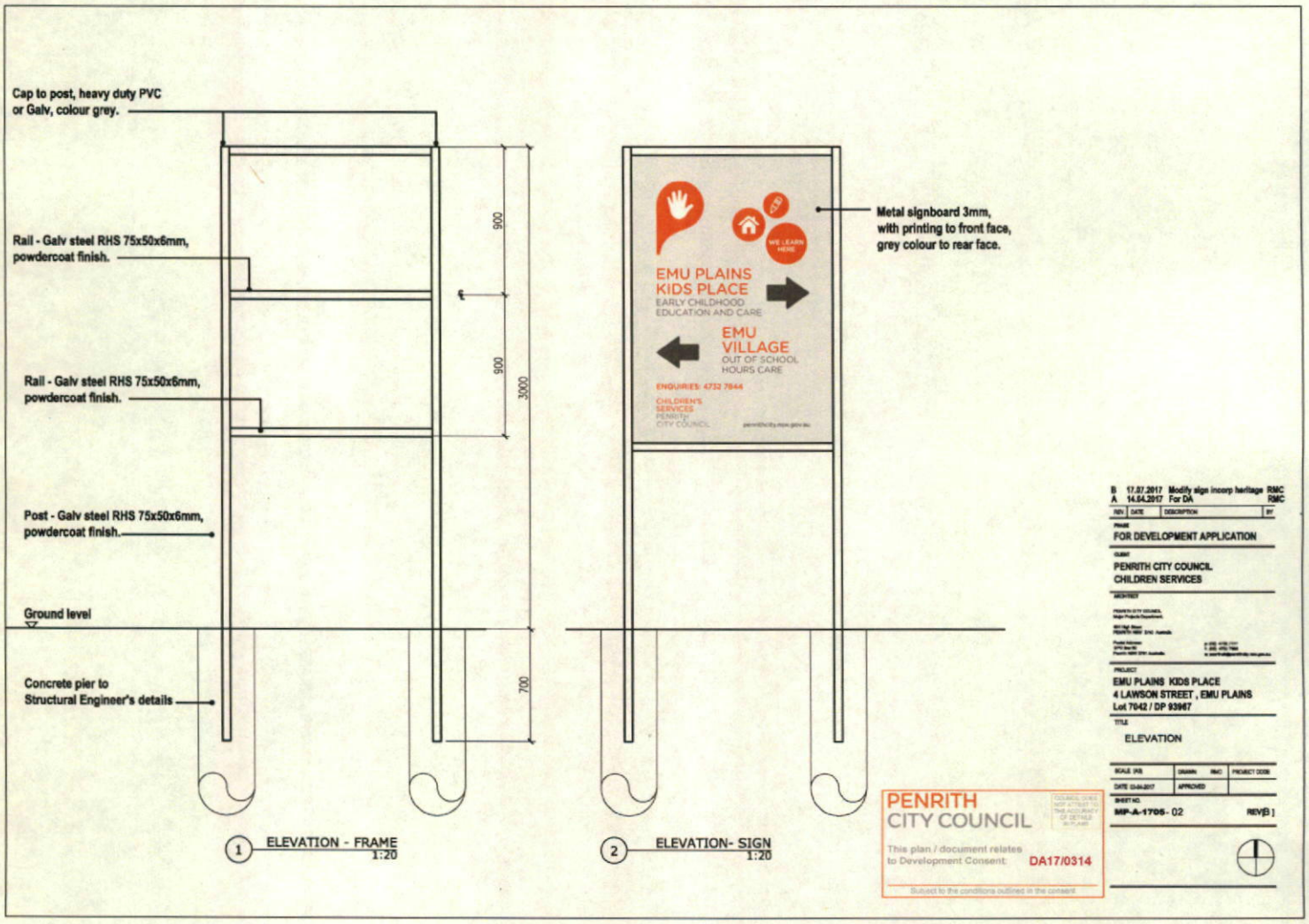
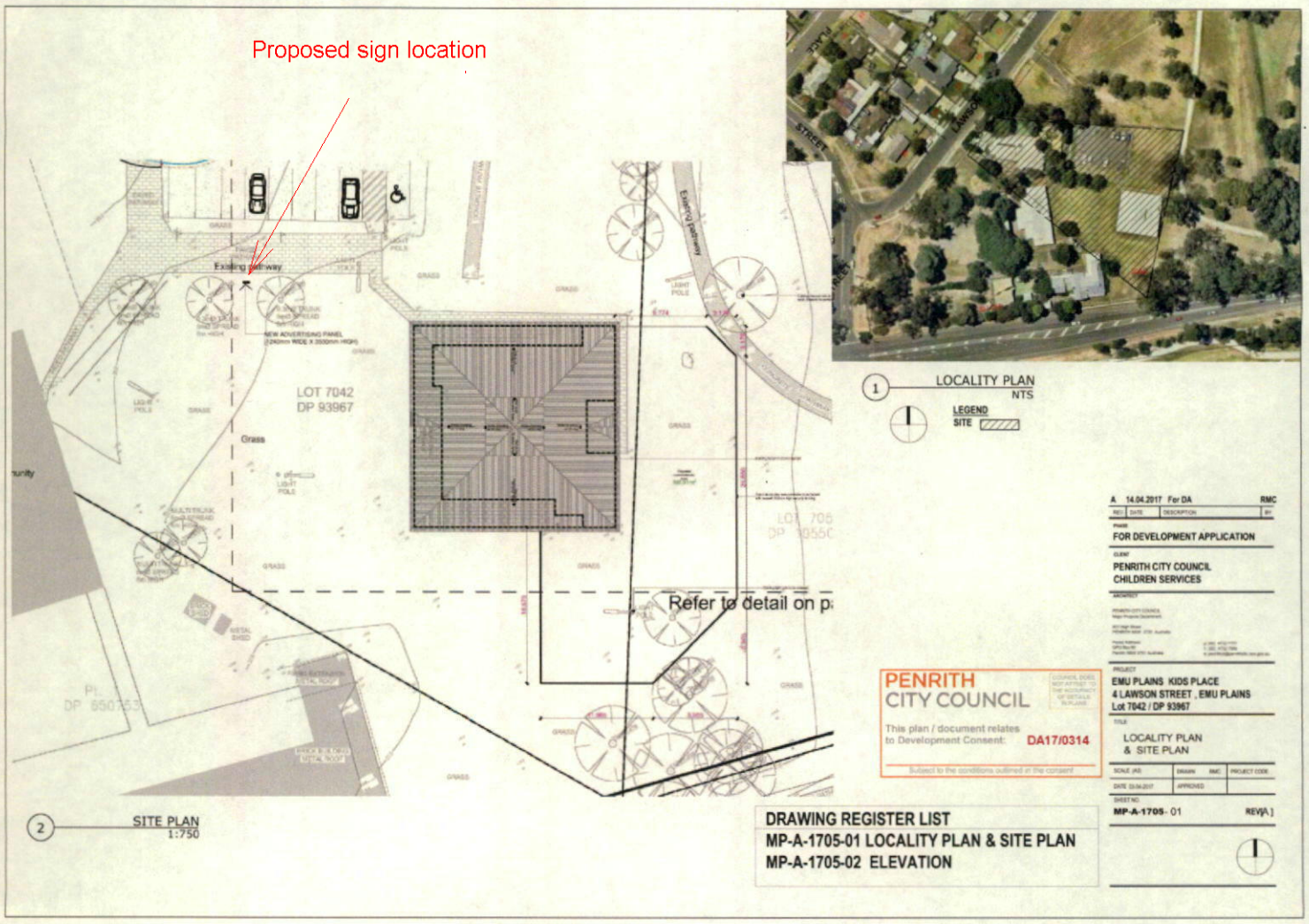


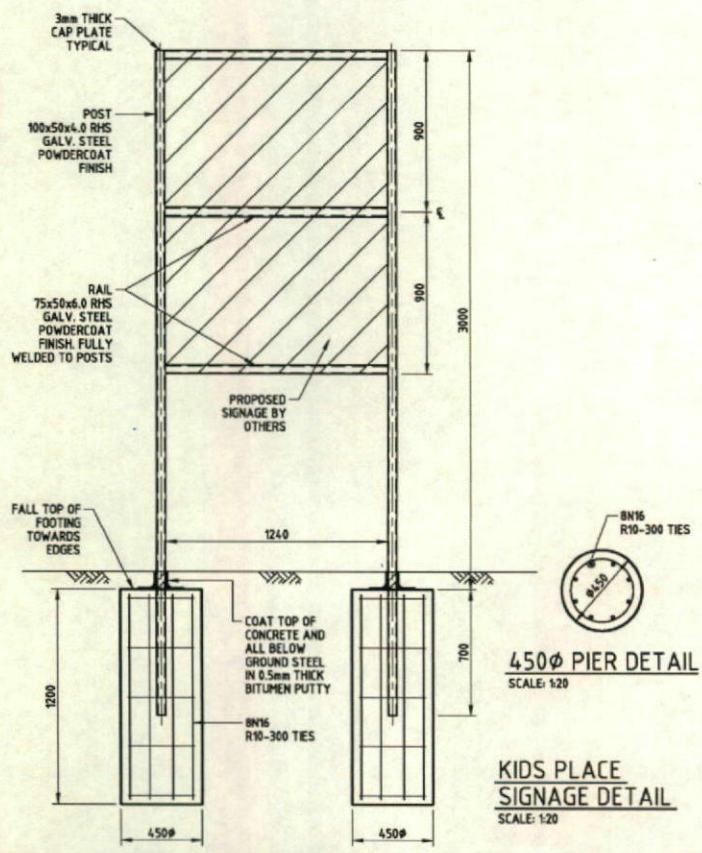
PENRITH CITY COUNCIL

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

This plan / document relates to Construction Certificate: CC17/0165

Subject to the conditions outlined in the consent





450ø PIER DETAIL
SCALE: 1:20

KIDS PLACE SIGNAGE DETAIL
SCALE: 1:20

General Notes

1. These drawings shall be read in conjunction with all architectural and other consultants drawings, the specifications and with such other written instructions as may be issued during the course of the contract.
2. Any discrepancy on the drawings or between the drawings and/or the specification and/or the specified Australian Standard shall be referred to the engineer and a written instruction received prior to proceeding with the work. During tendering the tender shall assume the larger/greater criteria in terms of cost in the absence of other instructions.
3. All materials and workmanship shall be in accordance with the requirements of the current Australian Standards codes, including all amendments, and the by-laws and ordinances of the relevant building authority, except where varied by the project specification.
4. All dimensions are in millimetres unless noted otherwise. All levels are expressed in metres. All dimensions relevant to setting out and off-site work shall be verified on site by the contractor before construction and fabrication are commenced. The engineer's drawings are not to be scaled. No responsibility will be taken by the engineer for dimensions obtained by scaling the drawings.
5. Substitutions must be approved by the engineer and be included in any tender.
6. During construction the contractor shall be responsible for maintaining the structure in a stable condition; ensuring no part shall be over-stressed during construction activities.
7. The structural drawings do not show all details of fixtures, inserts, sleeves, openings, etc. required by the various trades. All such details, including openings for construction purposes must be approved by the engineer before proceeding with construction.
8. The wind classification of the site is **45m/sec.** as per AS1170.2

Concrete Notes

1. All materials, workmanship and testing shall comply with AS1379, AS3600 and AS3610.
2. Water must not be added to the premixed concrete at site and no additives or admixtures to be used without obtaining prior approval in writing from the superintendent.
3. Refer to the table below for required concrete grade:

Element	Slump	Max. Agg. Size	Cement Type	Grade in MPa
Piers	100	20mm	GP	20

4. At footing intersections reinforcement shall extend 40 bar diameters into transverse footing.
5. No holes, chases or embedment of pipes other than those shown on the structural drawings shall be made in concrete members or slabs without prior approval of the superintendent. Steps in footings shall be constructed to details.
6. Dimensional tolerances of AS3600 modified by AS3610 shall apply unless otherwise noted. Slab surface flatness tolerance shall be 5mm maximum deviation from a 3m straight edge.
7. Formed concrete shall not be stripped for at least 3 full days after pouring and longer as required by the formwork code. Such concrete shall be backpropped until such time as the concrete has gained it's design strength. Where construction loads are imposed, adequate backpropping shall be maintained until such loads are removed and as approved by the superintendent.

Reinforcement Notes

1. Concrete cover to reinforcement (refer to table 4.10.3.2. of AS3600 unless otherwise shown in table.
2. Provide 50mm minimum cover to all reinforcement, U.N.O.
3. Lapping of bars at splices shall be as per below:

Bar Size	Splice Length
N12	450
N16	600

4. Reinforcement is represented diagrammatically and not necessarily shown in true projection.
5. Splices in reinforcement shall be made only in the positions shown or as otherwise approved by the superintendent.
6. Welding or reinforcement shall not be permitted without the approval of the superintendent.
7. Reinforcement symbols:
   - N - Deformed bars AS/NZS4671, grade 500MPa
   - R - Structural grade plain round bar to AS/NZS4671, grade 250MPa
   - SL/RL - Hard drawn steel wire reinforcing mesh to AS/NZS4671, grade 500MPa
8. All reinforcement must be adequately placed in the positions shown. Tied and supported by the appropriate bar chairs in order to maintain specified covers.

Structural Steelwork Notes

1. All materials, workmanship, fabrication and erection shall comply with the requirements of:
   - AS1163 - Steel hollow sections for general structural purposes.
   - AS3679.1 & AS3679.2 - Structural steel and welded sections
   - AS4100 - Steel Structures
   - AS1554 - Structural steel welding code and the specification.
2. Unless shown otherwise, all steel shall be in accordance with AS3679 grade 300. All steel hollow sections shall be grade 350 in accordance with AS1163. All pressed metal purlins and girts shall be grade 450 steel in accordance with AS1538.
3. Unless shown otherwise on the drawings, all connections shall be in accordance with the following minimum requirements:
   - All welds shall be 6mm continuous fillet welds all round.
   - All bolts shall be M20 8.8/S, with a minimum of 2 bolts per connection. Purlin bolts to be M12 – 8.8/S with a minimum of 2 bolts per purlin end.
   - All gusset and cleat plates shall be 10mm thick.
   - All cap plates shall be 12mm thick.
   - All base plates shall be 20mm thick.
4. Bolt designation:
   - 4.6/S refer to commercial bolts of strength grade 4.6 to AS1111 tightened to a snug tight condition.
   - 8.8/S refers to high strength structural bolts of grade 8.8 to AS1252 tightened to a snug tight condition.
   - 8.8/TB refers to high strength structural bolts of grade 8.8 to AS1252 fully tensioned to AS4100 as a bearing joint.
   - 8.8/TF refers to high strength structural bolts of grade 8.8 to AS1252 fully tensioned to AS4100 as a friction joint.
5. High strength bolted joints shall be in accordance with AS4100. The specified bolt tension shall be obtained by use of the "Part Turn" method of tightening.
6. Unless specified otherwise all bolts, nuts and washers shall be hot dip galvanized.
7. All welds shall be SP (Special Purpose) in accordance with AS1554. All butt welds shall be full strength complete penetration welds. All electrodes shall be class E48.
8. All steelwork below ground or finished surface level is to be thoroughly coated in a minimum 0.5mm thickness of bitumen putty, ensomeld or equivalent. Coating to extend 100mm and cover concrete footing, pads, base plates and all holding down bolts as applicable.
9. All steelwork, except that which is to be concrete encased, fire sprayed or contact surfaces of friction type joints, shall be surface cleaned and painted in accordance with the specification.
10. The contractor shall provide all cleats and drill all holes necessary for fixing steel, timber and other elements to steel whether or not detailed on the structural drawings.
11. The fabrication and erection of the structural steelwork shall be supervised by qualified personnel experienced in such supervision to ensure that all requirements of the design are met. Details of erection sequence shall be submitted to the design engineer for review prior to commencement of erection. The approved erection sequence shall not be varied during the erection process without the approval of the design engineer.
12. Columns and mullions shall have their base plates fully grouted in accordance with the specifications after plumbing and levelling on neoprene packers.
13. Cambers all rafters and beams over 6000mm in length shall be cambered 5mm for every 2000mm of length unless noted otherwise on the drawings.
14. Four sets of steelwork shop detail drawings shall be submitted to the engineer for approval prior to commencement of any fabrication. The approval shall not cover layout and member dimensions.

DRAWING LIST

S1 - PLATYPUS CHILDREN CENTRE TYPICAL SIGNAGE DETAIL
S2 - KIDS PLACE TYPICAL SIGNAGE DETAIL

REV.	DATE	DETAILS	DRG	CHK
A	10/08/2017	FOOTING ALTERED	RD	JM

REVISIONS

INHOUSE CONSULTING ENGINEERS PTY. LTD.
CONSULTING STRUCTURAL & CIVIL ENGINEERS
P.O. BOX 752,
KINGSWOOD, NSW 2747
Telephone : (02) 9721 9044
Website: www.inhouseengineers.com.au
Email: info@inhouseengineers.com.au
A.B.N. 44 066 287 759

DESIGNED	E IQBAL
DRAWN	J MORGAN
SCALE	1:20 (A3)
DATE	AUG' 2017

CLIENT: PENRITH CITY COUNCIL
Mr Roger E. Dohnt
DipTechEng. B.E. MIEAust, CPEng
Civil / Structural - N.E.R. No. 81867
Date: 10.08.17

PROJECT: PROPOSED SIGNAGE - KIDS PLACE
AT 4 LAWSON STREET, EMU PLAINS
FOR PENRITH CITY COUNCIL

DRG TITLE: KIDS PLACE TYPICAL SIGNAGE DETAIL

JOB No. 16395
DRG No. S2
REV. A