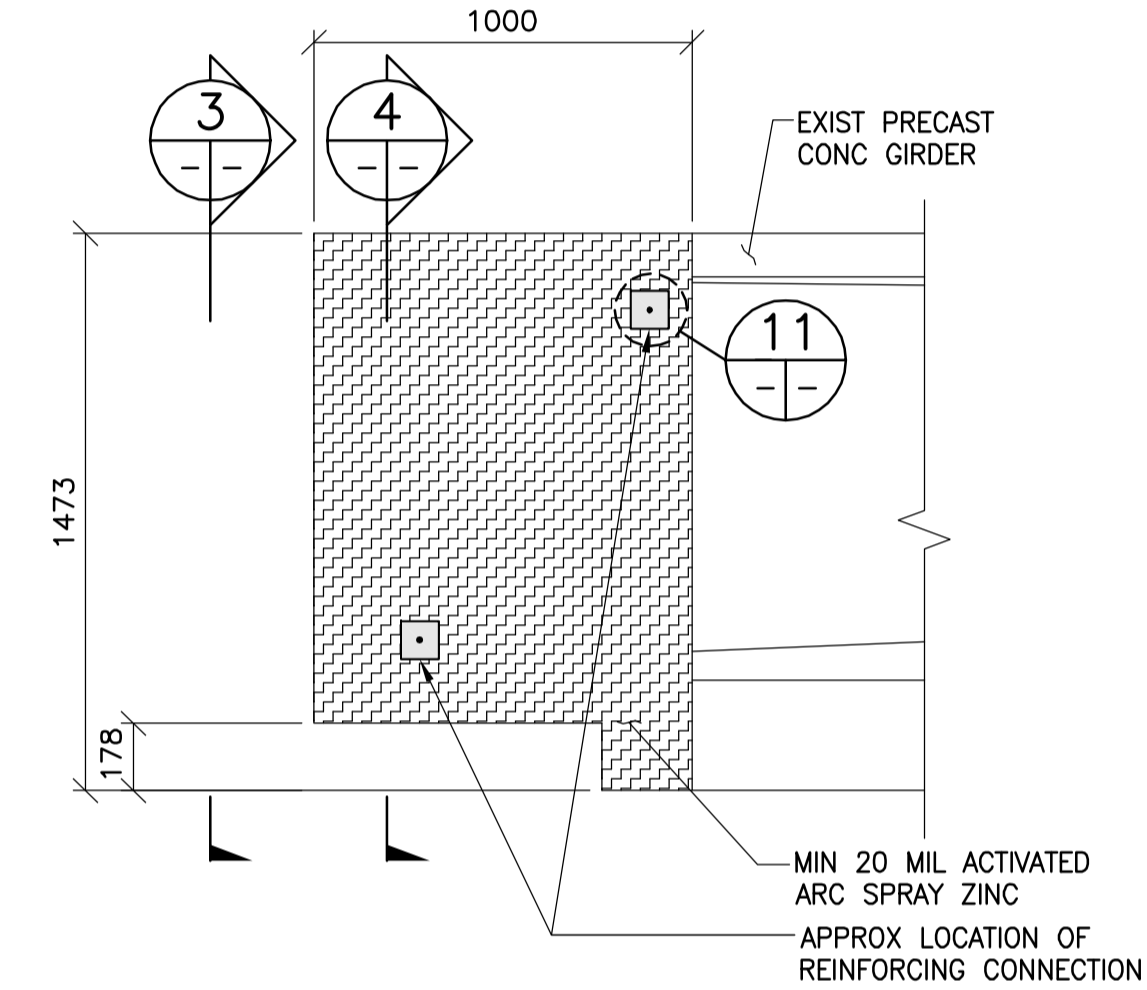


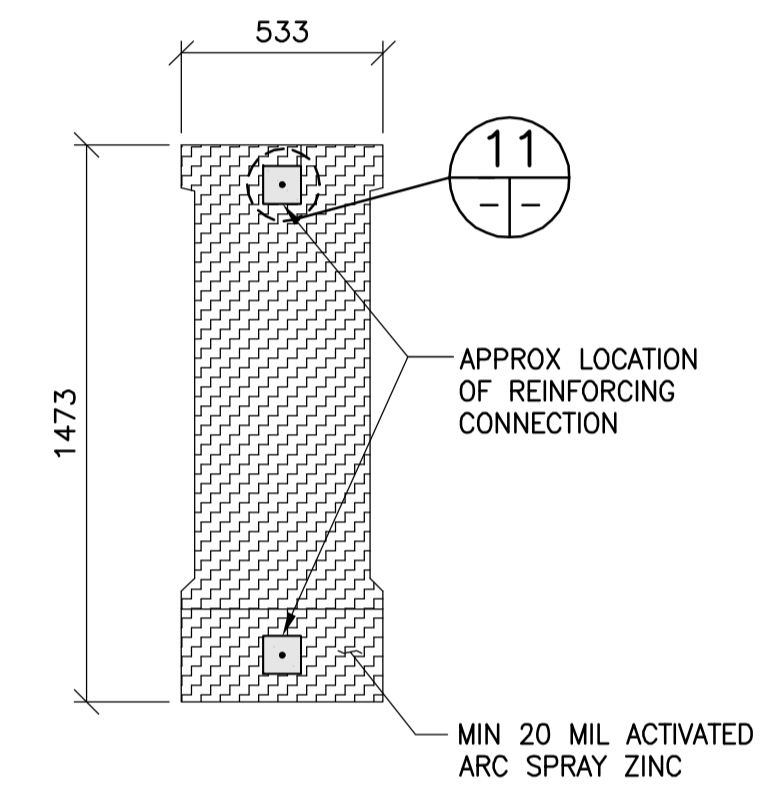
**ACTIVATED ARC SPRAY ZINC NOTES:**

1. ACTIVATED ARC SPRAY ZINC OPERATIONS SHALL TAKE PLACE ON EXISTING PRECAST CONCRETE GIRDERS AT ABUTMENT ENDS, AND ON EXPOSED CONCRETE DIAPHRAGM SURFACES. APPLY ZINC COATING 1000mm FROM THE END OF EACH GIRDER AND ON GIRDER ENDS. APPLY ZINC COATING ON ALL EXPOSED SIDES OF EXPOSED CONCRETE DIAPHRAGM SURFACES NEAREST ABUTMENT BACK WALLS.
2. ACTIVATED ARC SPRAY ZINC OPERATIONS SHALL BE COORDINATED WITH CONSTRUCTION PHASING AND ABUTMENT MODIFICATION WORKS. THE CONTRACTOR MAY VARY FROM CONSTRUCTION SEQUENCING ONLY IF APPROVED BY THE CONTRACT ADMINISTRATOR.
3. ACTIVATED ARC SPRAY ZINC OPERATIONS SHALL NOT TAKE PLACE UNTIL ALL CONCRETE REPAIRS HAVE CURED FOR A MINIMUM 28 DAYS OR IF PULL TESTS DEMONSTRATE THAT SUFFICIENT BOND CAN BE ACHIEVED AFTER A MINIMUM CURE OF 14 DAYS. BOND STRENGTH TO BE VERIFIED BY MEANS OF PULL TEST IN ACCORDANCE WITH THE LATEST VERSION OF ASTM D4541 AND ALL SUBSEQUENT REVISIONS, TO THE STRENGTH AS PER THE MANUFACTURER.
4. CONCRETE SURFACES TO BE METALLIZED ARE TO BE FREE OF ANY BARRIER COATINGS, OIL, DUST, GREASE ETC.
5. IN LOCATIONS TO RECEIVE THE ZINC COATING, THE SURFACE OF THE CONCRETE WILL BE CLEANED WITH A LIGHT ABRASIVE BLASTING FOLLOWED BY REMOVAL OF DUST AND BLAST MATERIALS. SURFACE PREPARATION TECHNIQUES SHALL REMOVE MATERIALS TO MAXIMIZE THE AMOUNT OF CEMENT PASTE IN CONTACT WITH THE ZINC COATING.
6. A MINIMUM OF ONE REINFORCING CONNECTION SHALL BE ESTABLISHED FOR EVERY 50m<sup>2</sup> OF CONCRETE SURFACE AREA. THERE SHALL BE A MINIMUM OF TWO CONNECTIONS PER VERTICAL FACE TO BE PROTECTED.
7. CONNECT THREADED GALVANIZED ROD TO STEEL VIA DRILL AND TAP, BRAZE, OR WELD CONNECTION.
8. CONTINUITY BETWEEN THE TWO CONNECTION LOCATIONS SHALL BE ESTABLISHED PRIOR TO METALLIZING.
9. PROTECT BEARINGS.
10. NO ZINC COATING SHALL BE APPLIED WHEN THE AMBIENT AIR OR STEEL TEMPERATURES ARE BELOW 5°C OR ABOVE 50°C. AMBIENT AIR TEMPERATURES MUST BE MAINTAINED AT A MINIMUM 5°C UNTIL THE ZINC COATING HAS COMPLETELY DRIED.
11. ZINC COATING SHALL NOT BE APPLIED TO DAMP SURFACES, OR WHEN THERE IS A RISK OF DEW ON THE SURFACES TO BE COATED. ZINC COATING SHALL NOT COMMENCE UNLESS THE DRY BULB TEMPERATURE EXCEEDS THE WET BULB TEMPERATURE BY MORE THAN 3°C AND THE AMBIENT TEMPERATURE IS RISING.
12. ZINC COATING WILL BE APPLIED IN 3-4 MIL PASSES UNTIL A NOMINAL 20 MIL THICKNESS IS ACHIEVED.
13. PLACE 100 x 100 FLATTENED EXPANDED ZINC MESH PLATE, WASHER AND NUT OVER THREADED ROD AND TIGHTEN NUT. THREADED ROD SHOULD EXTEND 50mm BEYOND THE SURFACE OF THE CONCRETE.
14. PROVIDE AN ADDITIONAL LAYER OF COATING OVER THE ZINC MESH PLATE. THE ADDITIONAL LAYER SHALL EXTEND 150mm BEYOND THE PLATE IN ALL DIRECTIONS.
15. APPLY HUMECTANT TO ALL COATED SURFACES.

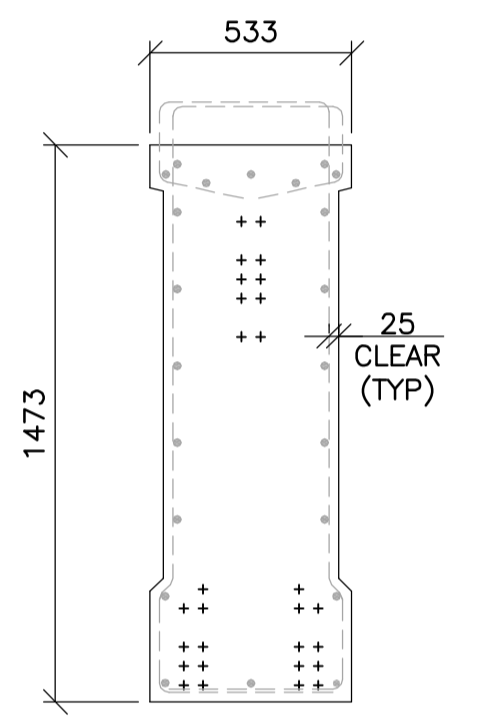
**1 ELEVATION - NORTH ABUTMENT**  
1 : 50  
- SOUTH ABUTMENT SIMILAR



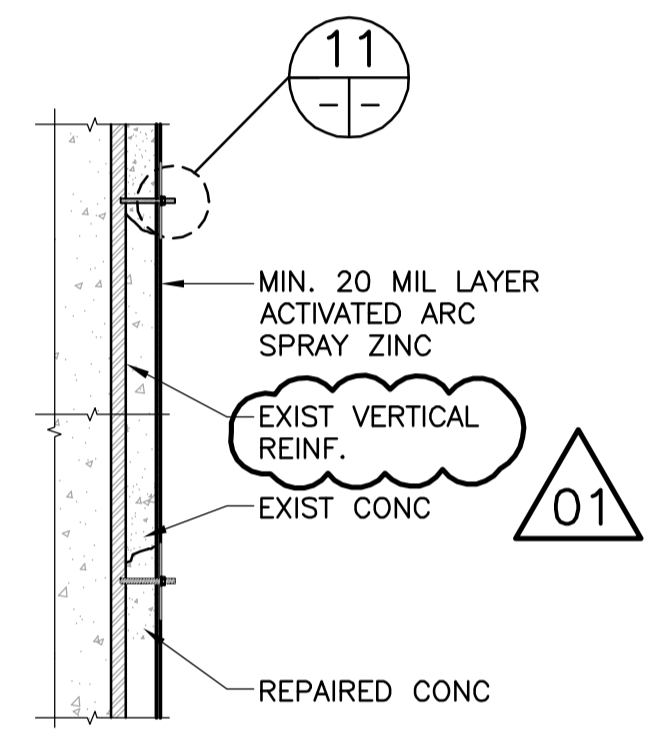
**2 EXTERIOR GIRDER METALLIZING**  
1 : 20



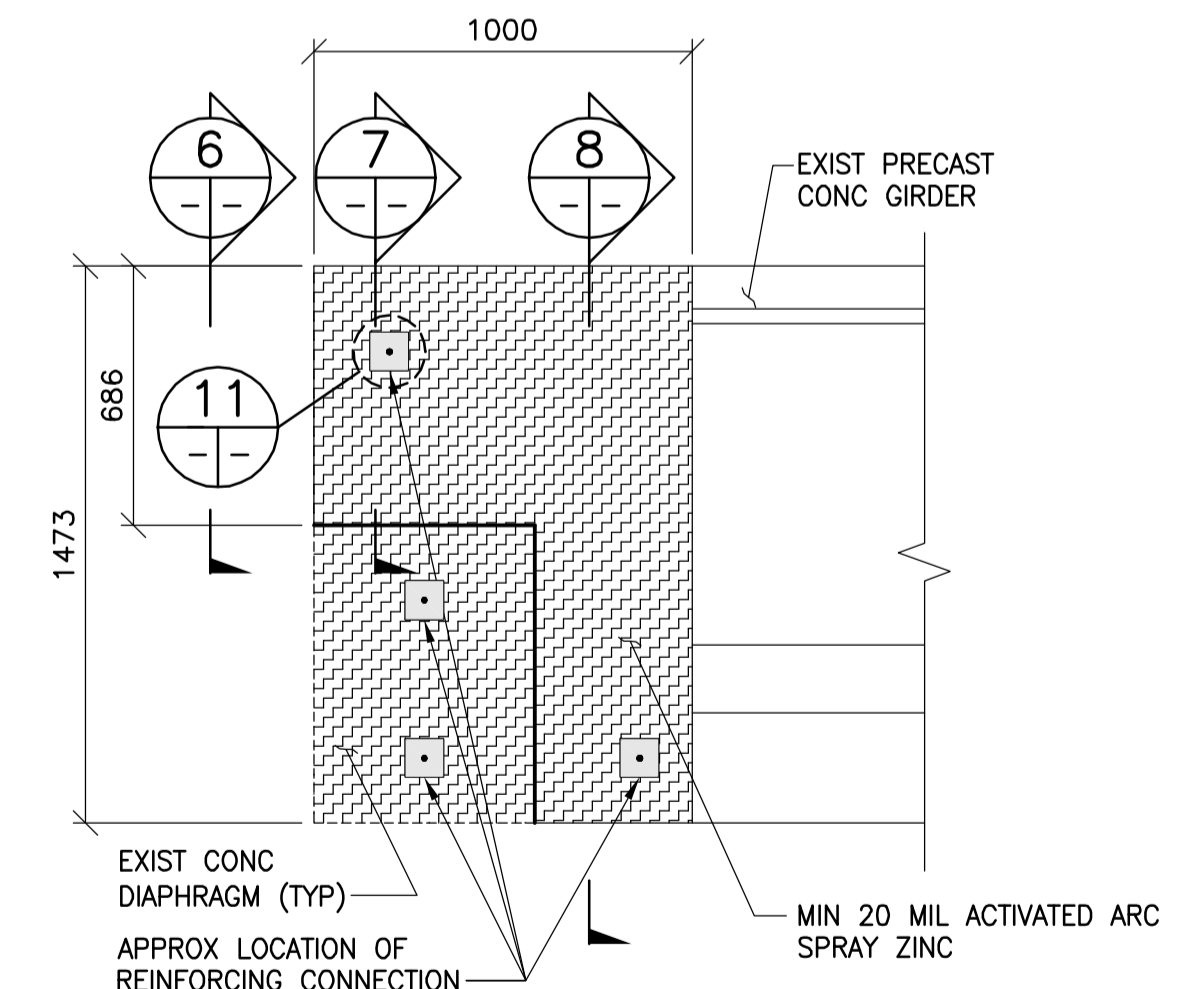
**3 END ELEVATION**  
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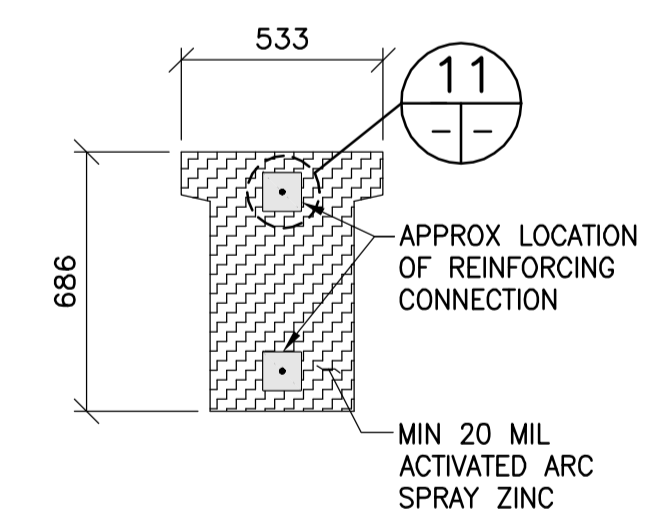
**4 SECTION**  
1 : 20



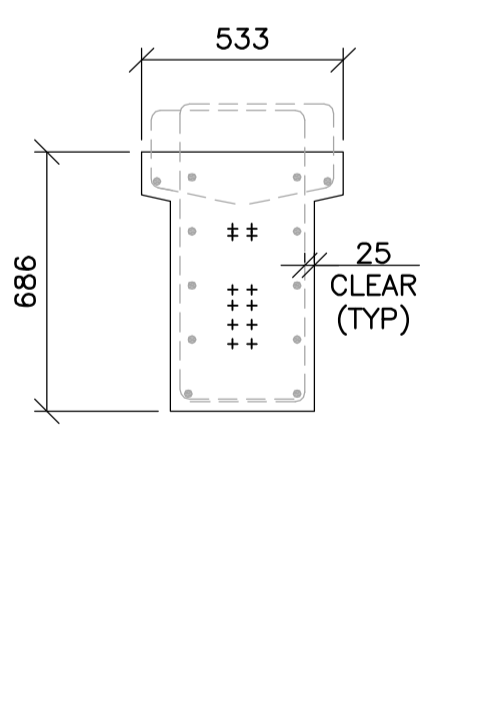
**9 METALLIZING INSTALLATION DETAIL FOR REPAIRED CONCRETE**  
1 : 10



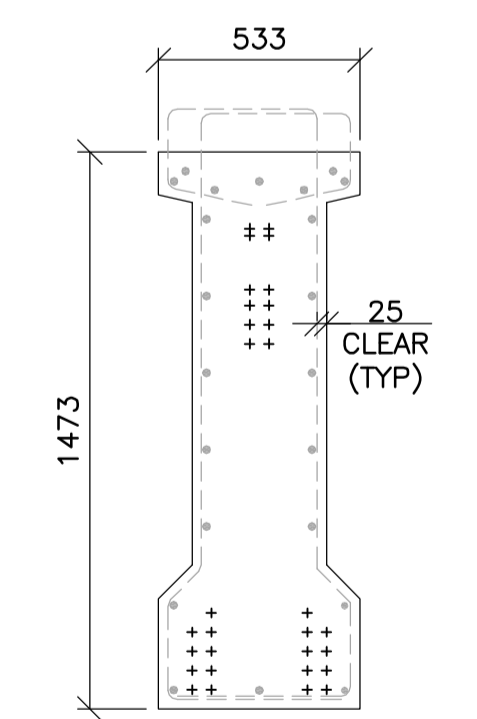
**5 INTERIOR GIRDER METALLIZING**  
1 : 20



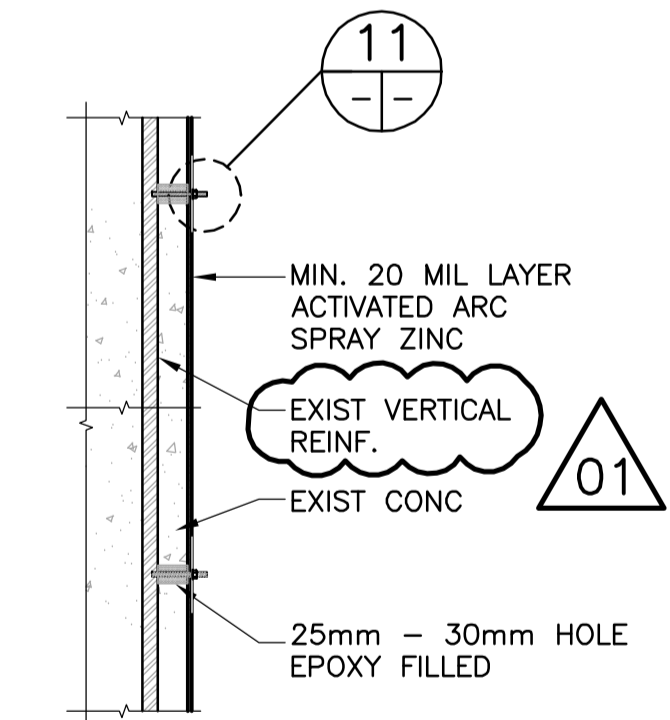
**6 END ELEVATION**  
1 : 10



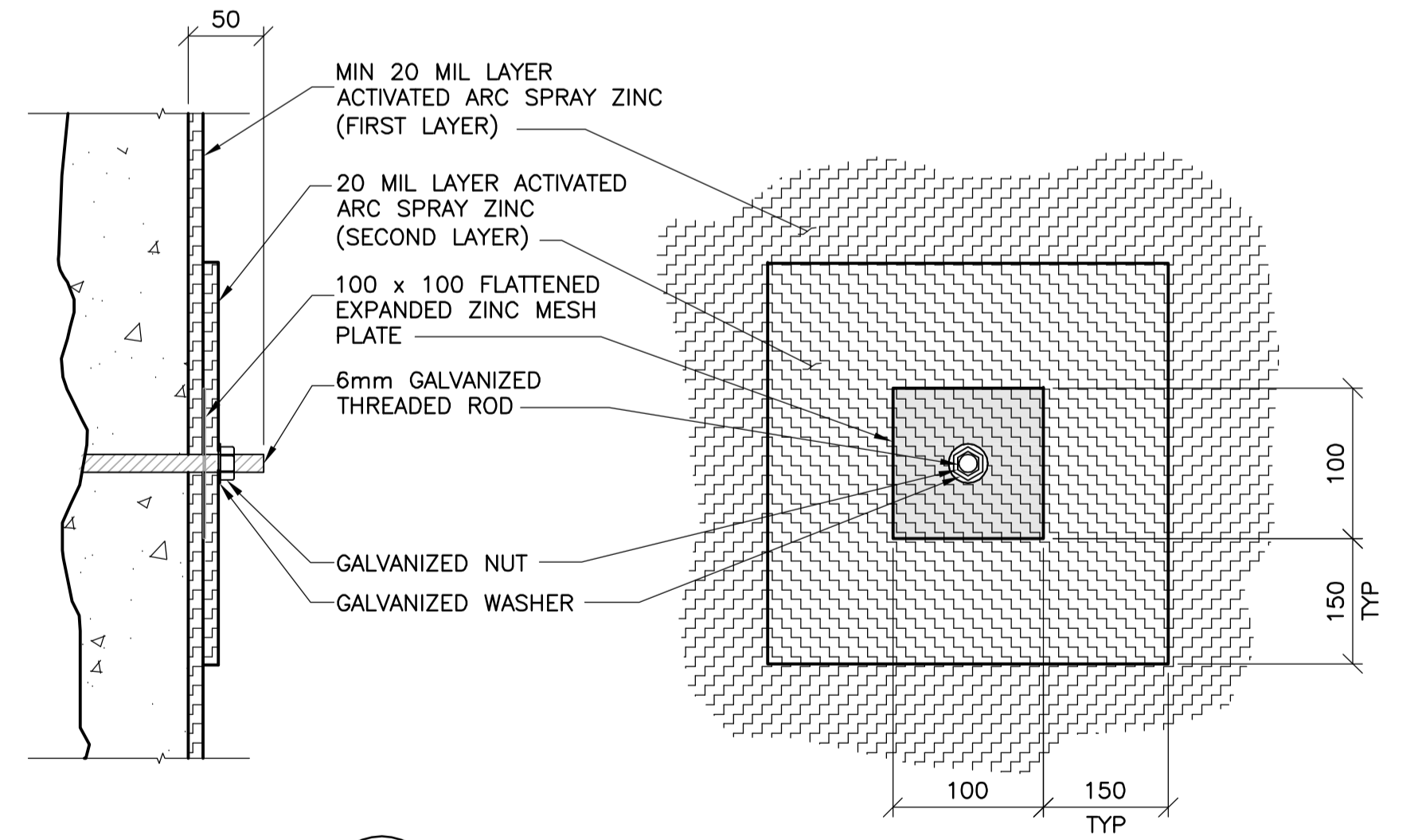
**7 SECTION**  
1 : 20



**8 SECTION**  
1 : 20



**10 METALLIZING INSTALLATION DETAIL FOR SOUND CONCRETE**  
1 : 10

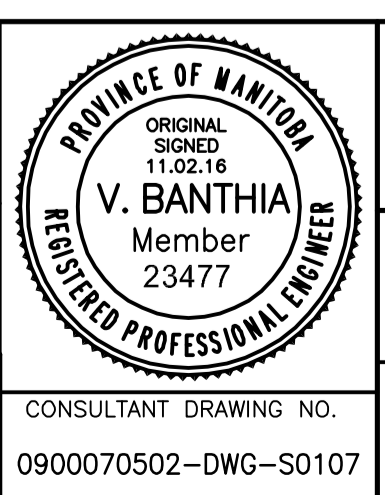


**11 DETAIL**  
N.T.S.



B.M. ELEV.	F.B.	DATE	BY
01	ISSUED FOR ADDENDUM 1	11.03.07	VB
00	ISSUED FOR TENDER	11.02.18	VB
NO.	REVISIONS	DATE	BY

<b>WARDROP</b> ATETRA TECH COMPANY	
DESIGNED BY: K.Y.	CHECKED BY: V.B.
DRAWN BY: H.L.A.	APPROVED BY: R.H.W.
HOR. SCALE: AS NOTED	
VERTICAL: AS NOTED	
DATE: 11.02.02	DATE: 11.02.18



<p><b>THE CITY OF WINNIPEG</b> PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION</p>	<p>OSBORNE STREET BRIDGE REHABILITATION &amp; RELATED WORKS</p>	<p>CITY DRAWING NUMBER <b>B109-11-112</b> SHEET OF 107 131</p>
	<p>ACTIVATED ZINC ARC SPRAY DETAILS</p>	
		<p>107</p>