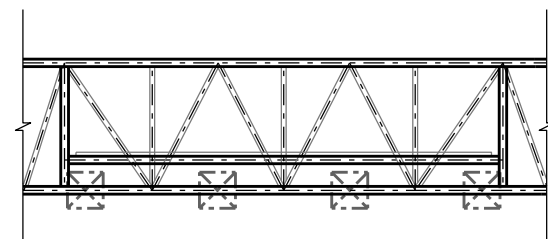
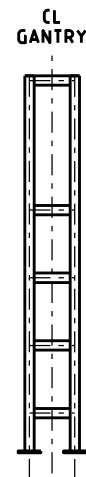


**TRUSS ELEVATION  
APPROACH SIDE**  
NTS  
(COLUMN CLADDING NOT SHOWN FOR CLARITY)




**TRUSS ELEVATION BEHIND VMS  
DEPARTURE SIDE**  
NTS  
(COLUMN CLADDING NOT SHOWN FOR CLARITY)

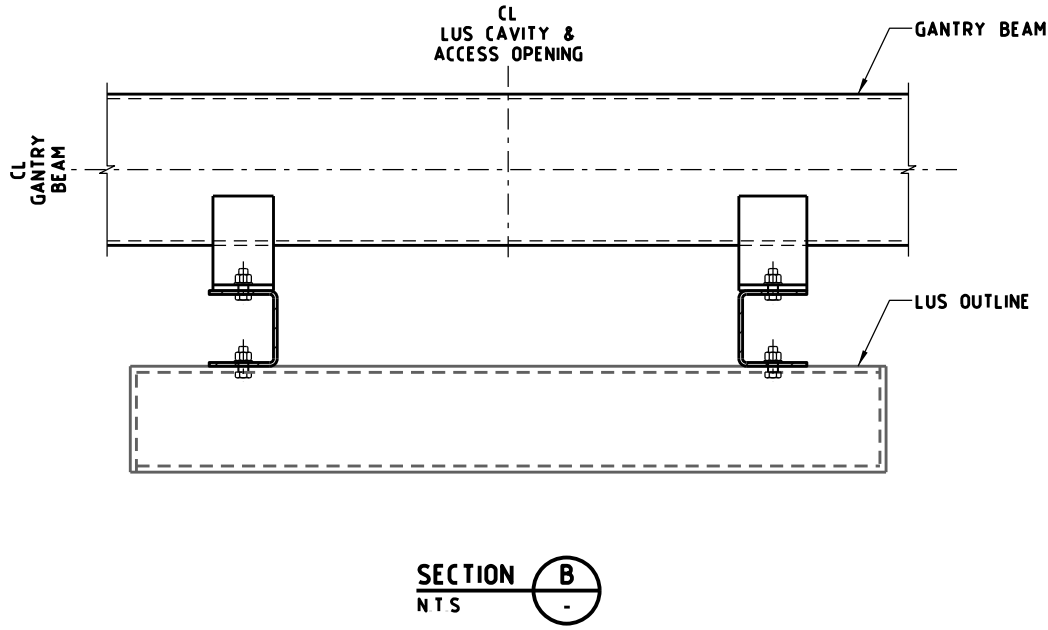
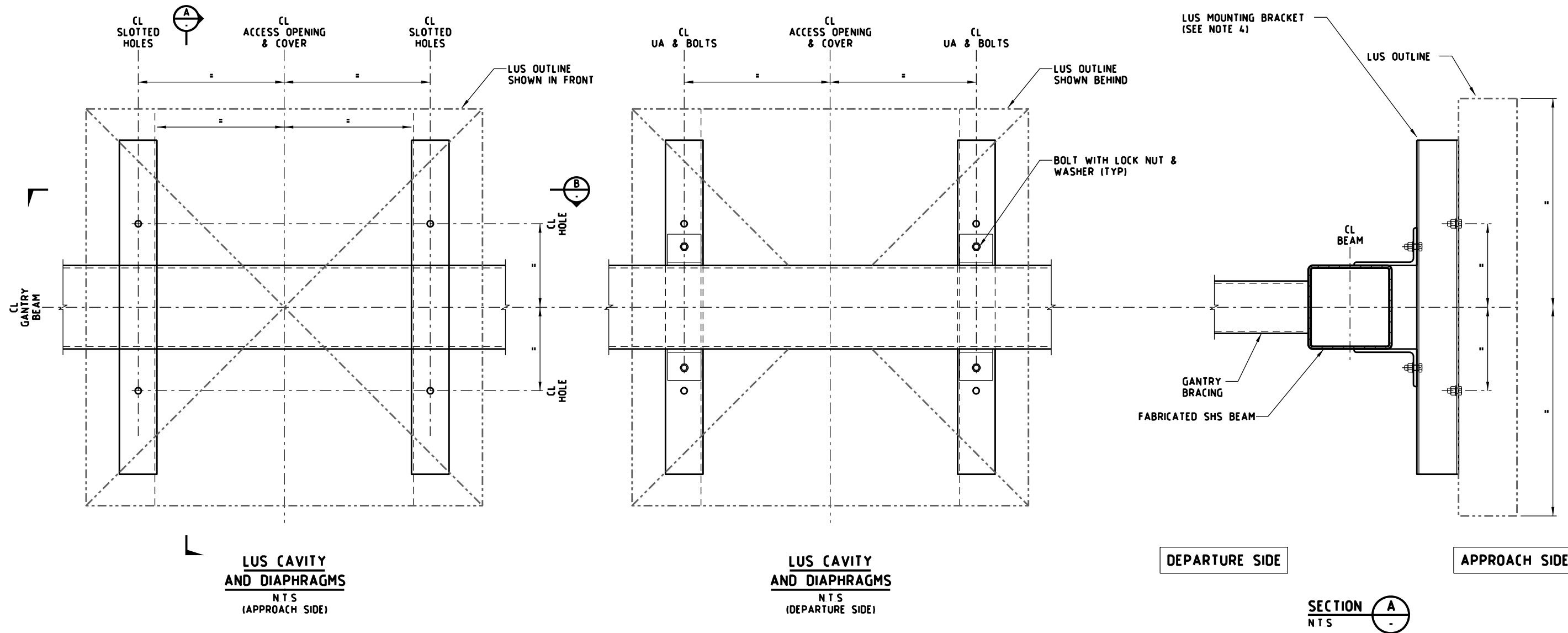


**LEG ELEVATION**  
NTS

## NOTES

- ACCESS LADDER AND CAGE - REFER TO STANDARD DRAWING TC-2280
- DOUBLE COLUMN BASE PLATE - REFER TO STANDARD DRAWING TC-2263
- HANDRAIL - REFER TO STANDARD DRAWING TC-2281
- FOR LUS MOUNTING ARRANGEMENTS, REFER TO STANDARD DRAWING TC-2272.
- VMS TO BE CENTRALLY LOCATED ABOVE TRAFFIC LANES
- CLADDING PANEL - REFER TO STANDARD DRAWING TC-2285
- LUS MOUNTING BRACKET - REFER TO STANDARD DRAWING TC-2272
- FOR CABINET AND CONDUIT ARRANGEMENT, REFER TO STANDARD DRAWING TC-2207
- GANTRY BEAM TO BE TRUE HORIZONTAL
- GANTRY TO BE EARTHED IN ACCORDANCE WITH STANDARD DRAWING TC-2287
- STANDARD DRAWINGS SHOWN ARE INDICATIVE ONLY STRUCTURAL DETAILS SHALL BE DESIGNED BY A PRE-QUALIFIED CONSULTANT TO THE SATISFACTION OF VICROADS AND SHALL COMPLY WITH VICROADS' SPECIFICATION BRIDGE TECHNICAL NOTES (BTN'S) AND AS 5100 WHERE APPLICABLE
- THE HEIGHT OF THE PLATFORM MAY VARY DEPENDING ON THE HEIGHT OF THE VMS CONFIRM VMS DIMENSIONS WITH THE VMS SUPPLIER PRIOR GANTRY DESIGN
- MINIMUM CLEARANCE FROM THE FINISH SURFACE LEVEL MAY VARY DEPENDING ON CONTRACT SPECIFIC REQUIREMENTS THE MINIMUM HEIGHT REQUIREMENTS SHALL BE DESIGNED TO THE SATISFACTION OF VICROADS
- VMS REAR DOOR LAYOUT DETAILS SHALL BE CONFIRMED WITH VMS SUPPLIER PRIOR GANTRY DESIGN VMS BRACINGS TO BE DESIGNED TO MATCH VMS REAR DOOR LAYOUT TO ALLOW DOOR OPENING TO A MINIMUM OF 90 DEGREES

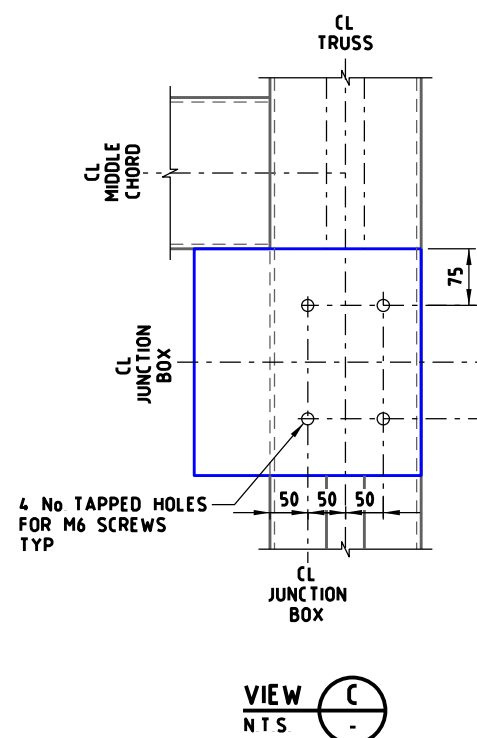
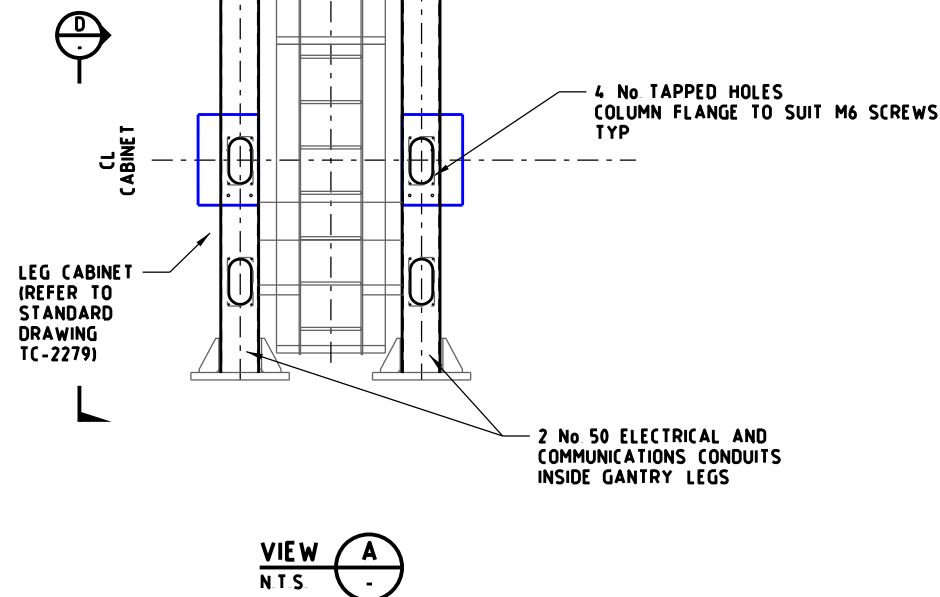
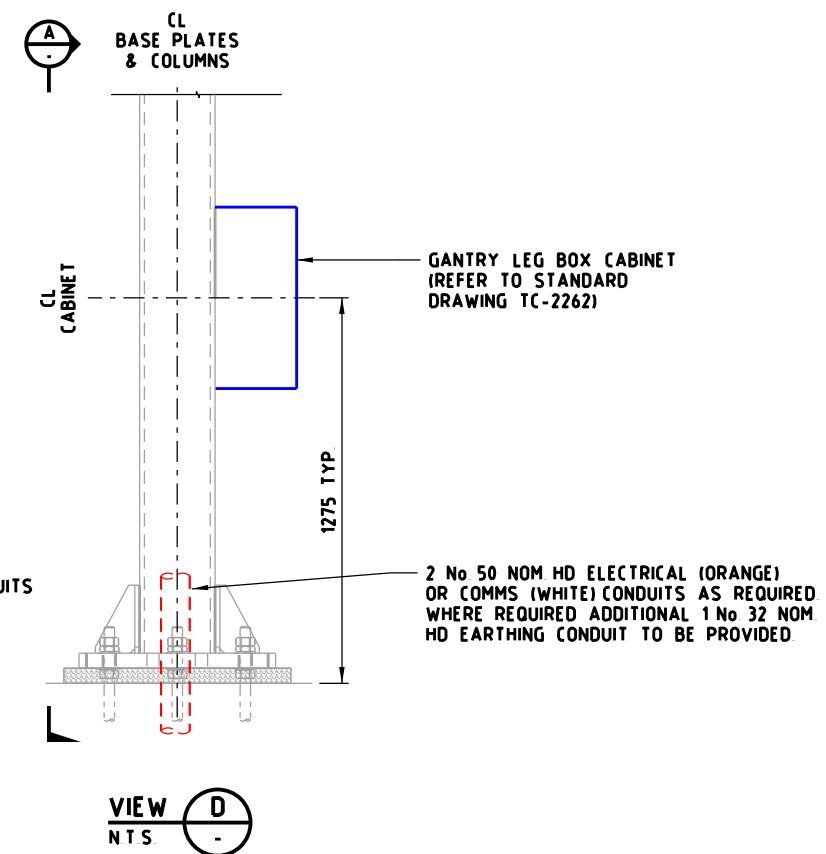
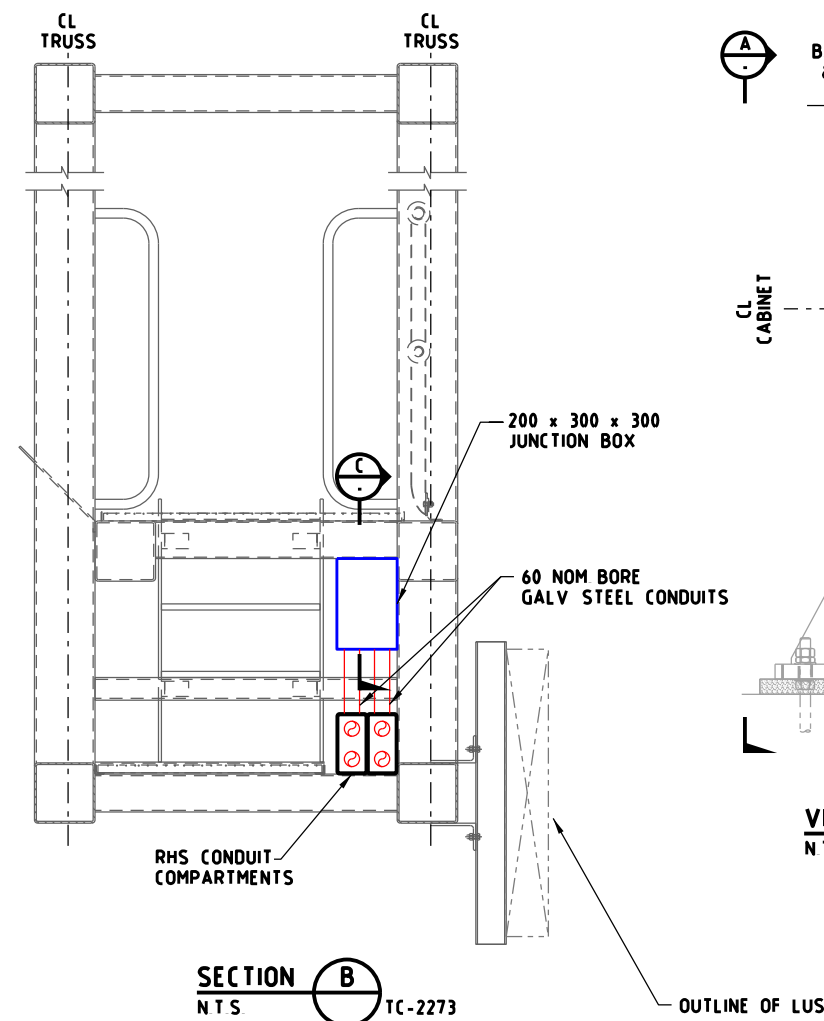
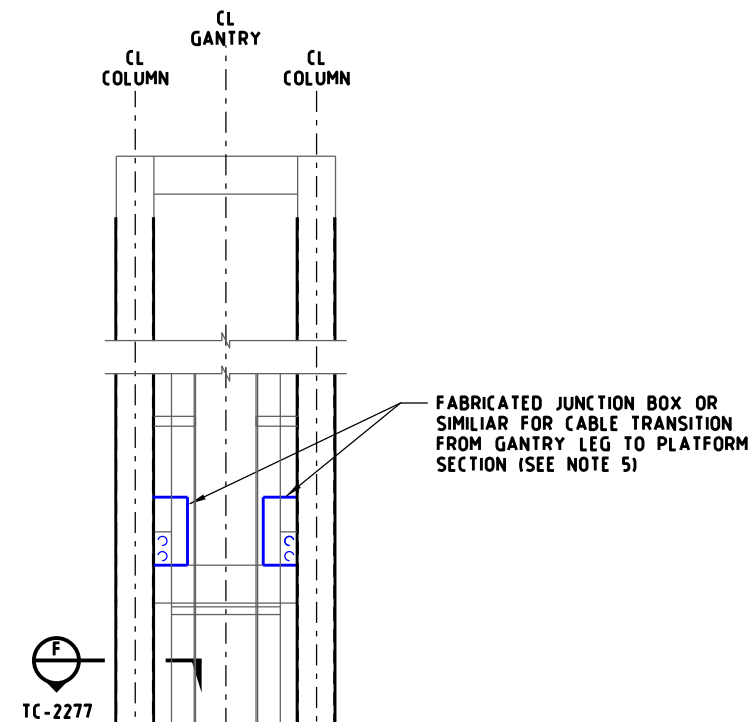
E				GENERAL NOTES	DESIGNED M80 UPGRADE 07/2015		STANDARD DRAWING MANAGED MOTORWAY  ACCESSIBLE VMS AND LUMS GANTRY TYPICAL ARRANGEMENT				
D											
C											
B											
A	W H	12/2018	REMOVAL OF STRUCTURAL DETAIL								
ISSUE	APP'D	DATE	AMENDMENT		CAT: PROJ FILE	SCALE OF METRES 	FILE NO	CONTRACT NO	SHEET NO	DRAWING NO TC-2270	ISSUE A



- NOTES:**
- 1 ALL OPENING EDGES SHALL BE DEBURRED
  - 2 CONDUIT AND DIAPHRAGM TO BE FABRICATED STEEL
  - 3 STANDARD DRAWINGS SHOWN ARE INDICATIVE ONLY STRUCTURAL DETAILS SHALL BE DESIGNED BY A PRE-QUALIFIED CONSULTANT TO THE SATISFACTION OF VICROADS AND SHALL COMPLY WITH VICROADS' SPECIFICATION BRIDGE TECHNICAL NOTES (BTN'S) AND AS 5100 WHERE APPLICABLE
  - 4 LUS MOUNTING BRACKET NOT TO BE VISIBLE FROM APPROACH SIDE

E				GENERAL NOTES	DESIGNED	M80 UPGRADE		07/2015		STANDARD DRAWING MANAGED MOTORWAY						
D					APPROVED	W HARVEY - MANAGER				ACCESSIBLE VMS AND LUMS GANTRY TYPICAL LUS MOUNTING ARRANGEMENT						
C					ITS INFRASTRUCTURE & SYSTEM 08/2015											
B																
A	W H	12/2018	REMOVAL OF STRUCTURAL DETAIL			CAT				HOR	SCALE OF METRES N T S		FILE NO	CONTRACT NO	SHEET NO	DRAWING NO
ISSUE	APP'D	DATE	AMENDMENT		PROJ				VER						TC-2272	A
					FILE											





#### NOTES

- FABRICATED JUNCTION BOX SHALL BE COATED TO MATCH GANTRY
- ALL FLEXIBLE CONDUITS CONNECTING STEEL CONDUIT TO STEEL CONDUIT, STEEL CONDUIT TO JUNCTION BOX AND JUNCTION BOX TO JUNCTION BOX SHALL BE ANACONDA TYPE CONDUIT (IE FLEXIBLE METAL INNER WITH A PVC LINER)
- WEATHERPROOF COUPLING SHALL BE PROVIDED BETWEEN HD CONDUITS AND FLEXIBLE STEEL CONDUITS, AND BETWEEN FLEXIBLE STEEL CONDUITS AND GALVANISED STEEL CONDUITS
- STANDARD DRAWINGS SHOWN ARE INDICATIVE ONLY STRUCTURAL DETAILS SHALL BE DESIGNED BY A PRE-QUALIFIED CONSULTANT TO THE SATISFACTION OF VICROADS AND SHALL COMPLY WITH VICROADS' SPECIFICATION BRIDGE TECHNICAL NOTES (BTN'S) AND AS 5100 WHERE APPLICABLE
- ACCESS SHALL BE PROVIDED TO INSTALL CABLES TRANSITIONING BETWEEN GANTRY LEG AND PLATFORM SECTION DESIGN TO BE APPROVED BY VICROADS PRIOR GANTRY FABRICATION

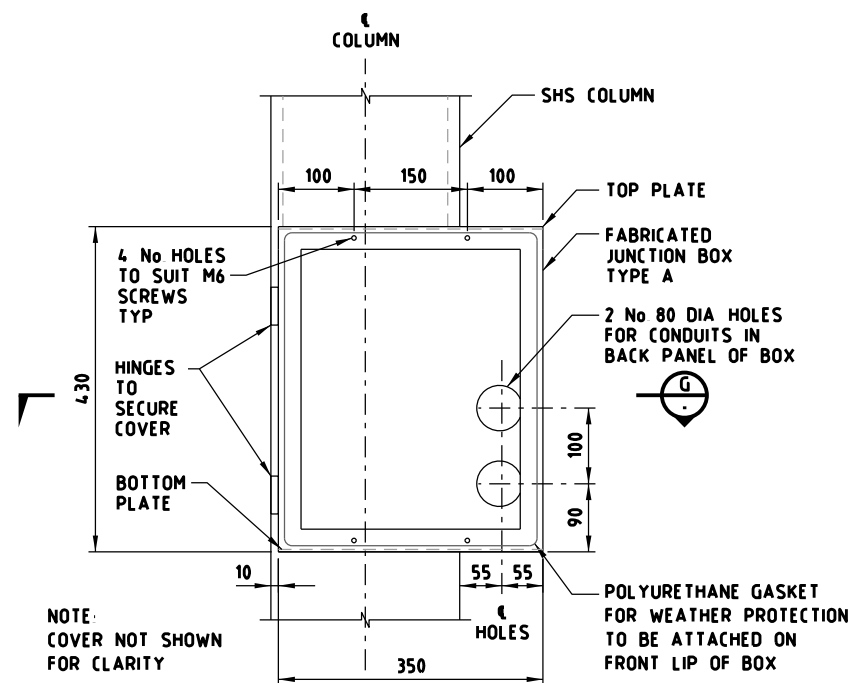
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A	W H	12/2018	REVISION OF DETAIL
ISSUE	APP'D	DATE	AMENDMENT

GENERAL NOTES

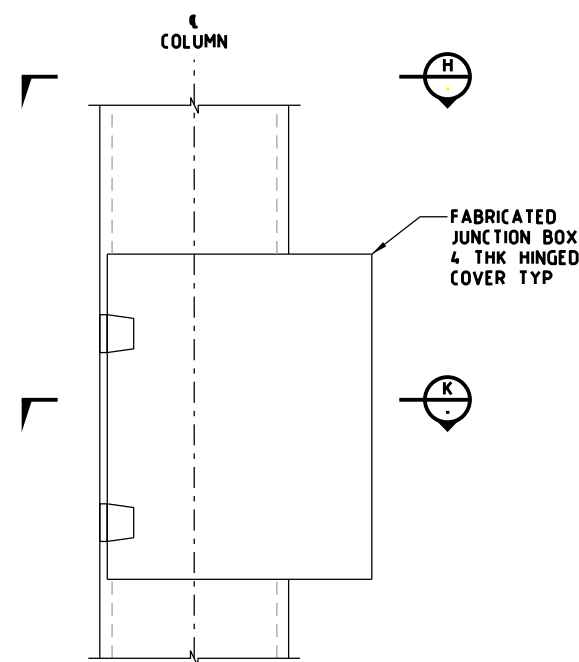
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APPROVED	W HARVEY - MANAGER	ITS INFRASTRUCTURE & SYSTEM 08/2015
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SCALE OF METRES	NTS
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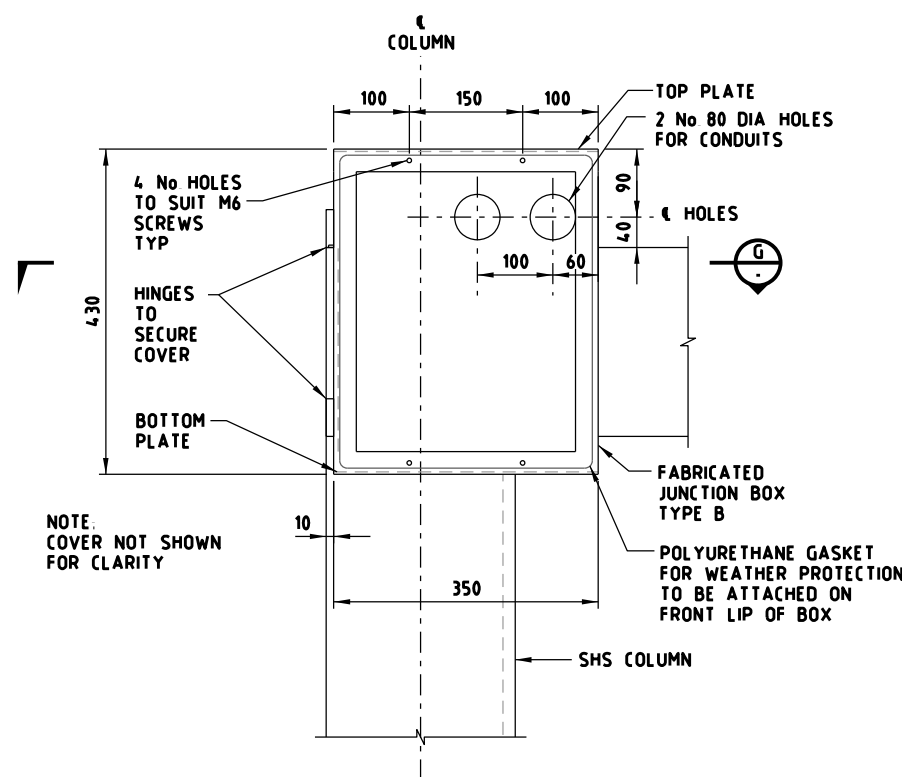
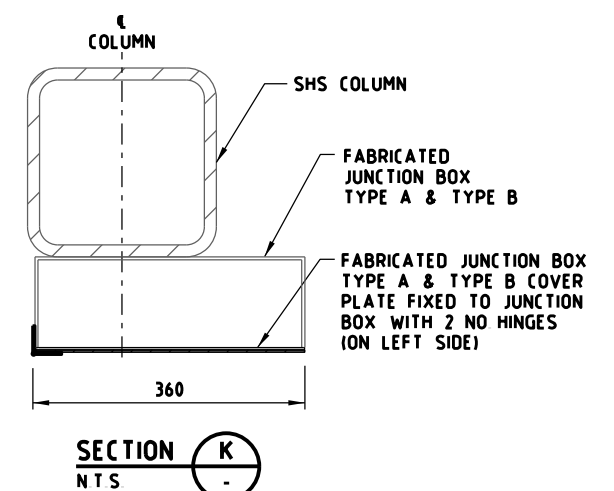
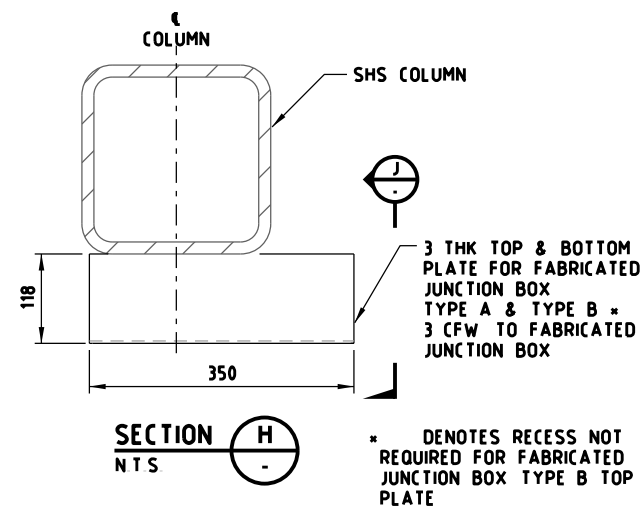
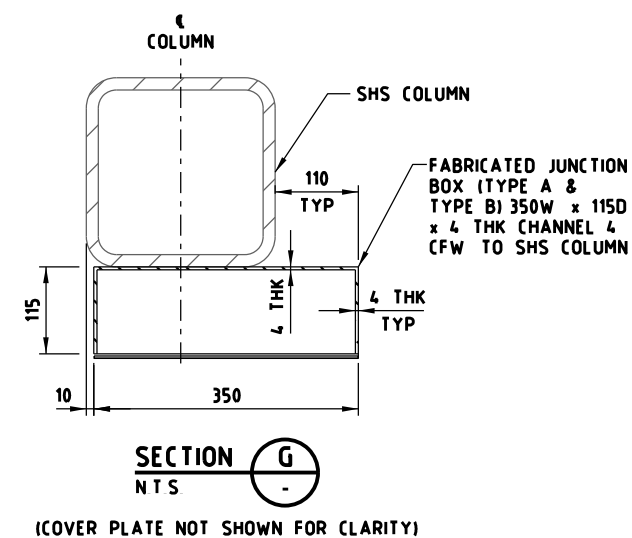
STANDARD DRAWING MANAGED MOTORWAY				
ACCESSIBLE VMS AND LUMS GANTRY TYPICAL CONDUIT ROUTE - SHEET 2 OF 6				
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
			TC-2274	A



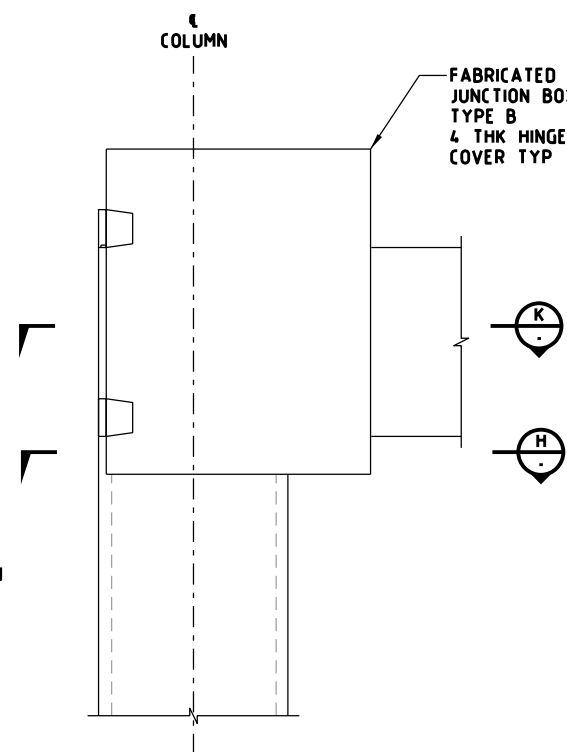
**FABRICATED JUNCTION BOX - TYPE A  
FOR VERTICALLY ALIGNED CONDUITS - ELEVATION**  
NTS



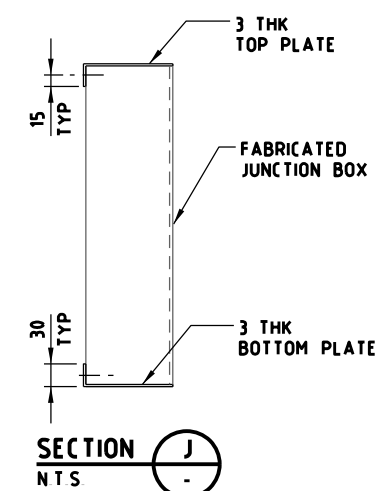
**FABRICATED JUNCTION BOX TYPE A COVER PLATE  
FOR VERTICALLY ALIGNED CONDUITS - ELEVATION**  
NTS



**FABRICATED JUNCTION BOX - TYPE B  
FOR HORIZONTALLY ALIGNED CONDUITS - ELEVATION**  
NTS



**FABRICATED JUNCTION BOX TYPE B COVER PLATE  
FOR HORIZONTALLY ALIGNED CONDUITS - ELEVATION**  
NTS



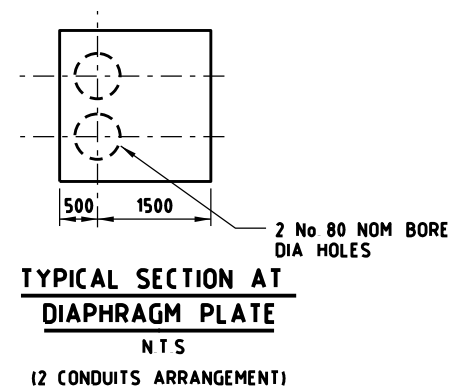
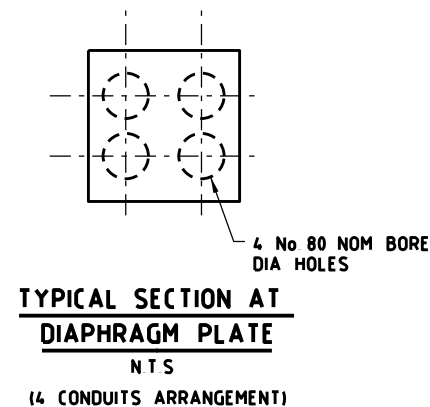
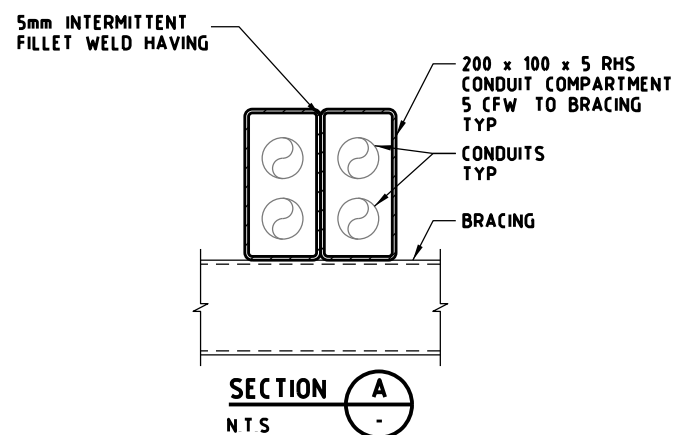
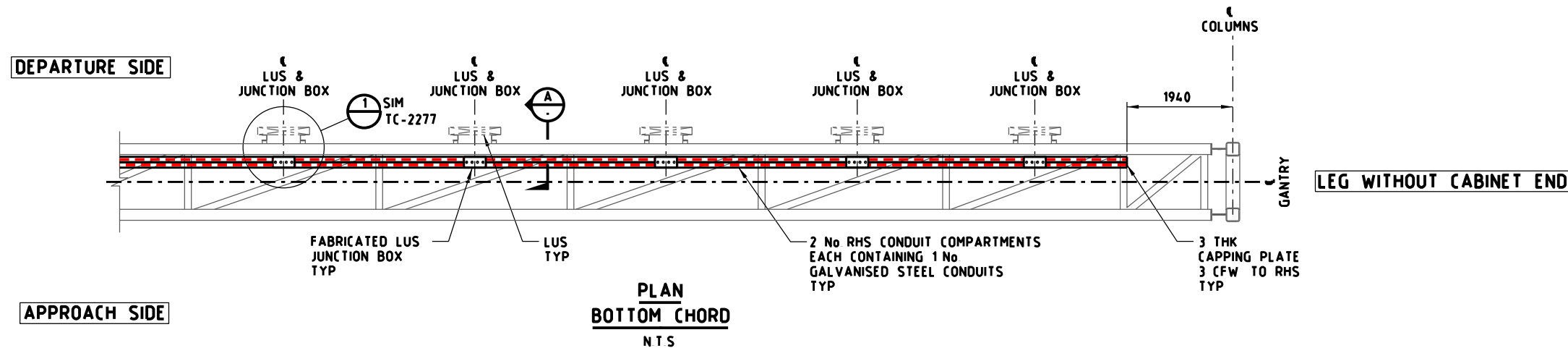
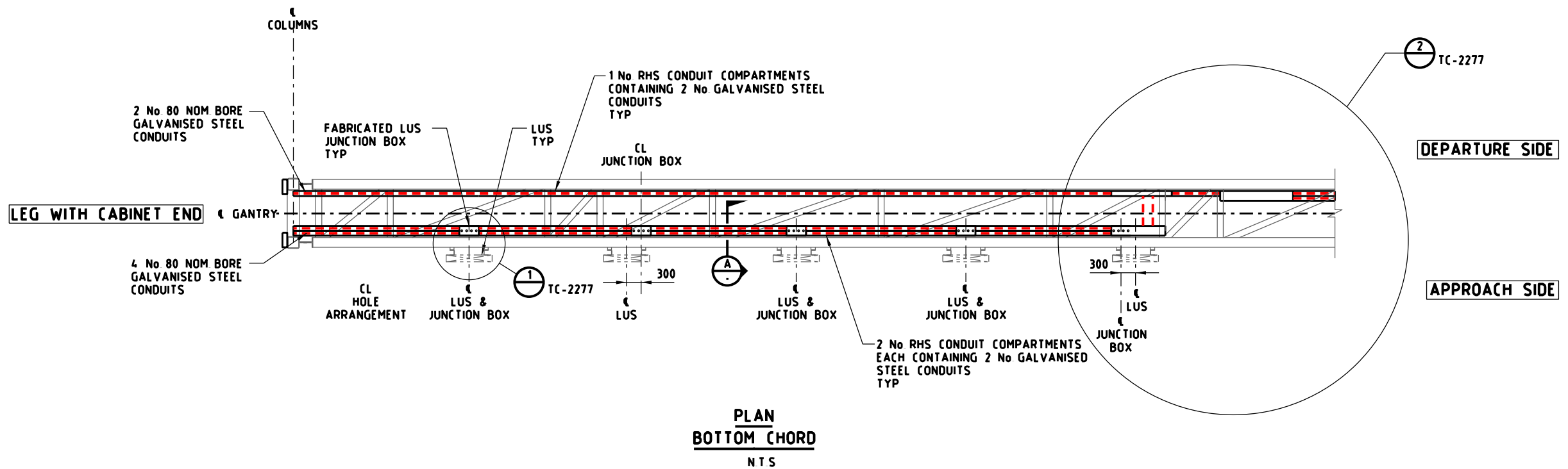
**NOTE:**  
1 CONDUIT CLADDING, FABRICATED JUNCTION BOX & COVER PLATE SHALL BE COATED TO MATCH GANTRY

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C			
B			
A	W H	12/2018	REVISION OF DETAIL
ISSUE	APP'D	DATE	AMENDMENT

GENERAL NOTES

DESIGNED	M80 UPGRADE	07/2015
APPROVED	W HARVEY - MANAGER	ITS INFRASTRUCTURE & SYSTEM 08/2015
CAT		
PROJ		
FILE		

STANDARD DRAWING MANAGED MOTORWAY				
ACCESSIBLE VMS AND LUMS GANTRY TYPICAL CONDUIT ROUTE - SHEET 3 OF 6				
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
			TC-2275	A



#### NOTES

- 1 FOR GENERAL NOTES REFER DRG No TC-2274
- 2 ALL FLEXIBLE CONDUITS CONNECTING STEEL CONDUIT TO STEEL CONDUIT, STEEL CONDUIT TO JUNCTION BOX AND JUNCTION BOX TO JUNCTION BOX SHALL BE ANACONDA TYPE CONDUIT (IE FLEXIBLE METAL INNER WITH A PVC LINER)
- 3 FABRICATED JUNCTION BOX SHALL BE 1P67 RATED, HAVE GLANDS ON ALL CONDUIT PENETRATIONS
- 4 STANDARD DRAWINGS SHOWN ARE INDICATIVE ONLY. STRUCTURAL DETAILS SHALL BE DESIGNED BY A PRE-QUALIFIED CONSULTANT TO THE SATISFACTION OF VICROADS AND SHALL COMPLY WITH VICROADS' SPECIFICATION BRIDGE TECHNICAL NOTES (BTN'S) AND AS 5100 WHERE APPLICABLE
- 5 ALL UNUSED CONDUITS SHALL BE CAPPED

E			
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A	W H	12/2018	REMOVAL OF STRUCTURAL DETAIL
ISSUE	APP'D	DATE	AMENDMENT

#### GENERAL NOTES

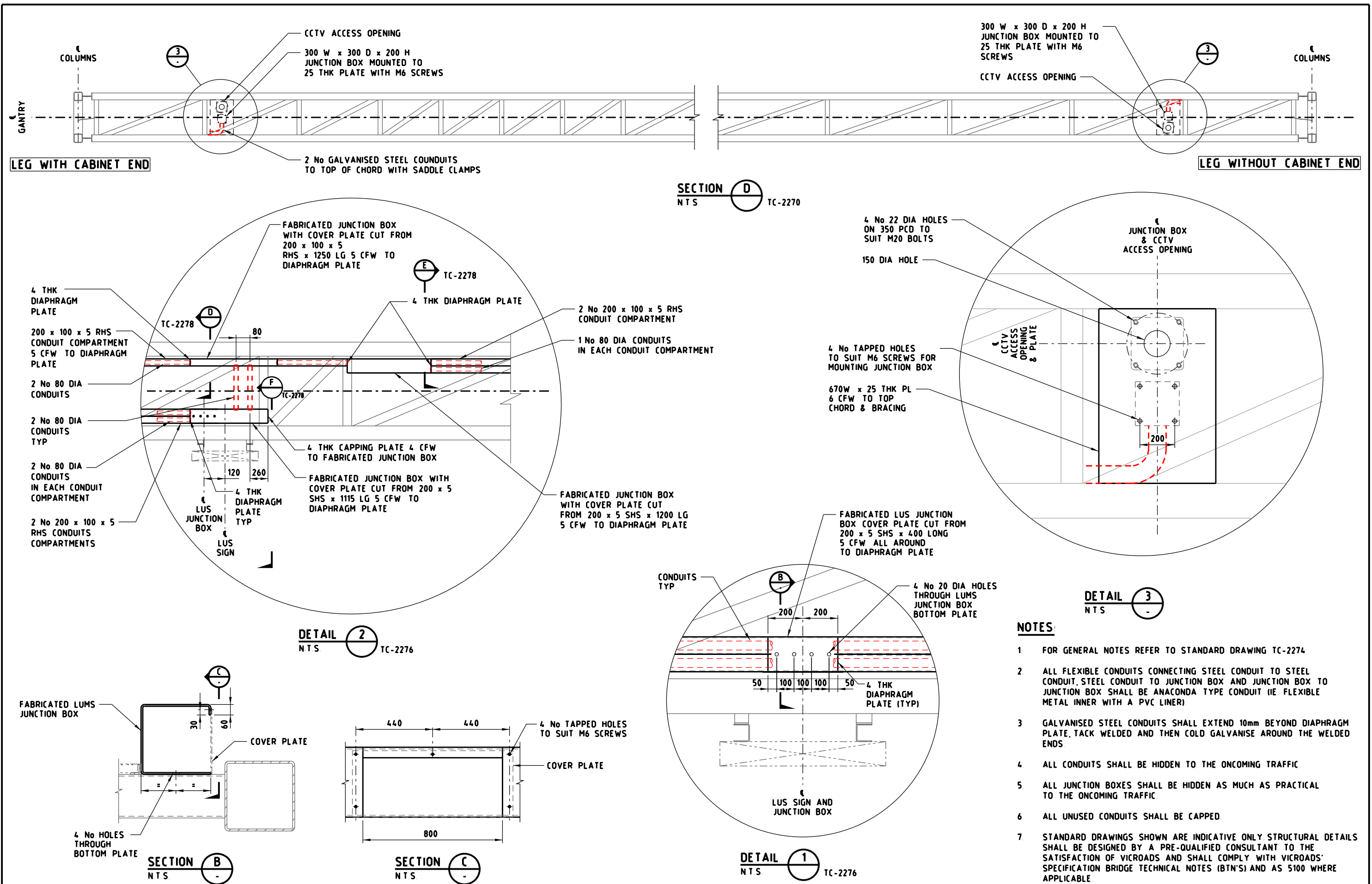
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APPROVED	W HARVEY - MANAGER	ITS INFRASTRUCTURE & SYSTEM 08/2015
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FILE		



SCALE OF METRES	
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STANDARD DRAWING MANAGED MOTORWAY				
ACCESSIBLE VMS AND LUMS GANTRY TYPICAL CONDUIT ROUTE - SHEET 4 OF 6				
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
			TC-2276	A



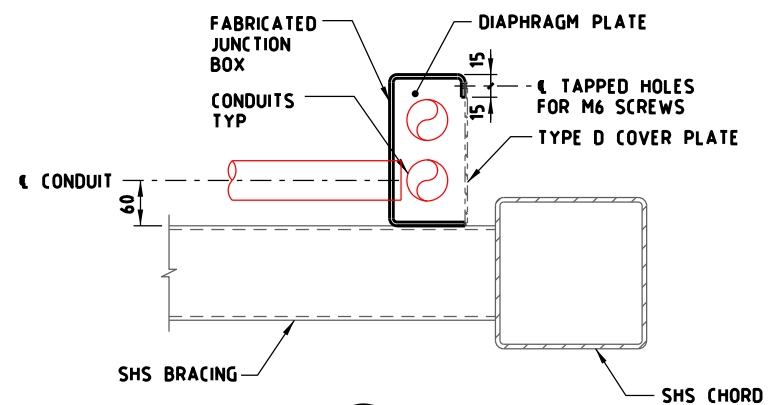


E			
D			
C			
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A	W H	12/2018	REVISION OF DETAIL
ISSUE	APP'D	DATE	AMENDMENT

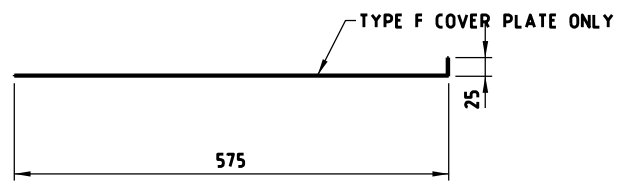
GENERAL NOTES
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DESIGNED	M80 UPGRADE	07/2015
APPROVED	W HARVEY - MANAGER	ITS INFRASTRUCTURE & SYSTEM 08/2015
CAT. PROJ. FILE		
HOR. VER.	SCALE OF METRES NTS	

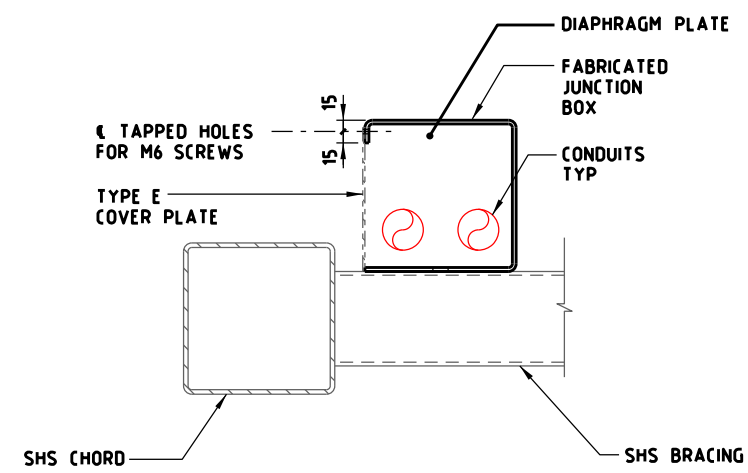
STANDARD DRAWING MANAGED MOTORWAY				
ACCESSIBLE VMS AND LUMS GANTRY TYPICAL CONDUIT ROUTE - SHEET 5 OF 6				
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
			TC-2277	A



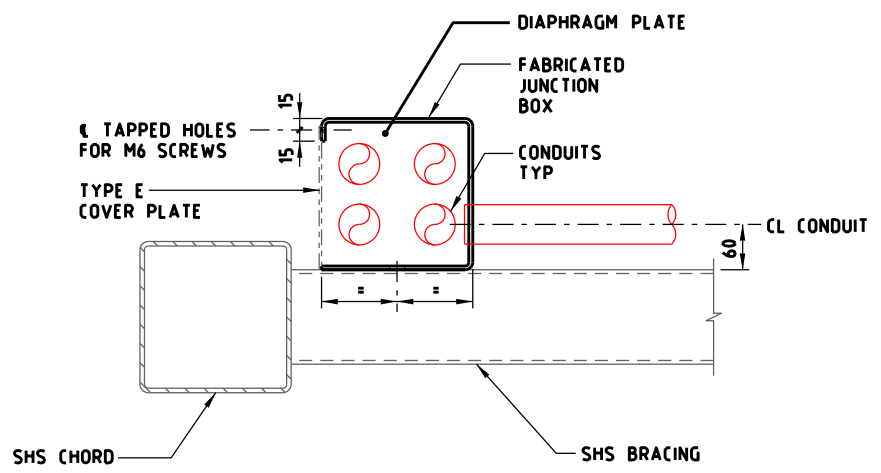
SECTION D  
NTS TC-2277



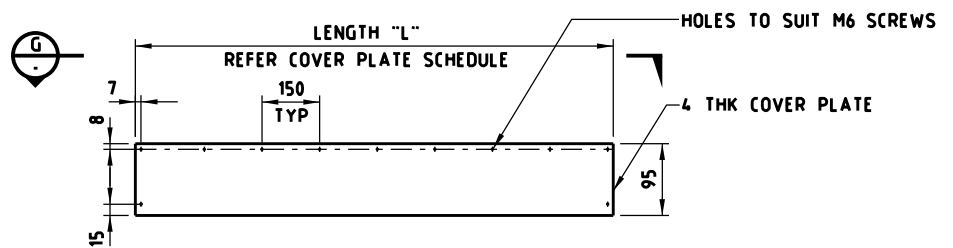
SECTION G  
NTS



SECTION E  
NTS TC-2277



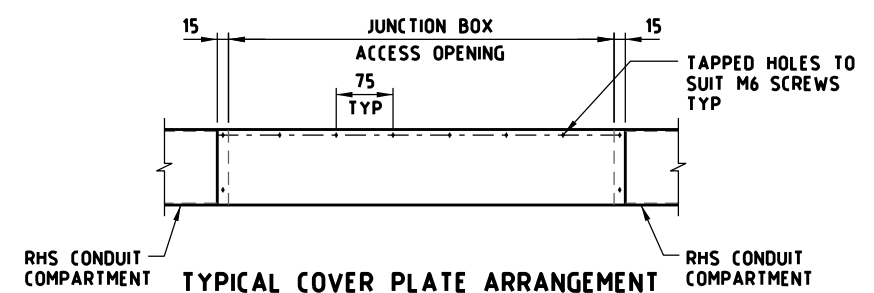
SECTION F  
NTS TC-2277



TYPICAL COVER PLATE D, E, F  
ELEVATION  
NTS

COVER PLATE SCHEDULE	
COVER PLATE TYPE	LENGTH "L"
C	460
D	1310
E	1560
F	1150 *

\* DENOTE FOLDED COVER PLATE (REFER SECTION G)



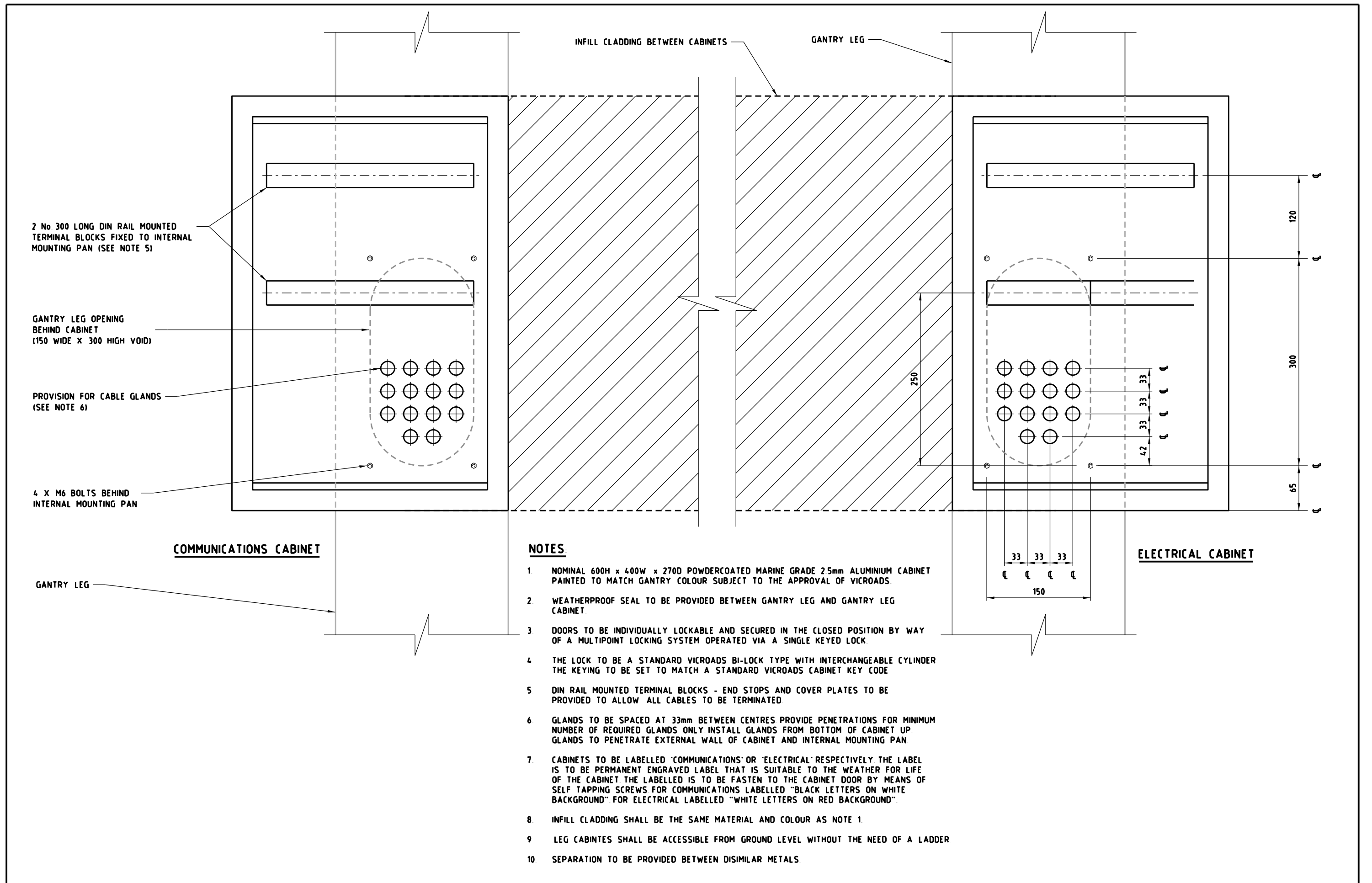
TYPICAL COVER PLATE ARRANGEMENT  
AT JUNCTION BOX ACCESS OPENING  
NTS

### NOTES

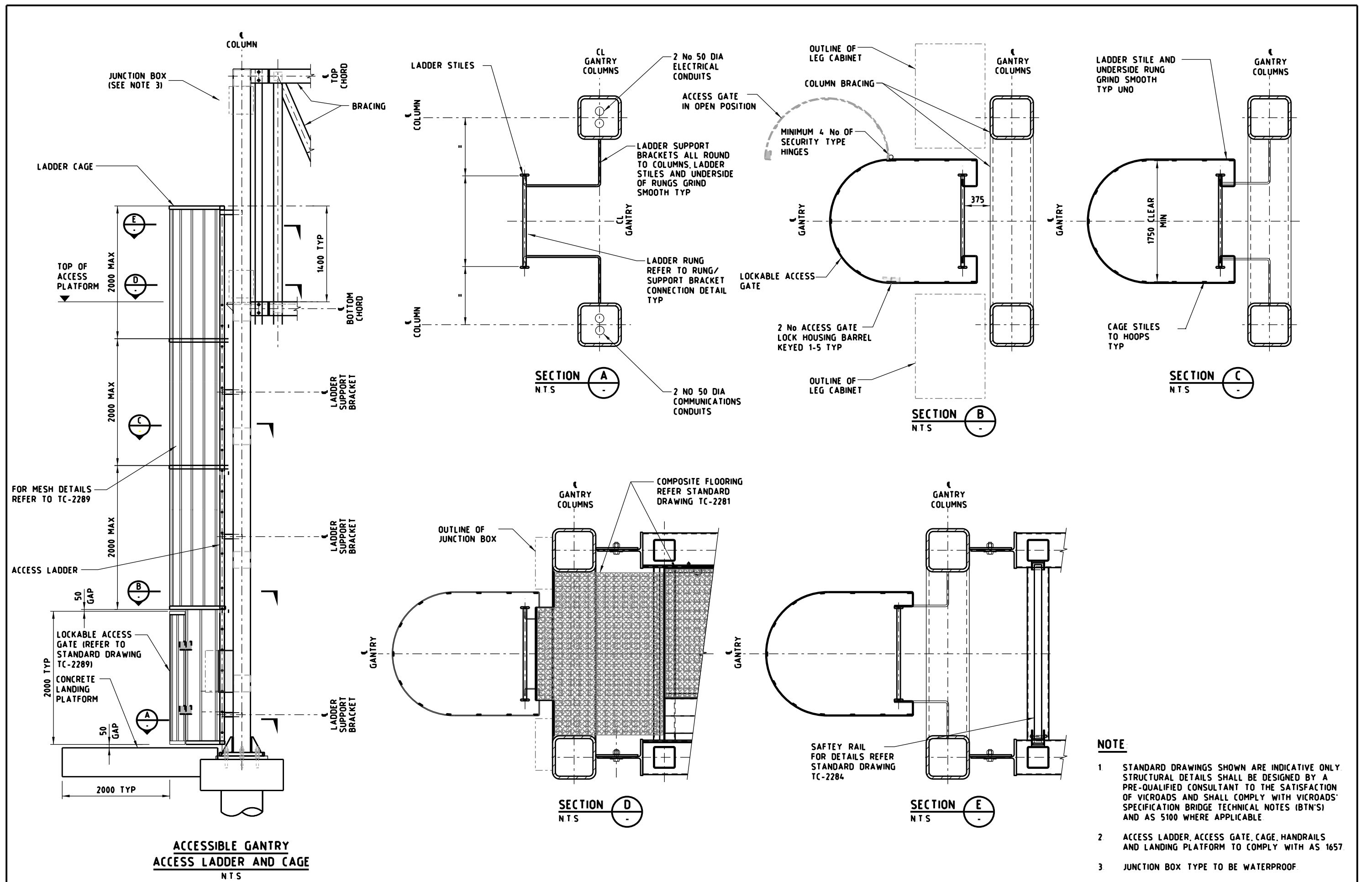
- FOR GENERAL NOTES REFER DRG No TC-2274
- CONDUIT CLADDING, FABRICATED JUNCTION BOX & COVER PLATE SHALL BE COATED TO MATCH GANTRY.
- ALL UNUSED CONDUITS SHALL BE CAPPED.

E				GENERAL NOTES	DESIGNED M80 UPGRADE 07/2015		STANDARD DRAWING MANAGED MOTORWAY					
D							APPROVED W HARVEY - MANAGER ITS INFRASTRUCTURE & SYSTEM 08/2015	ACCESSIBLE VMS AND LUMS GANTRY				
C								TYPICAL CONDUIT ROUTE - SHEET 6 OF 6				
B					CAT PROJ: FILE	SCALE OF METRES N T S 	HOR VER	FILE NO	CONTRACT NO	SHEET NO	DRAWING NO TC-2278	ISSUE A
A	W H	12/2018	REVISION OF DETAIL									
ISSUE	APP'D	DATE	AMENDMENT									



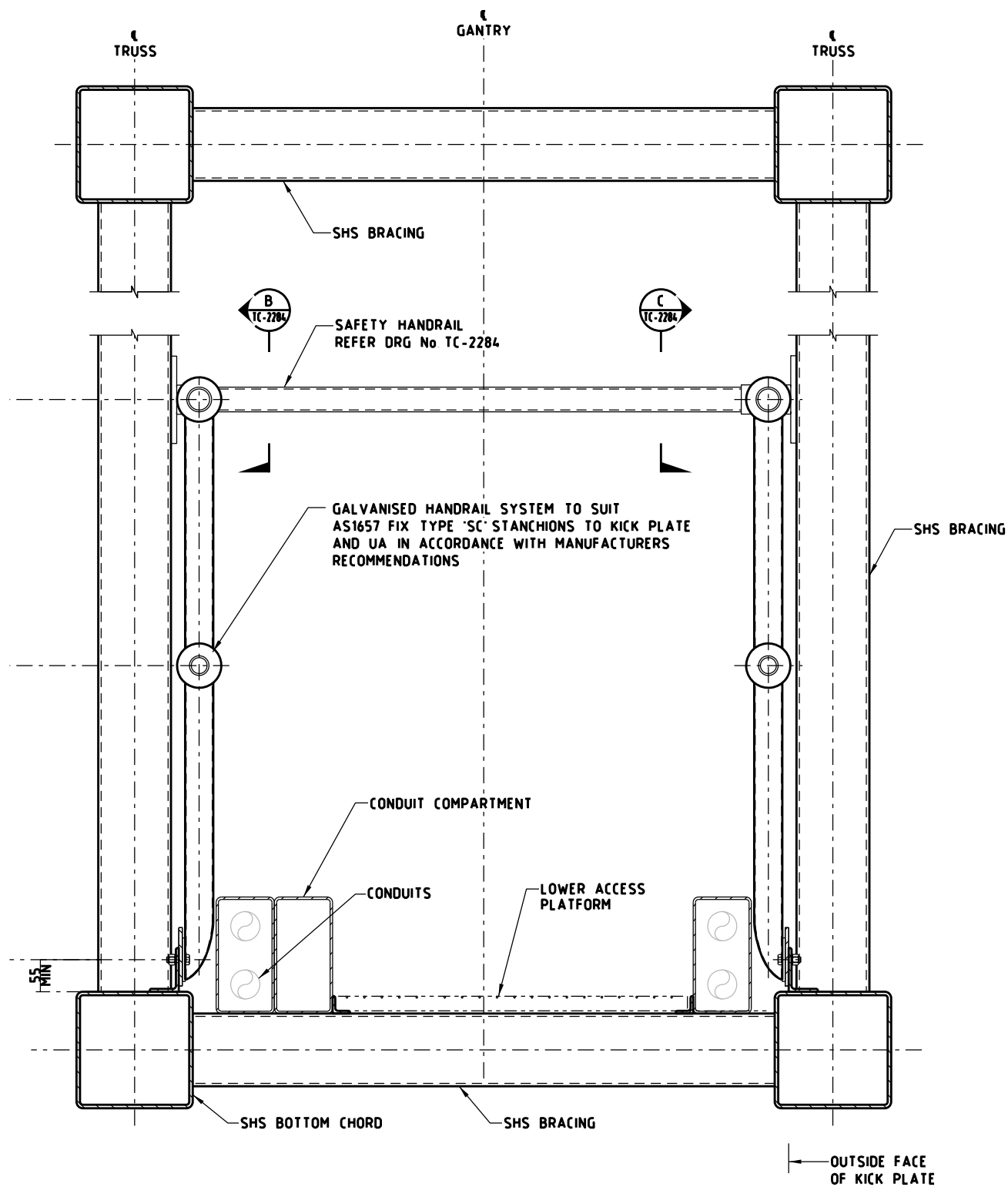


E				GENERAL NOTES	DESIGNED	M80 UPGRADE	07/2015		STANDARD DRAWING					
D									MANAGED MOTORWAY					
C									ACCESSIBLE VMS AND LUMS GANTRY					
B									TYPICAL GANTRY LEG CABINET DETAILS					
A	W H	12/2018	REVISION OF DETAIL											
ISSUE	APP'D	DATE	AMENDMENT		CAT	PROJ	FILE		SCALE OF METRES	FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
									N T S				TC-2279	A

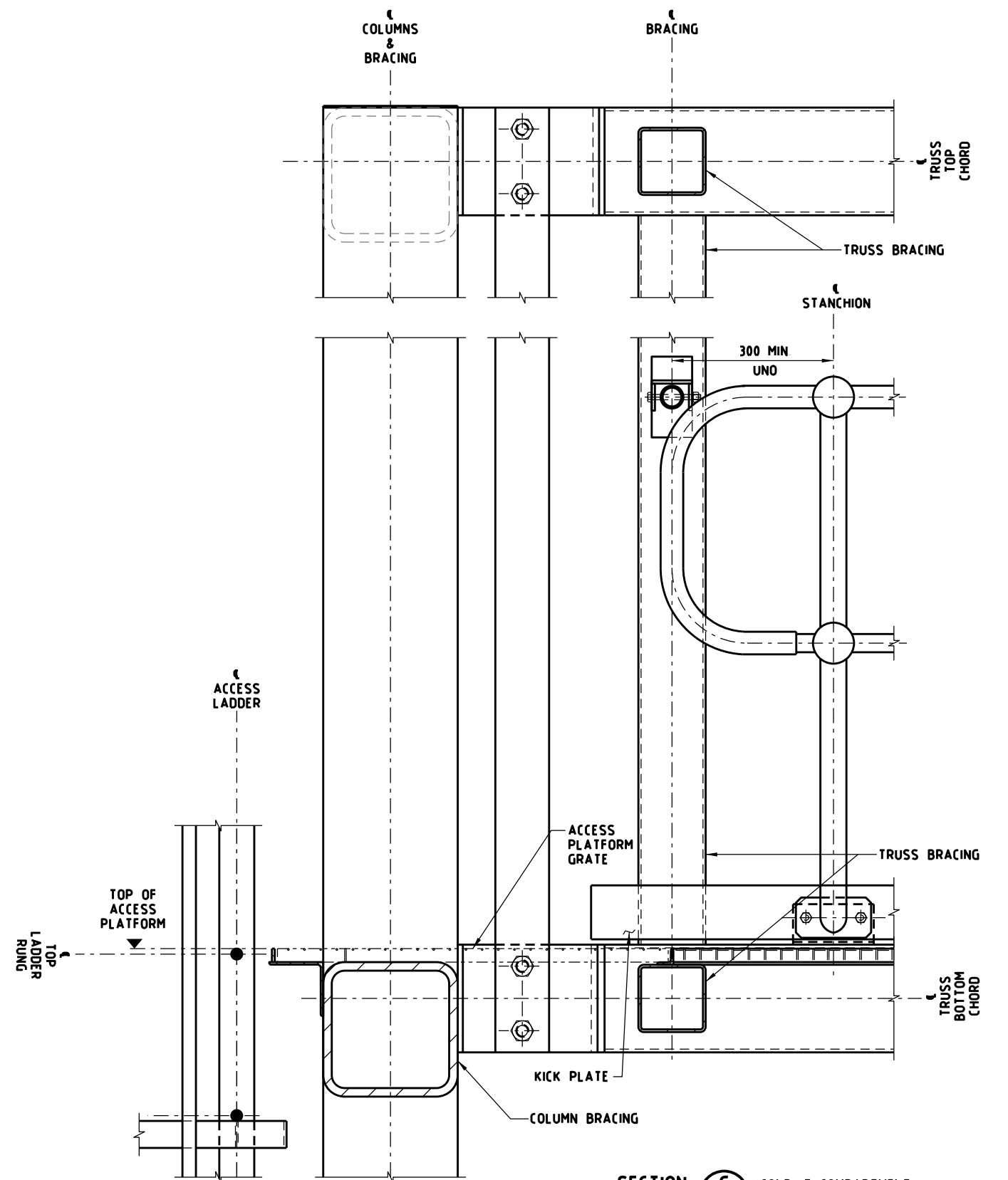


E				GENERAL NOTES	DESIGNED	M80 UPGRADE	07/2015		STANDARD DRAWING					
D					APPROVED	W HARVEY - MANAGER	ITS INFRASTRUCTURE & SYSTEM 08/2015		MANAGED MOTORWAY					
C										ACCESSIBLE VMS AND LUMS GANTRY				
B										TYPICAL ACCESS LADDER AND CAGE DETAILS				
A	W H	12/2018	REMOVAL OF STRUCTURAL DETAIL							FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
ISSUE	APP'D	DATE	AMENDMENT							TC-2280 A				





SECTION F  
NTS TC-2281



SECTION G  
NTS TC-2281 (CONDUIT COMPARTMENT  
NOT SHOWN FOR CLARITY)

**NOTE**

- 1 STANDARD DRAWINGS SHOWN ARE INDICATIVE ONLY STRUCTURAL DETAILS SHALL BE DESIGNED BY A PRE-QUALIFIED CONSULTANT TO THE SATISFACTION OF VICROADS AND SHALL COMPLY WITH VICROADS' SPECIFICATION BRIDGE TECHNICAL NOTES (BTN'S) AND AS 5100 WHERE APPLICABLE
- 2 ACCESS LADDER, CAGE AND HANDRAILS TO COMPLY WITH AS1657

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A	W H	12/2018	REMOVAL OF STRUCTURAL DETAIL
ISSUE	APP'D	DATE	AMENDMENT

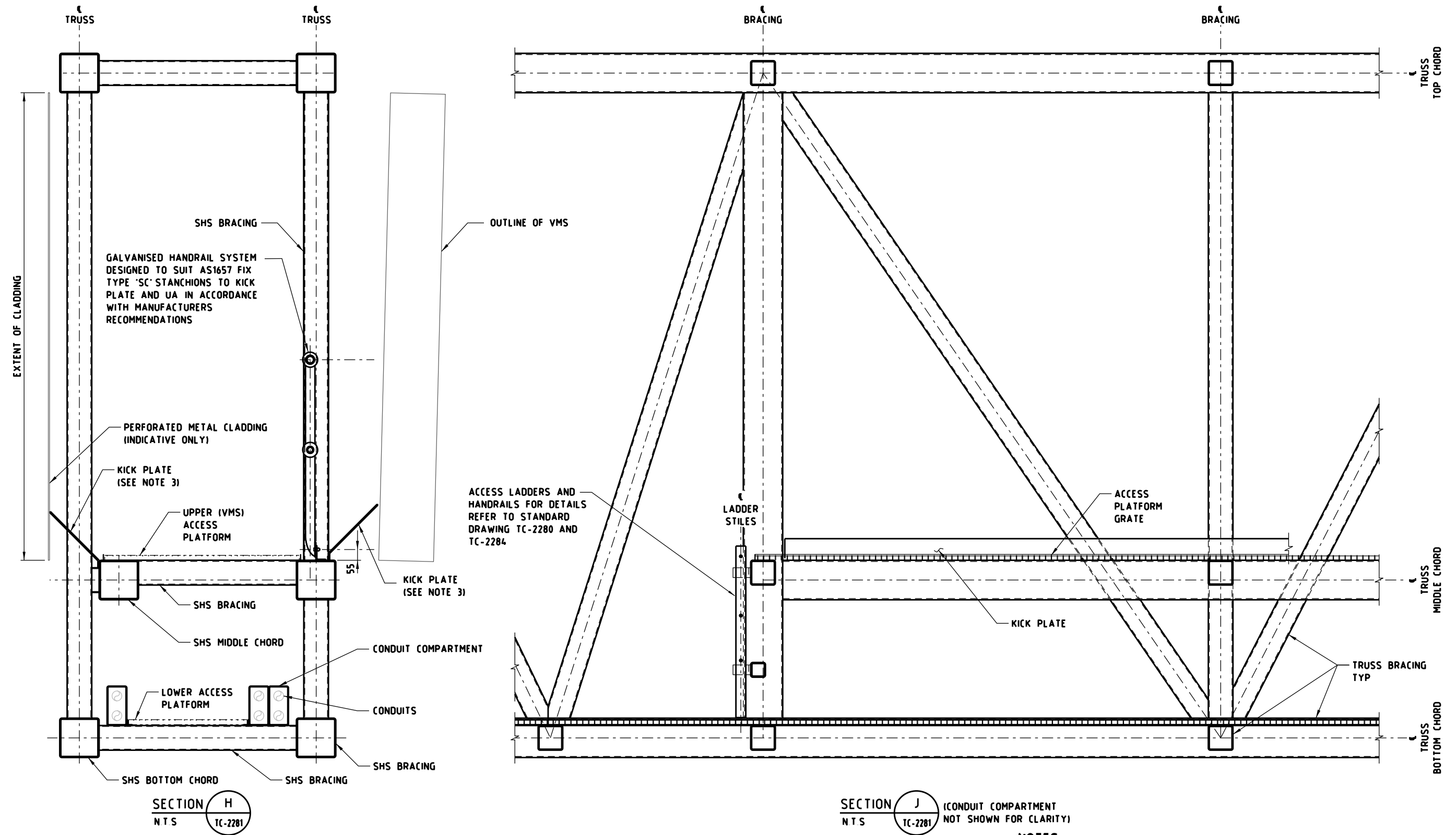
GENERAL NOTES

DESIGNED	M80 UPGRADE	07/2015
APPROVED	W HARVEY - MANAGER	ITS INFRASTRUCTURE & SYSTEM 08/2015
CAT.		
PROJ.		
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SCALE OF METRES NTS
HOR VER

STANDARD DRAWING MANAGED MOTORWAY			
ACCESSIBLE VMS AND LUMS GANTRY ACCESS WALKWAY & HANDRAIL - 2 OF 4 TYPICAL ARRANGEMENT			
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO
			TC-2282
			ISSUE A



#### NOTES

- STANDARD DRAWINGS SHOWN ARE INDICATIVE ONLY STRUCTURAL DETAILS SHALL BE DESIGNED BY A PRE-QUALIFIED CONSULTANT TO THE SATISFACTION OF VICROADS AND SHALL COMPLY WITH VICROADS' SPECIFICATION BRIDGE TECHNICAL NOTES (BTN'S) AND AS 5100 WHERE APPLICABLE.
- ACCESS LADDER, CAGE AND HANDRAILS TO COMPLY WITH AS1657.
- KICK PLATE TO BE DESIGNED TO COVER ALL GAPS BETWEEN VMS & CLADDING AND GANTRY PLATFORM

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A	W H	12/2018	REMOVAL OF STRUCTURAL DETAIL
ISSUE	APP'D	DATE	AMENDMENT

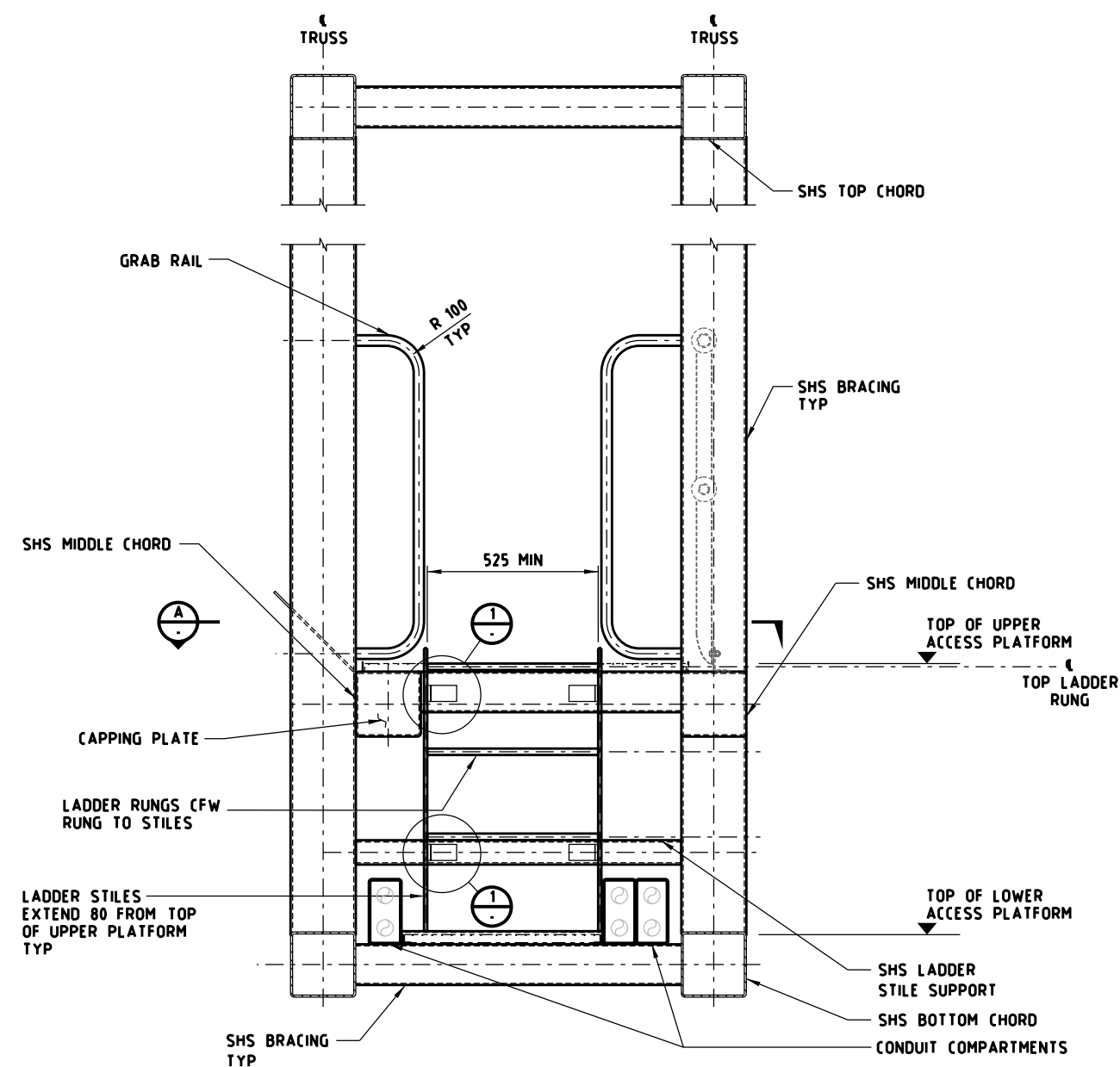
#### GENERAL NOTES

DESIGNED	M80 UPGRADE	07/2015
APPROVED	W HARVEY - MANAGER	ITS INFRASTRUCTURE & SYSTEM 08/2015
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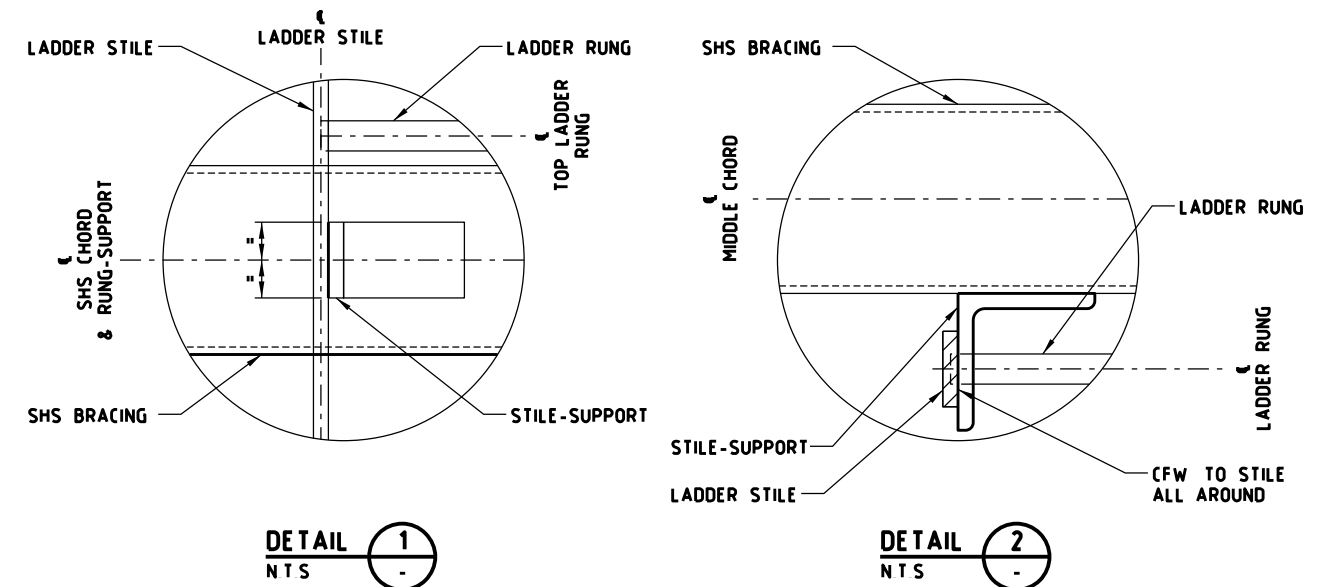


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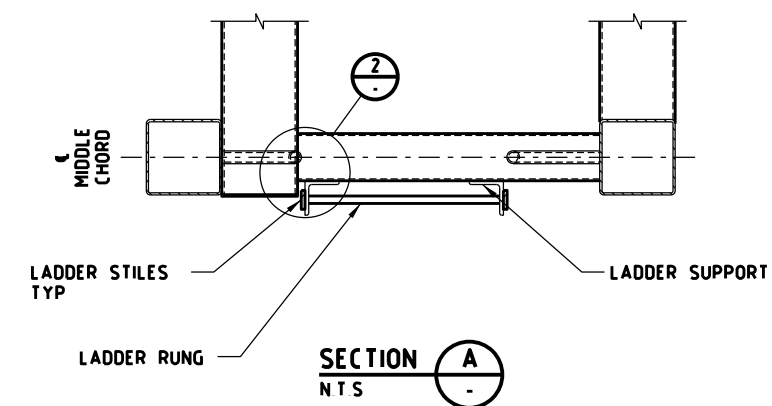
STANDARD DRAWING MANAGED MOTORWAY				
ACCESSIBLE VMS AND LUMS GANTRY ACCESS WALKWAY & HANDRAIL - 3 OF 4 TYPICAL ARRANGEMENT				
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
			TC-2283	A



**TYPICAL SECTION - ACCESS LADDER BETWEEN  
LOWER PLATFORM AND UPPER PLATFORM**  
NTS



**RUNG-SUPPORT CONNECTION DETAILS**



**NOTES**

- 1 ALL EXPOSED EDGES SHALL BE DEBURRED
- 2 STANDARD DRAWINGS SHOWN ARE INDICATIVE ONLY STRUCTURAL DETAILS SHALL BE DESIGNED BY A PRE-QUALIFIED CONSULTANT TO THE SATISFACTION OF VICROADS AND SHALL COMPLY WITH VICROADS' SPECIFICATION BRIDGE TECHNICAL NOTES (BTN'S) AND AS 5100 WHERE APPLICABLE
- 3 ACCESS LADDER, CAGE AND HANDRAILS TO COMPLY WITH AS 1657

E			
D			
C			
B			
A	W H	12/2018	REMOVAL OF STRUCTURAL DETAIL
ISSUE	APP'D	DATE	AMENDMENT

**GENERAL NOTES**

DESIGNED	M80 UPGRADE	07/2015
APPROVED	W HARVEY - MANAGER	ITS INFRASTRUCTURE & SYSTEM 08/2015
CAT.		
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FILE		

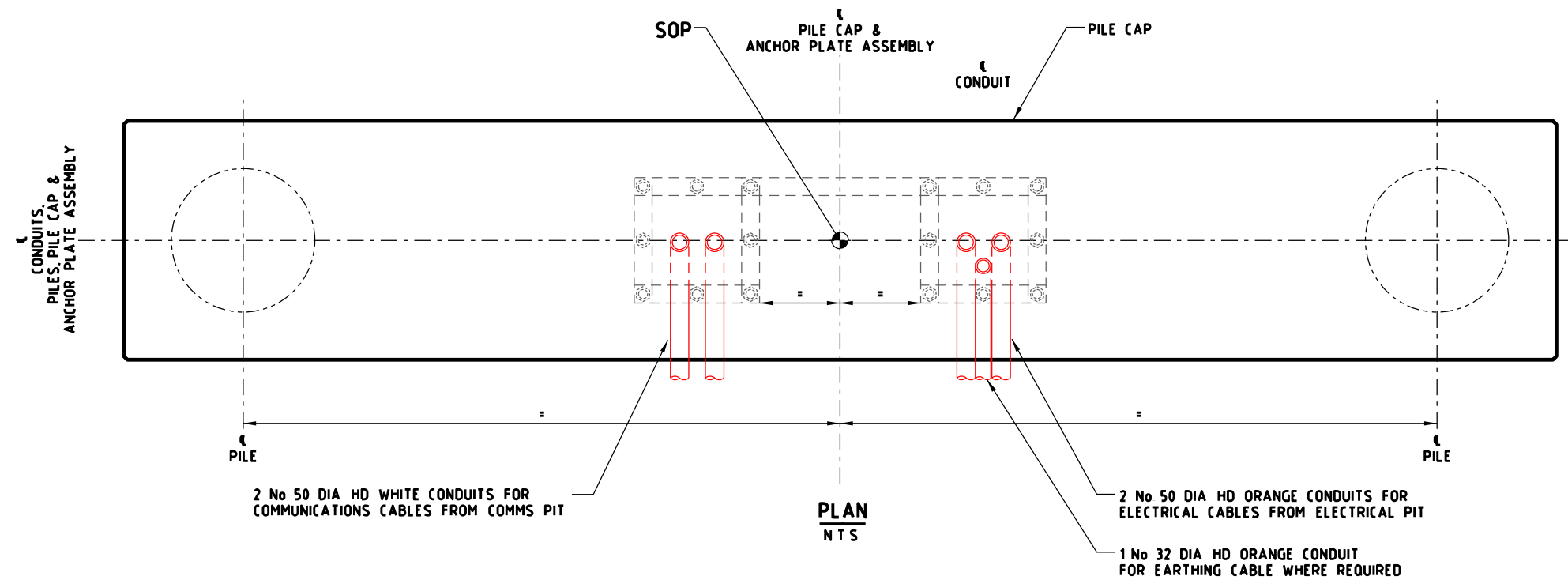


SCALE OF METRES
NTS
HOR
VER

<b>STANDARD DRAWING</b> MANAGED MOTORWAY <b>ACCESSIBLE VMS AND LUMS GANTRY</b> <b>ACCESS WALKWAY &amp; HANDRAIL - 4 OF 4</b> <b>TYPICAL ARRANGEMENT</b>			
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO
			TC-2284
			ISSUE A

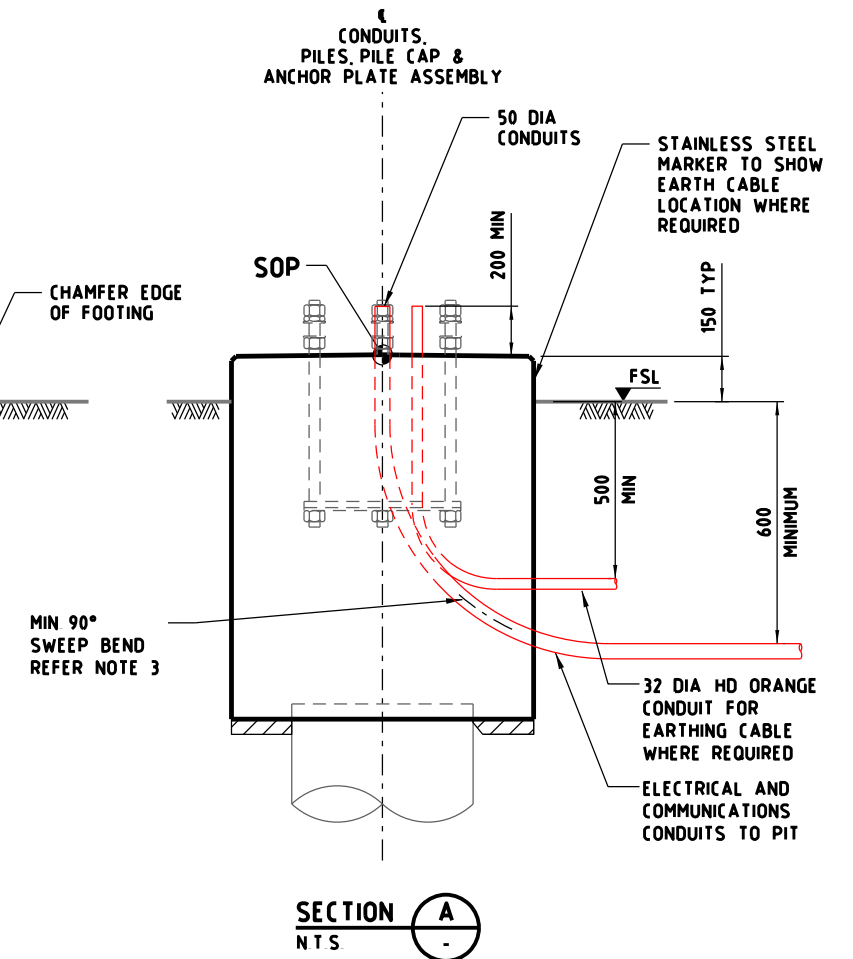
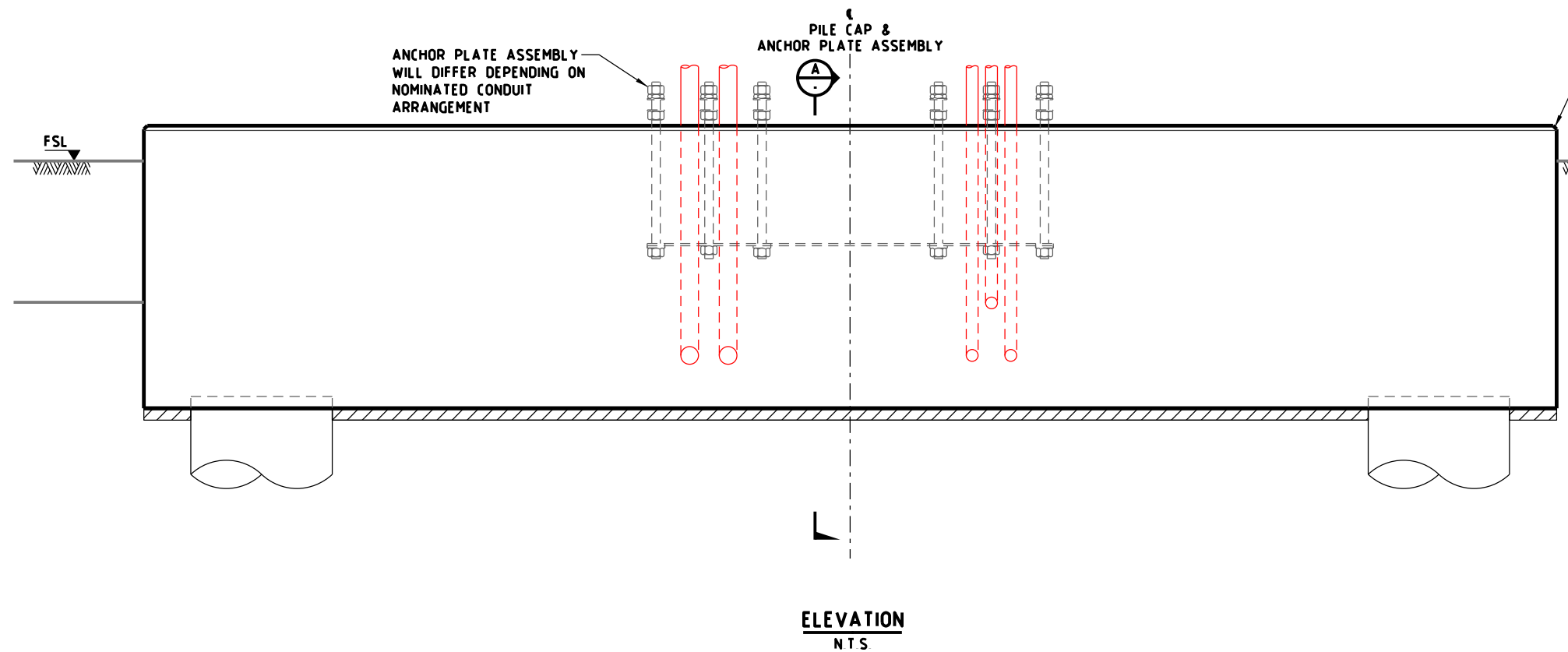






# NOTES

- CONDUITS SHALL COMPLY WITH AS2053 AND AS/NZS3000
- GALVANISED STEEL CONDUITS SHALL HAVE THREADED ENDS WITH TEMPORARY END CAPS WHEN PROJECTED FROM FOOTING
- STANDARD DRAWINGS SHOWN ARE INDICATIVE ONLY STRUCTURAL DETAILS SHALL BE DESIGNED BY A PRE-QUALIFIED CONSULTANT TO THE SATISFACTION OF VICROADS AND SHALL COMPLY WITH VICROADS' SPECIFICATION BRIDGE TECHNICAL NOTES (BTN'S) AND AS 5100 WHERE APPLICABLE



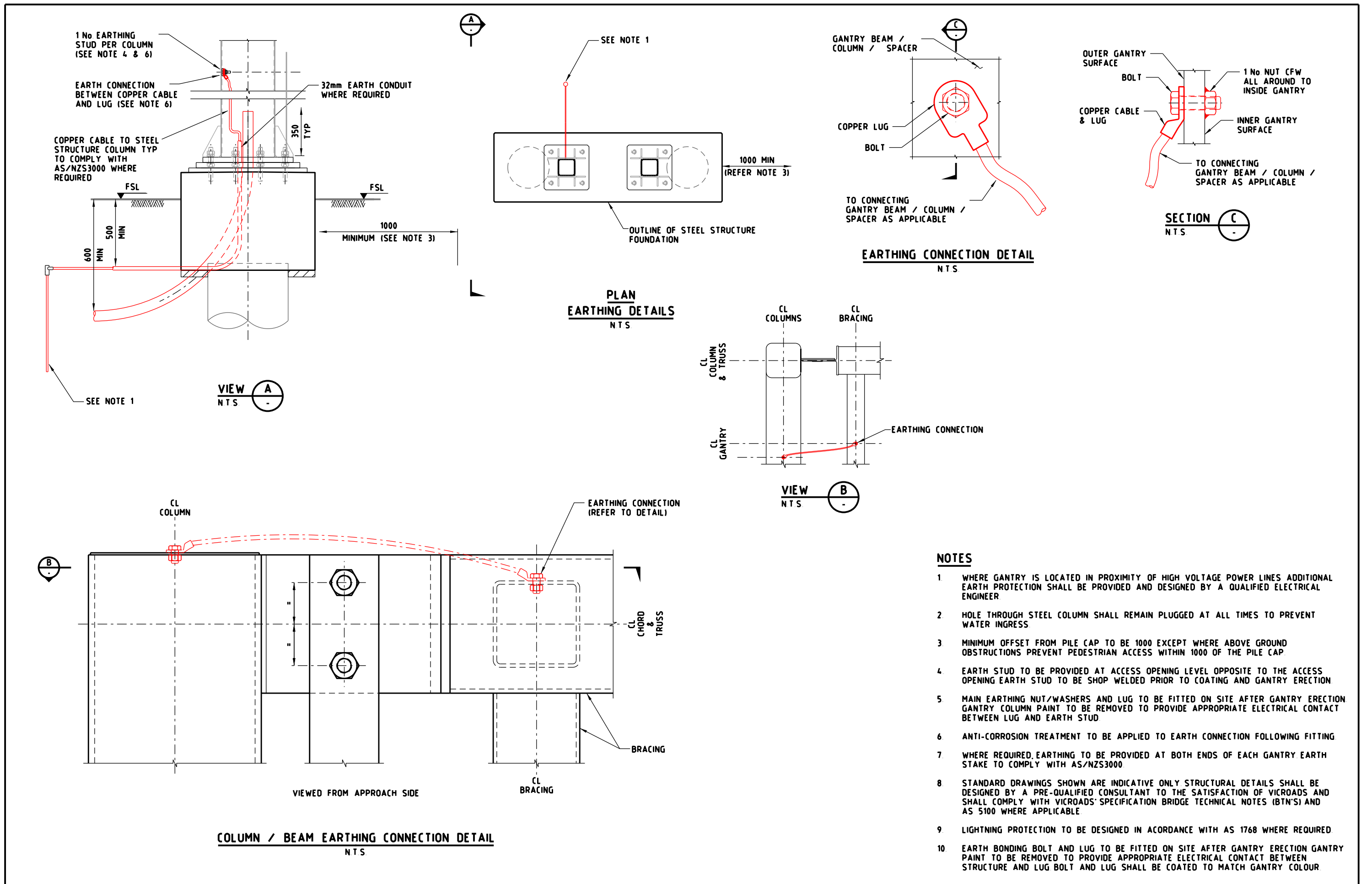
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A	W H	12/2018	REMOVAL OF STRUCTURAL DETAIL
ISSUE	APP'D	DATE	AMENDMENT

GENERAL NOTES	

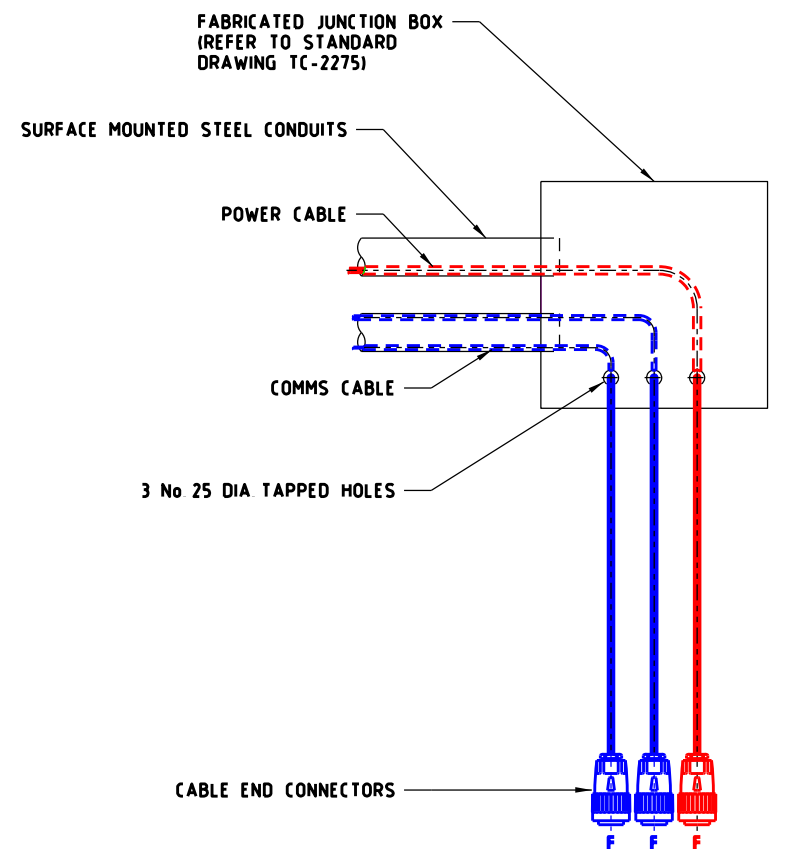
DESIGNED	M80 UPGRADE	07/2015
APPROVED	W HARVEY - MANAGER	ITS INFRASTRUCTURE & SYSTEM 08/2015
CAT.		
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FILE		

SCALE OF METRES NTS	
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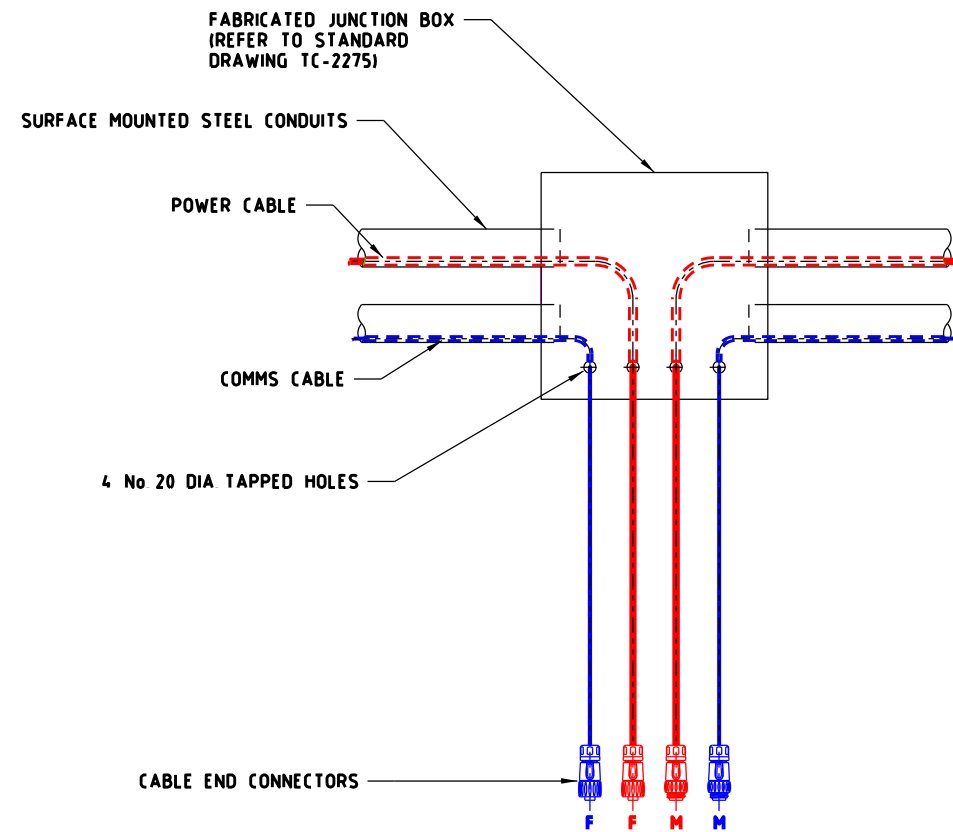
STANDARD DRAWING MANAGED MOTORWAY ACCESSIBLE VMS AND LUMS GANTRY FOUNDATION CONDUIT DETAILS TYPICAL ARRANGEMENT			
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO
			TC-2286
ISSUE	A		



E				GENERAL NOTES	DESIGNED	M80 UPGRADE	07/2015		<b>STANDARD DRAWING</b> MANAGED MOTORWAY			
D					APPROVED	W HARVEY - MANAGER	ITS INFRASTRUCTURE & SYSTEM 08/2015					
C									<b>ACCESSIBLE VMS AND LUMS GANTRY</b> TYPICAL GANTRY EARTHING ARRANGEMENT			
B												
A	W H	12/2018	REVISION OF DETAIL		CAT.			SCALE OF METRES	FILE NO	CONTRACT NO	SHEET NO	DRAWING NO
ISSUE	APP'D	DATE	AMENDMENT		PROJ.			NTS				TC-2287
					FILE			HOR				ISSUE
								VER				A



CONNECTORS TO VMS



CONNECTORS TO LUS

LEGEND

- BLUE - COMMUNICATIONS CABLE
- RED - POWER CABLE

NOTES

- 1 COMMUNICATIONS AND POWER CABLES BETWEEN GANTRY AND SIGN TO BE RUN INSIDE WEATHERPROOF FLEXIBLE CONDUIT WITH MATCHING WEATHERPROOF GLANDS

E				GENERAL NOTES	DESIGNED	M80 UPGRADE		07/2015	<b>STANDARD DRAWING</b> MANAGED MOTORWAY <b>ACCESSIBLE VMS AND LUS GANTRY</b> ELECTRICAL & COMMUNICATIONS CABLE CONNECTION DETAILS							
D					APPROVED	W HARVEY - MANAGER										
C					ITS INFRASTRUCTURE & SYSTEM 08/2015											
B									SCALE OF METRES N T S		FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE	
A	W H	12/2018	REVISION OF DETAIL												TC-2288	A
ISSUE	APP'D	DATE	AMENDMENT		CAT	PROJ		FILE	HOR							

