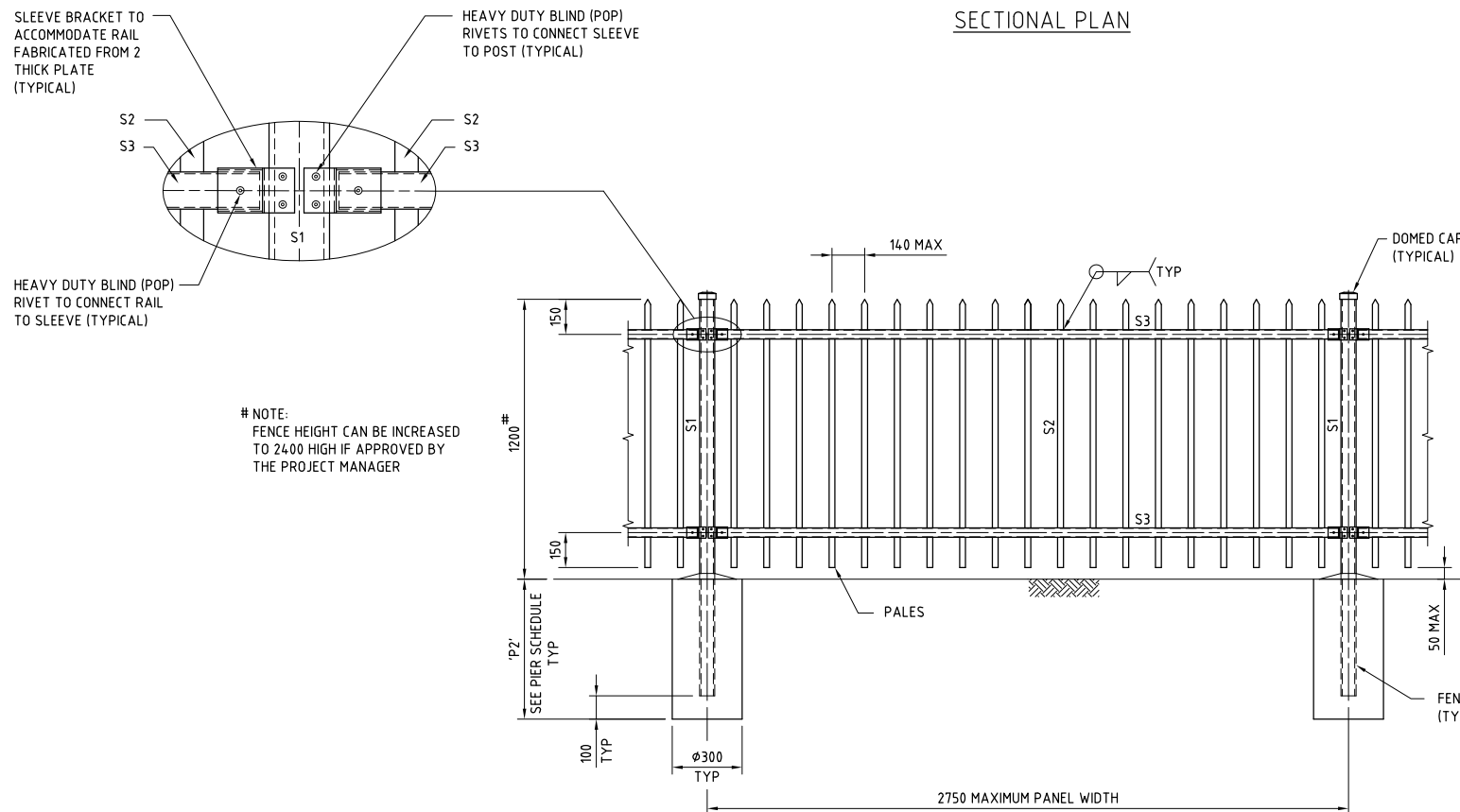
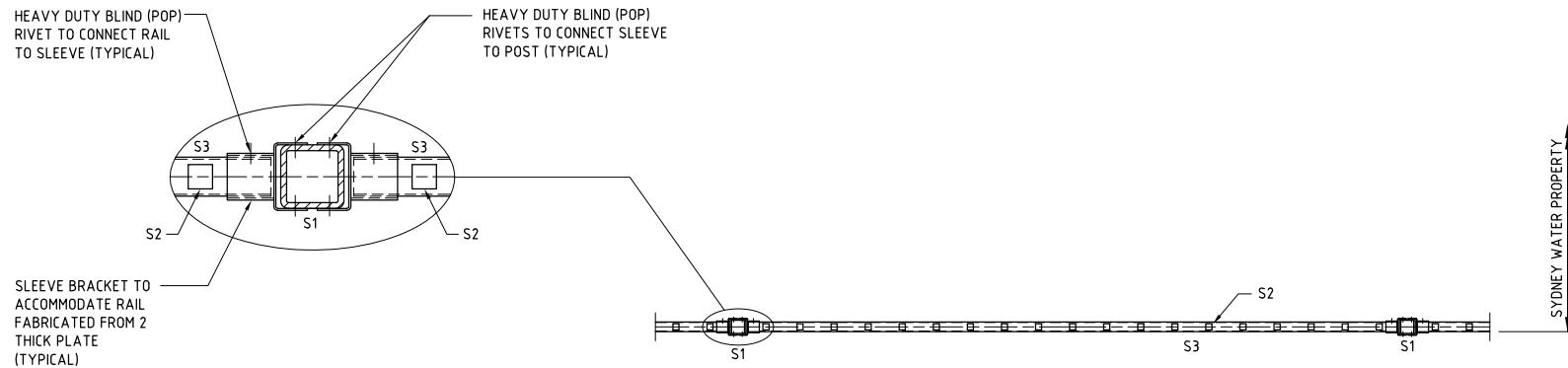


THE PROJECT MANAGER SHOULD ENSURE THE SUITABILITY OF THE FENCE DESIGN MEETS CLIENTS EXPECTATIONS OF AESTHETICS OR OTHER FACILITY/SITE CONSTRAINTS THAT MAY NEED TO BE CONSIDERED. WHERE THE DESIGN IS TO BE VARIED TO MEET CLIENT NEEDS, THE PROJECT MANAGER IS TO CONSULT WITH A SECURITY REPRESENTATIVE TO CONSIDER ANY ALTERNATIVE AND THE PRINCIPLES OF "CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN" TO MITIGATE ANY REDUCTION IN THE LEVEL OF PROTECTION OFFERED BY THE STANDARD DESIGN



MEMBER SCHEDULE	
MEMBER	DESCRIPTION
S1	65 x 65 x 6 SHS
S2	25 x 25 x 2 SHS
S3	40 x 40 x 2 SHS
S4	100 x 100 x 5 SHS
S5	65 x 65 x 3 SHS

PIER SCHEDULE (FOR FENCES UP TO & INCL 1800 HIGH)		
GROUND TYPE & ALLOWABLE BEARING PRESSURE	DEPTH	
	PIER 'P1'	PIER 'P2'
NATURAL GROUND OR ENGINEERED FILL WITH A MINIMUM ALLOWABLE BEARING PRESSURE OF 100 kPa	900	600
ROCK OR SHALE WITH A MINIMUM ALLOWABLE BEARING PRESSURE OF 600 kPa	600	

PIER SCHEDULE (FOR FENCES OVER 1800 UP TO 2400 HIGH)		
GROUND TYPE & ALLOWABLE BEARING PRESSURE	DEPTH	
	PIER 'P1'	PIER 'P2'
NATURAL GROUND OR ENGINEERED FILL WITH A MINIMUM ALLOWABLE BEARING PRESSURE OF 100 kPa	1500	800
ROCK OR SHALE WITH A MINIMUM ALLOWABLE BEARING PRESSURE OF 600 kPa	900	

NOTES

PALES

- PALES SHALL BE MANUFACTURED TO COMPLY WITH AS 1163 GRADE C350L0, GALVANISED IN ACCORDANCE WITH AS/NZS 4792.
- PALE TOPS SHALL BE POINTED, UNLESS DIRECTED OTHERWISE BY THE PRINCIPAL.
- PALES SHALL BE SLOTTED INTO THE RAILS & WELDED INTO POSITION.
- PALES SHALL BE SPACED AT 140mm CENTRE TO CENTRE.
- THE MINIMUM LENGTH OF PALES SHALL BE EQUIVALENT TO THE HEIGHT OF THE FENCE LESS 50mm.

FENCE (& GATE) POSTS

- ALL POSTS SHALL BE MANUFACTURED TO COMPLY WITH AS 1163 GRADE C350L0, GALVANISED IN ACCORDANCE WITH AS/NZS 4792.
- ALL POSTS SHALL BE SUPPLIED CUT TO LENGTH (INCLUDING THE APPROPRIATE FOOTING DEPTH) WITH ALL THE HOLES REQUIRED FOR THE ATTACHMENT OF FIXTURES & FITTINGS.
- FENCE POSTS SHALL BE INSTALLED AT A MAXIMUM OF 2750mm CENTRE TO CENTRE.

RAILS

- RAILS SHALL BE MANUFACTURED TO COMPLY WITH AS 1163 GRADE C350L0, GALVANISED IN ACCORDANCE WITH AS/NZS 4792.
- RAILS SHALL BE SUPPLIED CUT TO LENGTH, WITH ALL THE SLOTS & HOLES REQUIRED FOR THE ATTACHMENT OF FIXTURES, FITTINGS. PALES SHALL BE FIXED TO POSTS WITH HEAVY DUTY RIVETS (MINIMUM $\phi 4.8$ mm).
- RAILS SHALL BE FIXED TO POSTS USING A GALVANISED SLEEVE BRACKET.

GATES & LOCKING ARRANGEMENTS

- ALL GATES ARE TO OPEN OUTWARDS, SUBJECT TO NO OPERATIONAL OR SAFETY ISSUES.
- ALL JOINTS ARE TO BE FULLY WELDED JOINTS (INTERMITTENT WELDING IS NOT PERMITTED). TWO COATS OF APPROVED ZINC RICH PAINT SHALL BE APPLIED IN ACCORDANCE WITH AS 4680 TO ANY SURFACES DAMAGED DURING ERECTION.
- ALL GATES SHALL BE FITTED WITH TWO SECURITY BOLT-ON BEARING HINGES, FITTED WITH GREASE NIPPLES ('DOWNEE' MODEL T2200 OR EQUIVALENT). HINGES SHALL BE CAPABLE OF TAKING THE FULL GATE LOAD PLUS A SUPERIMPOSED LOAD EQUAL TO 100 kg, APPLIED AT THE NOSE OF THE GATE, WITHOUT ANY DEFLECTION IN ANY POSITION DETRIMENTAL TO THE OPERATION OF THE GATE.
- SINGLE LEAF GATES SHALL BE FITTED WITH A SLIDING BOLT. THE BOLT IS TO ENGAGE INTO A GATEPOST OR ADJACENT STRUCTURE. THE SLIDING BOLT SHALL BE SECURED USING A PADLOCK KEYED TO SYDNEY WATER'S KEYING SYSTEM. THE PADLOCK SHALL BE ENDORSED 'INTRUDER RESISTANT AREA' APPLICATION, AS LISTED IN THE COMMONWEALTH OF AUSTRALIA SECURITY EQUIPMENT CATALOGUE.
- DOUBLE LEAF GATES SHALL BE FITTED WITH A TWO PART LOCKING MECHANISM. THIS INCLUDES A SLIDING BOLT WHICH ENGAGES INTO THE GATEFRAME & A PAIR OF TOWER BOLTS WHICH ENGAGE IN FERRULES FIXED INTO THE ROADWAY. THE DESIGN & CONSTRUCTION OF THE LOCKING ARRANGEMENT SHALL BE SUCH THAT IT SHALL NOT BE POSSIBLE TO OPERATE THE TOWER BOLTS UNLESS THE PADLOCK IS UNLOCKED. THE PADLOCK SHALL BE KEYED TO SYDNEY WATER'S KEYING SYSTEM. THE PADLOCK SHALL BE ENDORSED 'INTRUDER RESISTANT AREA' APPLICATION, AS LISTED IN THE COMMONWEALTH OF AUSTRALIA SECURITY EQUIPMENT CATALOGUE.

POWDER COATING

- ALL FENCE COMPONENTS SHALL BE POWDER COATED AFTER FABRICATION BY:
HOT ALKALI DEGREASE & CLEAN.
CLEAN WATER RINSE (TWICE).
HOT ACIDULATED FINAL RINSE.
POWDER COAT TO 70 +/- 10 MICRONS.
BAKE 10 MINUTES AT 200°C METAL TEMPERATURE.

TOUCH UP

- GALVANISED FINISH:
FOLLOWING INSTALLATION OF ALL FASTENERS, BREAK OFF POINTS SHOULD BE TREATED WITH A GENEROUS COATING OF ZINC RICH COLD GALVANISING PAINT.
- POWDER COAT FINISH:
AS ABOVE, WITH THE ADDITION OF A MATCHING COLOUR TOUCH UP PAINT.

MISCELLANEOUS

- ALL WELDS SHALL BE 6 CONTINUOUS FILLET U.N.O. IN ACCORDANCE WITH AS 1554 PART 1.
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 & AS 4100.
- CONCRETE QUALITY (TO AS3972):
CLASS GRADE N25
MAXIMUM AGGREGATE SIZE 10 mm

THIS DRAWING TO BE READ IN CONJUNCTION WITH
DRAWING No.'s DTC/5013, 5014 & 5015

Sydney
WATER

© COPYRIGHT
STATE OF NEW SOUTH WALES THROUGH SYDNEY
WATER CORPORATION. ALL RIGHTS RESERVED

APPROVED

P. GILLMAN
MANAGER - E & ES

ENGINEERING & ENVIRONMENTAL SERVICES

A
LETTER

ORIGINAL ISSUE

DETAILS OF ISSUE / AMENDMENT

PJG
APP'D

01.03.13
DATE

DEEMED TO COMPLY DRAWINGS
INTRUDER RESISTANT PERIMETER BARRIER TYPE 4
BOUNDARY FENCE & GATES
SHEET 1 OF 4

DTC
5012

ISSUE
A

DATE
01.03.13