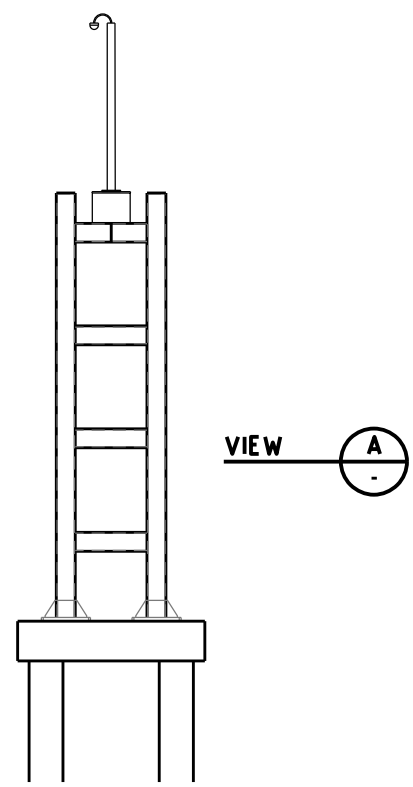
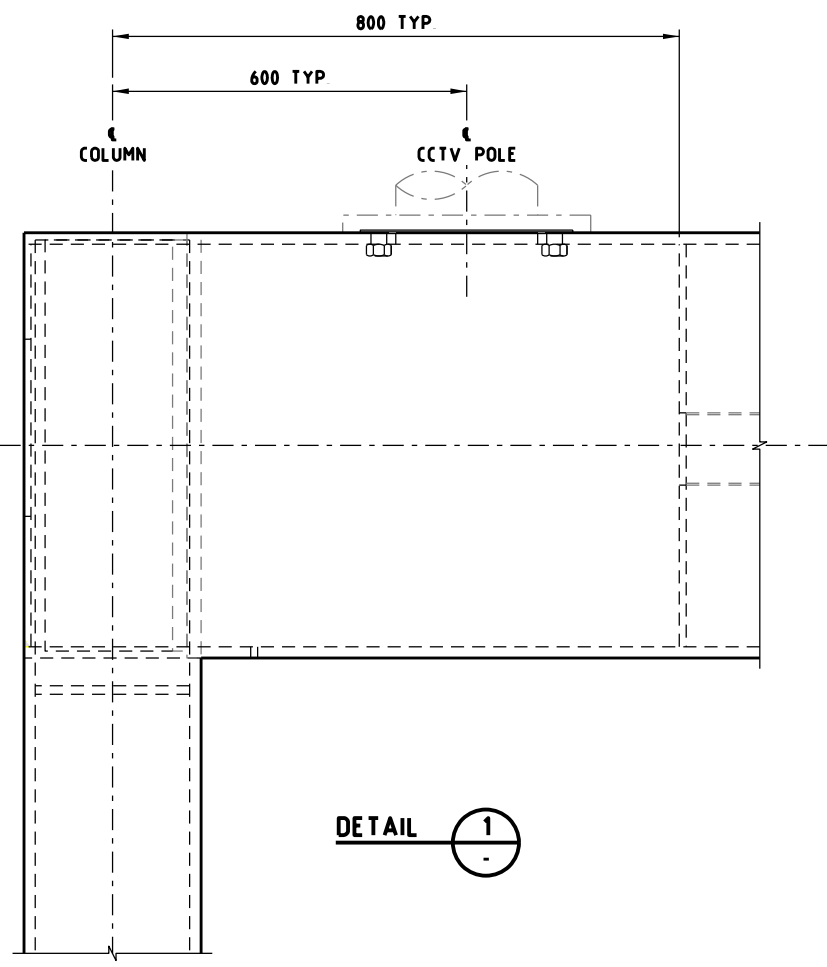


TYPICAL LUMS (NON-ACCESSIBLE) GANTRY WITH CCTV CAMERA



NOTES

- 1 TRAFFIC SAFETY BARRIERS TO BE DESIGNED SITE SPECIFIC IN ACCORDANCE WITH RDN 06-13
- 2 GANTRY BEAM TO BE TRUE HORIZONTAL
- 3 GANTRY TO BE EARTHED IN ACCORDANCE WITH STANDARD DRAWING TC-2265
- 4 GANTRY WIRING TO BE IN ACCORDANCE WITH STANDARD DRAWING TC-2266
- 5 MEDIAN LEG AND ASSOCIATED TRAFFIC BARRIER ONLY TO BE PROVIDED WHERE SPECIFIED
- 6 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

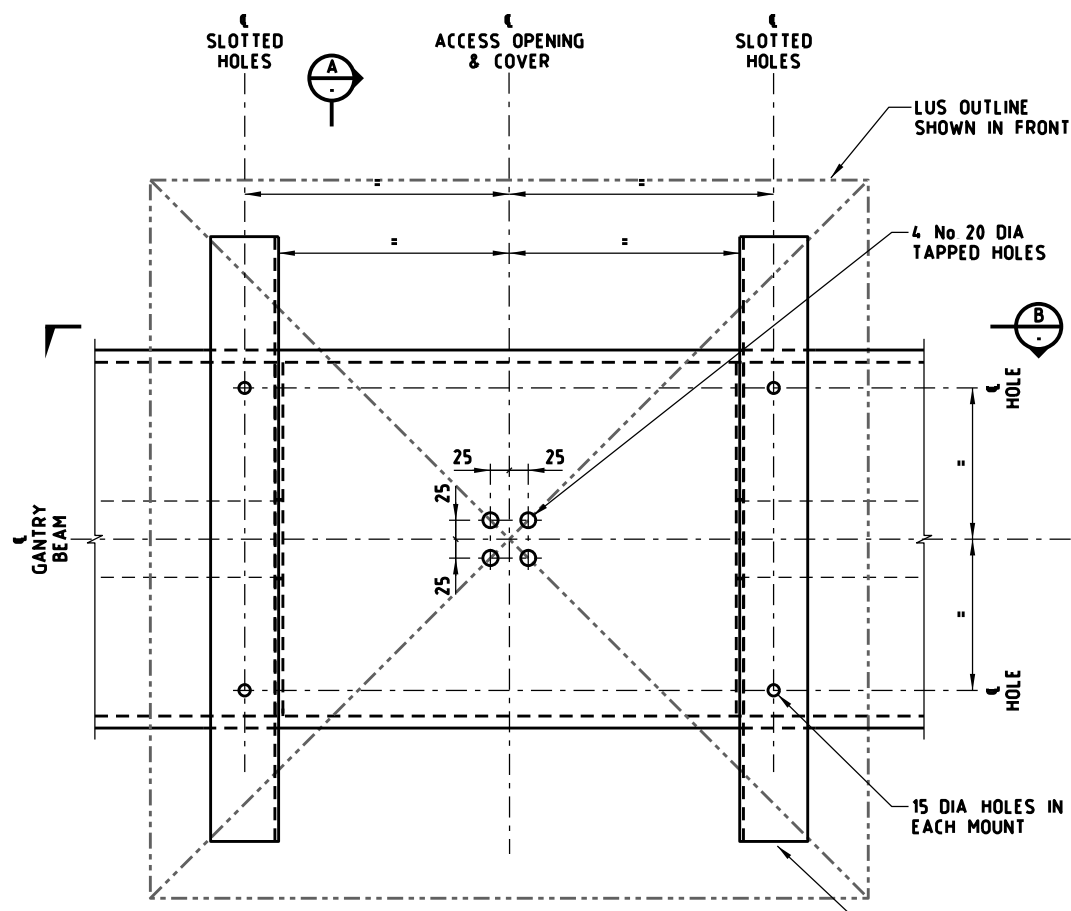
E			
D			
C			
B			
A	W H	12/2018	REVISION OF DETAIL
ISSUE	APP'D	DATE	AMENDMENT

GENERAL NOTES

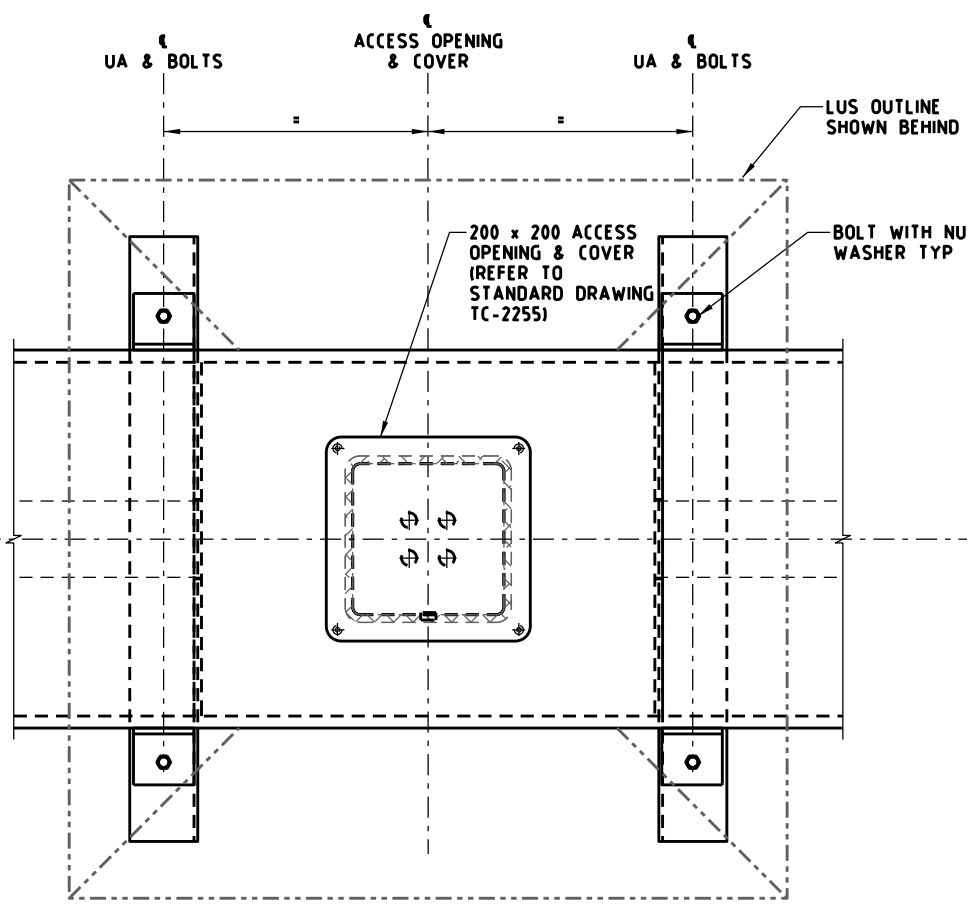
DESIGNED M80 UPGRADE 07/2015
 APPROVED W HARVEY - MANAGER
 ITS INFRASTRUCTURE & SYSTEM 08/2015
 CAT: _____
 PROJ: _____
 FILE: _____



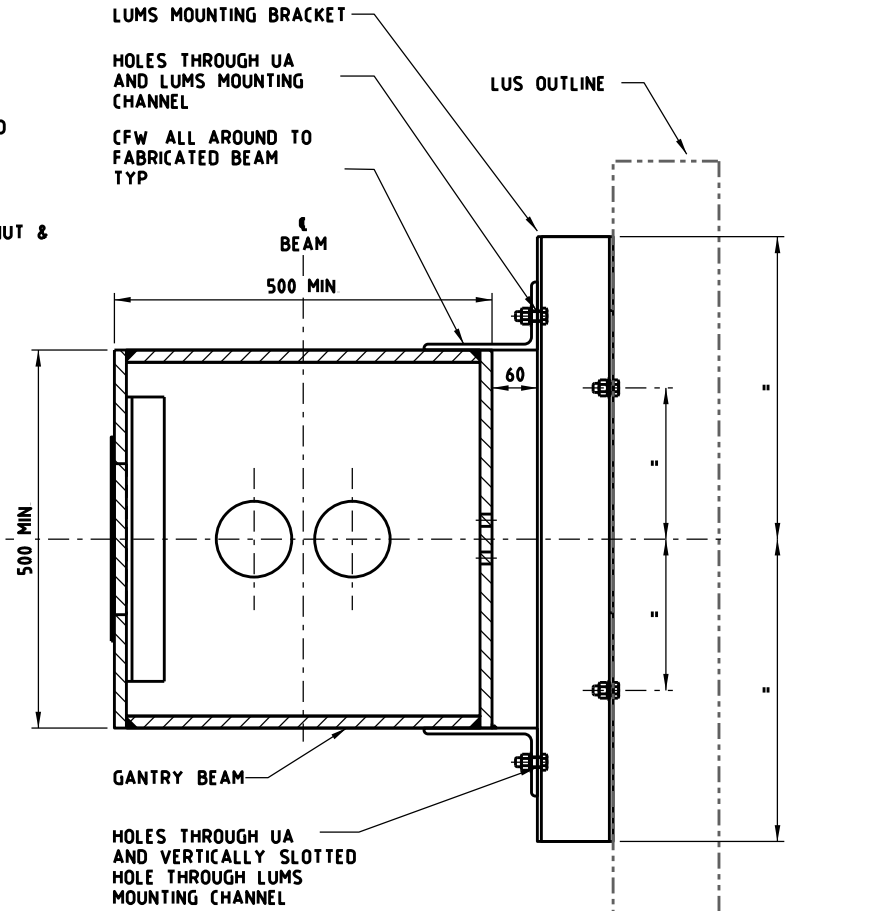
STANDARD DRAWING MANAGED MOTORWAY			
NON-ACCESSIBLE LUMS GANTRY GENERAL ARRANGEMENT			
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO
			TC-2260
			ISSUE A



LUMS SIGN CAVITY AND DIAPHRAGMS
TYPICAL
(APPROACH SIDE)



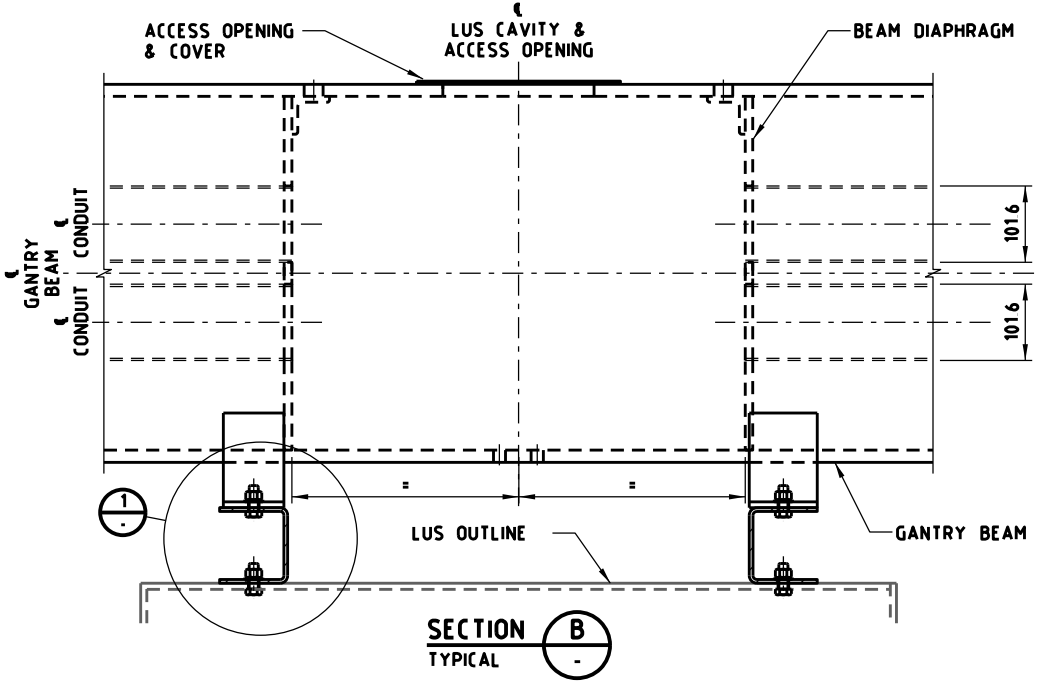
LUMS SIGN CAVITY AND DIAPHRAGMS
TYPICAL
(DEPARTURE SIDE)



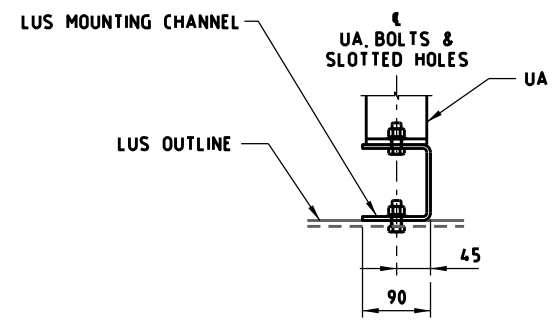
DEPARTURE SIDE

APPROACH SIDE

SECTION A
TYPICAL



SECTION B
TYPICAL



DETAIL 1
TYPICAL

NOTES

- 1 ALL OPENING EDGES TO BE DEBURRED
- 2 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 THE MOUNTING ARRANGEMENT OF THE LUMS ASSEMBLY MAY VARY DEPENDING ON CROSS SECTION SIZE OF THE GANTRY BEAM AND IT SHALL BE DESIGNED TO THE SATISFACTION OF VICROADS

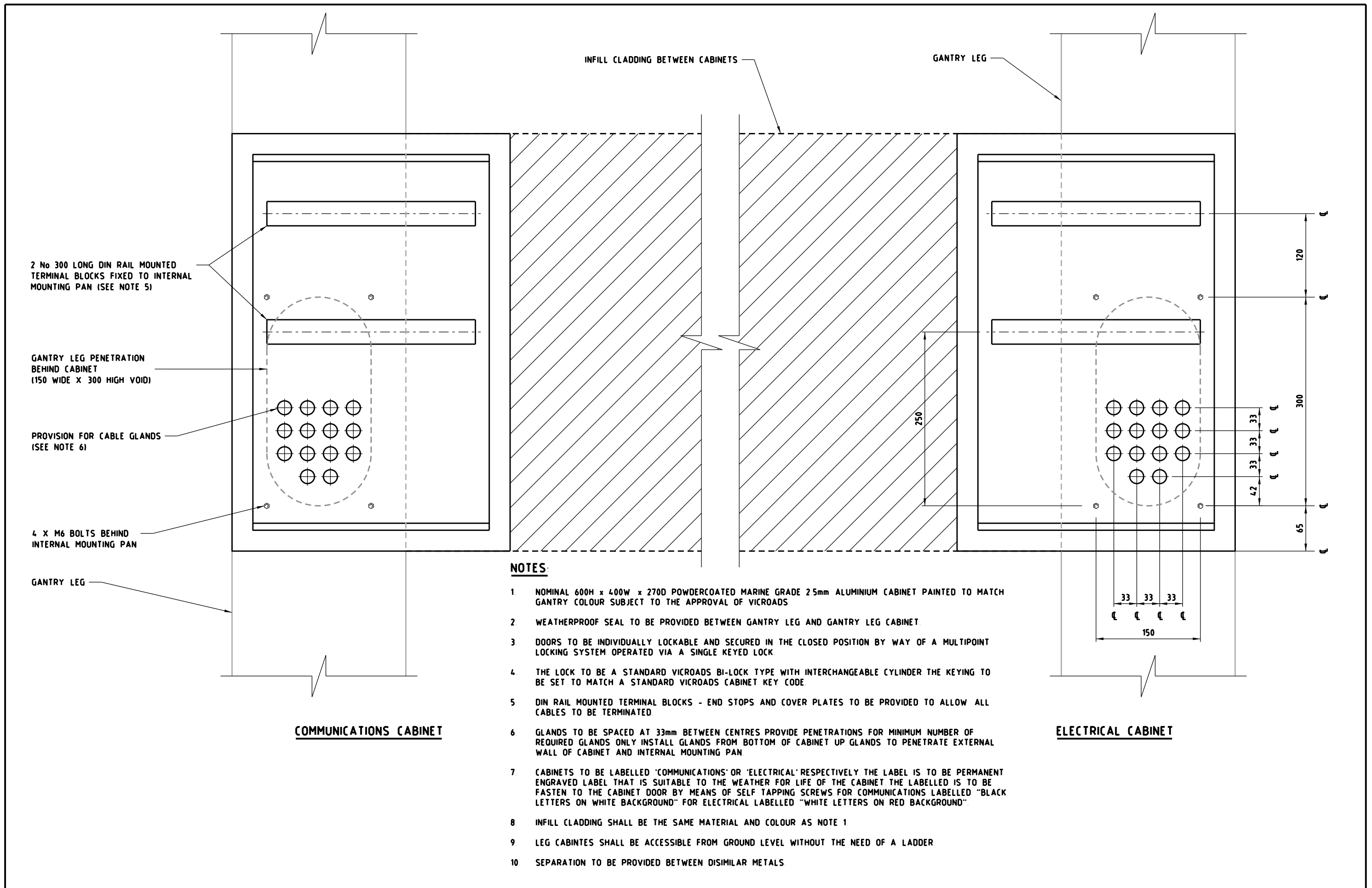
E			
D			
C			
B			
A	W H	12/2018	REVISION OF DETAIL
ISSUE	APP'D	DATE	AMENDMENT

GENERAL NOTES

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



STANDARD DRAWING MANAGED MOTORWAY				
NON-ACCESSIBLE LUMS GANTRY INTERNAL COUNDUITING AND MOUNTING ARRANGEMENT				
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
			TC-2261	A



INFILL CLADDING BETWEEN CABINETS

GANTRY LEG

2 No 300 LONG DIN RAIL MOUNTED TERMINAL BLOCKS FIXED TO INTERNAL MOUNTING PAN (SEE NOTE 5)

GANTRY LEG PENETRATION BEHIND CABINET (150 WIDE X 300 HIGH VOID)

PROVISION FOR CABLE GLANDS (SEE NOTE 6)

4 X M6 BOLTS BEHIND INTERNAL MOUNTING PAN

GANTRY LEG

COMMUNICATIONS CABINET

ELECTRICAL CABINET

NOTES

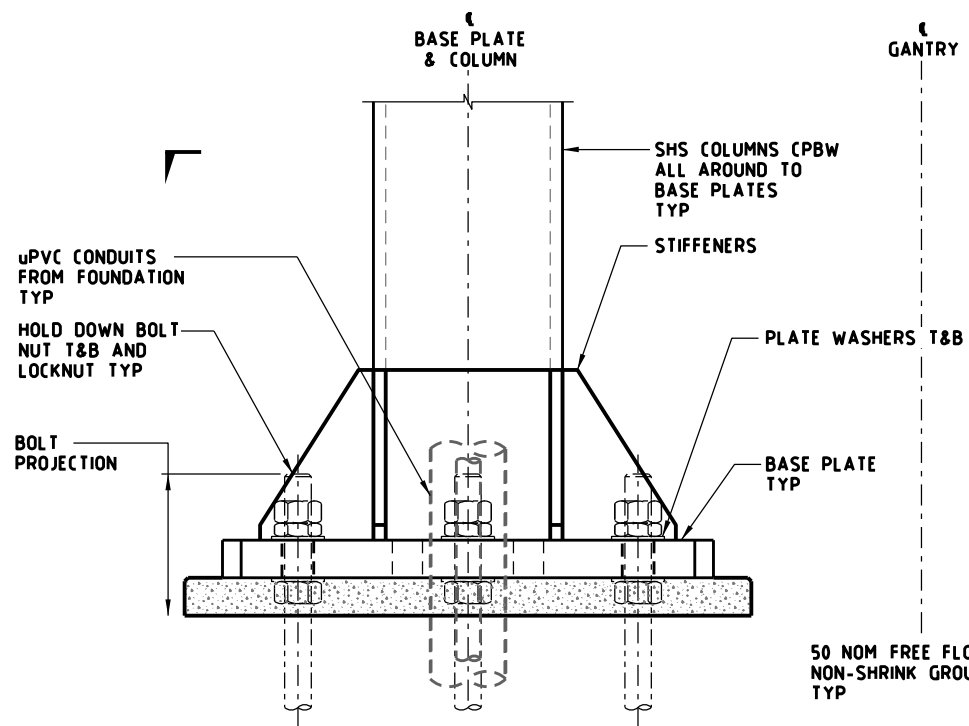
- 1 NOMINAL 600H x 400W x 270D POWDERCOATED MARINE GRADE 2.5mm ALUMINIUM CABINET PAINTED TO MATCH GANTRY COLOUR SUBJECT TO THE APPROVAL OF VICROADS
- 2 WEATHERPROOF SEAL TO BE PROVIDED BETWEEN GANTRY LEG AND GANTRY LEG CABINET.
- 3 DOORS TO BE INDIVIDUALLY LOCKABLE AND SECURED IN THE CLOSED POSITION BY WAY OF A MULTIPOINT LOCKING SYSTEM OPERATED VIA A SINGLE KEYED LOCK
- 4 THE LOCK TO BE A STANDARD VICROADS BI-LOCK TYPE WITH INTERCHANGEABLE CYLINDER THE KEYING TO BE SET TO MATCH A STANDARD VICROADS CABINET KEY CODE
- 5 DIN RAIL MOUNTED TERMINAL BLOCKS - END STOPS AND COVER PLATES TO BE PROVIDED TO ALLOW ALL CABLES TO BE TERMINATED
- 6 GLANDS TO BE SPACED AT 33mm BETWEEN CENTRES PROVIDE PENETRATIONS FOR MINIMUM NUMBER OF REQUIRED GLANDS ONLY INSTALL GLANDS FROM BOTTOM OF CABINET UP GLANDS TO PENETRATE EXTERNAL WALL OF CABINET AND INTERNAL MOUNTING PAN
- 7 CABINETS TO BE LABELLED 'COMMUNICATIONS' OR 'ELECTRICAL' RESPECTIVELY THE LABEL IS TO BE PERMANENT ENGRAVED LABEL THAT IS SUITABLE TO THE WEATHER FOR LIFE OF THE CABINET THE LABELLED IS TO BE FASTENED TO THE CABINET DOOR BY MEANS OF SELF TAPPING SCREWS FOR COMMUNICATIONS LABELLED "BLACK LETTERS ON WHITE BACKGROUND" FOR ELECTRICAL LABELLED "WHITE LETTERS ON RED BACKGROUND"
- 8 INFILL CLADDING SHALL BE THE SAME MATERIAL AND COLOUR AS NOTE 1
- 9 LEG CABINTES SHALL BE ACCESSIBLE FROM GROUND LEVEL WITHOUT THE NEED OF A LADDER.
- 10 SEPARATION TO BE PROVIDED BETWEEN DISIMILAR METALS

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

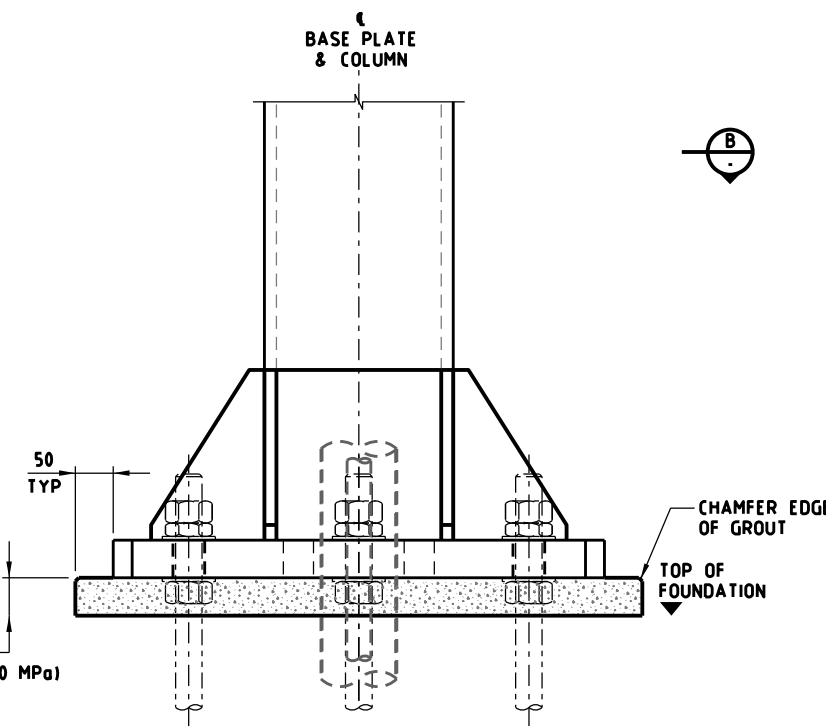
GENERAL NOTES	
---------------	--

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

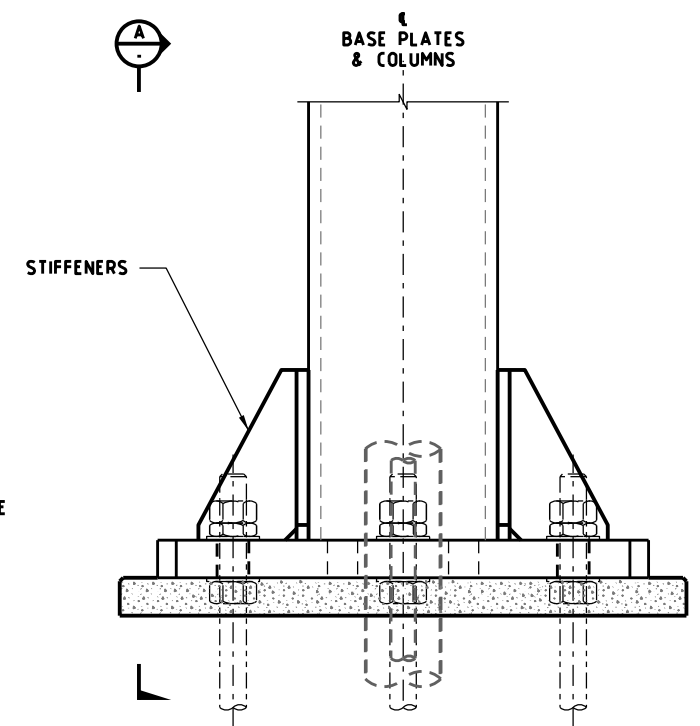
STANDARD DRAWING				
MANAGED MOTORWAY				
NON-ACCESSIBLE LUMS GANTRY				
GANTRY LEG CABINET				
TYPICAL ARRANGEMENT				
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
			TC-2262	A



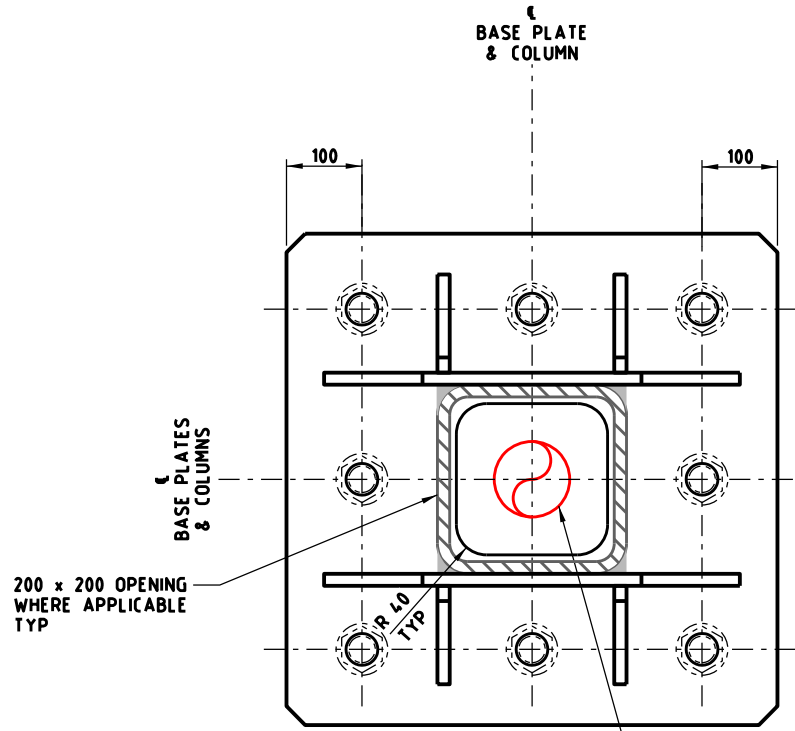
VIEW A
NTS



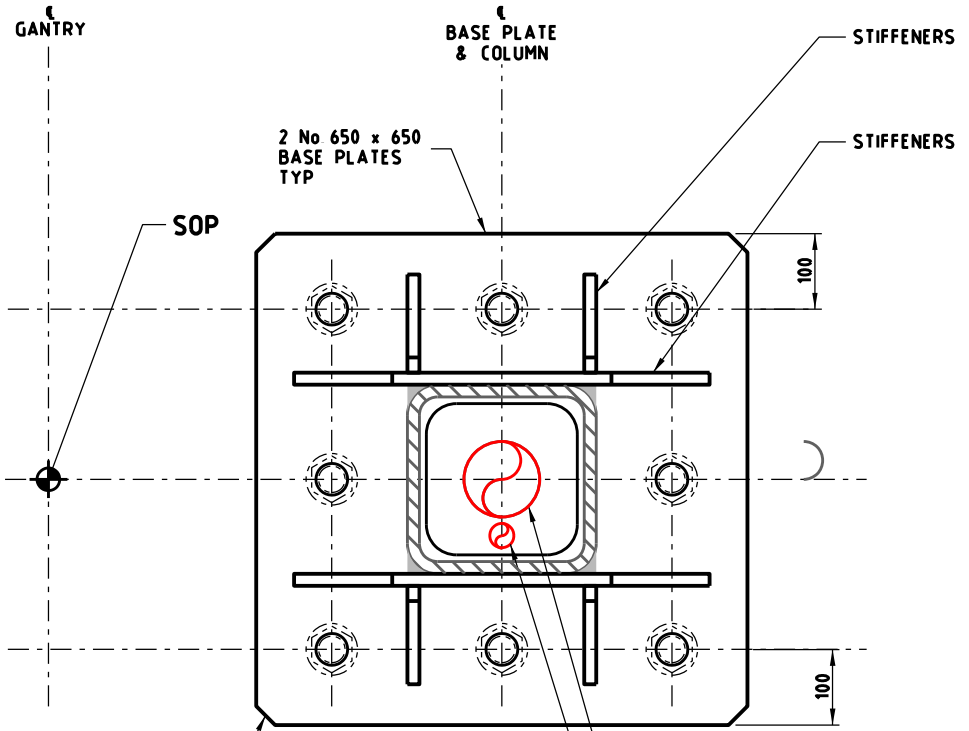
B



DOUBLE COLUMN BASE PLATE
TYPE 3
NTS



SECTION B
NTS



NOTE

- 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.
- FOR FRS GANTRY DESIGN, ENSURE THE ELECTRICAL PIT IS LOCATED ADJACENT TO THE FIRST LEG FROM APPROACH SIDE TO ALLOW ELECTRICAL CABLES TO BE INSTALLED FOR TRAFFIC SIGNAL LANTERNS

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

GENERAL NOTES	

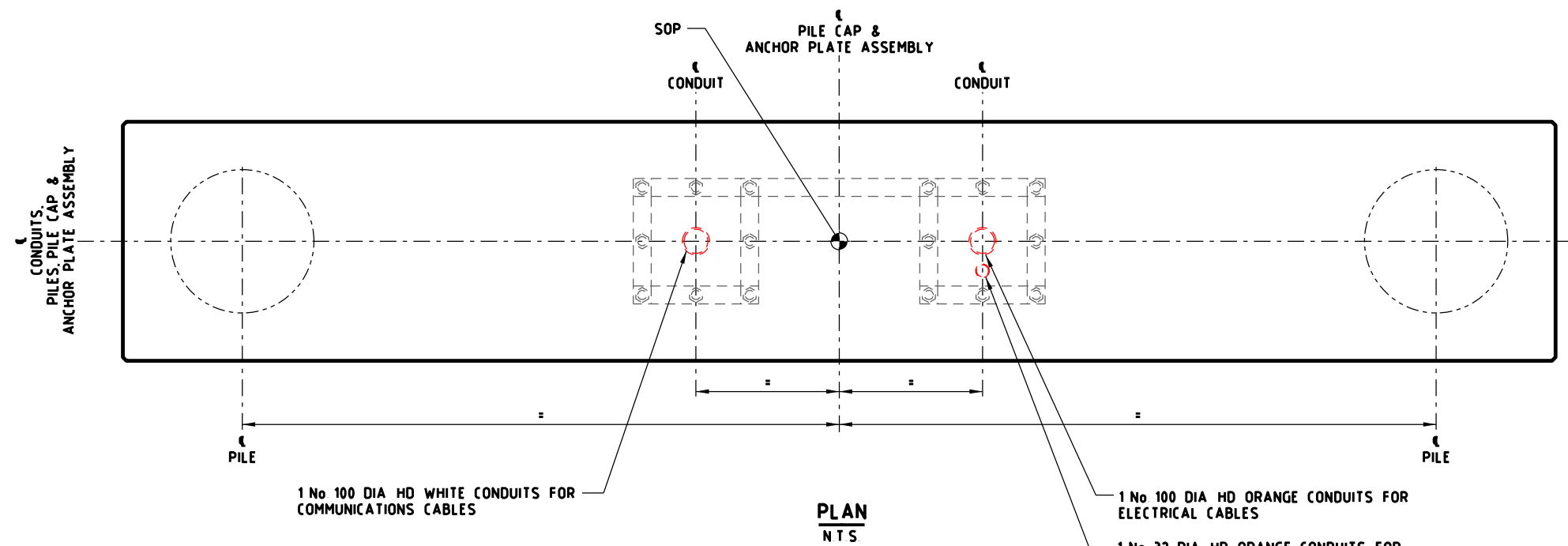
DESIGNED	M80 UPGRADE	07/2015
APPROVED	W HARVEY - MANAGER	
	ITS INFRASTRUCTURE & SYSTEM 08/2015	
CAT:		SCALE OF METRES
PROJ:		NTS
FILE:		HOR
		VER



STANDARD DRAWING			
MANAGED MOTORWAY			
NON-ACCESSIBLE LUMS GANTRY			
COLUMN BASE PLATE DETAILS			
TYPICAL ARRANGEMENT			
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO
			TC-2263
			ISSUE A

NOTES:

- 1 CONDUITS SHALL COMPLY WITH AS 2053
- 2 750mm MINIMUM RADIUS FOR COMMUNICATIONS CONDUITS
600mm MINIMUM RADIUS FOR ELECTRICAL CONDUITS
- 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

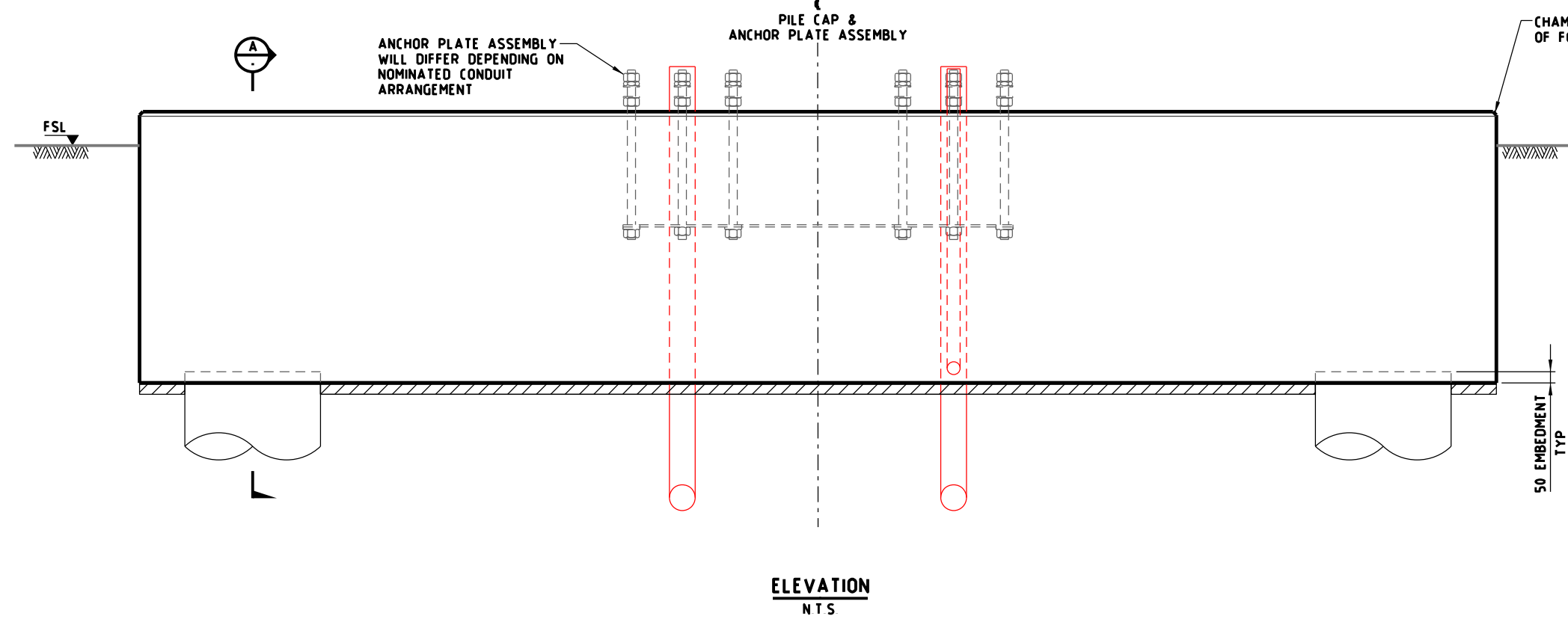


1 No 100 DIA HD WHITE CONDUITS FOR COMMUNICATIONS CABLES

1 No 100 DIA HD ORANGE CONDUITS FOR ELECTRICAL CABLES

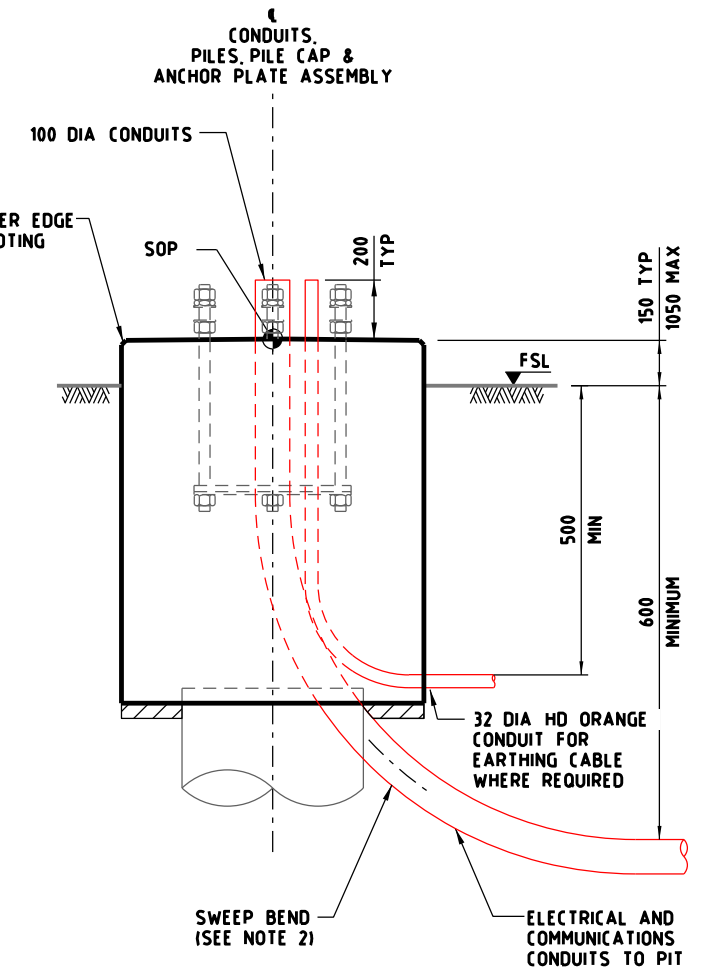
1 No 32 DIA HD ORANGE CONDUITS FOR EARTHING CABLES WHERE REQUIRED

PLAN
NTS



ANCHOR PLATE ASSEMBLY WILL DIFFER DEPENDING ON NOMINATED CONDUIT ARRANGEMENT

ELEVATION
NTS



SECTION A
NTS

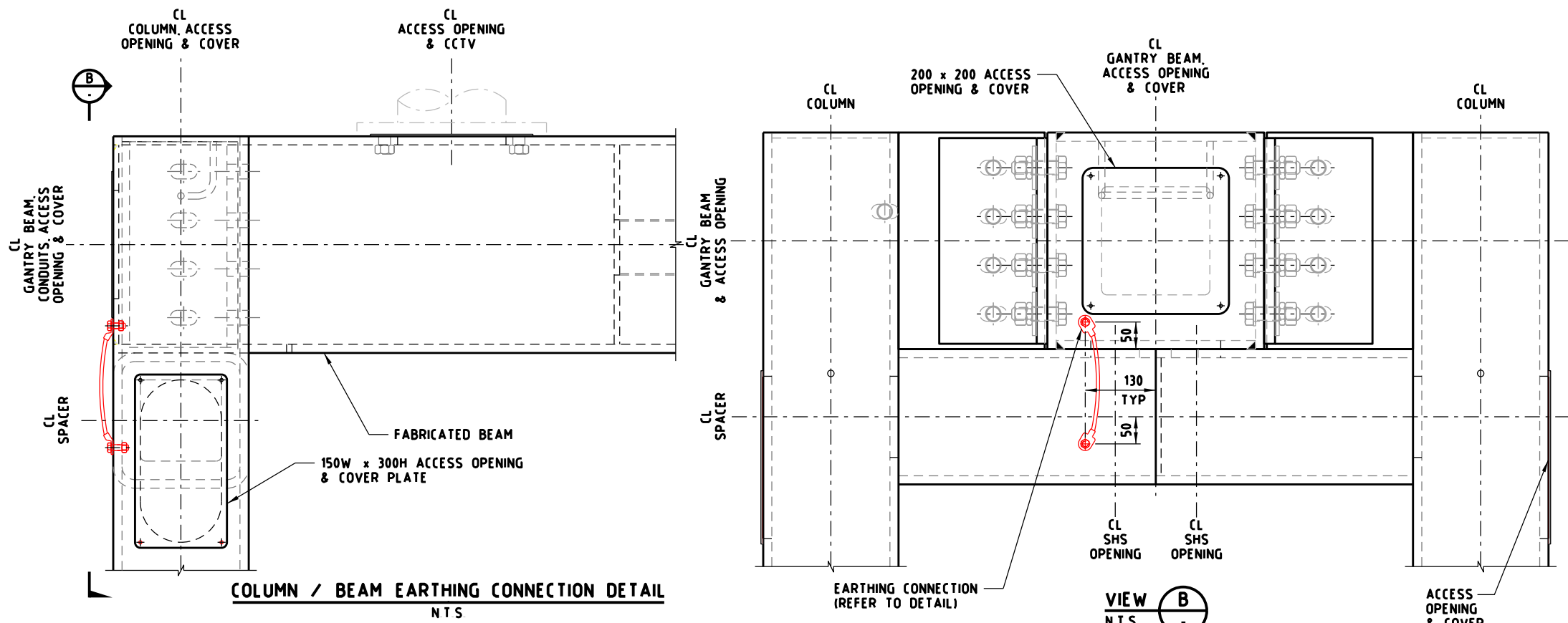
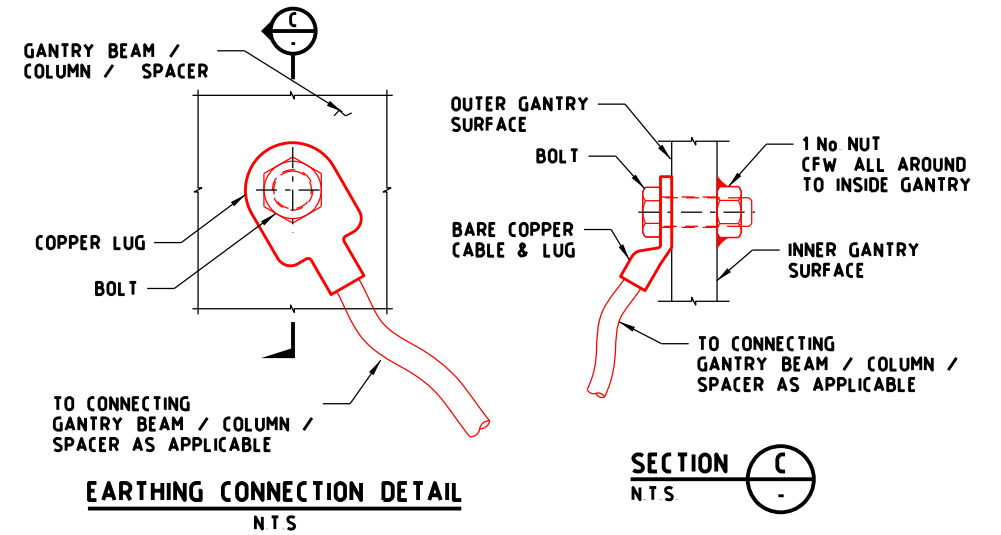
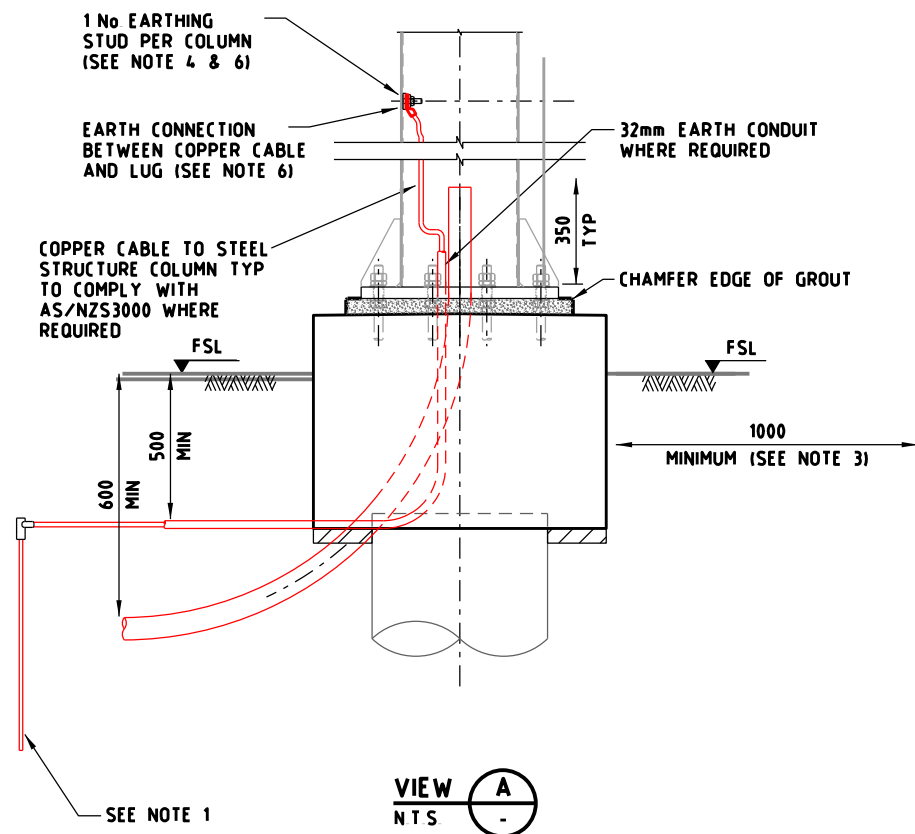
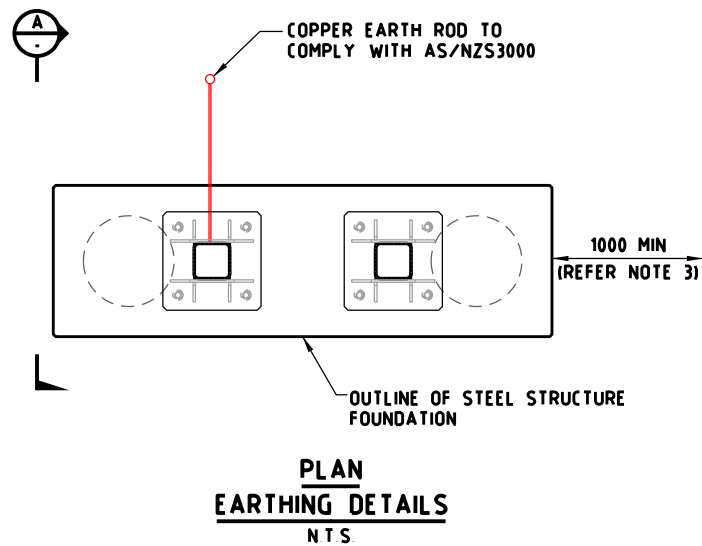
E			
D			
C			
B			
A	W H	12/2018	REVISION OF DETAIL
ISSUE	APP'D	DATE	AMENDMENT

GENERAL NOTES	
---------------	--

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



STANDARD DRAWING				
MANAGED MOTORWAY				
NON-ACCESSIBLE LUMS GANTRY				
FOUNDATION CONDUIT DETAIL				
TYPICAL ARRANGEMENT				
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
			TC-2264	A



NOTES

- 1 WHERE GANTRY IS LOCATED IN PROXIMITY OF HIGH VOLTAGE POWER LINES ADDITIONAL EARTH PROTECTION SHALL BE PROVIDED AND DESIGNED BY A QUALIFIED ELECTRICAL ENGINEER
- 2 HOLE THROUGH STEEL COLUMN SHALL REMAIN PLUGGED AT ALL TIMES TO PREVENT WATER INGRESS
- 3 MINIMUM OFFSET FROM PILE CAP TO BE 1000 EXCEPT WHERE ABOVE GROUND OBSTRUCTIONS PREVENT PEDESTRIAN ACCESS WITHIN 1000 OF THE PILE CAP
- 4 EARTH STUD TO BE PROVIDED AT ACCESS OPENING LEVEL OPPOSITE TO ACCESS OPENING HATCH EARTH STUD TO BE SHOP WELDED PRIOR TO COATING AND GANTRY ERECTION
- 5 MAIN EARTHING NUT/WASHERS AND LUG TO BE FITTED ON SITE AFTER GANTRY ERECTION GANTRY COLUMN PAINT TO BE REMOVED TO PROVIDE APPROPRIATE ELECTRICAL CONTACT BETWEEN LUG AND EARTH STUD
- 6 ANTI-CORROSION TREATMENT TO BE APPLIED TO EARTH CONNECTION FOLLOWING FITTING
- 7 WHERE REQUIRED, EARTHING TO BE PROVIDED AT BOTH ENDS OF EACH GANTRY EARTH STAKE TO COMPLY WITH AS/NZS3000
- 8 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
- 9 LIGHTNING PROTECTION TO BE DESIGNED IN ACORDANCE WITH AS 1768 WHERE REQUIRED
- 10 EARTH BONDING BOLT AND LUG TO BE FITTED ON SITE AFTER GANTRY ERECTION GANTRY PAINT TO BE REMOVED TO PROVIDE APPROPRIATE ELECTRICAL CONTACT BETWEEN STRUCTURE AND LUG

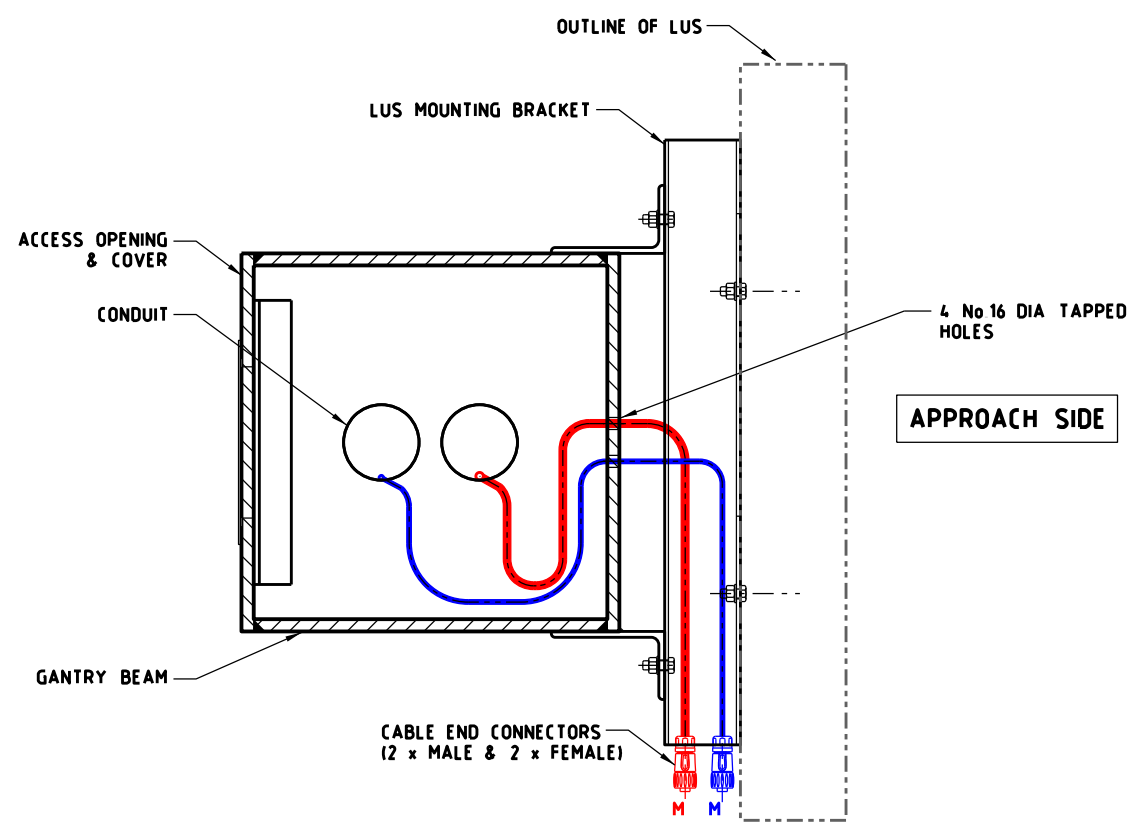
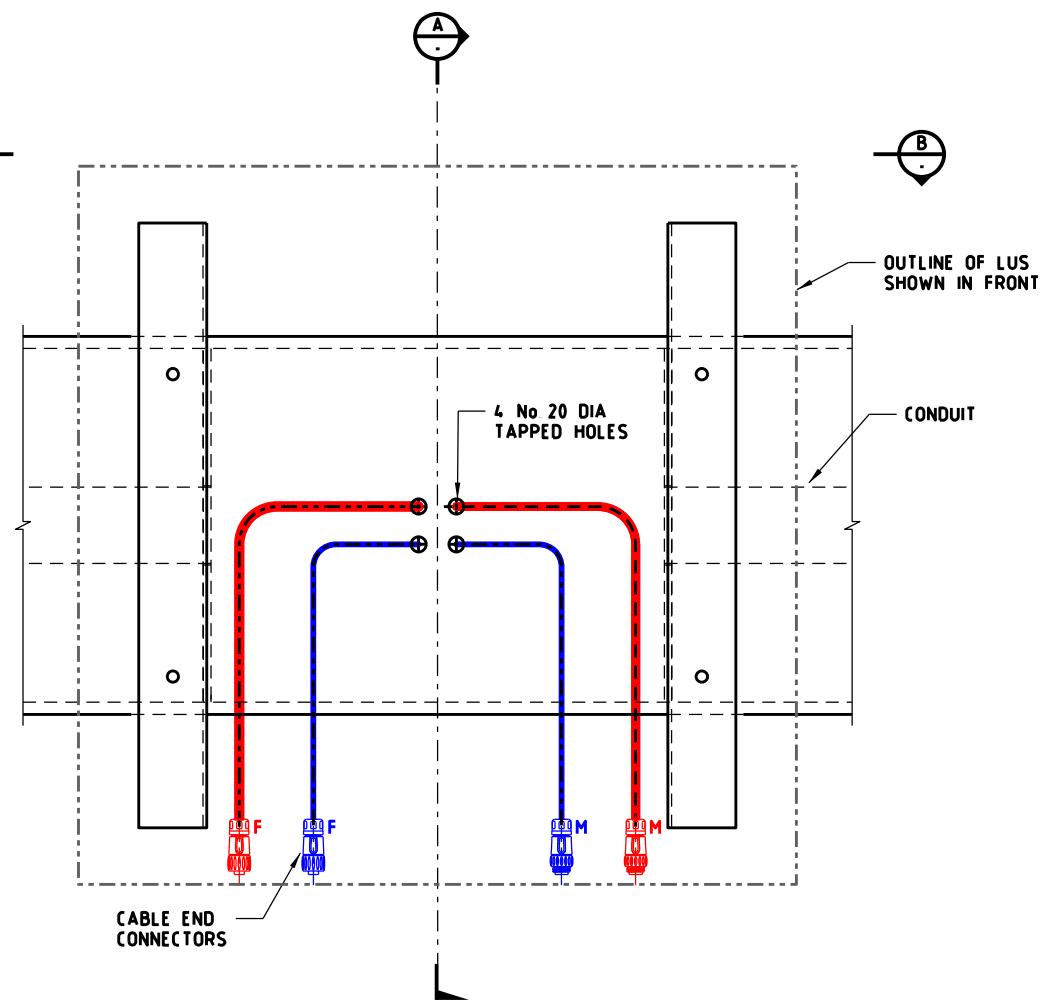
E			
D			
C			
B			
A	W H	12/2018	REVISION OF DETAIL
ISSUE	APP'D	DATE	AMENDMENT

GENERAL NOTES	

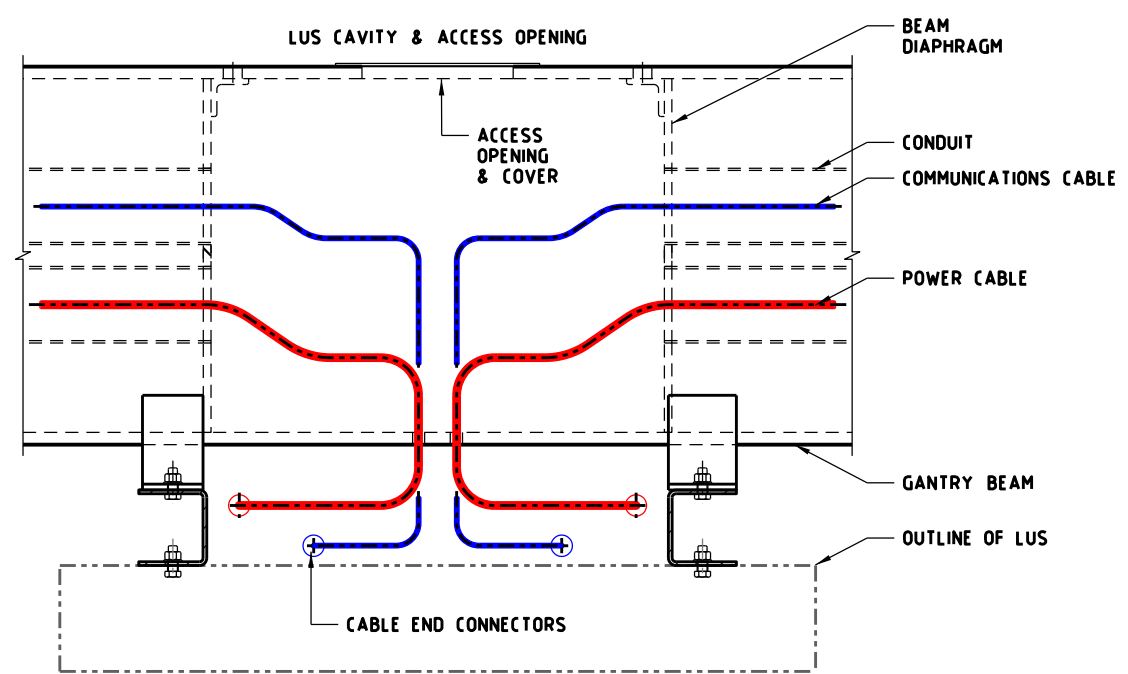
DESIGNED	M80 UPGRADE	07/2015
APPROVED	W HARVEY - MANAGER	
	ITS INFRASTRUCTURE & SYSTEM 08/2015	
CAT.		
PROJ.		
FILE		



STANDARD DRAWING MANAGED MOTORWAY			
NON-ACCESSIBLE LUMS GANTRY TYPICAL GANTRY EARTHING ARRANGEMENT			
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO
			TC-2265
			ISSUE A



SECTION A
NTS



SECTION B
NTS

LEGEND

BLUE - COMMUNICATIONS CABLE
RED - POWER CABLE

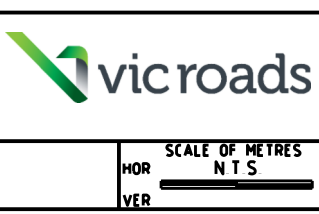
NOTES

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

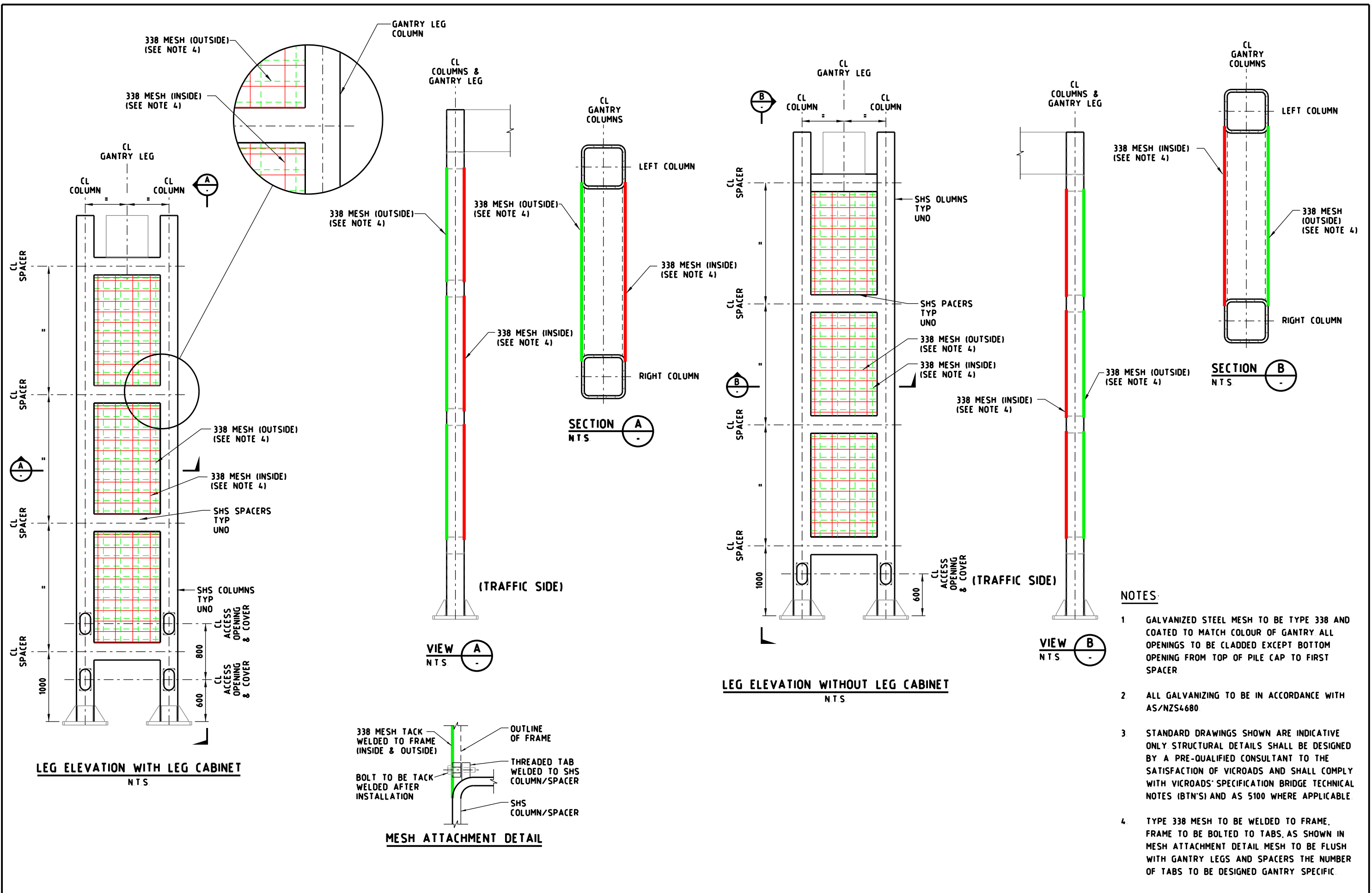
E			
D			
C			
B			
A	W H	12/2018	REVISION OF DETAIL
ISSUE	APP'D	DATE	AMENDMENT

GENERAL NOTES

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



STANDARD DRAWING MANAGED MOTORWAY				
NON-ACCESSIBLE LUMS GANTRY LUS ELECTRICAL AND COMMUNICATIONS CABLE CONNECTION DETAILS				
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
			TC-2266	A



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

GENERAL NOTES

DESIGNED
M80 UPGRADE 07/2015

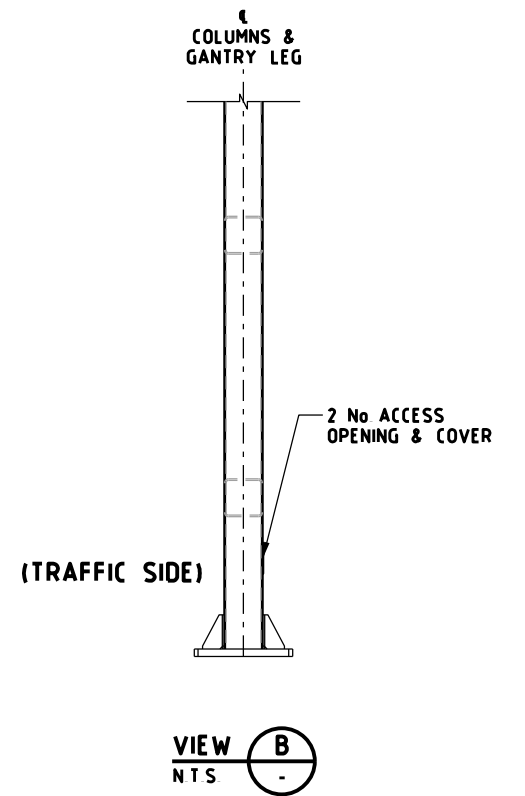
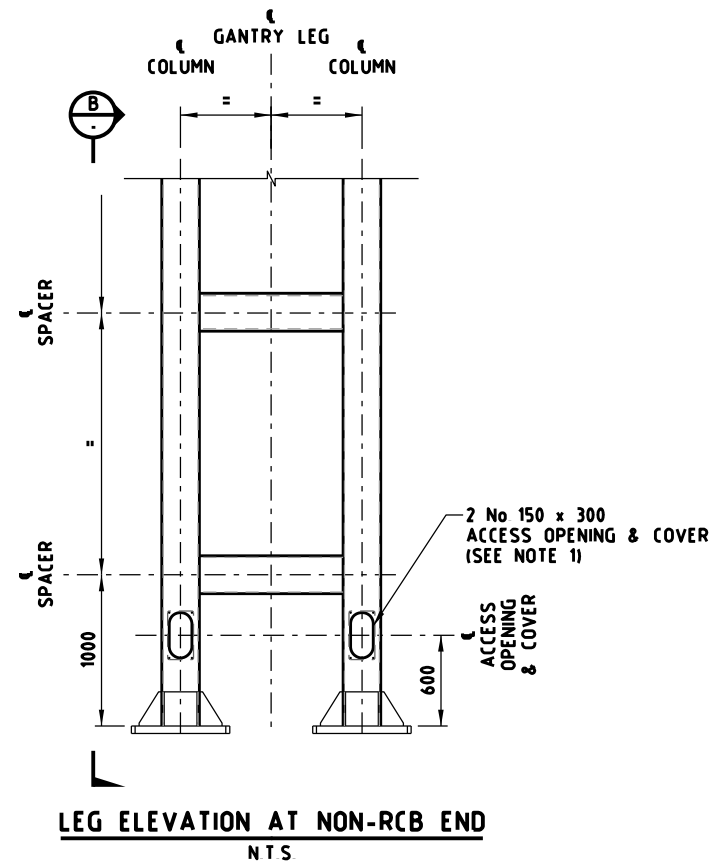
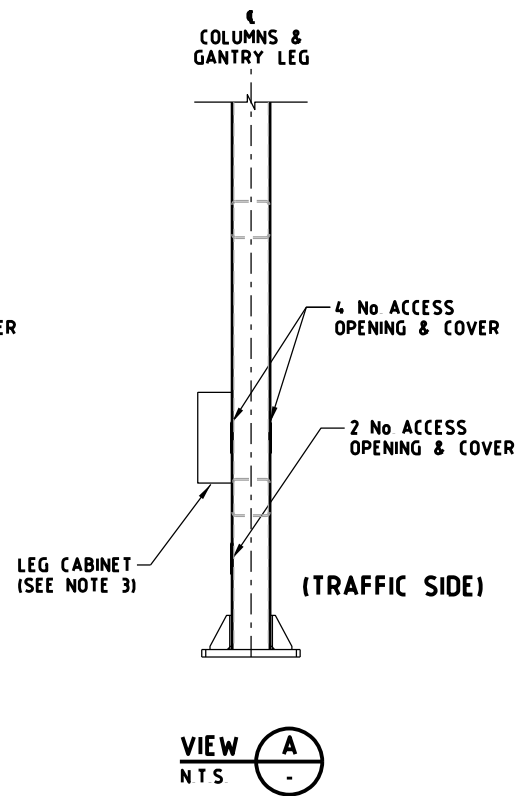
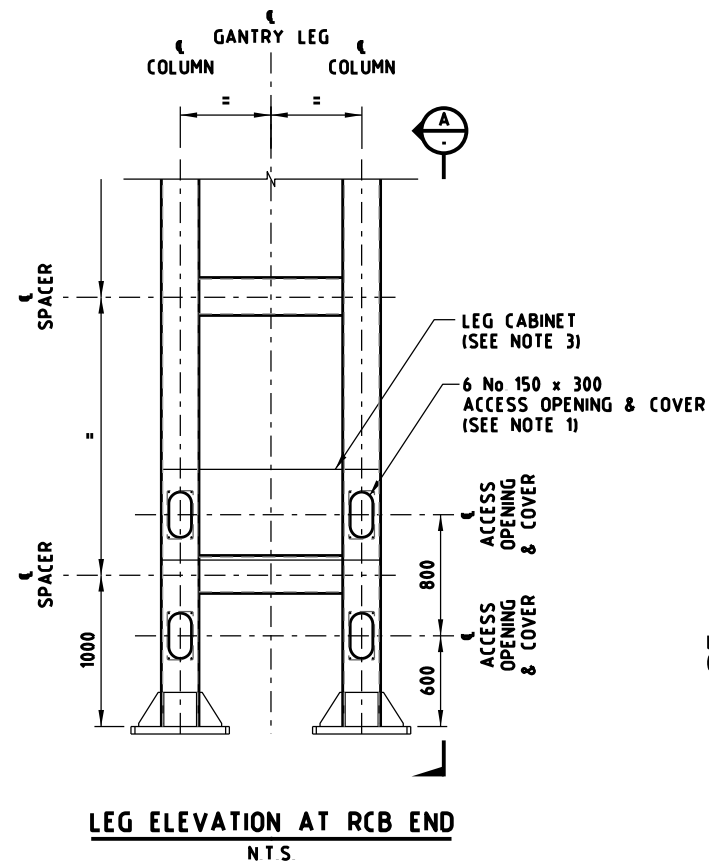
APPROVED
W HARVEY - MANAGER
ITS INFRASTRUCTURE & SYSTEM 08/2015

CAT. PROJ. FILE

SCALE OF METRES
NTS

HOR. VER.

STANDARD DRAWING MANAGED MOTORWAY			
NON-ACCESSIBLE LUMS LEG SECURITY MESH TYPICAL ARRANGEMENT			
FILE NO	CONTRACT NO	SHEET NO	DRAWING NO
			TC-2267
			ISSUE A



NOTES

- 1 FOR ACCESS OPENING DETAILS, REFER TO STANDARD DRAWING TC-2255
- 2 FOR ACCESS OPENING AT TOP OF GANTRY, REFER TO STANDARD DRAWING TC-2265
- 3 FOR LEG CABINET DETAILS REFER TO STANDARD DRAWING TC-2262
- 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

E			
D			
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

SCALE OF METRES
NTS

HOR VER

STANDARD DRAWING
MANAGED MOTORWAY
NON-ACCESSIBLE LUMS GANTRY
GANTRY LEG ACCESS OPENINGS
TYPICAL ARRANGEMENT

FILE NO	CONTRACT NO	SHEET NO	DRAWING NO	ISSUE
			TC-2268	A