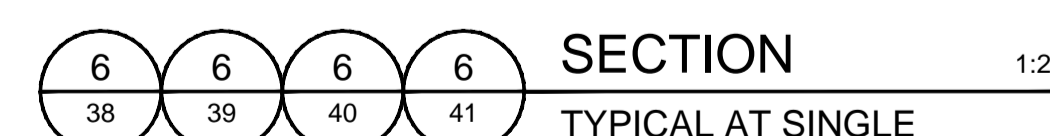
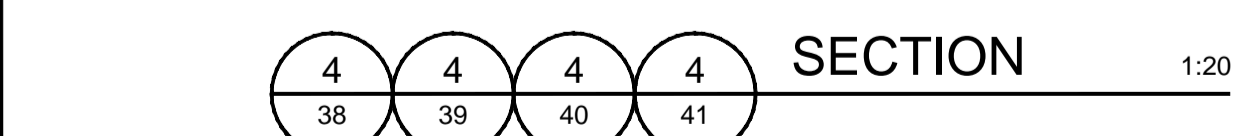
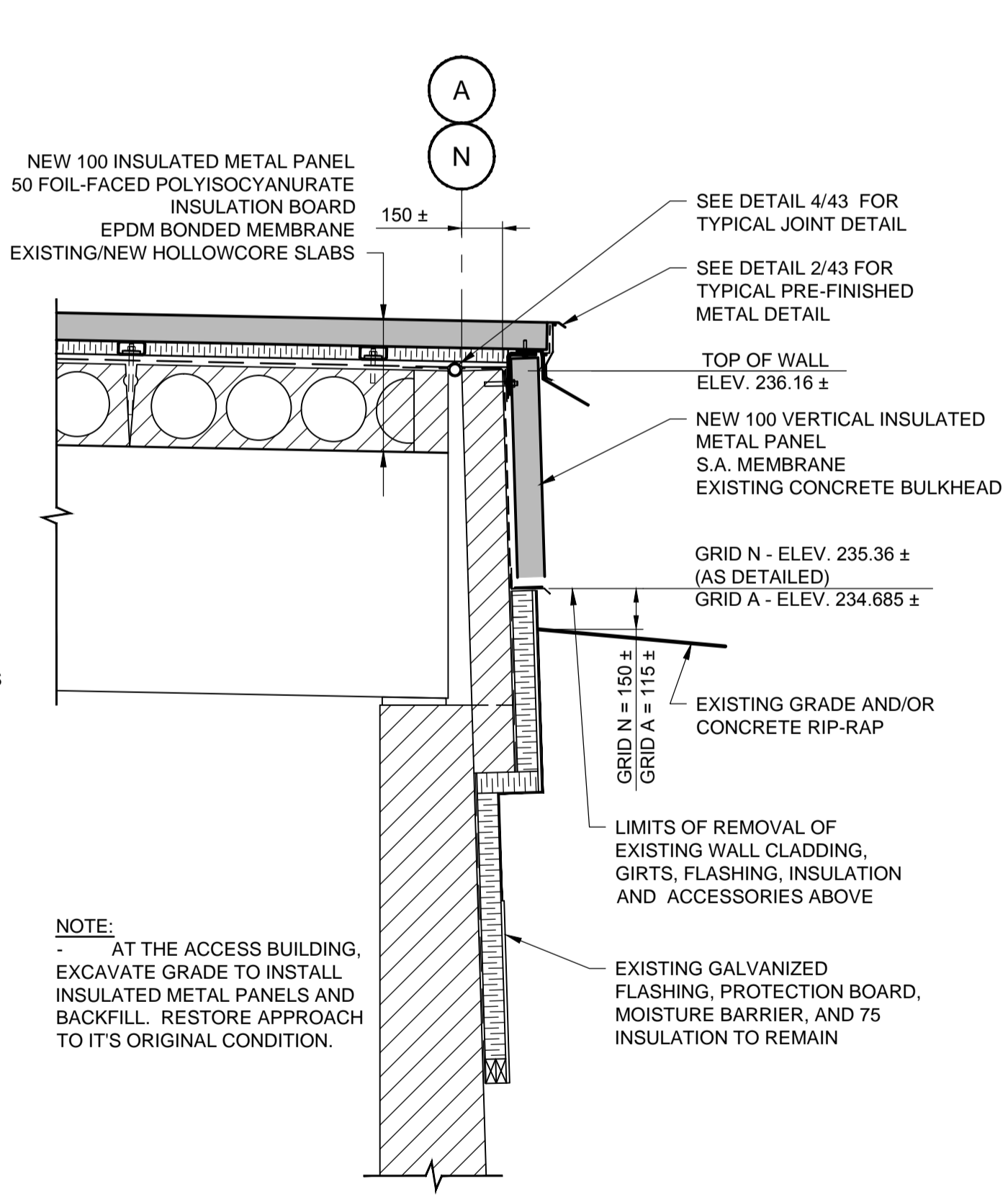
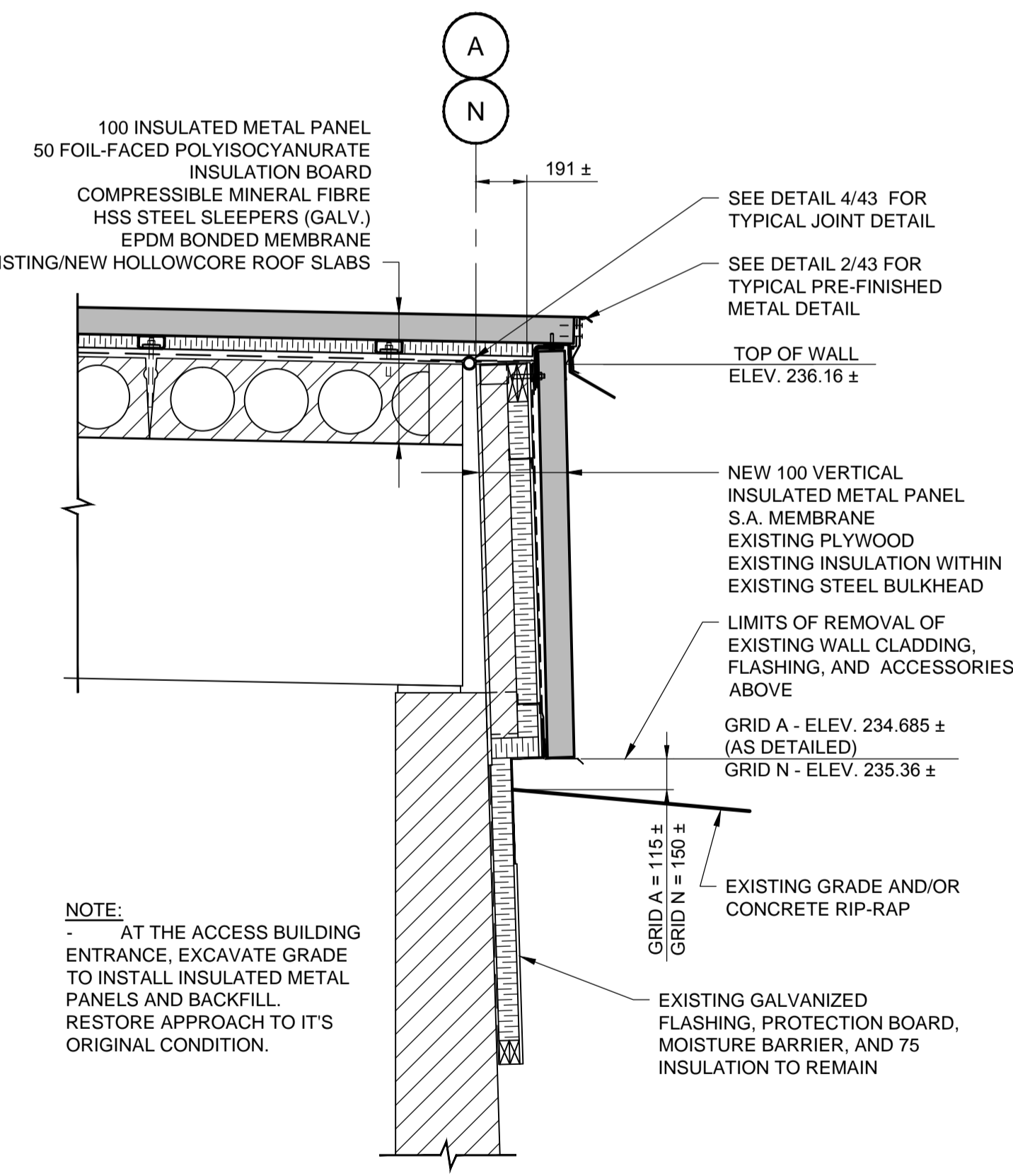
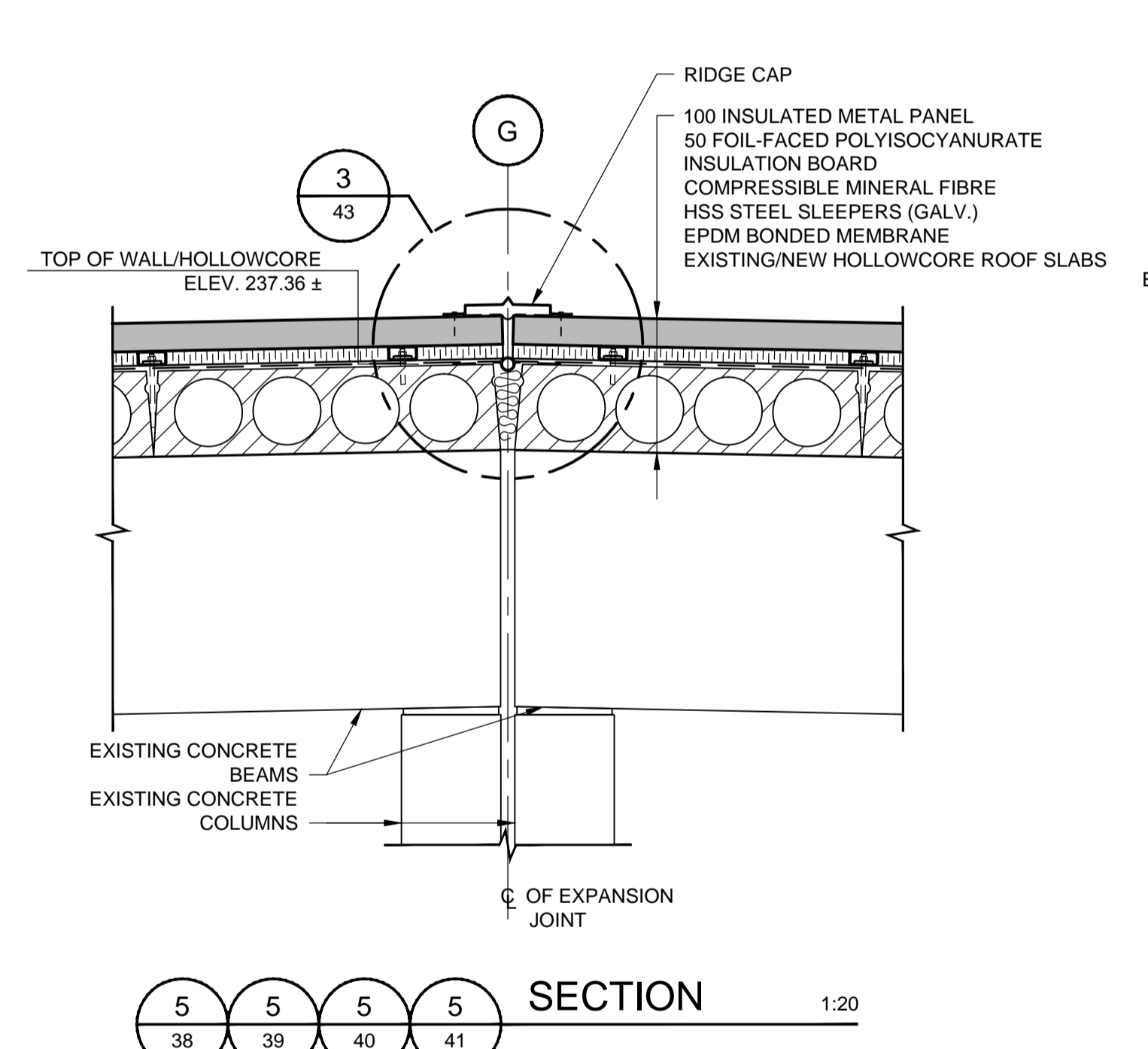
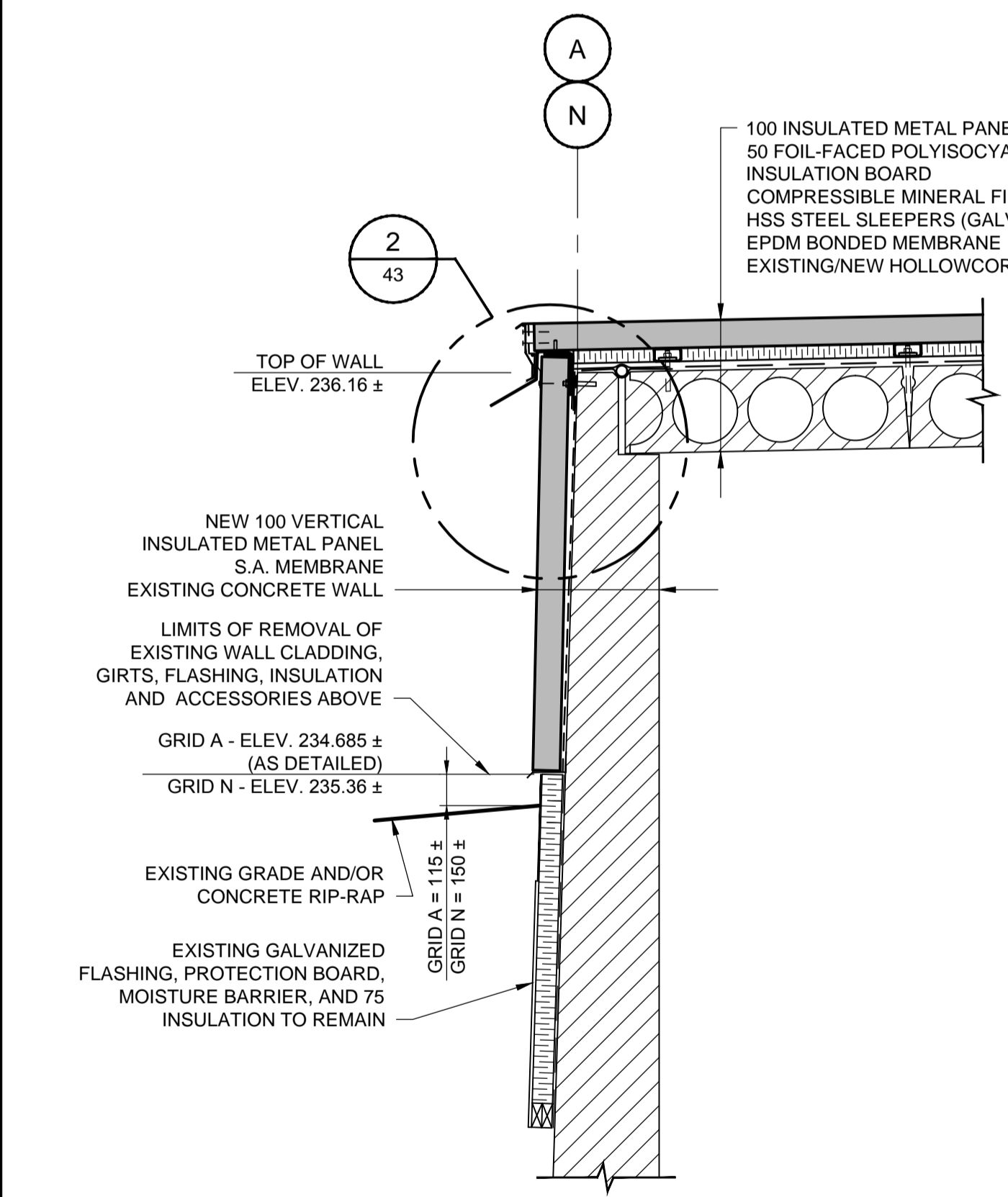


INSULATED ROOF PANEL SUPPLIER CONNECTION REQUIREMENTS:

- ROOF PANELS AND THEIR CONNECTIONS SHALL BE CAPABLE OF SUPPORTING THE FOLLOWING POST DISASTER SERVICE LIVE LOADS AT THE SLEEPER CLEAR SPANS SHOWN ON THE DRAWINGS:

EAVES AND ENDS (5 m STRIP):	2.60 kPa (down)	UPLIFT = 0.85 kPa
CORNERS (5 m x 5 m):	2.60 kPa (down)	UPLIFT = 1.4 kPa
INTERIOR ROOF AREA:	2.60 kPa (down)	UPLIFT = 0.60 kPa
- THE INSULATED ROOF PANEL SUPPLIER SHALL PROVIDE FOR A CONNECTION TO THE HSS STEEL SLEEPER THAT WILL ACCOMMODATE FOR TEMPERATURE MOVEMENT OF 25 mm AT THE EAVES WITH THE ROOF PANELS FIXED AT THE RIDGE.
- ALL CONNECTION HARDWARE SHALL BE STAINLESS STEEL.

- GENERAL NOTES:**
- CONTRACTOR SHALL REMOVE EXISTING ROOF ENVELOPE WHICH CONSISTS OF PAVERS, SPACERS, PROTECTION SHEETS, INSULATION, ROOFING MEMBRANE AND ALL ACCESSORIES.
 - CONTRACTOR SHALL REMOVE EXISTING WALL ENVELOPE WHICH CONSISTS OF CLADDING, GIRTS, FLASHING, INSULATION AND ACCESSORIES. REFER TO SECTIONS FOR LIMITS.
 - EXISTING ROOF PROFILE HAS VALLEY DEPRESSIONS ALONG BEAM LINES DUE TO HOLLOWCORE ROOF SLAB CAMBER.
- ROOF ENVELOPE INSTALLATION - CONSTRUCTION PROCEDURES:**
- IT IS ESSENTIAL THAT THE RESERVOIR ROOF STRUCTURE BE PROTECTED FROM MOISTURE INFILTRATION DURING THE ENTIRE CONSTRUCTION PERIOD. FOR THIS REASON THE EXISTING EPDM MEMBRANE WILL BE LEFT IN PLACE AND ALL PENETRATIONS PATCHED AND MAINTAINED UNTIL THE NEW EPDM MEMBRANE SYSTEM IS INSTALLED. ALL SUBSEQUENT WORK ACTIVITIES ON THE EXISTING AND NEW MEMBRANE SURFACES SHALL BE UNDERTAKEN WITH DUE CARE TO ENSURE THAT THE WATERPROOFING INTEGRITY OF THE SYSTEM IS NOT COMPROMISED.
 - INSTALLATION OF THE NEW BONDED EPDM MEMBRANE SHALL COMMENCE AT THE RESERVOIR RIDGE FOR EACH CELL. THE FIRST ROLL WIDTH OF THE NEW MEMBRANE SHALL BE PLACED SO THAT THE ROOF RIDGE IS CENTERED IN THE MIDDLE OF THE ROLL. IT SHALL THEN BE COMPLETELY UNROLLED AND FOLDED BACK ONTO ONE SIDE OF THE RIDGE. THE OLD E.P.D.M. BONDED MEMBRANE SHALL BE CUT AND REMOVED SO THAT THERE WILL BE A 200 mm OVERLAP WHEN THE NEW APPLICATION IS FOLDED BACK INTO PLACE.
 - THE HOT RUBBERIZED ASPHALT SHALL BE MOPPED AND SQUEEGEED ON THE EXPOSED RESERVOIR HOLLOWCORE ROOF SLABS TO MEET THE COVERAGE REQUIREMENTS. THE NEW EPDM FOLDED OVER AND COMPRESSED INTO THE HOT RUBBERIZED ASPHALT WHILE THE LIQUID MEMBRANE REMAINS IN AN ACTIVE STATE. THE INSTALLATION SHALL BE COMPLETED SO THAT THERE ARE NO INCIDENCES OF UNBONDED MEMBRANE OR ENTRAPPED AIR POCKETS WITH THE EXCEPTION OF THE 200 mm UNBONDED OVERLAP WITH THE EXISTING EPDM MEMBRANE. THIS PROCESS SHALL BE REPEATED ON EITHER SIDE OF THE RIDGE UNTIL THE ENTIRE ROOF DECK OF THE CELL IS COVERED BY THE NEW BONDED MEMBRANE SYSTEM AS SHOWN ON THE DRAWINGS.
 - PRIOR TO THE ABOVE PROCESS THE CONTRACTOR SHALL UNDERTAKE A SURVEY SO THAT ALL HOLLOWCORE GROUT KEYS CAN BE ACCURATELY LOCATED ON THE NEW BONDED MEMBRANE SYSTEM. THE THREADED ROOF SUPPORT RODS SHALL NEXT BE INSTALLED AS SHOWN ON THE DRAWINGS BY CUTTING THE NEW MEMBRANE, CORING A 38 Ø HOLE 200 mm DEEP IN THE GROUT KEY AND GROUTING THE RODS INTO GROUT KEYS WITH A 45 MPa PRE-BAGGED NON-SHRINK SAND CEMENT GROUT. THE MEMBRANE SHALL BE RESEALED AROUND THE THREADED RODS IN ACCORDANCE WITH THE MANUFACTURER'S PATCHING SPECIFICATIONS. ONCE GROUT HAS ACHIEVED A MINIMUM OF 25 MPa STRENGTH THE STEEL SLEEPER SYSTEM SHALL BE INSTALLED AND LEVELED ALONG THE SPECIFIED GROUT KEY LINES.
 - INSTALLATION OF THE FOIL BACK INSULATION, MINERAL FIBRE INSULATION AND INSULATED ROOF PANELS IS WEATHER CRITICAL AND SHALL BE DONE SO THAT NO WATER IS ENTRAPPED BETWEEN THE MEMBRANE AND THE ROOF ENVELOPE. PRIOR TO THE COMMENCEMENT OF THE INSTALLATION OF THE ROOF ENVELOPE THE EPDM SHALL BE BLOWN DRY OF ALL SURFACE MOISTURE.
 - THE INSTALLATION OF THE ROOF ENVELOPE ON ANY PART OF THE ROOF AREA SHALL NOT COMMENCE UNTIL WEATHER FORECASTS ARE FAVORABLE SUCH THAT THE INSTALLATION OF FOIL BACK INSULATION AND ROOF PANELS CAN BE COMPLETED TO THE ROOF RIDGE AND TEMPORARILY WATERPROOFED WITH TARPS OR PERMANENTLY CAPPED AT THAT LOCATION.
 - HEATING OF THE CAULKED BUTT JOINT LINES OF THE INSULATED ROOF PANELS WILL BE REQUIRED AS OUTLINED IN THE MANUFACTURER'S SPECIFICATION. CONTRACTOR IS TO ENSURE THE SEAL OF THE ROOF JOINT IS MAINTAINED ABOVE 15°C FOR MINIMUM CURING TIME OF THE CAULKING AND COMPRESSION SEAL COMPONENTS.



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

APEGM
Certificate of Authorization
Dillon Consulting Limited (MB)
No. 1789 Date: 2015-11-20

LOCATION APPROVED UNDERGROUND STRUCTURES		B.M. ELEV.
N/A		
SUPV. U/G STRUCTURES COMMITTEE		CONSTRUCTION COMPLETION DATE:
DATE		
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.		

CHECKED BY:	FAK
APPROVED BY:	SSR
DESIGNED BY:	NC
DRAWN BY:	TLK
SCALE:	AS NOTED
HORIZONTAL:	
VERTICAL:	
1 ISSUED FOR TENDER	2015 11 20
NO.	REVISIONS
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	DATE

DILLON CONSULTING

RELEASED FOR CONSTRUCTION

CONSULTANT DRAWING NUMBER
14-1411-B-105

SHEET 42 OF 47

CITY DRAWING NUMBER
1-0650R-B0005-001

PLT DATE: 2015 11 18

BID OPPORTUNITY: 930-2015
CONTRACT NUMBER:

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

**WILKES RESERVOIR NORTH CELL REHABILITATION
ROOF AND WALL ENVELOPE
SECTIONS AND DETAILS
SHEET 1 OF 3**

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