

LINNWOOD TREATMENT PLANT PROJECT LOCATION

Milwaukee Water Works

LINNWOOD TREATMENT PLANT

WP-321: LINNWOOD ROOF REPLACEMENTS

DRAWING INDEX

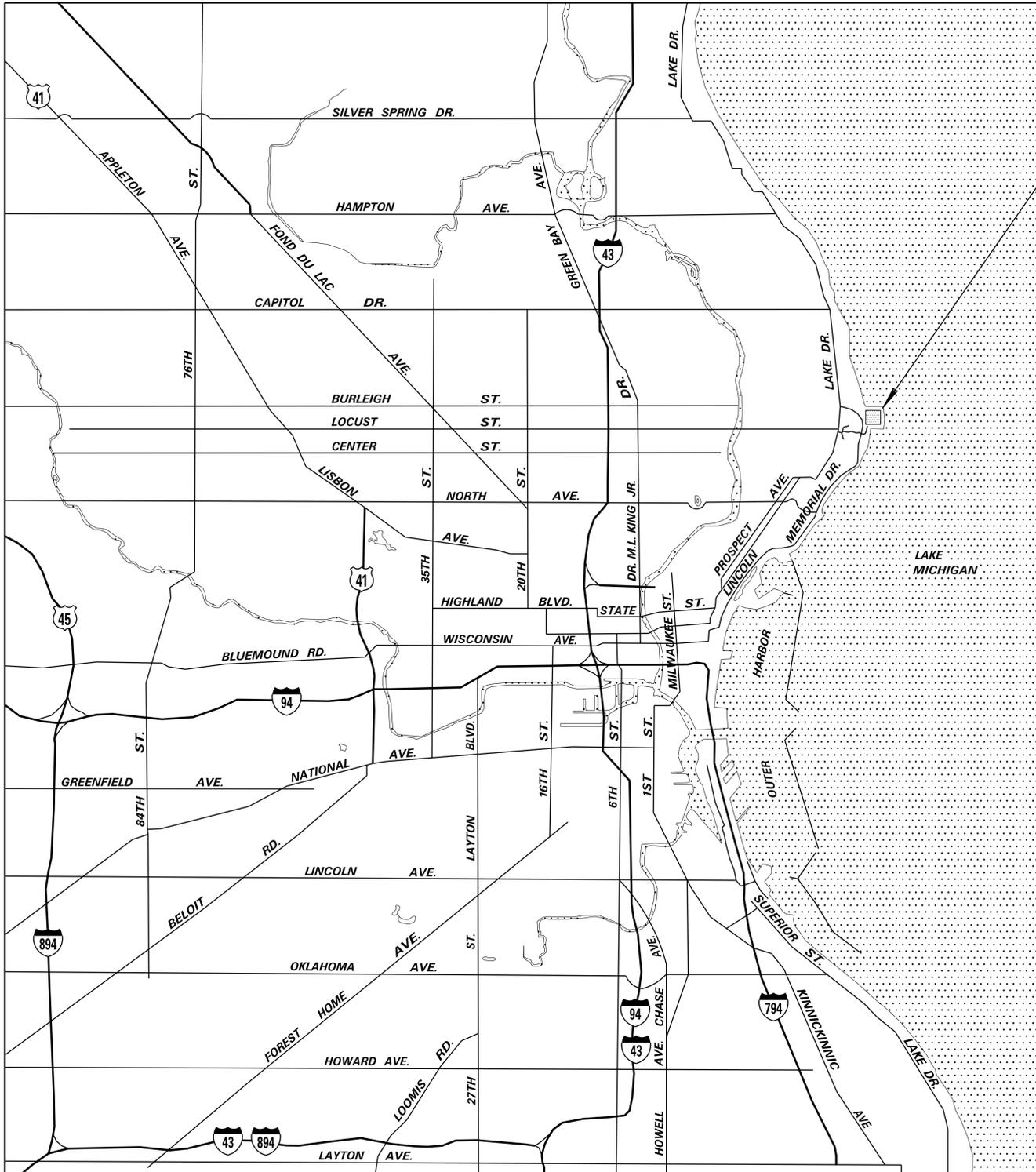
DRAWING NO. TITLE

CONTRACT DRAWINGS

WP-321-01	LINNWOOD ROOF REPLACEMENTS - LOCATION MAP & DRAWING INDEX
WP-321-02	LINNWOOD ROOF REPLACEMENTS - ROOF PLAN AND DETAILS - CHEMICAL BUILDING
WP-321-03	LINNWOOD ROOF REPLACEMENTS - ROOF PLAN AND DETAILS - SERVICE BUILDING
WP-321-04	LINNWOOD ROOF REPLACEMENTS - ROOF DETAILS

REFERENCE DRAWINGS

WP-23-4	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE FLOOR PLAN AT ELEV. 31'-0"	WP-179-1	LINNWOOD PURIFICATION PLANT BUILDINGS ROOF PLAN
WP-23-5	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE PLAN AT ELEV. 43'-6"	WP-179-2	LINNWOOD PURIFICATION PLANT EXISTING ROOF FLASHING DETAILS FILTER BUILDING
WP-23-5A	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE PLAN AT ELEV. 43'-6" (REVISED)	WP-179-3	LINNWOOD PURIFICATION PLANT ROOF FLASHING DETAILS CHEMICAL SERVICE & ADJOINING BLDG'S.
WP-23-6	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE PLANS AT ELEV. 54'-6", 65'-0", 76'-0" & TOWER ROOF	A-3	(WP-211) BREAK ROOM LEVEL PLAN
WP-23-6A	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE PLANS AT ELEV. 54'-6", 65'-0", 76'-0" & TOWER ROOF (REVISED)	A-4	(WP-211) ELEVATOR SECTION
WP-23-8	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE CONNECTING BLDG. PLAN AT ELEV'S. 23'-6", 31'-0" & 32'-0"	S-1	(WP-211) FOUNDATION, BASEMENT, FIRST & SECOND FLOOR, ROOF FRAMING PLAN & SECTION THRU. ELEVATOR SHAFT
WP-23-9	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE CONNECTING BLDG. BASEMENT & ROOF PLAN		
WP-23-9B	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE CONNECTING BLDG. BASEMENT & ROOF PLAN (REVISED)		
WP-23-21	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE MAIN AISLE SECTIONS & ELEV. IN CONNECTING BLDG.		
WP-23-29	WATER PURIFICATION PLANT CHEM. AND BLDG. SUPERSTRUCTURES GENERAL CONCRETE PLANS - ROOF ELEVATIONS AND DRAINAGE		
WP-23-32	WATER PURIFICATION PLANT CHEMICAL BLDG. SUPERSTRUCTURE CONCRETE FLOOR PLAN - ELEVATION 23'-6", E. PORTION		
WP-23-33	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE CONCRETE FLOOR PLAN ELEVATION 31'-0" W. PORTION		
WP-23-34	WATER PURIFICATION PLANT CHEMICAL BLDG. SUPERSTRUCTURE CONCRETE FLOOR PLANS - ELEVATIONS 23'-0", 36'-0" & 42'-6"		
WP-23-36	WATER PURIFICATION PLANT CHEMICAL BLDG. SUPERSTRUCTURE CONCRETE FLOOR PLANS ELEVATIONS 65'-0" & 76'-0"		
WP-23-43	WATER PURIFICATION PLANT CHEMICAL BUILDING SUPERSTRUCTURE CONCRETE ROOF DETAILS ROTUNDA AND ADJACENT SLABS		
WP-24-2	WATER PURIFICATION PLANT SERVICE BUILDING SUPERSTRUCTURE ROOF PLAN & NORTH ELEVATION		
WP-24-2A	WATER PURIFICATION PLANT SERVICE BUILDING SUPERSTRUCTURE ROOF PLAN & NORTH ELEVATION (REVISED)		
WP-24-3	WATER PURIFICATION PLANT SERVICE BUILDING SUPERSTRUCTURE EXTERIOR SCALE DETAILS		
WP-56-1	WATER PURIFICATION PLANT CHEMICAL & SERVICE BLDG. PLUMBING SERVICE BUILDING FLOOR PLANS & ROOF PLAN		
WP-56-2	WATER PURIFICATION PLANT CHEMICAL & SERVICE BLDG. PLUMBING CHEMICAL BUILDING ROOF DRAINAGE		
WP-116-1	LINNWOOD PURIFICATION PLANT ROOF FLASHING DETAILS CHEMICAL SERVICE & ADJOINING BLDG'S.		



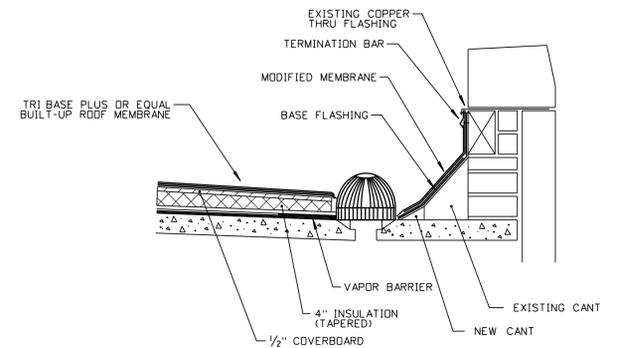
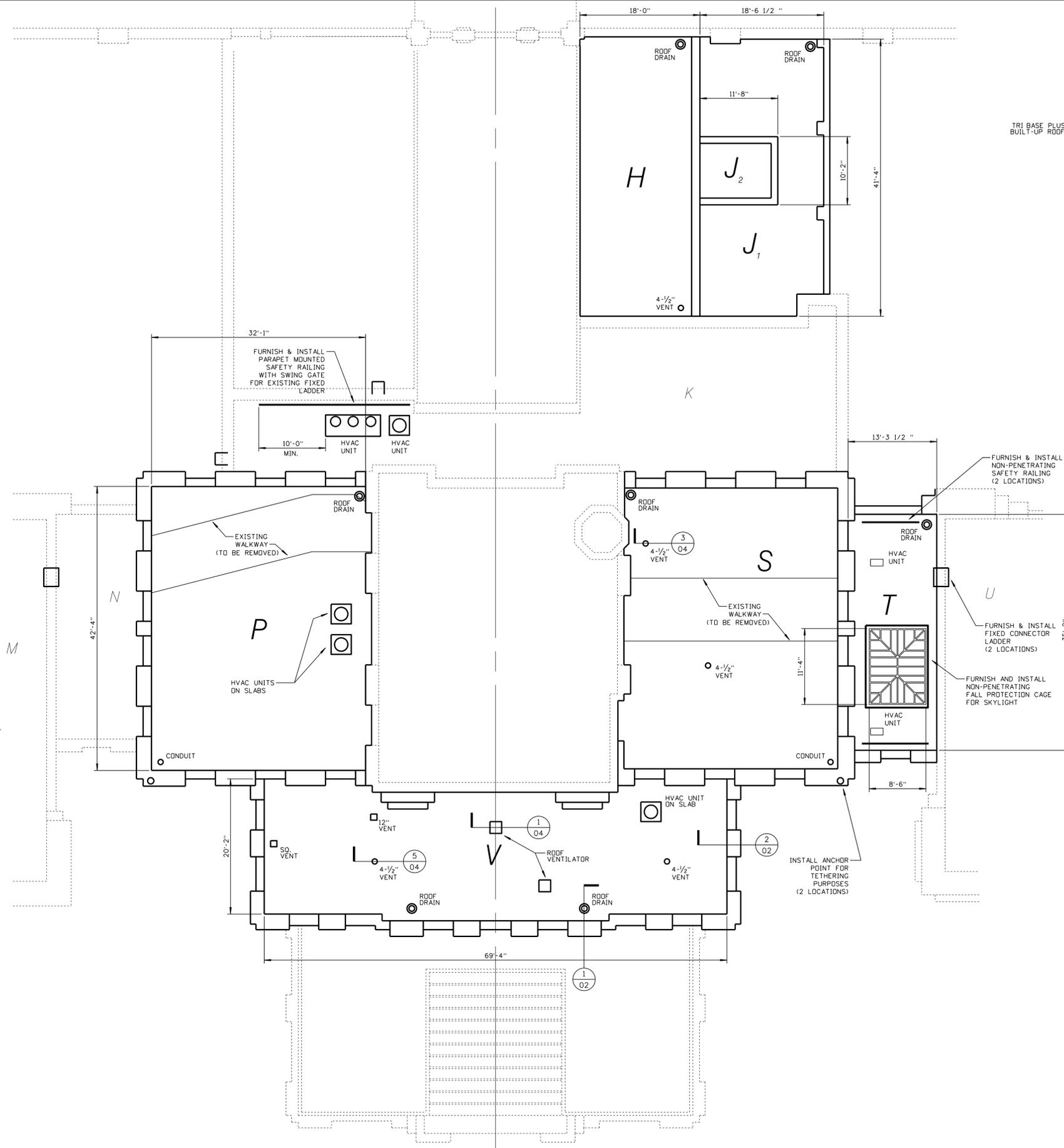
MILWAUKEE, WISCONSIN



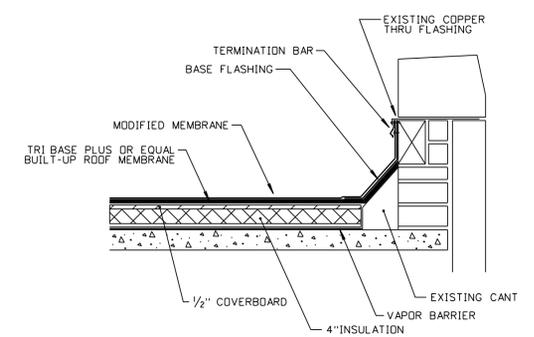
LOCATION MAP

Milwaukee Water Works		Water Engineering	
Department of Public Works		Department of Public Works	
LINNWOOD TREATMENT PLANT			
WP-321 LINNWOOD ROOF REPLACEMENTS			
LOCATION MAP & DRAWING INDEX			
DESIGNED BY	P.J.G.	APPROVED	DATE
DRAWN BY	S. MILLER	<i>Philip J. G...</i>	6/12/15
CHECKED BY	P.J.G.	FOR PLANTS PROJECT ENGINEER	
DATE	3-26-2015	<i>S. Miller</i>	6/12/15
SCALE	AS SHOWN	CHIEF DESIGN ENGINEER	
PROJECT NUMBER	WT450131200	<i>Chris...</i>	6/12/15
OFFICIAL NOTICE	95-1-2015	SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS	
FILE NO.		DRAWING NO.	WP-321-01

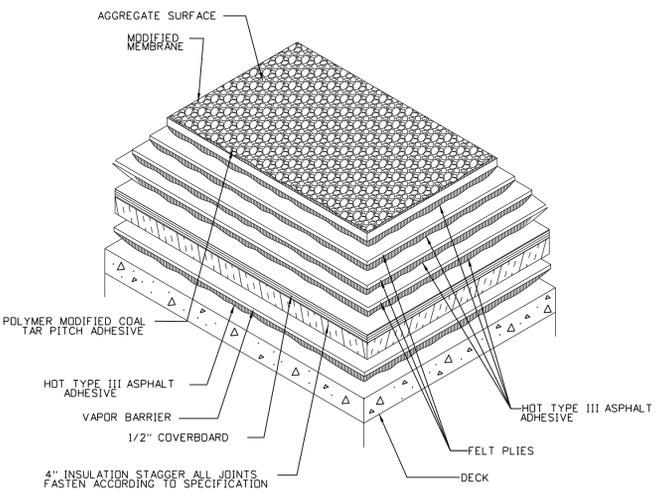




1 ROOF DRAIN - TYPICAL
NOT TO SCALE



2 ROOF PROFILE - PERIMETER FLASHING
NOT TO SCALE

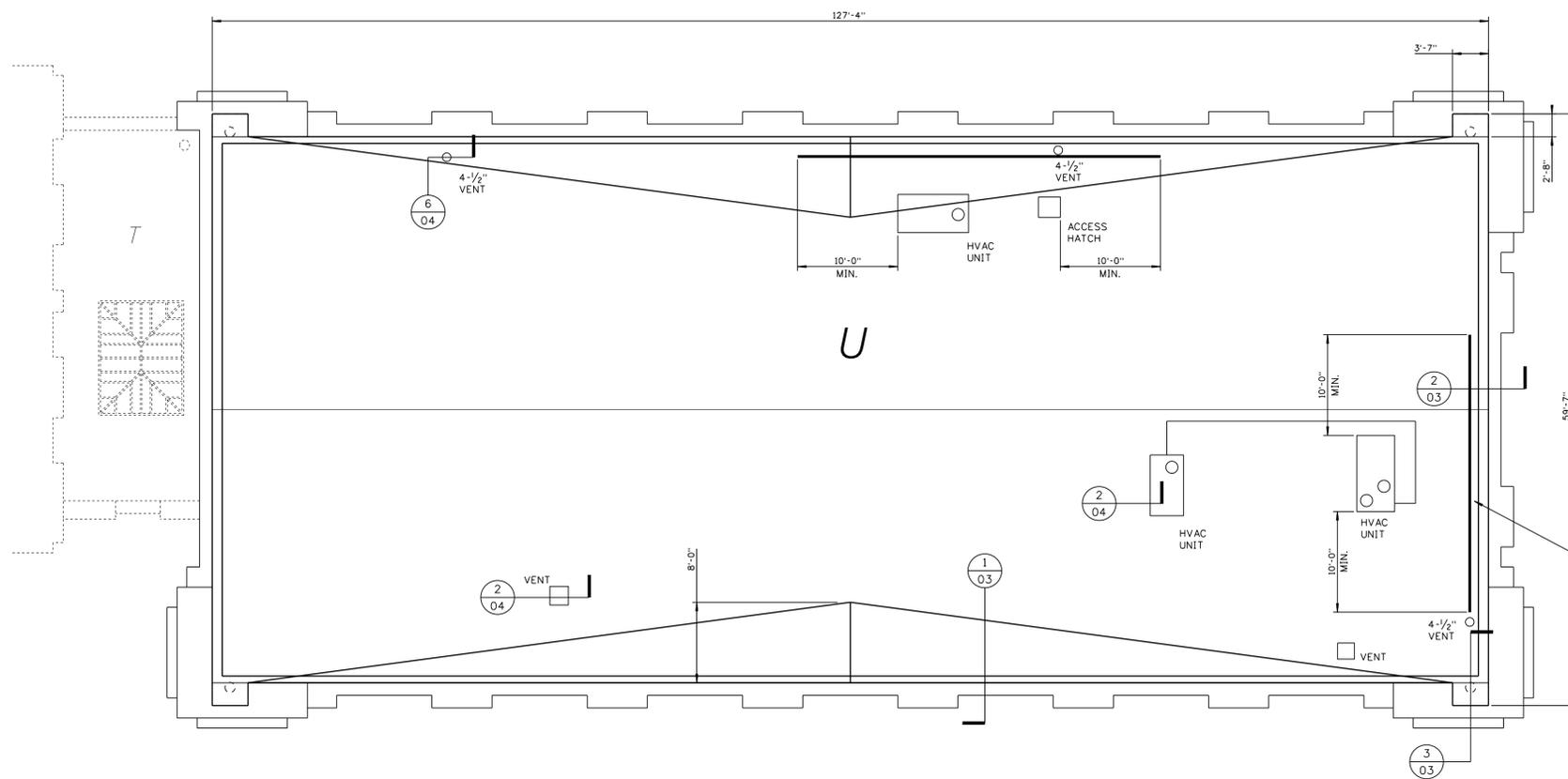


BUILT-UP ROOF
(ROOFS H, J₁, J₂, P, S, T & V)
NOT TO SCALE

- NOTES:
- 1 REMOVE AND DISPOSE OF THE EXISTING EPDM SHEET MEMBRANE AND UNDERLYING BUILT-UP ROOFING SYSTEM, INCLUDING INSULATION, CANT STRIPS, FLASHING ETC.
 - 2 REMOVE AND DISPOSE OF THE EXISTING WOODEN WALKWAYS ON ROOFS P & S.
 - 3 INSPECT, REPAIR, AND SEAL DAMAGED ROOF DECK CRACKS AND JOINTS.
 - 4 REPAIR ANY SAWCUTTING, HOLES OR CRACKING EVIDENT AFTER REMOVAL OF TERMINATION BAR ALONG WALL PERIMETER.
 - 5 SEAL PRE-CAST JOINTS WITH STRIPS OF FIBERGLASS BASE SHEET.
 - 6 FURNISH AND INSTALL A COMPLETE, HOT APPLIED ASPHALT BUILT-UP ROOFING SYSTEM AS SHOWN IN DETAILS.
 - 7 INSTALL CANT STRIPS WHERE NECESSARY.
 - 8 HVAC UNITS TO BE LIFTED, AS NECESSARY, TO PROPERLY INSTALL PLIES & FLASHING.
 - 9 REPAIR AND/OR REPLACE ROOF DRAIN PARTS AS NECESSARY.
 - 10 FURNISH AND INSTALL ROOF SAFETY DEVICES AS SHOWN.
 - 11 FURNISH AND INSTALL FIXED CONNECTOR LADDERS AS SHOWN.

ROOF PLAN - CHEMICAL BUILDING
(ROOFS H, J₁, J₂, P, S, T & V)
SCALE - 1/8" = 1'-0"

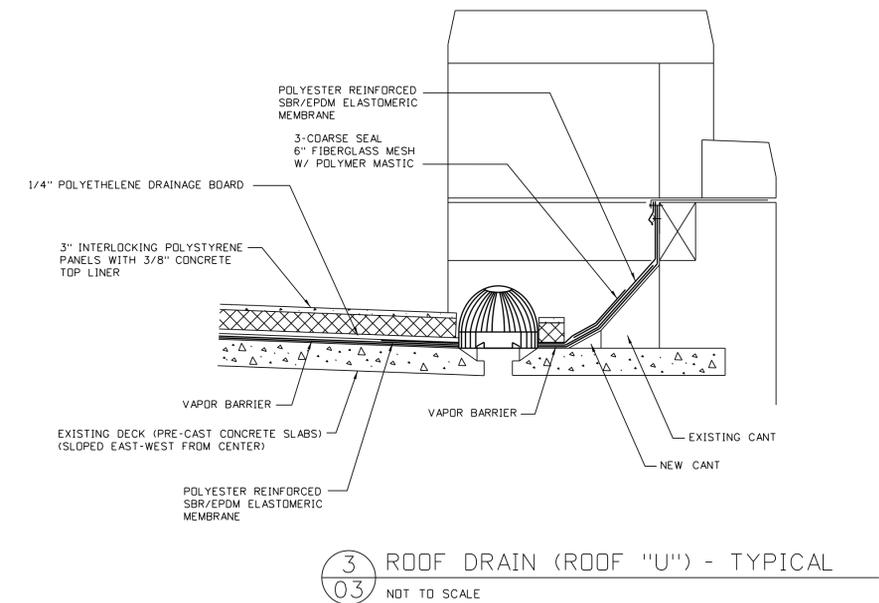
Milwaukee Water Works Water Engineering Department of Public Works LINWOOD TREATMENT PLANT WP-321 LINWOOD ROOF REPLACEMENTS ROOF PLAN AND DETAILS CHEMICAL BUILDING	
DESIGNED BY P.J.G. DRAWN BY S. MILLER CHECKED BY P.J.G. DATE 3-26-15 SCALE 1/8" = 1'-0" PROJECT NUMBER WT450131022 OFFICIAL NOTICE 95-1-2015	APPROVED <i>Philip J. G...</i> FOR PLANTS PROJECT ENGINEER <i>Michael J. ...</i> CHIEF DESIGN ENGINEER <i>William ...</i> SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS
NO. BY REVISION DATE FILE NO.	DRAWING NO. WP-321-02



ROOF PLAN - SERVICE BUILDING (ROOF "U")

SCALE = 1/8" = 1' - 0"

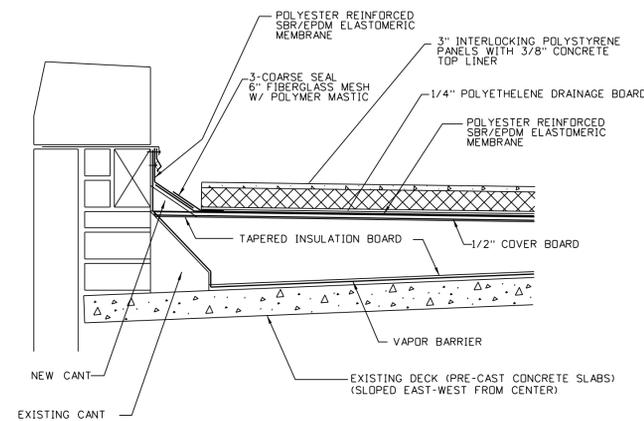
FURNISH & INSTALL
NON-PENETRATING
SAFETY RAILING
(2 LOCATIONS)



3 ROOF DRAIN (ROOF "U") - TYPICAL
NOT TO SCALE

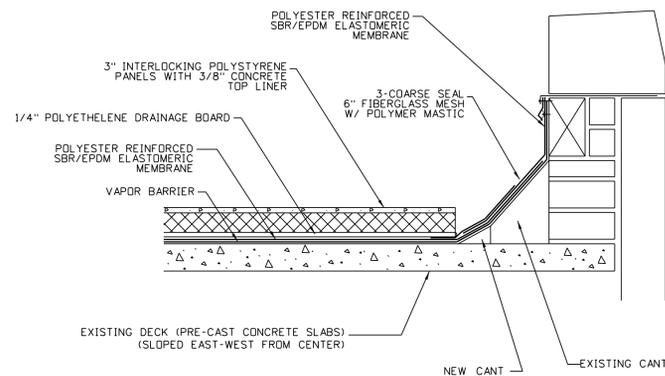
NOTES (ROOF U):

- REMOVE AND DISPOSE OF THE EXISTING EPDM SHEET MEMBRANE AND UNDERLYING BUILT-UP ROOFING SYSTEM, INCLUDING INSULATION, FLASHING, ETC. DOWN TO THE ROOF DECK.
- REMOVE THE EXISTING LIGHTWEIGHT CONCRETE FILL SADDLES DOWN TO THE ROOF DECK.
- INSPECT, REPAIR, AND SEAL DAMAGED ROOF DECK CRACKS AND JOINTS.
- REPAIR ANY SAWCUTTING, HOLES OR CRACKING EVIDENT AFTER REMOVAL OF EXISTING TERMINATION BAR ALONG WALL PERIMETER.
- SEAL PRE-CAST SLAB JOINTS WITH STRIPS OF FIBERGLASS BASE SHEET.
- HVAC UNITS TO BE LIFTED, AS NECESSARY TO PROPERLY INSTALL ROOFING SYSTEM.
- FURNISH AND INSTALL A COMPLETE, INVERTED ASPHALT ROOFING SYSTEM AS SHOWN IN DETAILS:
 - SINGLE-PLY VAPOR BARRIER SET IN TYPE III ASPHALT.
 - TAPERED INSULATION CRICKETS SET IN TYPE III ASPHALT (COVERED BY 1/2" COVERBOARD) TO ENSURE PROPER DRAINAGE.
 - POLYESTER REINFORCED SBR/EPDM ELASTOMERIC MEMBRANE.
 - 1/4" DRAINAGE BOARD
 - 3" INTERLOCKING POLYSTYRENE PANELS WITH 3/8" CONCRETE LINING (INCLUDE STRAPPING AT CENTERLINE OF ROOF).
- FURNISH AND INSTALL CANT STRIPS WHERE CALLED OUT, INCLUDING ROOFING, FLASHING, COUNTERFLASHING, ETC. AS NEEDED.
- FURNISH AND INSTALL 8"x16" x 2 3/8" CONCRETE PAVERS ALONG PERIMETER AND AT SLOPE CHANGES OTHER THAN AT CENTERLINE OF ROOF.
- REPAIR OR REPLACE ROOF DRAIN PARTS, AS NECESSARY.
- FURNISH AND INSTALL ROOF SAFETY DEVICES, AS SHOWN.



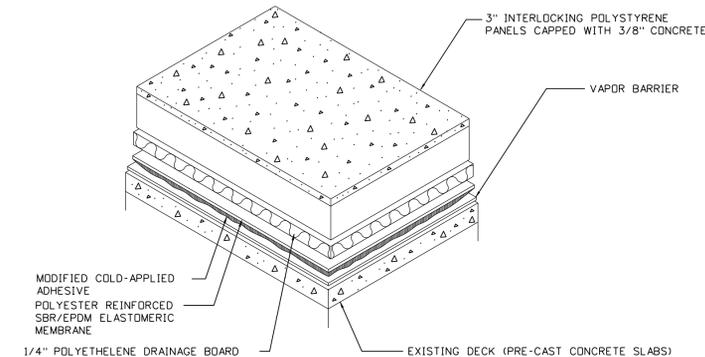
1 PROFILE - EAST & WEST WALLS
(EXISTING SADDLE REMOVED)

1
03 NOT TO SCALE



2 PROFILE - NORTH & SOUTH WALLS

2
03 NOT TO SCALE



INVERTED ROOFING SYSTEM
(ROOF "U") - TYPICAL

NOT TO SCALE

Milwaukee Water Works Water Engineering
Department of Public Works

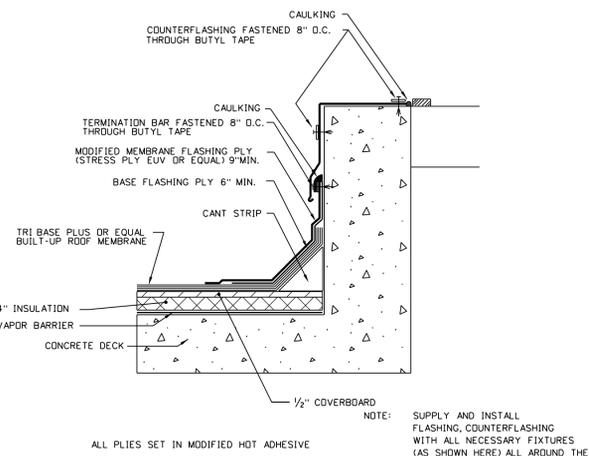
LINWOOD TREATMENT PLANT

WP-321 LINWOOD ROOF REPLACEMENTS

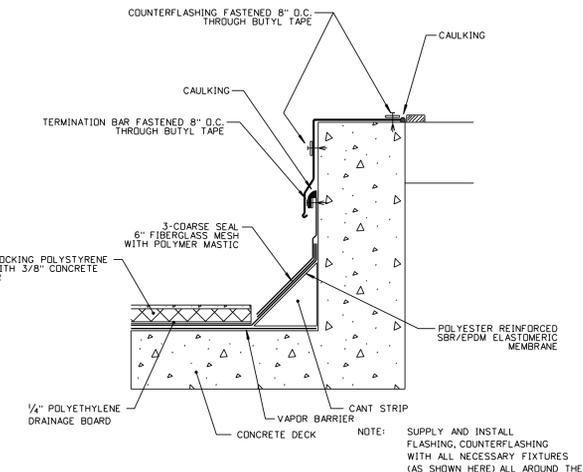
ROOF PLAN AND DETAILS
SERVICE BUILDING

DESIGNED BY	P.J.G.	APPROVED	DATE
DRAWN BY	S. MILLER	<i>Phil J. G.</i>	6/12/15
CHECKED BY	P.J.G.	FOR PLANTS PROJECT ENGINEER	
DATE	3-27-2015	<i>Phil J. G.</i>	6/12/15
SCALE	AS SHOWN	CHIEF DESIGN ENGINEER	
PROJECT NUMBER	WT450131200	<i>Andrew</i>	6/12/15
OFFICIAL NOTICE	95-1-2015	SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS	
FILE NO.		DRAWING NO.	WP-321-03

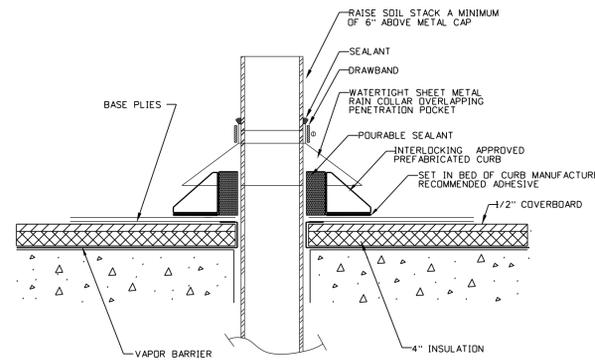
NO.	BY	REVISION	DATE



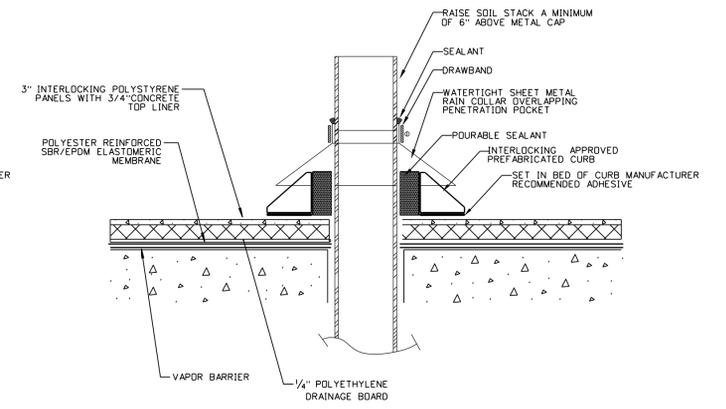
1
04 DETAIL - CURB BUILT-UP ROOF
NOT TO SCALE



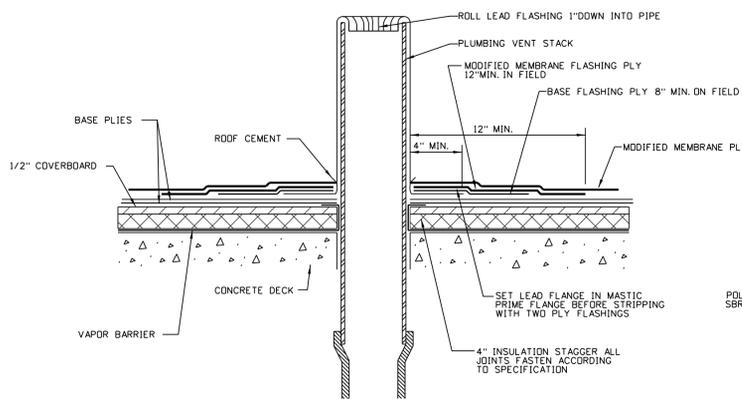
2
04 DETAIL - CURB INVERTED ROOF
NOT TO SCALE



3
04 DETAIL - PITCH POCKET BUILT-UP ROOF
NOT TO SCALE

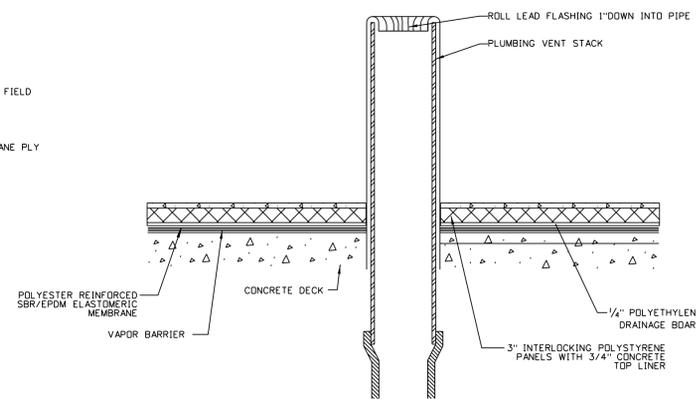


4
04 DETAIL - PITCH POCKET INVERTED ROOF
NOT TO SCALE



NOTE:
ALL PLYS SET IN MODIFIED HOT ADHESIVE
SEE SPECIFICATION FOR SURFACING

5
04 DETAIL - PLUMBING STACK BUILT UP ROOF
NOT TO SCALE



6
04 DETAIL - PLUMBING STACK INVERTED ROOF
NOT TO SCALE

Milwaukee Water Works Department of Public Works		Water Engineering Department of Public Works	
LINWOOD TREATMENT PLANT WP-321 LINWOOD ROOF REPLACEMENTS			
ROOF DETAILS			
DESIGNED BY	P. J. G.	APPROVED	DATE
DRAWN BY	S. MILLER	<i>Philip J. G.</i>	6/12/15
CHECKED BY	P. J. G.	FOR PLANTS PROJECT ENGINEER	
DATE	3-26-15	<i>M. J. Miller</i>	6/12/15
SCALE	AS SHOWN	CHIEF DESIGN ENGINEER	
PROJECT NUMBER	WT450131200	<i>William</i>	6/12/15
OFFICIAL NOTICE	95-1-2015	SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS	
FILE NO.		DRAWING NO.	WP-321-04