

Milwaukee Water Works

HOWARD WATER TREATMENT PLANT

HP-183 DRIVE HOUSE & CHLORINE SCALE ROOM ROOF REPLACEMENT

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NO.	BY	REVISION	DATE

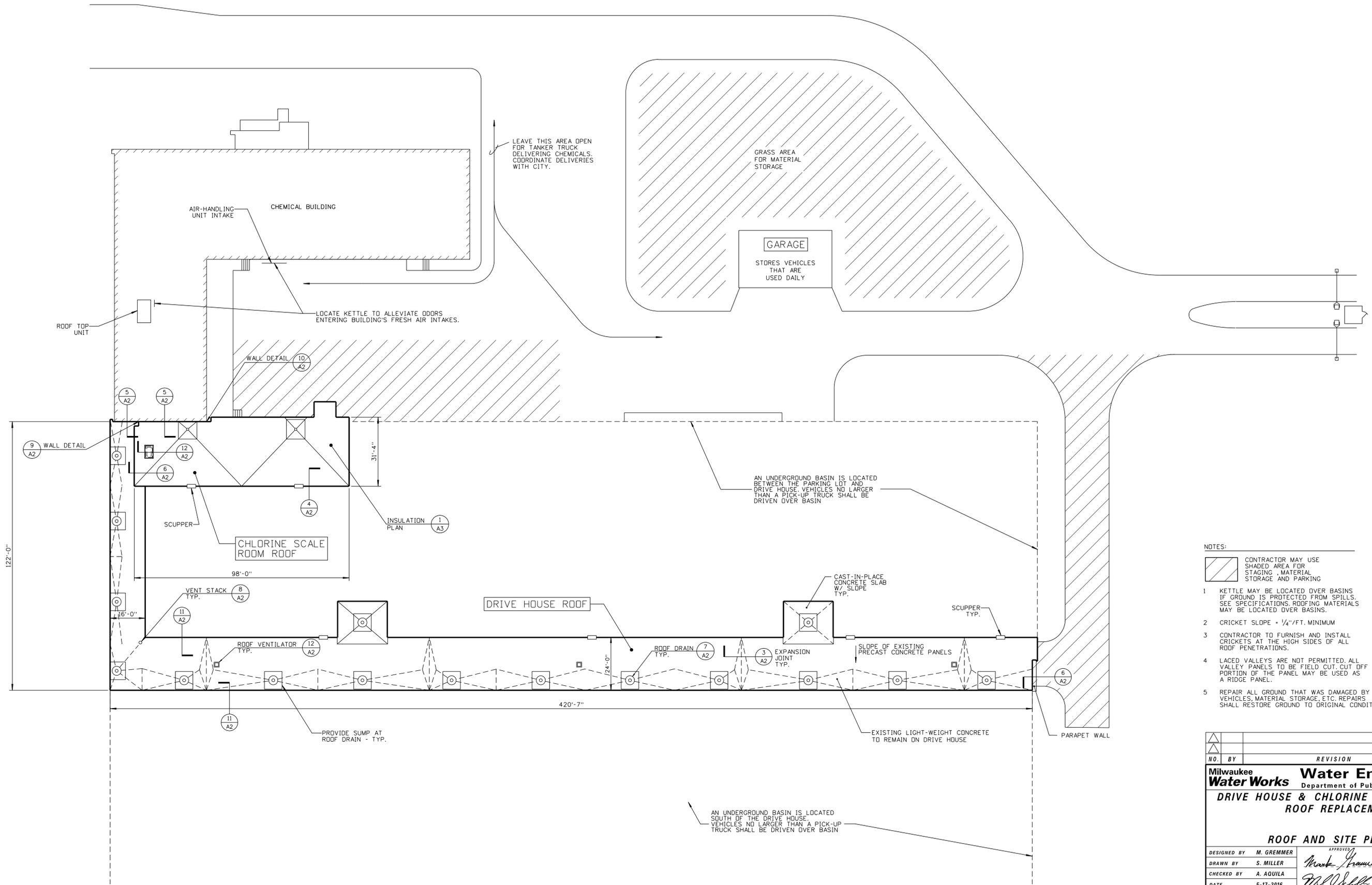
Milwaukee Water Works Water Engineering
Department of Public Works

**DRIVE HOUSE & CHLORINE SCALE ROOM
ROOF REPLACEMENT**

DRAWING INDEX

DESIGNED BY	M. GREMMER	APPROVED	DATE
DRAWN BY	S. MILLER	<i>Mark Kramer</i>	5-17-2016 PLANTS PROJECT ENGINEER
CHECKED BY	A. AQUILA	<i>M. J. Miller</i>	5-17-2016 CHIEF DESIGN ENGINEER
DATE	5-17-2016	<i>William</i>	5-17-2016 SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS
SCALE	NONE		
PROJECT NUMBER	WT450153100		
OFFICIAL NOTICE	46-1-2016		

DRAWING NO. **HP-183-G1**



LEAVE THIS AREA OPEN FOR TANKER TRUCK DELIVERING CHEMICALS. COORDINATE DELIVERIES WITH CITY.

GARAGE
STORES VEHICLES THAT ARE USED DAILY

AN UNDERGROUND BASIN IS LOCATED BETWEEN THE PARKING LOT AND DRIVE HOUSE. VEHICLES NO LARGER THAN A PICK-UP TRUCK SHALL BE DRIVEN OVER BASIN

AN UNDERGROUND BASIN IS LOCATED SOUTH OF THE DRIVE HOUSE. VEHICLES NO LARGER THAN A PICK-UP TRUCK SHALL BE DRIVEN OVER BASIN

- NOTES:**
- 1 KETTLE MAY BE LOCATED OVER BASINS IF GROUND IS PROTECTED FROM SPILLS. SEE SPECIFICATIONS. ROOFING MATERIALS MAY BE LOCATED OVER BASINS.
 - 2 CRICKET SLOPE = 1/4" / FT. MINIMUM
 - 3 CONTRACTOR TO FURNISH AND INSTALL CRICKETS AT THE HIGH SIDES OF ALL ROOF PENETRATIONS.
 - 4 LACED VALLEYS ARE NOT PERMITTED. ALL VALLEY PANELS TO BE FIELD CUT. CUT OFF PORTION OF THE PANEL MAY BE USED AS A RIDGE PANEL.
 - 5 REPAIR ALL GROUND THAT WAS DAMAGED BY VEHICLES, MATERIAL STORAGE, ETC. REPAIRS SHALL RESTORE GROUND TO ORIGINAL CONDITION.

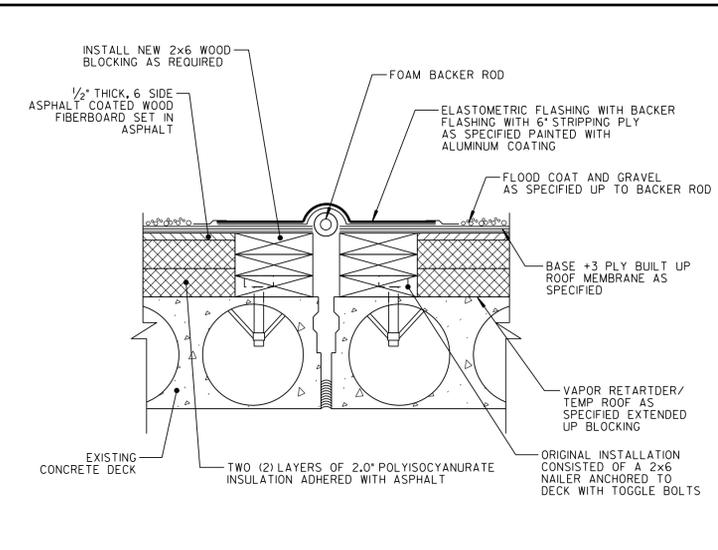
NO.	BY	REVISION	DATE

Milwaukee Water Works Water Engineering
Department of Public Works
DRIVE HOUSE & CHLORINE SCALE ROOM ROOF REPLACEMENT

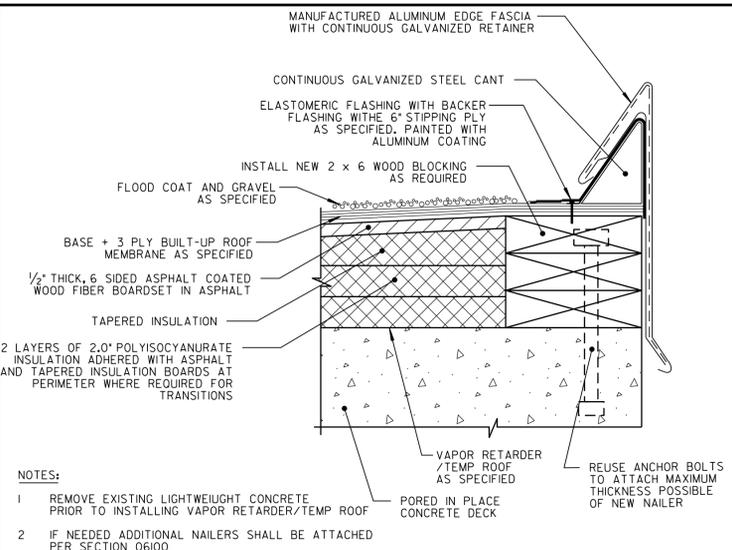
ROOF AND SITE PLAN

DESIGNED BY	M. GREMMER	APPROVED	DATE
DRAWN BY	S. MILLER	<i>Mark Franke</i>	5-17-2016 PLANTS PROJECT ENGINEER
CHECKED BY	A. AQUILA	<i>M. J. Schell</i>	5-17-2016 CHIEF DESIGN ENGINEER
DATE	5-17-2016	<i>Chilews</i>	5-17-2016 SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS
SCALE	1" = 20'		
PROJECT NUMBER	WT450153100		
OFFICIAL NOTICE	46-1-2016		

DRAWING NO. **HP-183-A1**

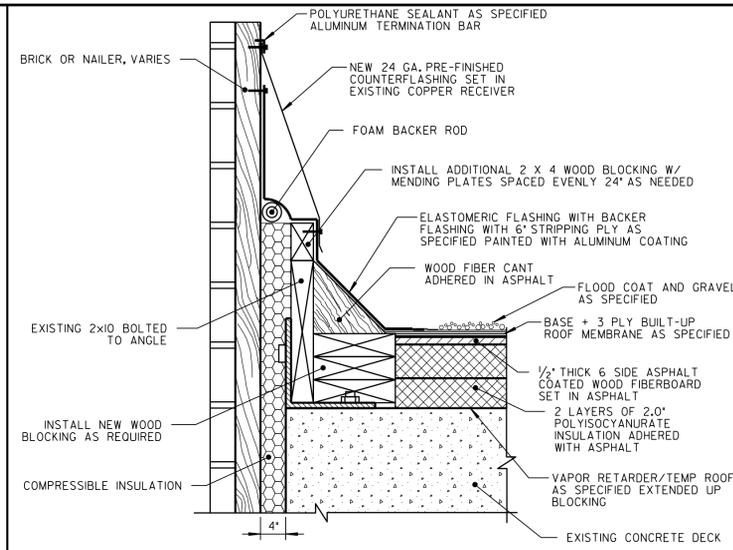


3 DETAIL - EXPANSION JOINT
A1 SCALE - NONE

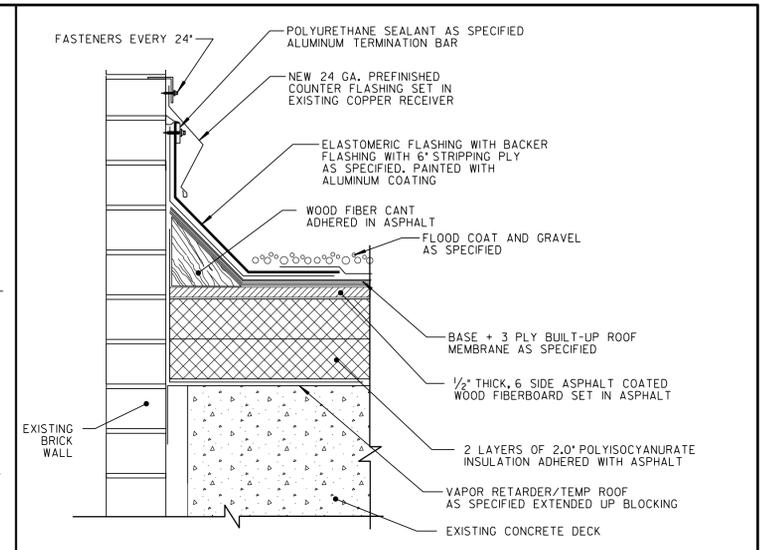


4 DETAIL - PERIMETER EDGE
A1 SCALE - NONE

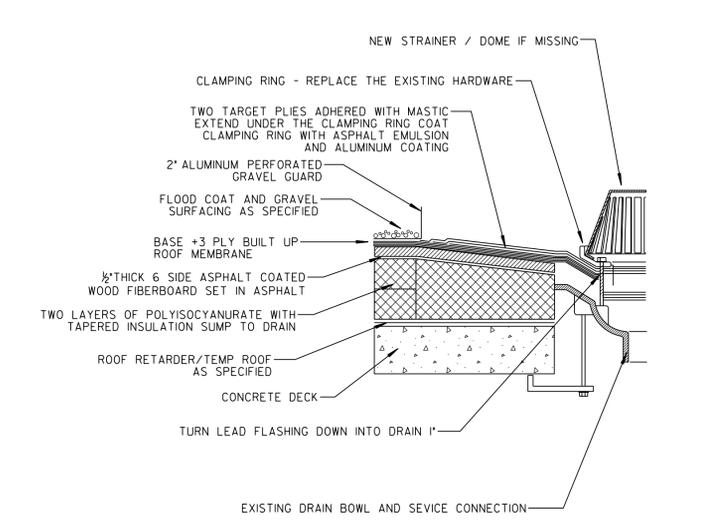
- NOTES:
1. REMOVE EXISTING LIGHTWEIGHT CONCRETE PRIOR TO INSTALLING VAPOR RETARDER/TEMP ROOF
 2. IF NEEDED ADDITIONAL NAILERS SHALL BE ATTACHED PER SECTION 06100



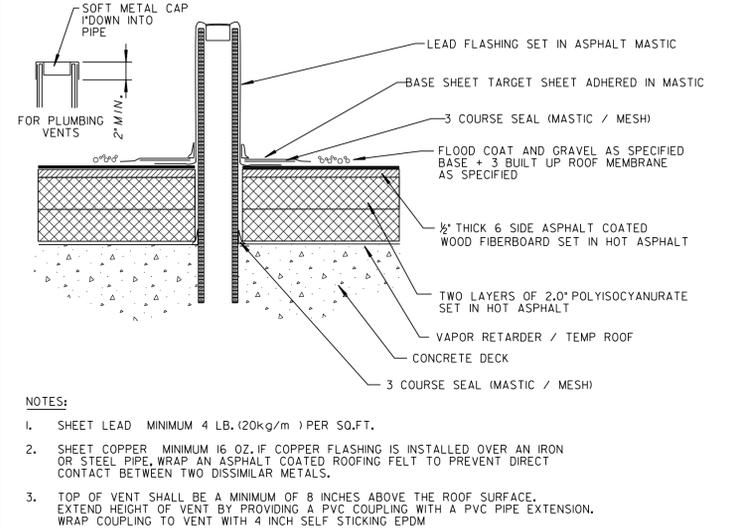
5 DETAIL - WALL FLASHING
A1 SCALE - NONE



6 DETAIL - WALL FLASHING
A1 SCALE - NONE

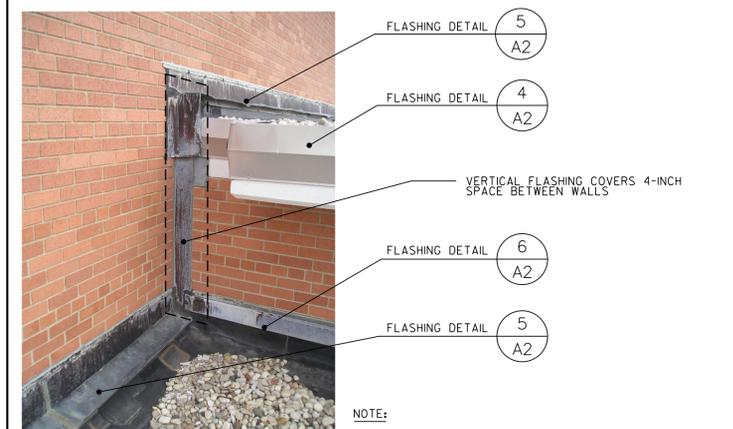


7 DETAIL - ROOF DRAIN
A1 SCALE - NONE

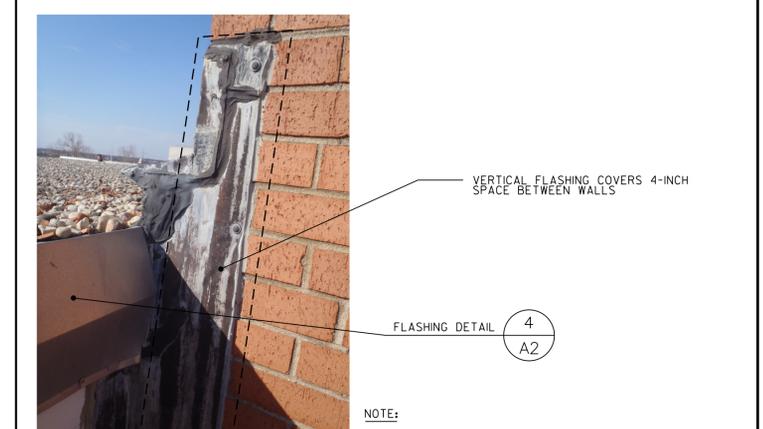


8 DETAIL - VENT STACK
A1 SCALE - NONE

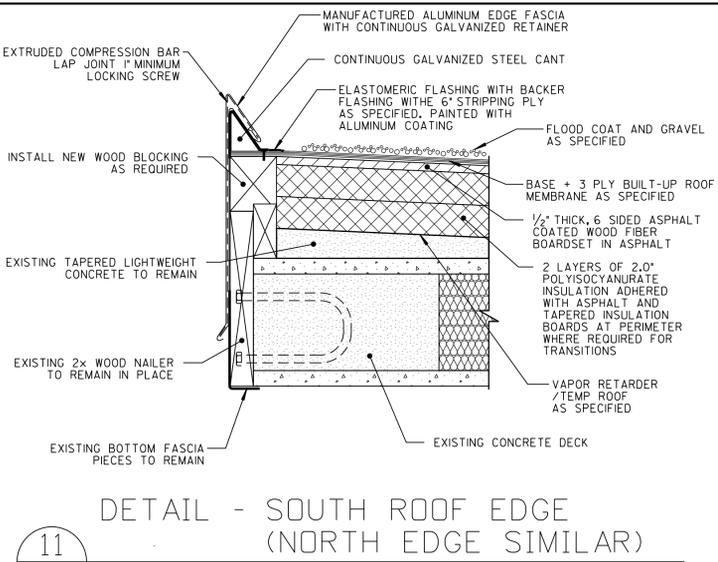
- NOTES:
1. SHEET LEAD MINIMUM 4 LB. (20kg/m²) PER 50.FT.
 2. SHEET COPPER MINIMUM 16 OZ. IF COPPER FLASHING IS INSTALLED OVER AN IRON OR STEEL PIPE, WRAP AN ASPHALT COATED ROOFING FELT TO PREVENT DIRECT CONTACT BETWEEN TWO DISSIMILAR METALS.
 3. TOP OF VENT SHALL BE A MINIMUM OF 8 INCHES ABOVE THE ROOF SURFACE. EXTEND HEIGHT OF VENT BY PROVIDING A PVC COUPLING WITH A PVC PIPE EXTENSION. WRAP COUPLING TO VENT WITH 4 INCH SELF-STICKING EPDM.



9 DETAIL - VERTICAL FLASHING BETWEEN CHEMICAL BLDG. & DRIVE HOUSE ROOF
A1 SCALE - NONE

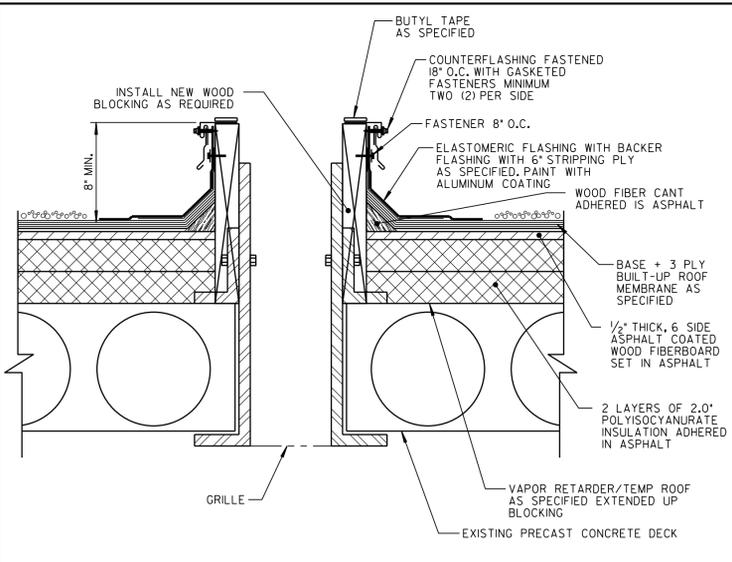


10 DETAIL - VERTICAL FLASHING BETWEEN CHEMICAL BLDG. & CHLORINE SCALE ROOM
A1 SCALE - NONE



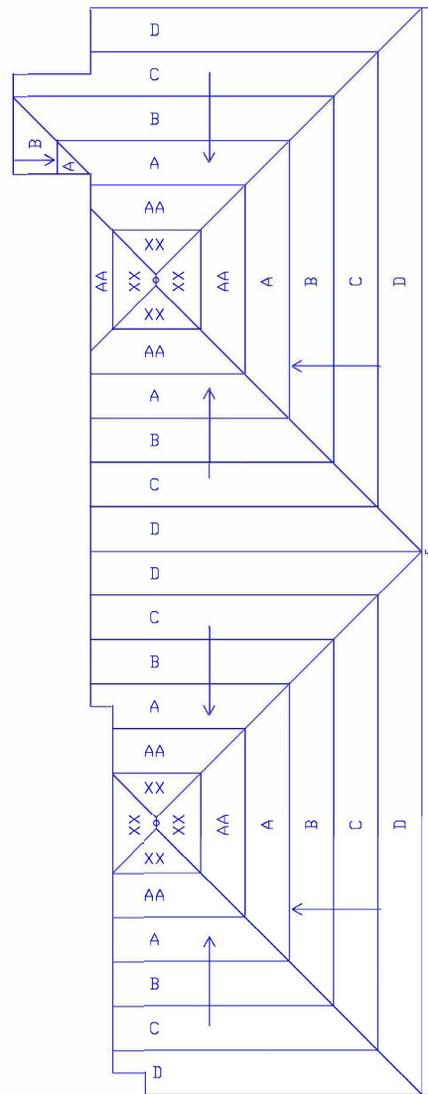
11 DETAIL - SOUTH ROOF EDGE (NORTH EDGE SIMILAR)
A1 SCALE - NONE

NOTE:
NORTH EDGE DOES NOT HAVE EXISTING TAPERED LIGHTWEIGHT CONCRETE



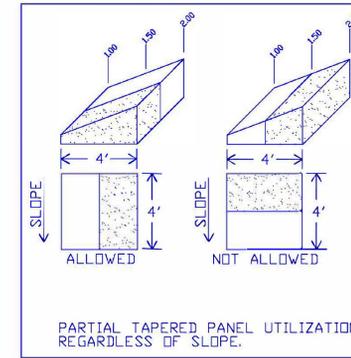
12 DETAIL - ROOF VENTILATOR
A1 SCALE - NONE

NO.	BY	REVISION	DATE
Milwaukee Water Works Water Engineering Department of Public Works DRIVE HOUSE & CHLORINE SCALE ROOM ROOF REPLACEMENT			
ROOF DETAILS			
DESIGNED BY	M. GREMMER	APPROVED	DATE
DRAWN BY	S. MILLER	<i>Mark G. Grewer</i>	5-17-2016 PLANTS PROJECT ENGINEER
CHECKED BY	A. AQUILA	<i>Mark G. Grewer</i>	5-17-2016 CHIEF DESIGN ENGINEER
DATE	5-17-2016	<i>Mark G. Grewer</i>	5-17-2016 SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS
SCALE	AS NOTED	<i>Mark G. Grewer</i>	5-17-2016
PROJECT NUMBER	WT450153100		
OFFICIAL NOTICE	46-1-2016		
DRAWING NO. HP-183-A2			



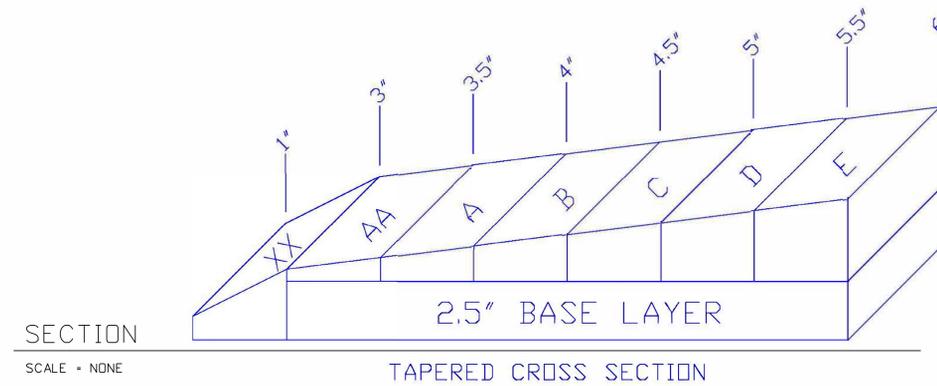
NOTES:

1. TAPERED INSULATION SLOPE = 1/8"/FT.
2. CRICKET SLOPE = 1/4"/FT. MINIMUM.
3. ELEVATIONS SHD'N DD NOT INCLUDE AN OVERLAY BOARD.
4. CONTRACTOR TD FURNISH AND INSTALL CRICKETS AT THE HIGH SIDES OF ALL ROOF PENETRATIONS.
5. AVERAGE R-VALUE = 25.27
6. TAPERED ROOF AREA = 3,049 SQ. FT.
7. LACED VALLEYS ARE NOT PERMITTED. ALL VALLEY PANELS TD BE FIELD CUT. CUT OFF PORTION OF THE PANEL MAY BE USED AS A RIDGE PANEL.



PLAN - CHLORINE SCALE ROOM ROOF

SCALE - NONE



SECTION

SCALE - NONE

TAPERED CROSS SECTION

NO.	BY	REVISION	DATE
Milwaukee Water Engineering Department of Public Works DRIVE HOUSE & CHLORINE SCALE ROOM ROOF REPLACEMENT CHLORINE SCALE ROOM INSULATION PLAN AND SECTION			
DESIGNED BY	M. GREMMER	APPROVED	DATE
DRAWN BY	S. MILLER	<i>Mark Gremer</i>	5-17-2016 PLANTS PROJECT ENGINEER
CHECKED BY	A. AQUILA	<i>M. Gremer</i>	5-17-2016 CHIEF DESIGN ENGINEER
DATE	5-17-2016		
SCALE	NONE	<i>C. Williams</i>	5-17-2016 SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS
PROJECT NUMBER	WT450153.100		
OFFICIAL NOTICE	46-1-2016		
DRAWING NO. HP-183-A3			