

2014 Partial Roof Replacement at Low Roof and Hose Tower Roof Portage Fire Station 2 6101 Oakland Dr. Portage, Michigan



Indiana
Michigan
Ohio

**Soil and Materials
Engineers, Inc.**

Plymouth
The Kramer Building
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GENERAL NOTES

1. THE BUILDING INCLUDED IN THE SCOPE OF WORK FOR THIS PROJECT WILL REMAIN OCCUPIED AND IN USE DURING THE COURSE OF THIS PROJECT. WORK SHALL BE CLOSELY COORDINATED WITH THE ENGINEER AND FIRE DEPARTMENT STAFF TO MINIMIZE DISRUPTION OF NORMAL USAGE OF THE BUILDING.
2. WHERE NOT INDICATED ON THE PROJECT DRAWINGS OR DESCRIBED IN THE SUMMARY OF WORK, DETAILS SHALL BE THE MANUFACTURER'S STANDARD DETAILS. CONTRACTOR SHALL PROVIDE PERTINENT MANUFACTURER'S DETAIL SHOP DRAWINGS WITH THE PROJECT SUBMITTALS.
3. PROVIDE ALL NECESSARY TEMPORARY PROTECTION, BARRICADES, TEMPORARY STRUCTURES AND OTHER SUCH MEASURES AS NEEDED TO PROTECT THE PEDESTRIAN AND VEHICLE TRAFFIC ADJACENT TO THE WORK AREA.
4. CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION AS NEEDED FOR EXTERIOR BUILDING WALLS AND WINDOWS, ENTRANCES, LANDSCAPING AND PAVEMENTS. DAMAGES CAUSED BY THE ROOFING OPERATIONS SHALL BE RESTORED TO PRE-PROJECT CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. PROVIDE TEMPORARY ROOFING, TIE-INS, WATER BLOCKS, AND INTERIOR PROTECTION AS NEEDED TO PREVENT LEAKAGE INTO THE BUILDING AND WATER DAMAGE TO INTERIOR FURNISHINGS, FINISHES, STORED MATERIALS AND EQUIPMENT DURING THE ROOFING REPLACEMENT.
6. IN ADDITION TO ITEM 4 ABOVE, THE CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION FOR ALL ROOFING THAT WILL BE TRAFFICKED OVER, OR USED FOR STAGING PURPOSES.
7. STORED MATERIALS ON THE ROOF SHALL BE SPREAD OUT SO AS NOT TO OVERLOAD THE ROOF DECK.
8. MATERIAL MUST BE STORED OFF THE GROUND ON PALLETS, AND COVERED WITH OPAQUE, WATERPROOF TARPULINS TO PROTECT FROM UV EXPOSURE AND WET WEATHER. CONTAINERS OF MATERIALS SENSITIVE TO HIGH TEMPERATURES SHALL BE STORED IN THE SHADE, OR IN CLIMATE CONTROLLED LOCATIONS.
9. STORAGE OF MATERIALS INSIDE THE BUILDING IS PROHIBITED UNLESS WRITTEN AUTHORIZATION IS RECEIVED FROM THE OWNER'S REPRESENTATIVE. THERE SHALL BE NO STORAGE OF FLAMMABLE MATERIALS ON OR WITHIN THE BUILDING. FLAMMABLES SHALL BE HOISTED TO THE GROUND AT THE END OF EACH WORK DAY, AND EITHER SECURELY STORED OR REMOVED FROM THE SITE.
10. REMOVE DEBRIS FROM THE ROOF AND GROUNDS DAILY AND DISPOSE OF IN A PROPER MANNER.
11. UNANTICIPATED CONDITIONS UNCOVERED DURING ROOFING REMOVAL AND REPLACEMENT THAT ARE CONTRARY TO THE PROJECT DOCUMENTS, OR WILL NEGATIVELY IMPACT THE NEW ROOFING SYSTEM, SHALL BE PROMPTLY REPORTED TO THE ENGINEER AND OWNER'S REPRESENTATIVE FOR ADVISEMENT.
12. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND FIELD CONDITIONS BEFORE ORDERING MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND VERIFYING ALL WORK ITEMS FOR A COMPLETE WORK PRODUCT.
13. INSTALLATION OF THE NEW ROOFING SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST REVISED EDITION OF THE NRCA ROOFING AND WATERPROOFING MANUAL, AND THE ROOFING MANUFACTURER.
14. SHEET METAL COMPONENTS SHALL COMPLY WITH THE LATEST EDITION OF THE SMACNA ARCHITECTURAL SHEET METAL MANUAL, WITH THE EXCEPTION OF THE PRE-MANUFACTURED SNAP ON EDGE METAL SYSTEM.
15. THE CONTRACTOR SHALL SUBMIT THE SPECIFIC ROOFING MANUFACTURER'S PRODUCT DATA SHEETS, INSTALLATION GUIDELINES AND CONSTRUCTION DETAILS, AND THE SHEET METAL MANUFACTURER'S PRODUCT DATA SHEETS AND INSTALLATION INSTRUCTION TO THE OWNER'S CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO ORDERING ANY MATERIALS.
16. THE CONTRACTOR IS RESPONSIBLE FOR ELECTRICAL OR MECHANICAL SUBCONTRACTORS THAT MAY BE NEEDED TO DISCONNECT AND RECONNECT MECHANICAL UNITS WHERE CURB HEIGHTS NEED TO BE RAISED. ALL MECHANICAL UNITS MUST BE OPERATIONAL AT THE COMPLETION OF THE PROJECT.



OWNER / CLIENT

MR. STACY FRENCH
ASSISTANT FIRE CHIEF
CITY OF PORTAGE, MI
269-329-4482

CONSULTANT:

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LIST OF DRAWINGS

SHEET NO.	SHEET TITLE
1	COVER SHEET
2	ROOF PLAN
3	DETAILS

VICINITY MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE



SCOPE OF WORK

- A. BASE BID WORK: THE WORK INCLUDES LABOR, MATERIALS, EQUIPMENT, AND ADMINISTRATION NECESSARY TO INTEGRATE A NEW SINGLE-PLY EPDM ROOFING INTO THE TOTAL BUILDING ENVELOPE AT THE PORTAGE FIRE STATION NO. 2, IN PORTAGE, MICHIGAN. BASE BID WORK INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING TASKS ON LOW ROOF AND HOSE TOWER ROOF AS SHOWN ON THE ROOF PLAN.
1. REMOVAL OF THE SUPERIMPOSED BITUMINOUS ROOFING, FLASHINGS AND SHEET METAL DOWN TO THE ROOF DECK AND FLASHING SUBSTRATES IN THE AREAS INDICATED ON THE PROJECT DRAWINGS, AND DELINEATED AT THE TIME OF THE PRE-BID MEETING.
 2. EXISTING EMBEDDED COPPER FLASHINGS IN THE FLUTED MASONRY WALL ARE TO REMAIN.
 3. REPLACEMENT OR REPAIR OF DETERIORATED WOOD NAILERS IDENTIFIED DURING THE DEMOLITION PROCESS.
 4. REPLACEMENT OR REPAIR OF DETERIORATED STEEL ROOF DECK IDENTIFIED DURING THE DEMOLITION PROCESS.
 5. ADDITION OF NEW NAILERS ON EXHAUST FAN CURBS AS REQUIRED TO ACHIEVE A MINIMUM 8-INCH FLASHING HEIGHT.
 6. INSTALLATION OF SPECIFIED FLAT STOCK INSULATION.
 7. INSTALLATION OF NEW 1/2-INCH PER FOOT TAPERED SADDLES ON THE DOWN SLOPE SIDE OF THE LOW ROOF TO ENHANCE DRAINAGE.
 8. INSTALLATION OF NEW HIGH DENSITY POLYISOCYANURATE COVER BOARD AND 60-MIL EPDM ROOFING, INCLUDING ALL FLASHINGS AND ACCESSORIES REQUIRED FOR A COMPLETE, WATERTIGHT ROOFING SYSTEM.
 9. INSTALLATION OF SHEET METAL FLASHINGS AS SHOWN ON THE DETAIL DRAWINGS.
 10. CLEAN UP THE JOB SITE, AND RESTORE DAMAGED BUILDING COMPONENTS, PAVEMENTS AND LANDSCAPING TO PRE-PROJECT CONDITIONS.
- B. THREE ROOF TEST CORES WERE PERFORMED ON THE ROOF. ALL THREE TEST CORES CONSISTED OF THE SAME ROOF COMPOSITION AS LISTED BELOW, BUT WITH VARIANCES IN THE INSULATION THICKNESSES. ALL THREE TEST CORES WERE DRY.
- TEST CORE NOS. 1 - 3:
- 2-PLY MODIFIED BITUMEN ROOFING WITH ALUMINUM COATING
 - 1" THICK PERLITE INSULATION
 - 1-1/2" THICK POLYISOCYANURATE INSULATION
 - 1/2" THICK LAYER OF SLAG AGGREGATE IN A BITUMINOUS FLOOD COAT
 - 4-PLY HOT MOPPED COAL TAR PITCH ROOFING MEMBRANE
 - 2" THICK PERLITE INSULATION
 - STEEL ROOF DECK

SEAL

PROJECT NAME
**2014 PARTIAL ROOF
REPLACEMENT
PORTAGE FIRE STATION 2**

FACILITY NAME & LOCATION
**PORTAGE FIRE STATION 2
6101 OAKLAND DRIVE
PORTAGE, MICHIGAN**

SHEET NAME
COVER SHEET

REVISIONS

REV	ISSUED FOR	DATE	BY
1	OWNER REVIEW	09-10-14	RKP
2	FOR BID	09-11-14	RKP

SME PROJECT NO.
070629.00

PROJECT MANAGER
RKP

DESIGNED BY
RKP

DRAWN BY
GBK

CHECKED BY
RKP

DRAWING SCALE
AS NOTED

DATE
8-25-14

FILE NAME
070629.00-CS.dwg

SHEET NO.
1

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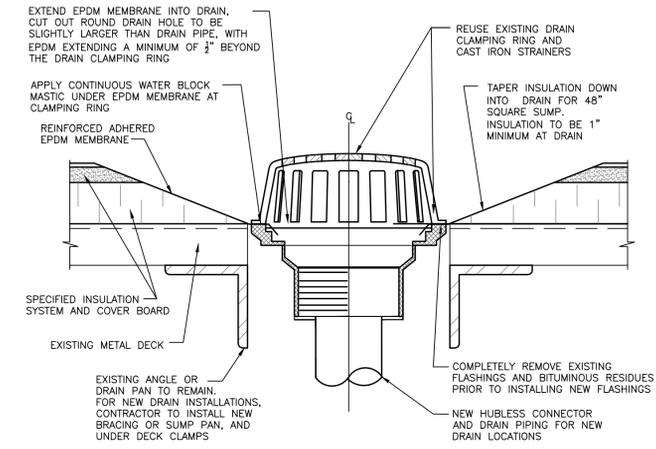
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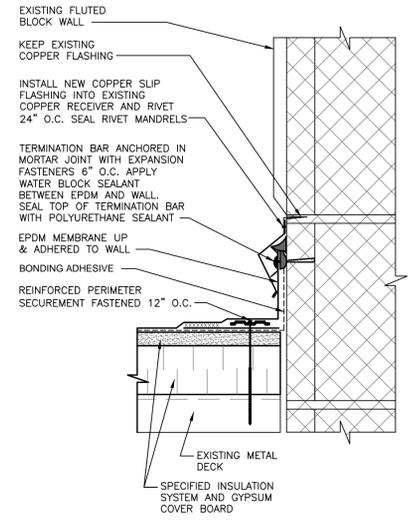
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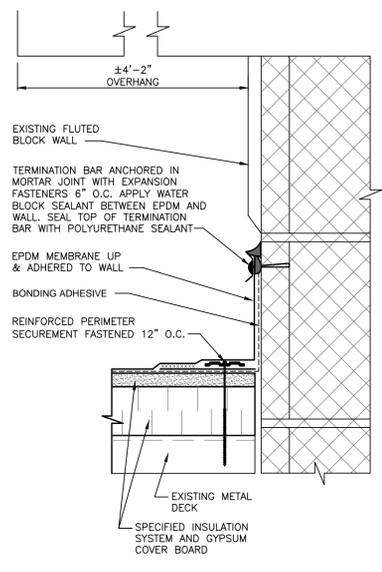
4 TYPICAL ROOF DRAIN
NOT TO SCALE

- NOTES:
1. FIELD SEAMS SHALL NOT RUN THROUGH DRAIN BOWL OR SUMP AREA.
 2. WHERE FIELD SEAMS ARE WITHIN 18" OF DRAINS, THEY SHALL BE STRIPPED IN WITH 5" WIDE UNCURED EPDM.
 3. ALL ITEMS NEW UNLESS NOTED AS EXISTING.



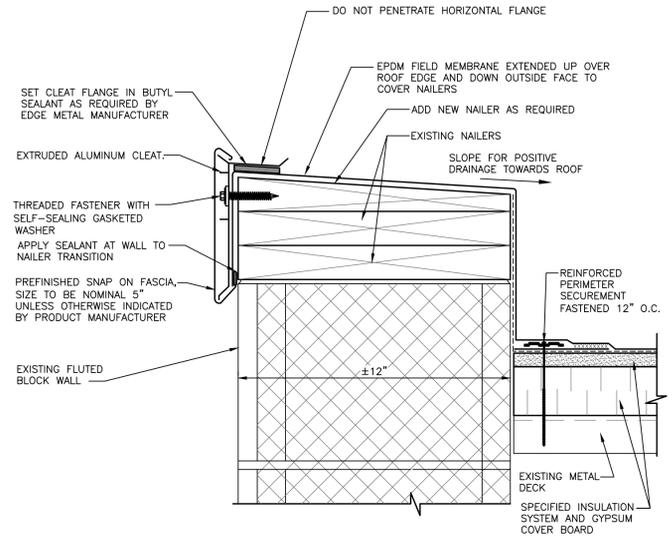
3 EPDM MEMBRANE AT SLIP FLASHING
NOT TO SCALE

- NOTES:
1. EXISTING WEEP HOLES MUST NOT BE COVERED. THE CONTRACTOR SHALL INSTALL THE NEW TERMINATION BAR BELOW WEEPS.
 2. EXISTING WEEPS THAT ARE SEALED OR PLUGGED SHALL BE REOPENED.



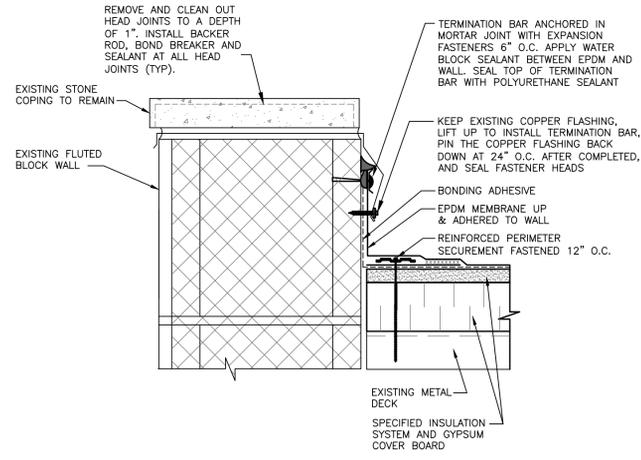
2 EPDM MEMBRANE AT TERMINATION BAR
NOT TO SCALE

- NOTES:
1. EXISTING WEEP HOLES MUST NOT BE COVERED. THE CONTRACTOR SHALL INSTALL THE NEW TERMINATION BAR BELOW WEEPS.
 2. EXISTING WEEPS THAT ARE SEALED OR PLUGGED SHALL BE REOPENED.
 3. TO BE USED UNDER OVERHANG ONLY.

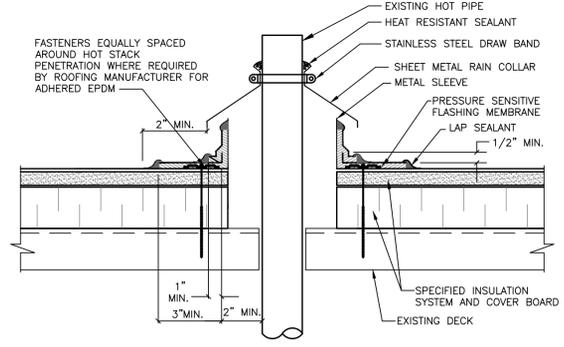


1 TYPICAL PERIMETER EDGE METAL FLASHING
NOT TO SCALE

- NOTES:
1. COLOR OF EDGE METAL SHALL MATCH EXISTING SHEET METAL. VERIFY WITH OWNER'S REPRESENTATIVE.
 2. NEW EDGE METAL CLEAT AND SNAP ON FASCIA SHALL BE PRE MANUFACTURED.
 3. EDGE METAL TO MEET REQUIREMENTS OF ANSI/SPRI ES-1.
 4. CONDITIONS AND HEIGHT OF PERIMETER MAY VARY BASED ON THE THICKNESS OF THE INSULATION. IN SOME LOCATIONS THERE MAY NOT BE THE ANGLE CHANGE SHOWN, AND THE PERIMETER SECUREMENT STRIP MAY BE OMITTED WHERE THAT CONDITION OCCURS.
 5. TAPERED EDGE STRIP MAY BE USED AT THE CONTRACTOR'S DISCRETION.
 6. FASCIA SIZE MAY VARY BASED ON MANUFACTURER SELECTED AND STANDARD SIZES AVAILABLE.
 7. ALL ITEMS NEW UNLESS NOTED AS EXISTING.

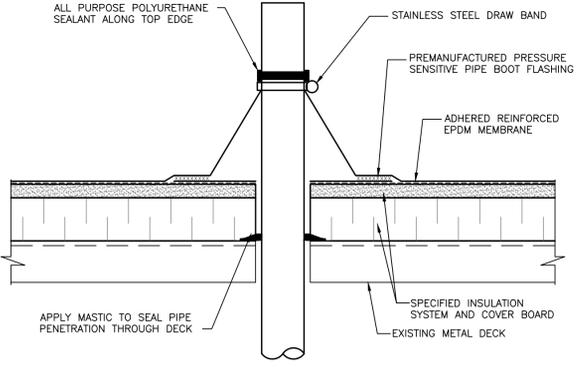


8 PARAPET WITH STONE COPING AND COPPER FLASHING
NOT TO SCALE



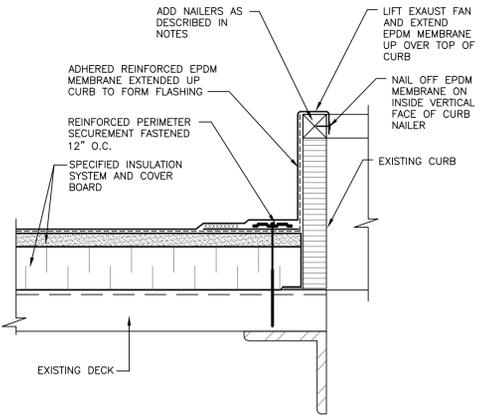
7 TYPICAL HOT STACK FLASHING
NOT TO SCALE

- NOTES:
1. NAILER REQUIRED AROUND ALL PIPES GREATER THAN 12 INCHES IN DIAMETER.
 2. UNCURED EPDM FLASHING WRAPPED AROUND COLLAR SHALL HAVE 3 INCH MINIMUM SPLICE ONTO FIELD MEMBRANE.
 3. TEMPERATURE OF METAL SLEEVE MUST NOT EXCEED 180° F.



6 TYPICAL PIPE BOOT DETAIL
NOT TO SCALE

- NOTES:
1. THE USE OF LAP SEALANT TO SEAL TOP EDGE OF PIPE BOOT TO PENETRATION IS NOT PERMITTED. CONTRACTOR SHALL USE ROOFING MANUFACTURER'S MULTIPURPOSE POLYURETHANE SEALANT OR SEALANT LISTED IN SPECIFICATIONS.
 2. PIPE BOOTS ARE NOT TO BE APPLIED DIRECTLY TO HOT VENTS.
 3. NAILERS REQUIRED TO STABILIZE STEEL DECK AT PENETRATIONS LARGER THAN 12" DIAMETER/WIDTH.
 4. FASTENERS MAY BE OMITTED AT PENETRATIONS LESS THAN 18" DIAMETER OR AS OTHERWISE INDICATED BY THE ROOFING MANUFACTURER.



5 TYPICAL UP AND OVER CURB FLASHING
NOT TO SCALE

- NOTES:
1. DETAIL REQUIRES TEMPORARY LIFTING OF EXHAUST FANS OFF CURB, INSTALLING FLASHING, THEN REINSTALLING FAN UNITS, AND VERIFYING FANS ARE OPERATIONAL.
 2. AT LOCATIONS WHERE UNIT CANNOT BE LIFTED OFF CURB, INSTALL TERMINATION BAR AND SLIP FLASHING UNDER EXISTING CAP FLANGE.
 3. ADD 1-3/4" TO 3" OF NEW NAILER AS NEEDED TO CREATE A MINIMUM 8" FLASHING HEIGHT.

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