.
2. Replace damaged or deteriorated roof deck on a unit price basis.
3. Mechanically fasten 5/8" polyisocyanurate insulation and 2" gypsum board into the steel deck at the rate of one fastener per 2 square feet.
4. Install a 60 mil fully adhered PVC roofing membrane and associated flashings.

Alternate No. 2
1. Remove all existing roofing, flashings, and insulation down to the existing metal deck.
2. Replace damaged or deteriorated roof deck on a unit price basis.
3. Mechanically fasten 5/8" polyisocyanurate insulation and 2" gypsum board into the steel deck.
4. Install a 60 mil fully adhered PVC roofing membrane and associated flashings.

Outlines
Location Map
TROIYHAIN CENTER

1. Install flush seam metal wall panel system with continuous insulation behind.
2. Fully adhere a 60 mil fleece-back PVC membrane to the gypsum board substrate.
3. Heat weld simulated standing seam extrusions to the membrane.

LOCATION MAP:

TROIYHAIN CENTER
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Metal Roof System Detail
Scale: 3" = 1'-0"

1. Metal Roof System Detail
   - Gable Detail
     - Scale: 3" = 1'-0"
   - New Coping Detail
     - Scale: 3" = 1'-0"
   - Gutter Detail
     - Scale: 3" = 1'-0"
   - Fascia to Soffit Flashing Detail
     - Scale: 3" = 1'-0"
   - Gable Detail
     - Scale: 3" = 1'-0"

New Coping Detail
Scale: 3" = 1'-0"

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- Gable Detail
  - Scale: 3" = 1'-0"
1. **Metal Roof Details**

**Sheet Metal Valley Flashing**
- Flashing run down face of cricket
- Match the contour of the metal roof panel

**EPDM Membrane**
- Over top of parapet
- Coping metal fastened 24" O.C. through counterflashing

**Sheet Metal Counterflashing**
- Installed behind coping
- Existing PVC membrane

**Continuous Cleat**
- Fastened 12" O.C.

**Sheet Metal Saddle Flashing**

**Waterproof Underlayment**

**Metal Roof Deck**

**General Notes:**
- All penetrations through coping metal shall be flashed onto the coping metal with PMMA material

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2. **Metal Roof to Saddle Transition**

**Sheet Metal Valley Flashing**
- Flashing run down face of cricket
- Match the contour of the metal roof panel

**EPDM Membrane**
- Over top of parapet
- Coping metal fastened 24" O.C. through counterflashing

**Sheet Metal Counterflashing**
- Installed behind coping
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**Sheet Metal Saddle Flashing**

**Waterproof Underlayment**

**Metal Roof Deck**

**General Notes:**
- All penetrations through coping metal shall be flashed onto the coping metal with PMMA material

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3. **Coping Detail at Building Tie-In**

**Sheet Metal Valley Flashing**
- Flashing run down face of cricket
- Match the contour of the metal roof panel

**EPDM Membrane**
- Over top of parapet
- Coping metal fastened 24" O.C. through counterflashing

**Sheet Metal Counterflashing**
- Installed behind coping
- Existing PVC membrane

**Continuous Cleat**
- Fastened 12" O.C.

**Sheet Metal Saddle Flashing**

**Waterproof Underlayment**

**Metal Roof Deck**

**General Notes:**
- All penetrations through coping metal shall be flashed onto the coping metal with PMMA material

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4. **Snow Guard Bracket Detail**

**Waterproof Underlayment**
- Between EPDM and bracket, typ.
- Silicone sealant over fastener, typ.
- Self-adhering EPDM under base plate
- Snap-on batten seam

**RED ROSIN SLIP SHEET**
- #30 felt underlayment
- New 2" polyisocyanurate/3/4" plywood composite nail base
- Existing 3" insulation to remain
- Existing metal roof deck

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5. **Metal Roof to New Addition Transition**

**Metal Roof Panel**
- Red rosin slip sheet
- Underlayment
- Sheet metal saddle
- Roof substrate

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- Underlayment
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**Waterproof Underlayment**
- Between EPDM and bracket, typ.
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- Self-adhering EPDM under base plate
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**RED ROSIN SLIP SHEET**
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- New 2" polyisocyanurate/3/4" plywood composite nail base
- Existing 3" insulation to remain
- Existing metal roof deck

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**Metal Roof to New Addition Transition**

1. **All penetrations through coping metal shall be flashed onto the coping metal with PMMA material**

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**General Notes:**
- All penetrations through coping metal shall be flashed onto the coping metal with PMMA material
1. Plumbing Vent Flashing

2. Vent Stack Flashing

3. Boiler Flue Flashing

4. Hip Cap Flashing

**As Shown**

- **Sheet Metal Flashing**
  - **Flashings Cap**
  - **METAL FLASHING SLEEVE**
  - **SEEPED SEAM**

- **Flashings Internal**
  - **NEW SEALANT AT EDGE OF FLASHING SLEEVE**
  - **REMOVE FLASHING SLEEVE AND REINSTALL**
  - **SEAL ENDS OF SEAMS**

- **METAL ROOF PANEL**
  - **SNAP-ON BATTEN SEAM COVER**
  - **UNDERLAYMENT**
  - **RED ROSSIN SLIP SHEET**

- **Sheet Metal Hip Cap**
  - **Z-CLOSURE FASTENED AND SET IN SEALANT**
  - **DO NOT SEAL VERTICAL LEGS**

- **Seal Ends of Seams**
  - **RED ROSSIN SLIP SHEET**
  - **UNDERLAYMENT**
  - **METAL ROOF PANEL**
  - **SNAP-ON BATTEN SEAM COVER**

- **Boiler Flue Flashing**
  - **METAL ROOF PANEL**
  - **SNAP-ON BATTEN SEAM COVER**
  - **RED ROSSIN SLIP SHEET**
  - **UNDERLAYMENT**
  - **METAL ROOF DECKING**

- **Hip Cap Flashing**
  - **METAL ROOF PANEL**
  - **SNAP-ON BATTEN SEAM COVER**
  - **RED ROSSIN SLIP SHEET**
  - **UNDERLAYMENT**
  - **METAL ROOF DECKING**

**Temperature-Appropriate Sealant**
- **Stainless Steel Drawband**
- **Sheet Metal Pan Collar**
- **Set Sheet Metal Sleeve in Continuous Bed of Sealant**
- **Dapped Fasteners**
- **Secure Flashing Sleeve Flange to Roof Panel and Not to Deck So as Not to Fix Panel at Penetration**

**Minimum Flange**

**Red Rosin Slip Sheet**

**Sheet Metal Flashing Sleeve**

**Metal Roof Panel**

**Snap-on Batten Seam Cover**

**Underlayment**

**Roof Substrate**

**Insulation Appropriate for Stack Temperature**

**Snap-on Batten Seam Cover**

**Red Rosin Slip Sheet**

**Underlayment**

**Roof Substrate**
1 PVC Roof System Detail (Alternate 1)

Scale: 3" = 1'-0"

- PVC Roof System Detail
- Simulated Standing Seam Extrusion
- Hot Air Weld
- 60 MIL PVC Membrane, Adhered
- Cover Board
- New 2 SPF Polyisocyanurate Insulation
- Existing 2" Insulation To Remain
- Existing Metal Roof Deck

2 Snow Guard Detail (Alternate 1)

Scale: N.T.S.

- PVC Coated Metal
- 4" Wide Flashing, Stripped, Hot Air Welded In Place
- 2" Wide Aluminum Tape Over Joint
- WOOD BLOCKING
- METAL BASE PLATE
- AND INTGRAL PVC STRIPPING
- SNOW GUARD BRACKET

3 Simulated Standing Seam Profile (Alternate 1)

Scale: 1'-0" = 1'-0"

- Simulated Standing Seam Extrusion
- Hot Air Weld
- 60 MIL PVC Membrane, Adhered
- Cover Board
- New 2 SPF Polyisocyanurate Insulation

4 Flashing at PVC Coated Metal Joints (Alternate 1)

Scale: 3" = 1'-0"

- 60 MIL Fleece-Backed PVC Membrane, Adhered
- Insulation Fastener and Plate
- 2" Cover Board

5 Simulated Standing Seam Spacing Layout (Alternate 1)

Scale: 1'-6 3/4" = 1'-6 3/4"

- Simulated Standing Seam Extrusion
- Hot Air Weld
- 60 MIL PVC Membrane, Adhered
- Cover Board
- New 2 SPF Polyisocyanurate Insulation

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**1. Gravel Stop Metal Edge (Alternate 1)**

- Scale: 3" = 1'-0"
- Gravel stop metal edge
- PVC coated metal water drain
- PVC coated metal fastened 4" O.C.
- Staggered using 1" galvanized annular ring nails or other acceptable fastener
- Continuous cleat (min. 22 ga.)
- Wood nailers to match height of insulation and cover board

**2. Gutter Detail (Alternate 1)**

- Scale: 3" = 1'-0"
- Metal gutter
- PVC coated metal fastened 4" O.C.
- Staggered using 1" galvanized annular ring nails or other acceptable fastener
- PVC flashing strip, hot-air welded
- Wood nailers to match height of cover board
- PVC flashing strip, hot-air welded
- PVC coated metal
- Cover board
- New 2" polyisocyanurate insulation
- Existing 2" insulation to remain
- Existing metal roof deck
- PVC coated metal
- Water dam
- PVC flashing strip, hot-air welded

**3. Vent Stack Flashing (Alternate 1)**

- Scale: 3" = 1'-0"
- Plumbing vent detail
- PVC flashing membrane
- Sheet metal sleeve
- Fiberglass batt
- PVC base flashing
- 60 mil PVC membrane, mechanically attached
- Cover board
- New 2" polyisocyanurate insulation
- Existing 2" insulation to remain
- Existing metal roof deck

**4. Plumbing Vent Detail (Alternate 1)**

- Scale: 3" = 1'-0"
- PVC flashing strip, hot-air welded
- Wood nailers to match height of cover board
- PVC base flashing
- 60 mil PVC membrane, mechanically attached
- Cover board
- New 2" polyisocyanurate insulation
- Existing 2" insulation to remain
- Existing metal roof deck
- PVC coated metal
- Water dam
- PVC flashing strip, hot-air welded

**NOTE:** Refer to Sheet A-2.0 for notes related to wall panels.