

GENERAL:

- 1. FALLS AND FINISHES: REFER TO DESIGNER'S / ARCHITECTURAL DETAILS FOR SETTING OUT DIMENSIONS, LINTELS, FALLS, FINISHES ETC.
- 2. COMPACTION: GROUND CONDITIONS ASSUMED SILTY SAND. COMPACT TO MINIMUM 95% M.M.D.D. IF OTHER CONDITIONS ENCOUNTERED, CONTACT THIS OFFICE.
- 3. EXCAVATION: ENSURE THAT EXCAVATIONS DO NOT UNDERMINE NEW AND EXISTING STRUCTURES.
- 4. DESIGN: REFER TO DESIGN INFORMATION TABLE FOR SITE PARAMETERS.
- 5. DIMENSIONS: CONFIRM ALL DIMENSIONS BY SITE MEASUREMENT PRIOR TO COMMENCING SHOP DRAWINGS AND FABRICATION.
- 6. WIND LOADING: ALL EXTERNAL CLADDING, DOORS, WINDOWS, ETC. MUST BE CAPABLE OF RESISTING THE ULTIMATE WIND PRESSURES.

DESIGN INFORMATION TABLE	
WIND LOADS TO AS / NZS 1170.2:2011	
WIND REGION -	C
IMPORTANCE LEVEL -	1
TERRAIN CATEGORY -	TC2
EARTHQUAKE LOADS AS 1170.4:2007	
IMPORTANCE LEVEL -	1
HAZARD FACTOR (Z) -	0.09
SITE SUBSOIL CLASS -	Ce
SITE CLASSIFICATION -	A, AFTER SITE PREPARATION

CONCRETE:

- 1. STANDARD: ALL WORK TO BE IN ACCORDANCE WITH AS 3600.
- 2. REINFORCEMENT: ALL REINFORCEMENT TO BE IN ACCORDANCE WITH AS 4671. N DENOTES D500N DEFORMED RIBBED 500 MPa NORMAL DUCTILITY. R DENOTES 250N ROUND 250 MPa NORMAL DUCTILITY. MESH TO BE D500L DEFORMED RIBBED 500 MPa LOW DUCTILITY.
- 3. FABRIC LAPPING: FABRIC END AND SIDE LAPS ARE TO BE PLACED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS TO ACHIEVE A FULL TENSILE LAP. FABRIC SHALL BE LAID SO THAT THERE IS A MAXIMUM OF 3 LAYERS AT ANY LOCATION.



4. COVER:	ELEMENT	COVER (mm)
	FOOTINGS	50 ALL AROUND

5. STRENGTH (f'c):	ELEMENT	STRENGTH (f'c)
	FOOTINGS	N25 (f'c)

6. SLUMP	ELEMENT	SLUMP (mm)
	ALL CONCRETE, UNLESS OTHERWISE NOTED.	80

- 7. COMPACTION: IMMERSION TYPE VIBRATORS TO BE USED TO COMPACT ALL CONCRETE.(CAVITY FILL TO BE RODDED.)
- 8. HOLD DOWN: ALL HOLD DOWN BOLTS AND CAST IN ITEMS SHALL BE HOT DIPPED GALVANISED AND ACCURATELY LOCATED PRIOR TO CASTING INTO CONCRETE.

STEELWORK:

- 1. STANDARD: ALL WORK TO BE IN ACCORDANCE WITH AS 4100, AS 4600 AND AS/NZ 5131.

2. CONSTRUCTION CATEGORY:	ELEMENT	IMPORTANCE LEVEL (REFER TO DESIGN INFORMATION TABLE)	CONSTRUCTION CATEGORY IN ACCORDANCE WITH AS/NZ 5131
	ALL STRUCTURAL STEELWORK UNO	IL.1	CC2

- 3. BOLTS: ALL BOLTS TO BE HOT DIPPED GALVANISED. ALL BOLTS EXCLUDING HOLDING DOWN BOLTS TO BE GRADE 8.8/S UNO. HIGH STRENGTH STRUCTURAL BOLTS SHALL BE VERIFIED TO AS/NZS 1252.2. THE DOCUMENTATION REQUIRED BY THE STANDARD, INCLUDING THE ' SUPPLIER DECLARATION OF CONFORMITY ' (SDOC) SHALL BE PROVIDED.

- 4. CORROSION PROTECTION: ALL STEELWORK TO BE HOT DIPPED GALVANISED.

- 5. PAINTED STEEL: ALL PAINTED STRUCTURAL STEELWORK TO HAVE TREATMENT GRADE P2 IN ACCORDANCE WITH AS/NZ 5131 UNO.

- 6. GALVANISED FINISH: WHERE EXPOSED TO VIEW, ITEMS SPECIFIED AS HOT DIPPED GALVANISED TO BE PROVIDED WITH AN "ARCHITECTURAL FINISH." FINISHED SURFACE TO BE FREE OF RUNS, DAGS, SPIKES, UNEVEN SURFACES AND ROUGHNESS TO THE SATISFACTION OF THE ARCHITECT. THE APPEARANCE AND SURFACE CONDITION OF THE COATING SHOULD TAKE INTO ACCOUNT THE NEED FOR VISIBLE UNIFORMITY.

- 7. SITE WELDING: BY SUITABLY QUALIFIED PERSONNEL. STEELWORK SPECIFIED AS COATED WITH INORGANIC ZINC SILICATE OR HOT DIPPED GALVANISED SHALL HAVE DAMAGE MADE GOOD WITH 2 COATS OF A ZINC RICH EPOXY PRIMER. STEELWORK SPECIFIED AS PAINTED WITH RED OXIDE ZINC PHOSPHATE SHALL BE REPAIRED WITH RED OXIDE ZINC PHOSPHATE. WHERE EXPOSED TO VIEW TOUCH UP MUST BE CONSISTENT WITH ARCHITECTURAL FINISH / PROVIDE A TOP COAT OF COLOUR TO ARCHITECTURAL APPROVAL.

- 8. HOLLOW SECTIONS: TO BE SEALED WITH MIN 3mm STEEL PLATE UNO AND NOT HOLED. WHERE SECTION IS TO BE HOT DIPPED GALVANISED, PROVIDE BREATHING HOLES AS REQUIRED IN NON VIEWABLE LOCATIONS. HOLLOW SECTIONS TO HAVE A MINIMUM STRENGTH GRADE OF 350MPa/450MPa.

- 9. MIN CONNECTIONS: UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS, CONNECTION DETAILS SHALL BE IN ACCORDANCE WITH THE FOLLOWING MINIMUM REQUIREMENTS:
 (A) ALL WELDS SHALL BE 6MM CONTINUOUS FILLET WELD (CFW) ALL ROUND.
 (B) ALL STEEL TO STEEL BOLTED CONNECTIONS SHALL BE MINIMUM TWO M16 GRADE 8.8/S.
 (C) A MINIMUM OF TWO THREADS SHALL EXTEND PAST THE NUT.
 (D) ALL PLATES SHALL BE 10MM MINIMUM THICK.
 ALL DETAILING WHERE NOT SPECIFICALLY SHOWN SHALL BE IN ACCORDANCE WITH THE AUSTRALIAN STEEL INSTITUTE (ASI) CURRENT EDITIONS OF THE "DESIGN CAPACITY TABLES FOR STRUCTURAL STEEL" AND THE ASI STANDARDISED STRUCTURAL CONNECTION DETAILS CONTAINED THEREIN.

- 10. WORKMANSHIP AND QUALITY: ALL STRUCTURAL STEELWORK SHALL BE FABRICATED IN ACCORDANCE WITH AS/NZS 5131. ALL WORK ON THIS PROJECT SHALL BE UNDERTAKEN BY COMPETENT PERSONNEL. REQUIREMENTS AND EXAMPLES OF QUALIFICATIONS FOR COMPETENT PERSONNEL ARE CONTAINED IN AS/NZS 5131. STEELWORK SHALL BE FABRICATED BY FABRICATORS WHO ARE CERTIFIED OR HAVE SHOWN TO COMMENCE THE CERTIFICATION PROCESS UNDER THE ASI "NATIONAL STRUCTURAL STEELWORK COMPLIANCE SCHEME" (NSSCS). ALL STRUCTURAL STEEL SHALL BE SOURCED FROM MILLS WITH A RELEVANT JAS ANZ ACCREDITED THIRD PARTY CERTIFICATION SCHEME SUCH AS THE ACRS SCHEME.

- 11. PROPRIETARY ITEMS: PROPRIETARY ITEMS (E.G. PURLINS, ROOF/WALL SHEETING, FERRULES) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

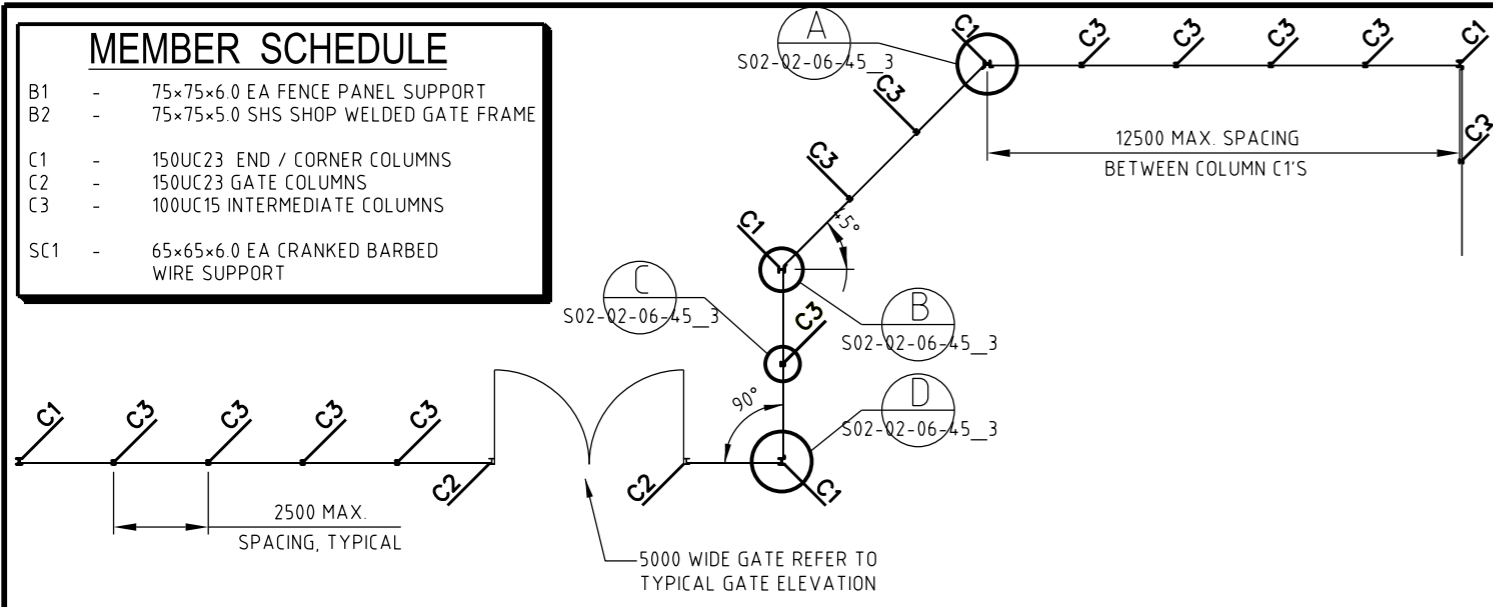
2 1 0	EARTHGRID DETAIL SHEET 5 AND SHEET 6 REMOVED TITLEBLOCK & DRAWING NUMBER FORMATTED ISSUED FOR CONSTRUCTION	C.C. K.T. P.H.	DEC'20 FEB'19 DEC '18	B.V. C.C. B.C.	B.C. C.C. B.C.
NO	DESCRIPTION	DRN	DATE	CKD	APPD
AMENDMENTS					



DES NA		POWER STANDARD DRAWING		
DRN	P.HINDE	CIVIL - 2.4m HIGH ANT-CLIMBING FENCE TERRAIN CAT 2 - MEDIUM RISK AREAS STANDARD STRUCTURAL DRAWING NOTES (SHEET 1 OF 5)		
CKD	B.CHEUNG			
APPD	B.CHEUNG			
SCALE	AS SHOWN	A3	DRAWING NUMBER	S02-02-06-45_1
ISSUED	10.12.2018			
ALL DIM. IN mm		CAD PRODUCT - DO NOT AMEND MANUALLY		
DRAFTING STANDARD TO A.S.1100		AMDT		

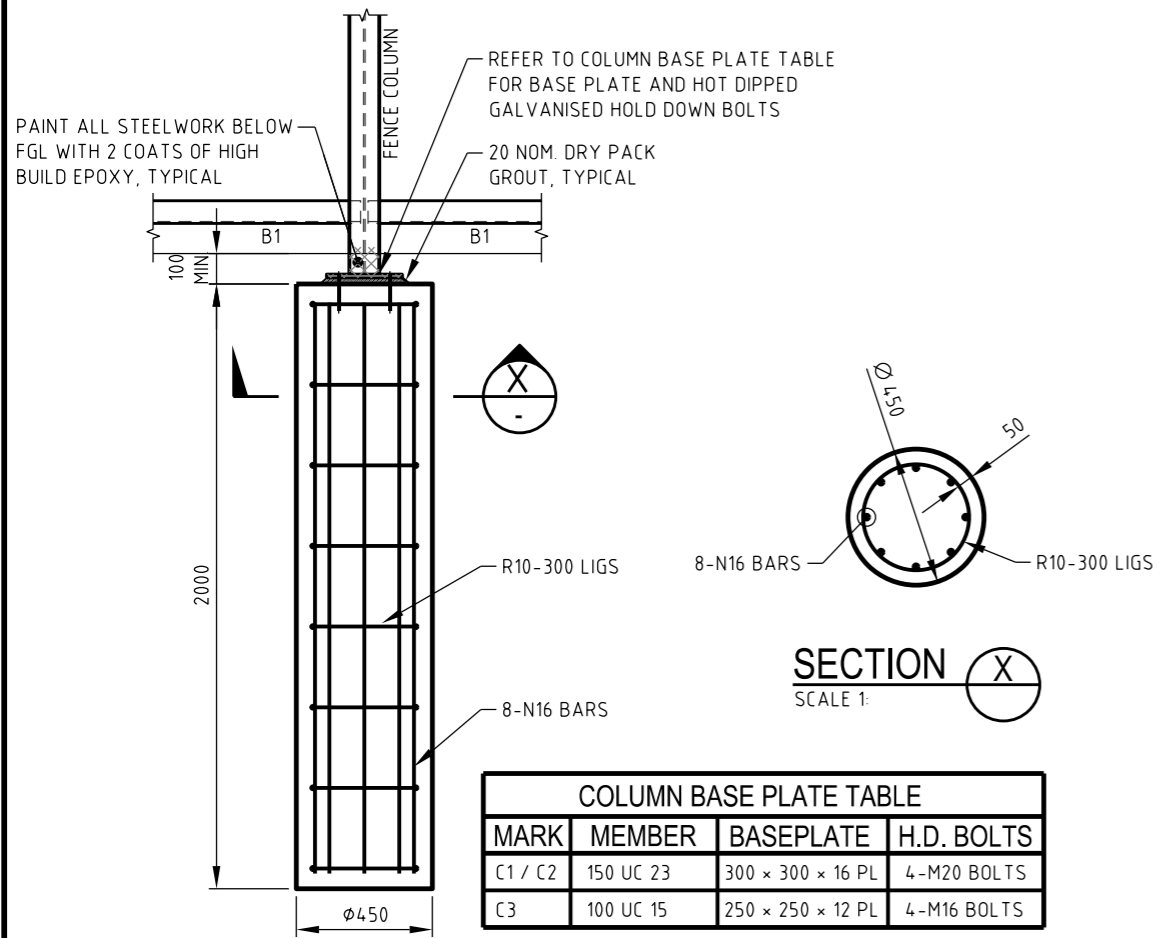
MEMBER SCHEDULE

- B1 - 75x75x6.0 EA FENCE PANEL SUPPORT
- B2 - 75x75x5.0 SHS SHOP WELDED GATE FRAME
- C1 - 150UC23 END / CORNER COLUMNS
- C2 - 150UC23 GATE COLUMNS
- C3 - 100UC15 INTERMEDIATE COLUMNS
- SC1 - 65x65x6.0 EA CRANKED BARBED WIRE SUPPORT



TYPICAL ANTI-CLIMBING FENCE POST LAYOUT - PLAN

SCALE 1:200



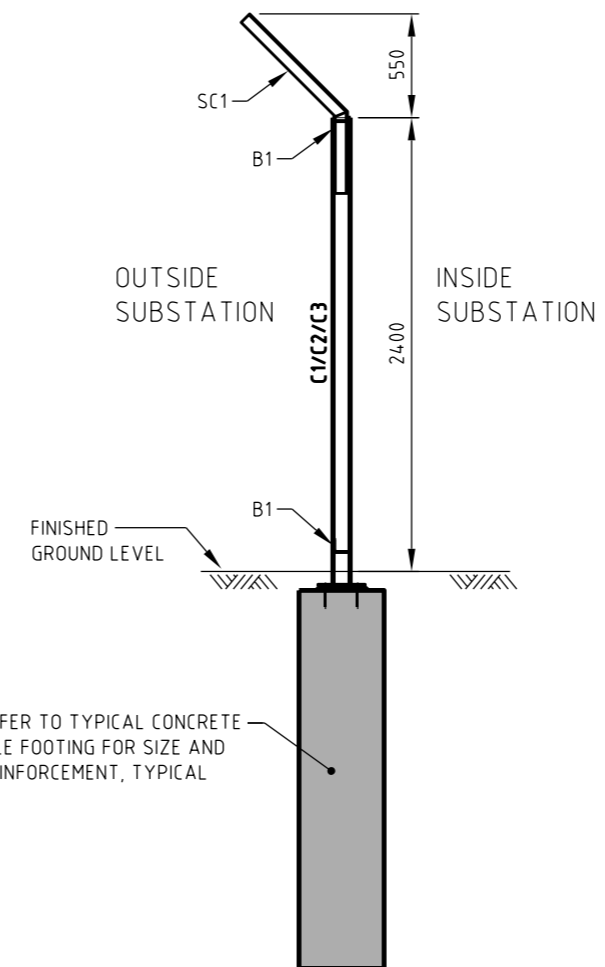
SECTION X

SCALE 1:

COLUMN BASE PLATE TABLE			
MARK	MEMBER	BASEPLATE	H.D. BOLTS
C1 / C2	150 UC 23	300 x 300 x 16 PL	4-M20 BOLTS
C3	100 UC 15	250 x 250 x 12 PL	4-M16 BOLTS

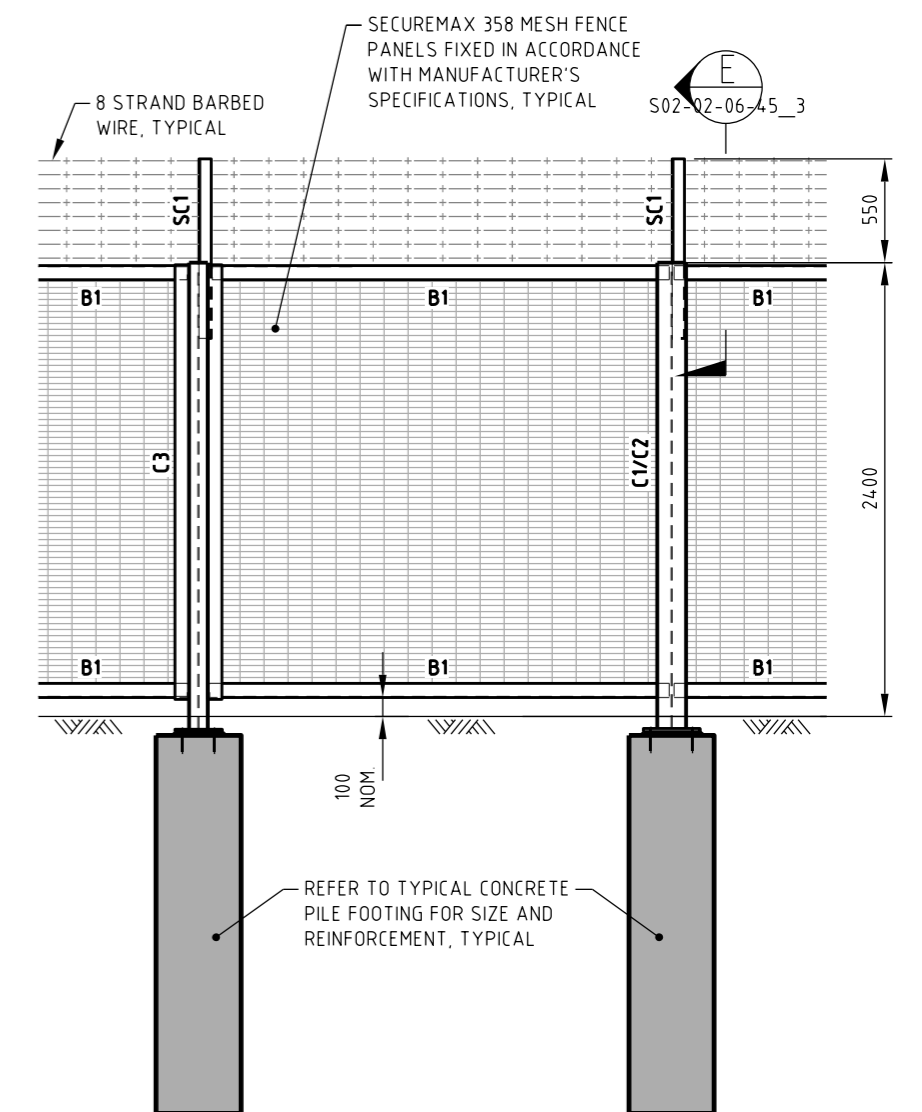
TYPICAL CONCRETE PILE FOOTING DETAIL

SCALE 1:25



TYPICAL ANTI-CLIMBING FENCE CROSS SECTION

SCALE 1:40



TYPICAL ANTI-CLIMBING FENCE ELEVATION

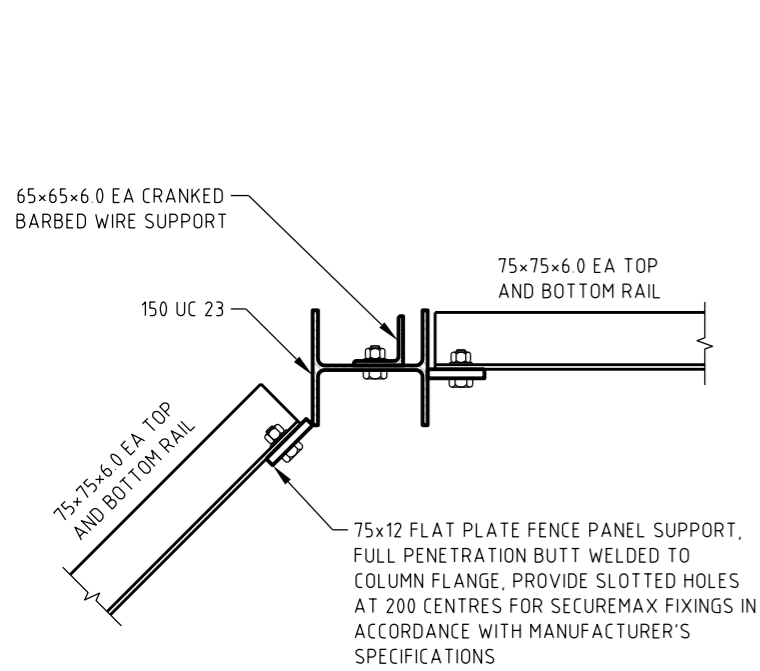
SCALE 1:40

NO	DESCRIPTION	DRN	DATE	CKD	APPD
1	TITLEBLOCK & DRAWING NUMBERS FORMATTED	K.T.	FEB'19	CC	CC.
0	ISSUED FOR CONSTRUCTION	P.H.	DEC '18	B.C.	B.C.
AMENDMENTS					

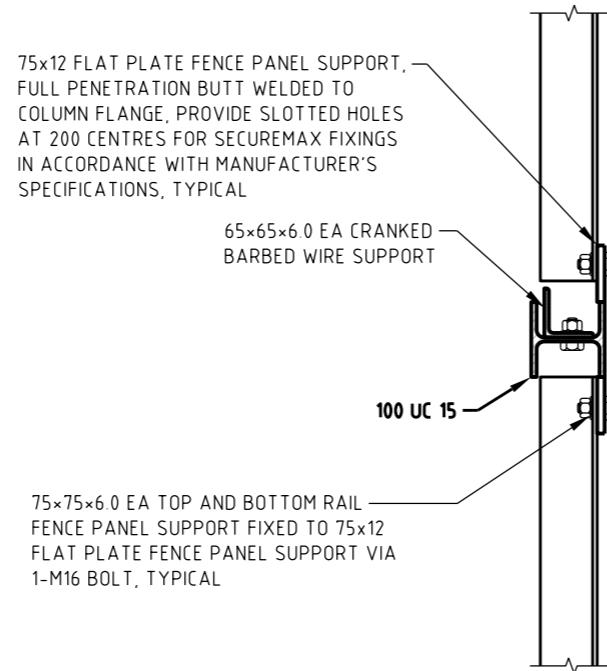


POWER STANDARD DRAWING			
DES	NA	CIVIL - 2.4m HIGH ANT-CLIMBING FENCE	
DRN	P.HINDE	TERRAIN CAT 2 - MEDIUM RISK AREAS	
CKD	B.CHEUNG	PLAN, ELEVATION AND FOOTING DETAILS	
APPD	B.CHEUNG	(SHEET 2 OF 5)	
SCALE	AS SHOWN	A3	DRAWING NUMBER
ISSUED	10.12.2018		S02-02-06-45_2
ALL DIM. IN mm			
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY	

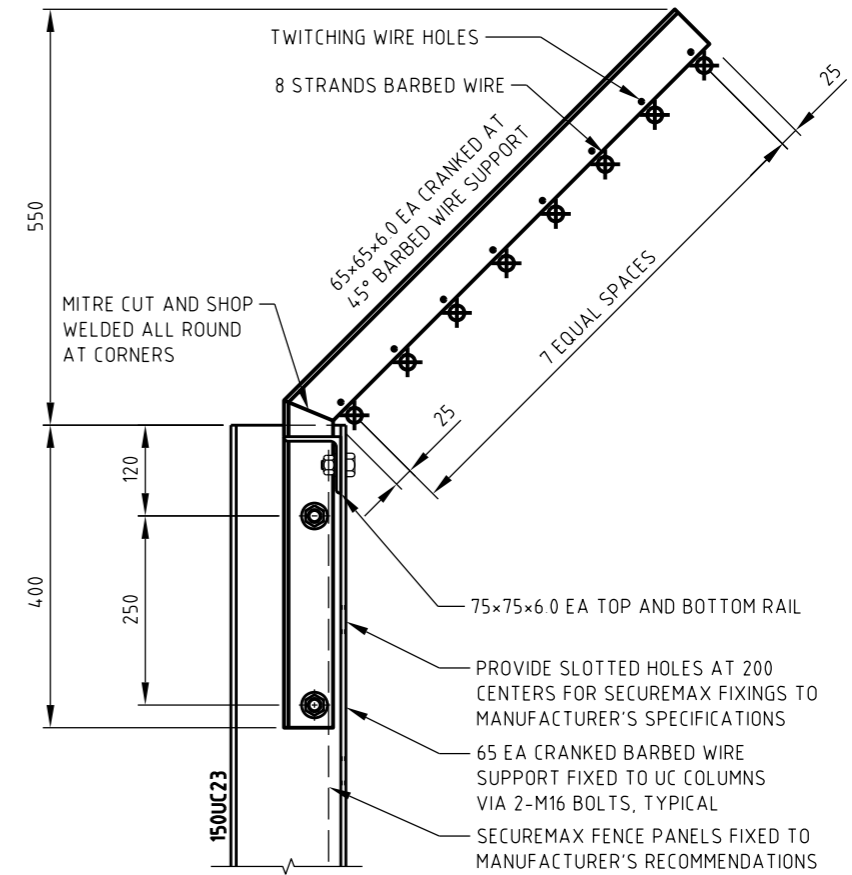




DETAIL A
SCALE 1:

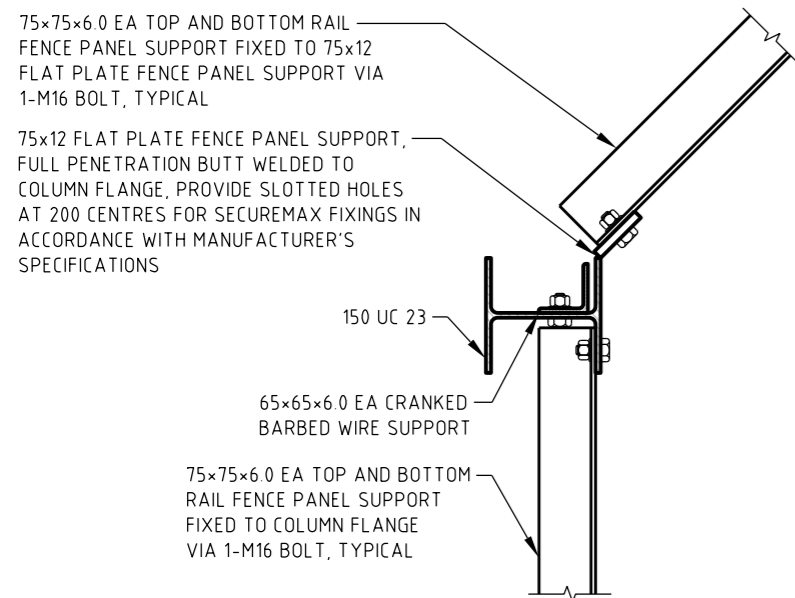


DETAIL C
SCALE 1:

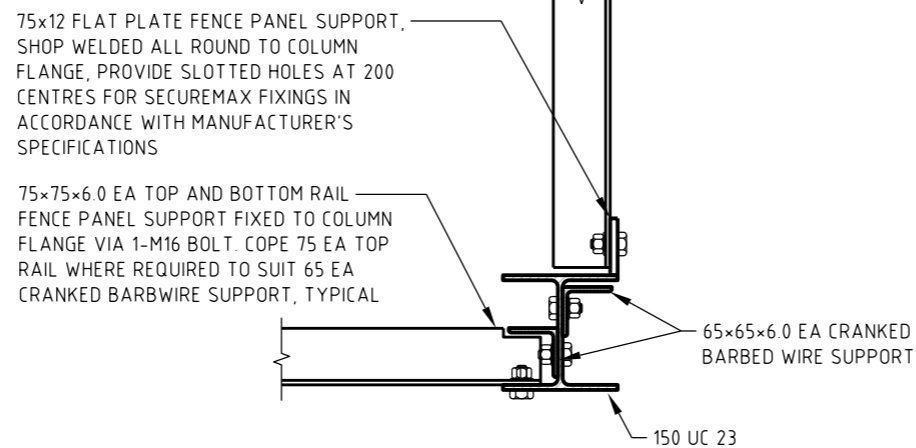


100UC15 INTERMEDIATE COLUMN SIMILAR

SECTION E
SCALE 1:



DETAIL B
SCALE 1:

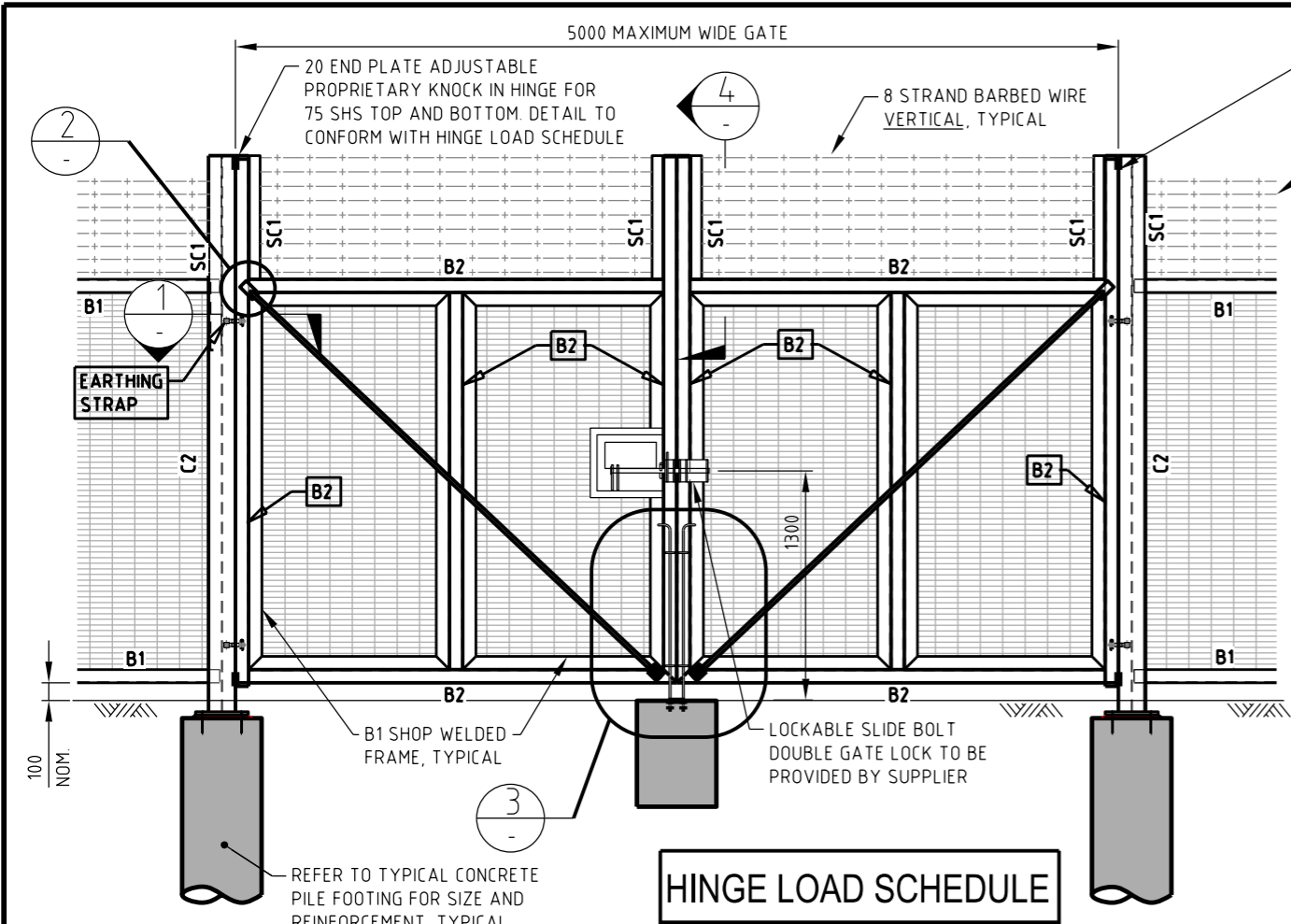


DETAIL D
SCALE 1:

1	TITLEBLOCK & DRAWING NUMBERS FORMATTED	K.T.	FEB'19	CC	CC.
0	ISSUED FOR CONSTRUCTION	P.H.	DEC '18	B.C.	B.C.
NO	DESCRIPTION	DRN	DATE	CKD	APPD
AMENDMENTS					



DES	NA	POWER STANDARD DRAWING			
DRN	P.HINDE	CIVIL - 2.4m HIGH ANT-CLIMBING FENCE			
CKD	B.CHEUNG	TERRAIN CAT 2 - MEDIUM RISK AREAS			
APPD	B.CHEUNG	FENCE DETAILS			
SCALE	AS SHOWN	(SHEET 3 OF 5)			
ISSUED	10.12.2018	A3	DRAWING NUMBER	S02-02-06-45_3	
ALL DIM. IN mm					
DRAFTING STANDARD TO A.S.1100			CAD PRODUCT - DO NOT AMEND MANUALLY		AMDT



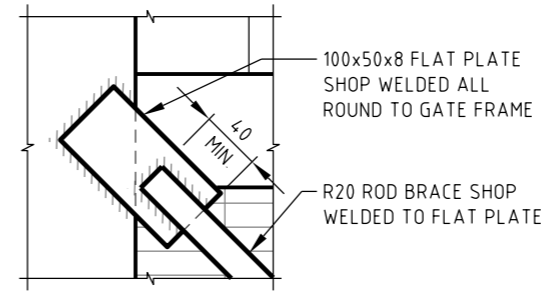
HINGE LOAD SCHEDULE	
LATERAL LOAD	5kN
VERTICAL LOAD	5.4kN

TYPICAL 5m WIDE GATE (INTERNAL) ELEVATION
SCALE 1:40

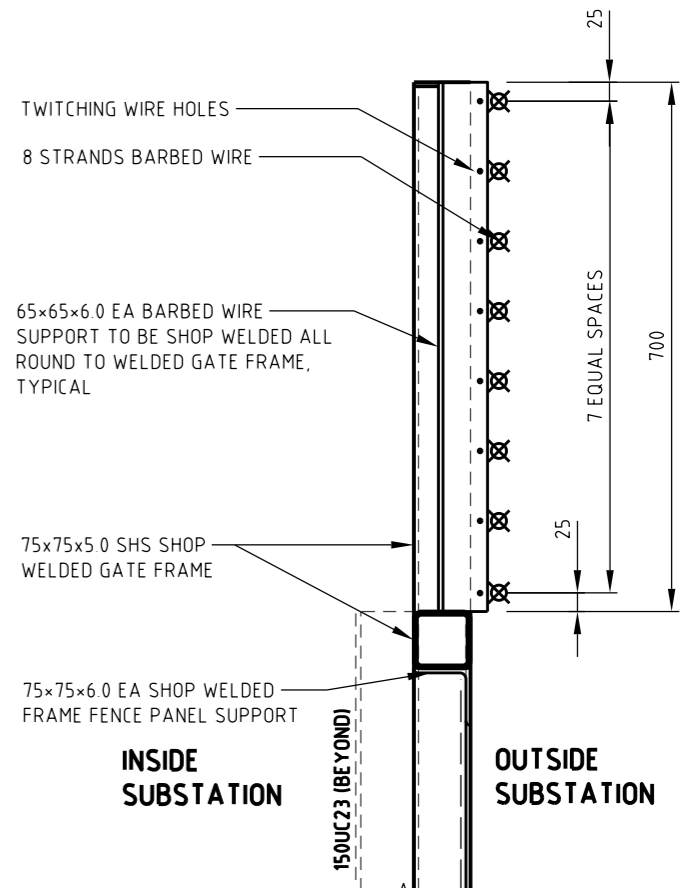
FENCE PANELS AND GATES TO BE SECUREMAX 358 MESH, TYPICAL

PROVIDE 150x100x20 THICK PLATE BETWEEN COLUMN FLANGES AS REQUIRED FOR HINGE MOUNTING SURFACE. PLATE ENDS TO BE COMPLETE PENETRATION BUTT WELDED TO COLUMN FLANGES, TYPICAL

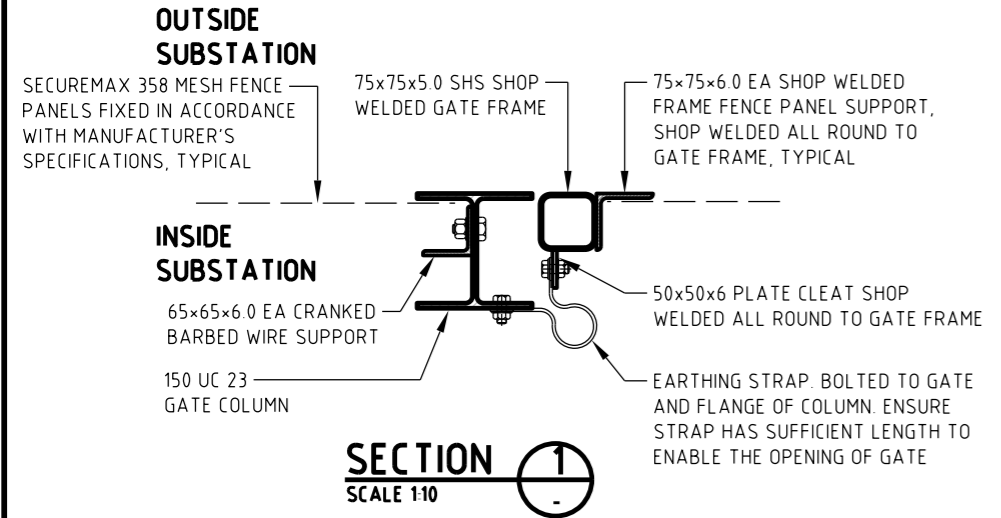
8 STRANDS BARBED WIRE. TRANSITION FROM VERTICAL TO 45°, TYPICAL



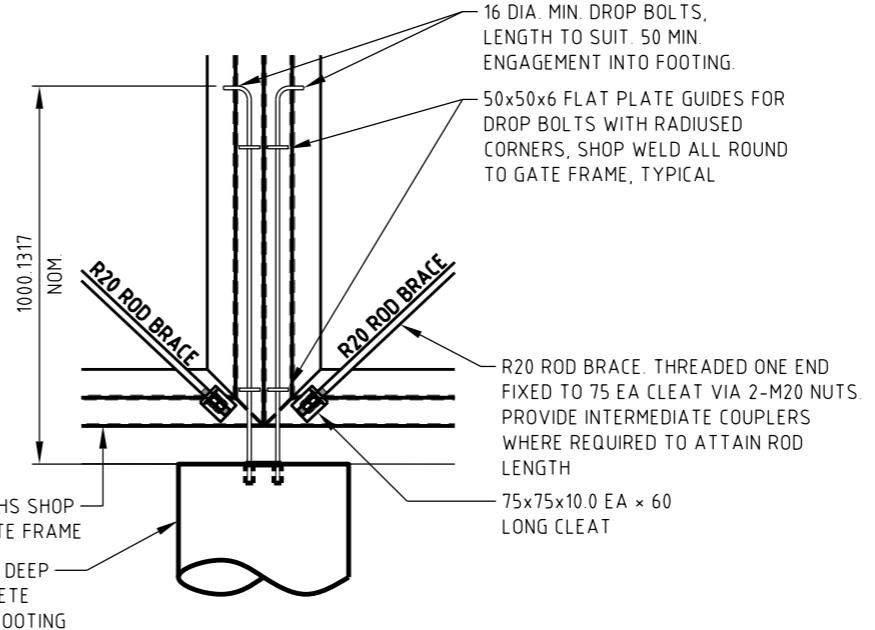
DETAIL 2
SCALE 1:5



SECTION 4
SCALE 1:10



SECTION 1
SCALE 1:10



DETAIL 3
SCALE 1:20

MEMBER SCHEDULE	
B1	- 75x75x6.0 EA FENCE PANEL SUPPORT
B2	- 75x75x5.0 SHS SHOP WELDED GATE FRAME
C1	- 150UC23 END / CORNER COLUMNS
C2	- 150UC23 GATE COLUMNS
C3	- 100UC15 INTERMEDIATE COLUMNS
SC1	- 65x65x6.0 EA CRANKED BARBED WIRE SUPPORT

NO	DESCRIPTION	DRN	DATE	CKD	APPD
1	TITLEBLOCK & DRAWING NUMBERS FORMATTED	K.T.	FEB'19	CC	CC.
0	ISSUED FOR CONSTRUCTION	P.H.	DEC '18	B.C.	B.C.
AMENDMENTS					

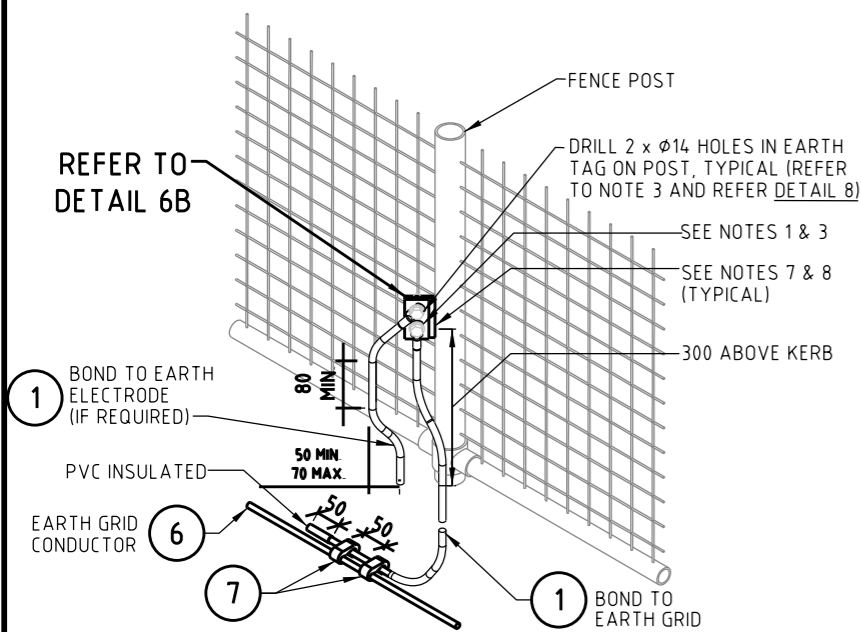


DES NA		POWER STANDARD DRAWING	
DRN	P.HINDE	CIVIL - 2.4m HIGH ANT-CLIMBING FENCE	
CKD	B.CHEUNG	TERRAIN CAT 2 - MEDIUM RISK AREAS	
APPD	B.CHEUNG	5m WIDE GATE ELEVATION AND DETAILS	
SCALE	AS SHOWN	(SHEET 4 OF 5)	
ISSUED	10.12.2018	A3	DRAWING NUMBER
ALL DIM. IN mm			
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY	



NOTES:

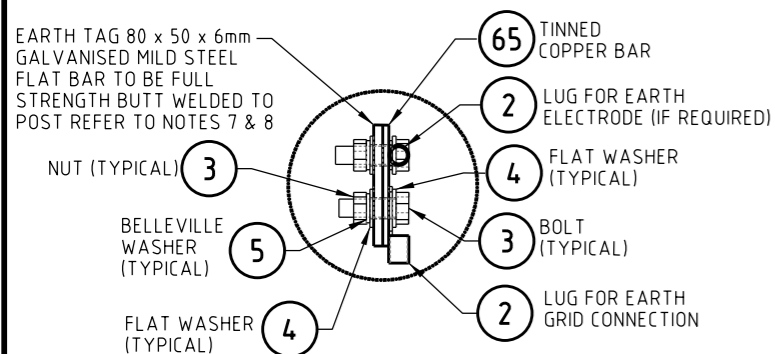
1. CONNECTION BETWEEN MAIN EARTH GRID AND CONCRETE REINFORCING OR FENCE POST TO BE INSTALLED WITH INSULATION INTACT TO INHIBIT CORROSION.
2. ALL PVC COVERED CONDUCTORS SHOULD BE PROTECTED DURING WELDING OPERATIONS.
3. ALL CONNECTIONS TO EARTH TAGS TO BE CLEARLY & PERMANENTLY LABELLED WITH CABLE DESTINATION. SEE DETAIL 8
4. ALL COMPRESSION LUGS TO BE TERMINATED USING CORRECT HEXAGONAL DIES.
5. ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. DO NOT SCALE, DIMENSIONS TAKE PRECEDENCE.
6. FENCE BONDING EARTH TAGS SHALL BE WELDED TO FENCE /GATE POSTS PRIOR TO HOT DIP GALVANISING.
7. WHERE WELDING IS TO BE CARRIED OUT ON SITE ALL WELDS TO BE CLEARED OF SLAG, WIRE BRUSHED AND PAINTED WITH COLD GALVANISING PAINT.
8. ONLY ONE CONNECTION PER BOLT IS PERMITTED.
9. DIRECT BOND TO ALL EXPOSED METALIC PLANT IS TO BE PROVIDED.
10. IF ELECTRODES DRIVEN USE ITEMS 9 & 10 OTHERWISE IF HOLE DRILLED USE ITEMS 6 & 12 (i.e. BARE STRANDED CONDUCTOR)



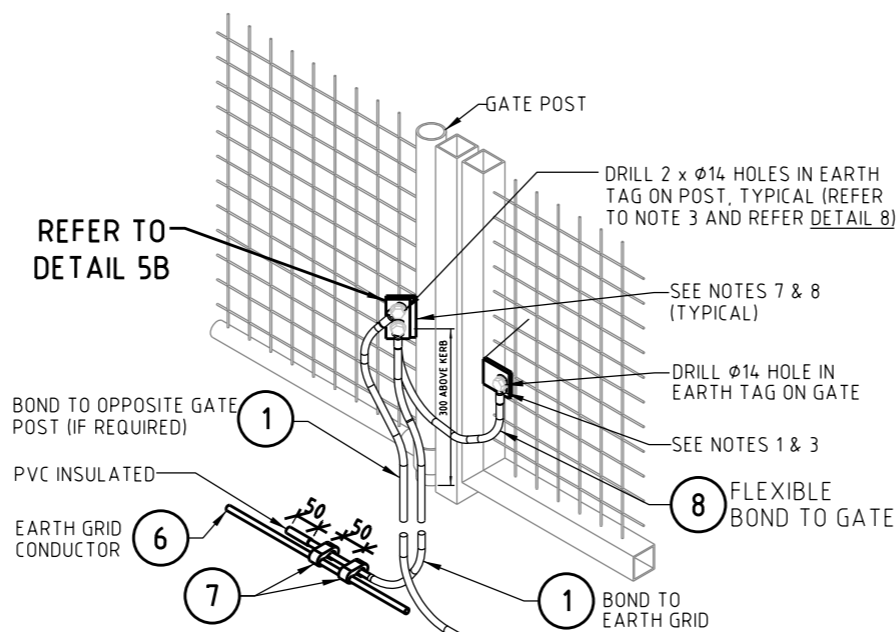
NOTE: ALL BONDS TO FENCE POST TO BE INSTALLED INSIDE ONLY. NO CONDUCTOR TO BE RUN OVER KERB.

BONDING OF FENCE POST TO EARTH GRID

DETAIL 5
N.T.S.



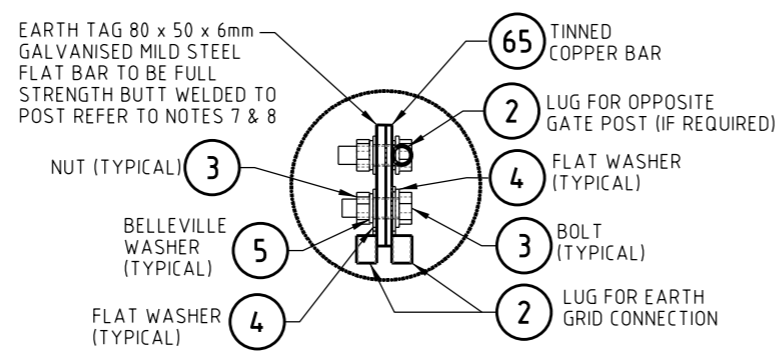
DETAIL 5B



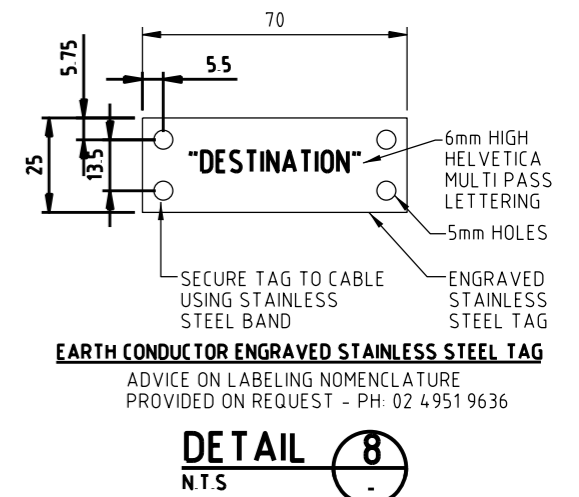
NOTE: ALL BONDS TO GATE POST TO BE INSTALLED INSIDE ONLY. NO CONDUCTOR TO BE RUN OVER KERB.

BONDING OF GATE POST TO EARTH GRID

DETAIL 6
N.T.S.



DETAIL 6B



ITEM	ITEM No.	DESCRIPTION	QTY.	DRG No.
65	-	FLAT BAR - 40 x 4mm - TINNED COPPER	AS REQD	
13	6569	CABLE PROTECTOR- 150mm x 20m ROLL COVER MARKED "ELECTRICAL CABLE"	AS REQD	S02-01-08-05
12	400915	EARTHING COMPOUND - USE AROUND ELECTRODE IN PIT JBS 02342012	AS REQD	S02-01-05-02
10	414061	ELECTRODE COUPLING - Ø15mm BRASS	1 MIN & AS REQD	S01-01-05-01
9	414060	ELECTRODE ROD - Ø15mm - 1800mm LONG COPPER CLAD	2 MIN & AS REQD	S01-01-05-01
8	1578	CONDUCTOR - Ø70mm ² STRANDED COPPER PVC COVERED	AS REQD	S02-01-01-23
7	255786	CONNECTOR COMPRESSION - Ø70mm ² BURNDY STYLE YGHC CRIMP 35/Ø70mm ² TAP	AS REQD	S01-01-05-08
6	9803	CONDUCTOR - Ø70mm ² STRANDED COPPER - BARE	AS REQD	S01-01-05-05
5	-	FASTENERS - WASHER - M12 BELLEVILLE STAINLESS STEEL TO A.S 316	1 PER BOLT	-
4	-	FASTENERS - WASHER - M12 FLAT STAINLESS STEEL TO A.S 316 JBS 03756209	2 PER BOLT	-
3	-	FASTENERS - BOLT & NUT - M12 HEX STAINLESS STEEL TO A.S. 316/A4 - LENGTH TO SUIT	AS REQD	-
2	5512	LUG - Ø70mm ² M12 TINNED COPPER HEX COMPRESSION UTILUX H1423/25	AS REQD	-
1	1578	CONDUCTOR - Ø70mm ² STRANDED COPPER - PVC COVERED	AS REQD	S02-01-01-23

NO	DESCRIPTION	DRN	DATE	CKD	APPD
2	EARTH GRID DETAIL REMOVED	C.C.	DEC'20	B.V.	B.C.
1	TITLEBLOCK & DRAWING NUMBERS FORMATTED	K.T.	FEB'19	C.C.	C.C.
0	ISSUED FOR CONSTRUCTION	P.H.	DEC '18	B.C.	B.C.



DES	NA	POWER STANDARD DRAWING	
DRN	P.HINDE	CIVIL - 2.4m HIGH ANT-CLIMBING FENCE	
CKD	B.CHEUNG	TERRAIN CAT 2 - MEDIUM RISK AREAS	
APPD	B.CHEUNG	GENERAL EARTHING DETAILS	
SCALE	AS SHOWN	(SHEET 5 OF 5)	
ISSUED	10.12.2018	A3	DRAWING NUMBER S02-02-06-45_5
ALL DIM. IN mm			
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY	

