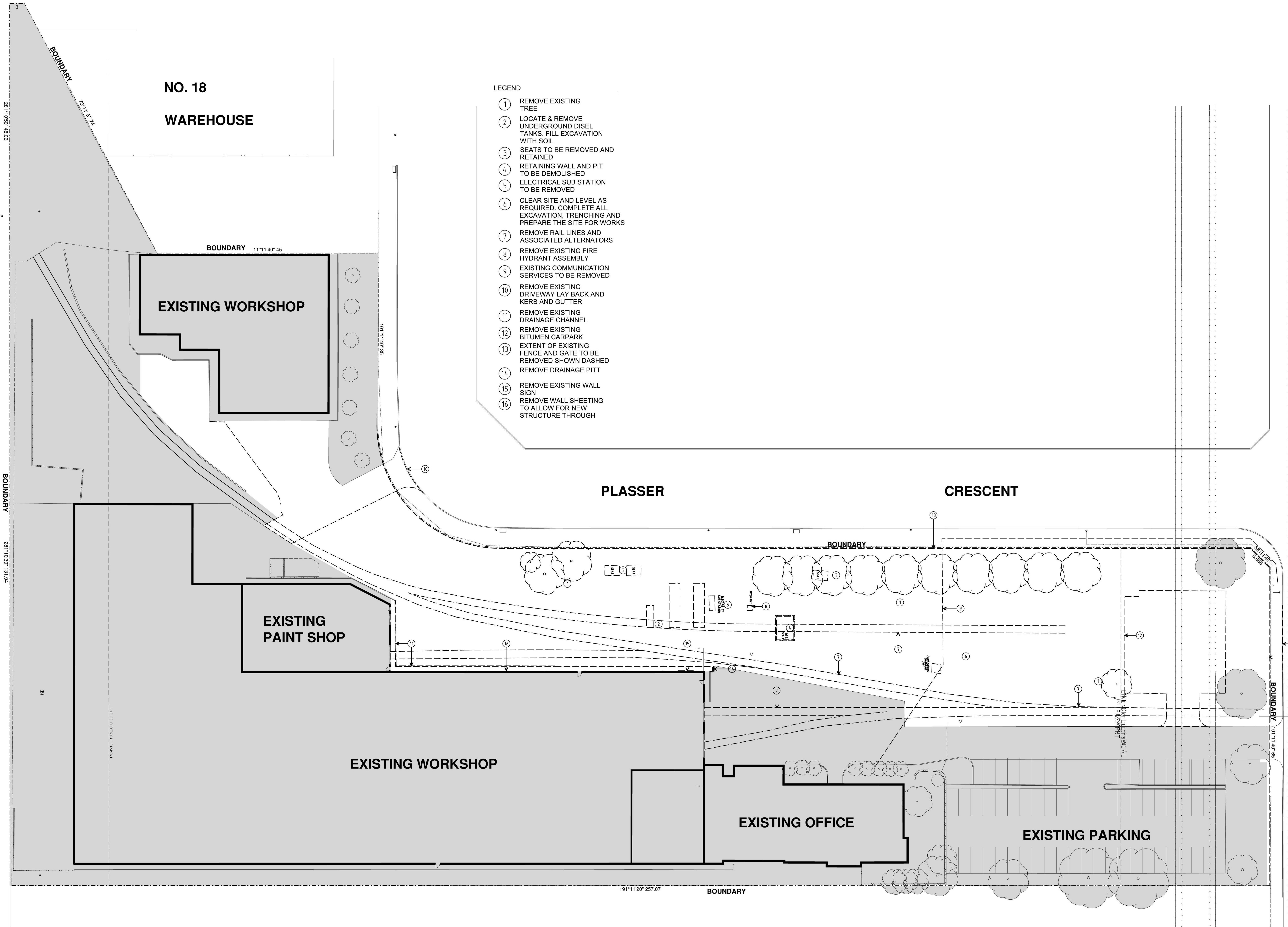


## **APPENDIX 2**

### Architectural plans





| Amendments | Issue Description       | Date     |
|------------|-------------------------|----------|
| A          | DEVELOPMENT APPLICATION | 19.08.14 |

NOT FOR CONSTRUCTION

| LEGEND             |
|--------------------|
| EXISTING BUILDING  |
| WORKS NOT IN SCOPE |
| NEW WORKS IN SCOPE |

Client



Architect

**GROUP GSA**  
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architecture interior design urban design landscape  
nom architect M. Sheldon 3990



Project Title  
**25 KURRAJONG RD  
NORTH ST. MARYS**

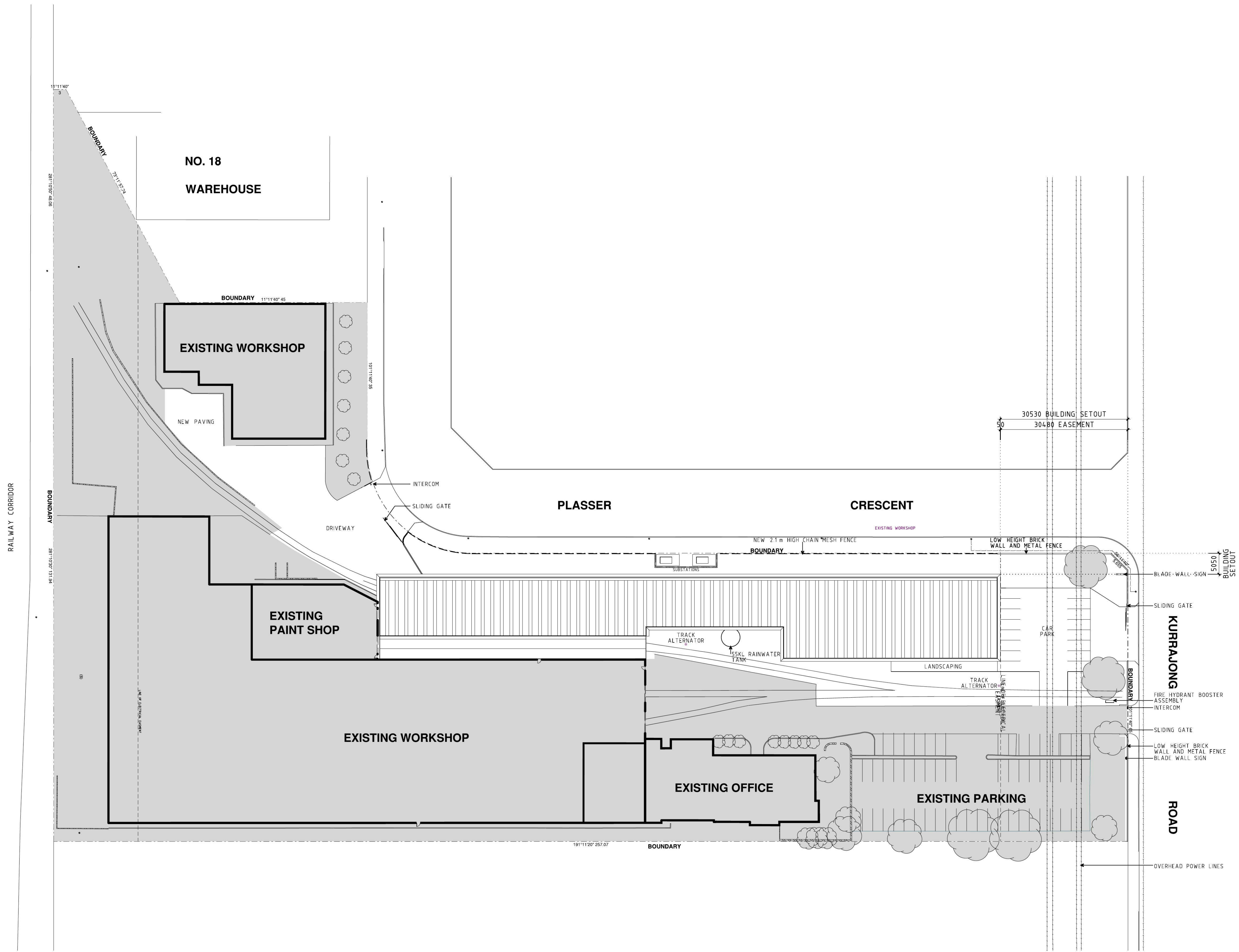
Drawing Title  
**DEMOLITION PLAN**

|                        |            |
|------------------------|------------|
| Scale                  | NTS        |
| Drawing created        | 17/06/2014 |
| By                     | AA         |
| Plotted and checked by | AA         |
| Verified               | MT         |
| Approved               | MT         |
| Drawing No             | 1000       |
| Issue                  | A          |
| Drawing No             | 14030      |
| File                   | Plot Date  |
| A-1000.dgn             | 19/08/2014 |

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NOT FOR CONSTRUCTION



LEGEND

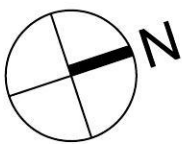
- EXISTING BUILDING WORKS NOT IN SCOPE
- NEW WORKS IN SCOPE

Client



Architect

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architecture interior design urban design landscape  
nom architect M. Sheldon 3990



Project Title  
**25 KURRAJONG RD  
NORTH ST. MARYS**

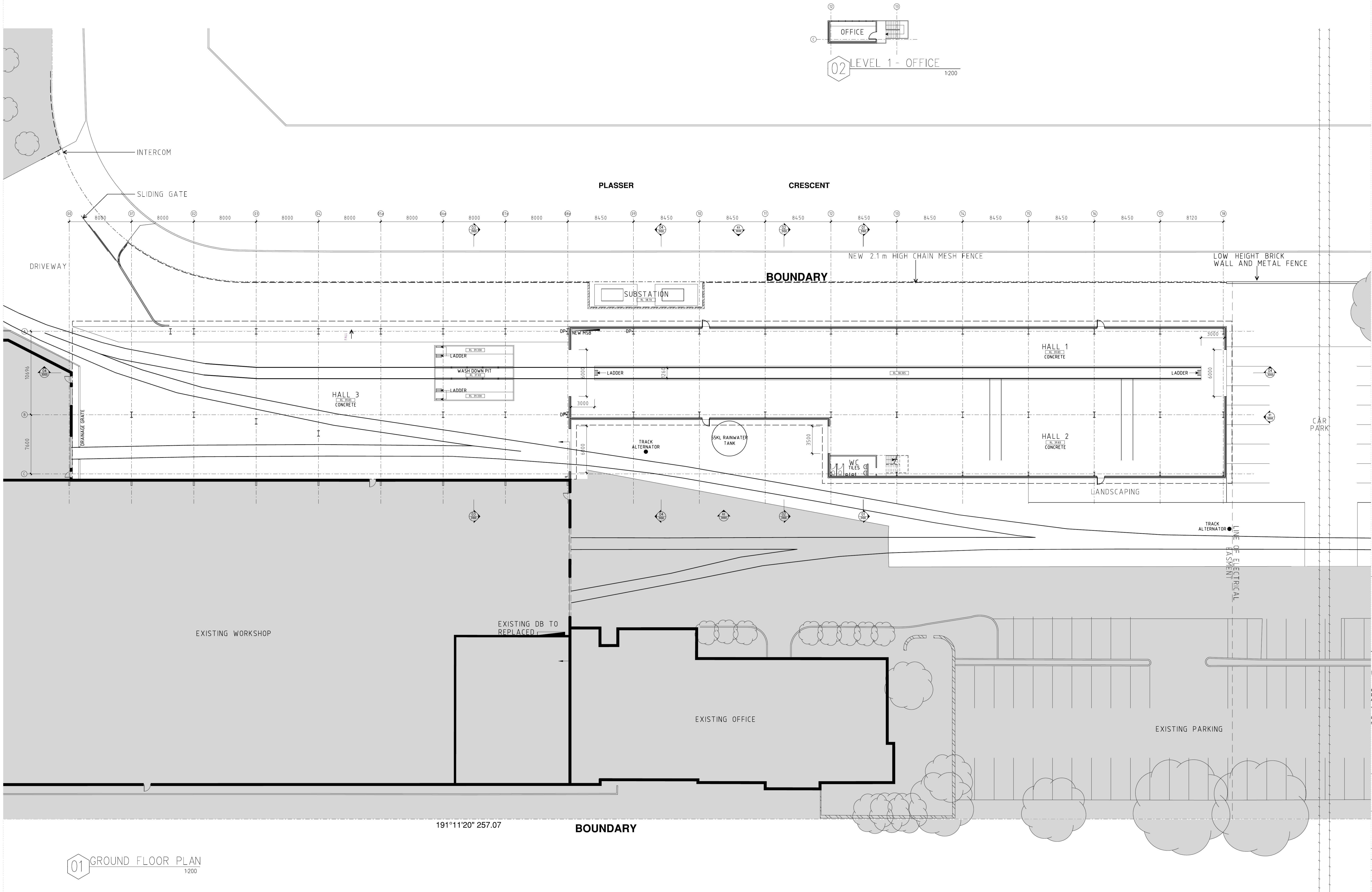
Drawing Title  
**SITE PLAN**

Scale 1:500 @ B1  
Drawing created 17/06/2014  
By AA  
Plotted and checked by AA  
Verified MT  
Approved MT  
Drawing No 1100 Issue A  
14030  
File Plot Date  
A-1100.dgn 19/08/2014

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NOT FOR CONSTRUCTION



LEGEND

- EXISTING BUILDING
- WORKS NOT IN SCOPE
- NEW WORKS IN SCOPE

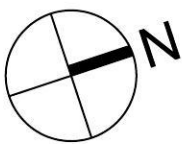
Client



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nom architect M. Sheldon 3990



Project Title

**25 KURRAJONG RD  
NORTH ST. MARYS**

Drawing Title

**PROPOSED PLAN -  
GROUND FLOOR**

Scale 1:200@B1

Drawing created 17/06/2014

By AA

Plotted and checked by AA

Verified MT

Approved MT

Drawing No 2000 Issue A

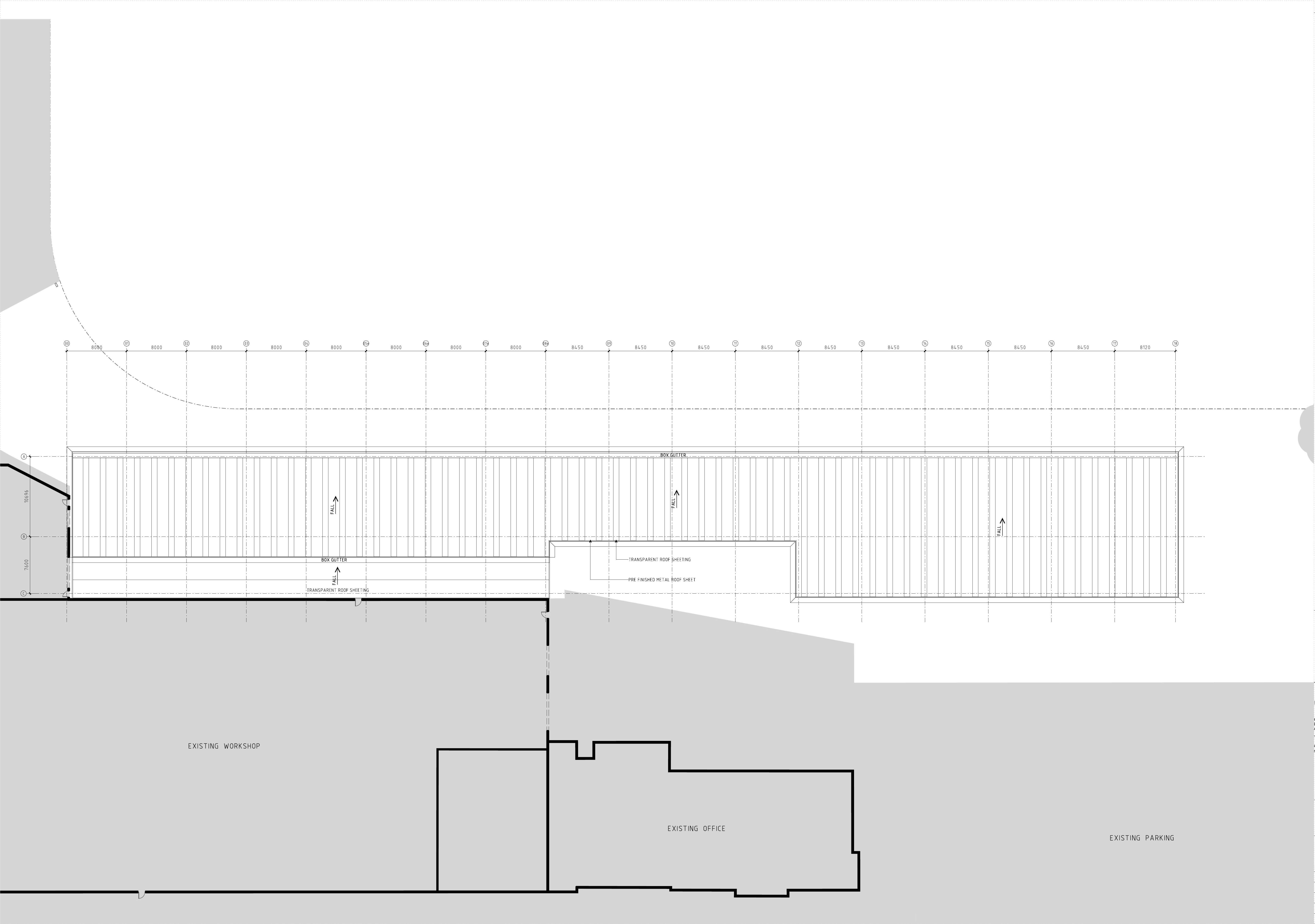
14030

File Plot Date

A2000.dgn 19/08/2014

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| Amendments |                         | Date     |
|------------|-------------------------|----------|
| Issue      | Description             |          |
| A          | DEVELOPMENT APPLICATION | 19.08.14 |

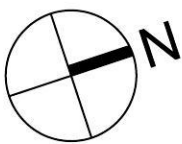
| LEGEND |   |
|--------|---|
|        | EXISTING BUILDING<br>WORKS NOT IN SCOPE |
|        | NEW WORKS IN SCOPE                      |

Client



Architect

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Project Title  
**25 KURRAJONG RD  
NORTH ST. MARYS**

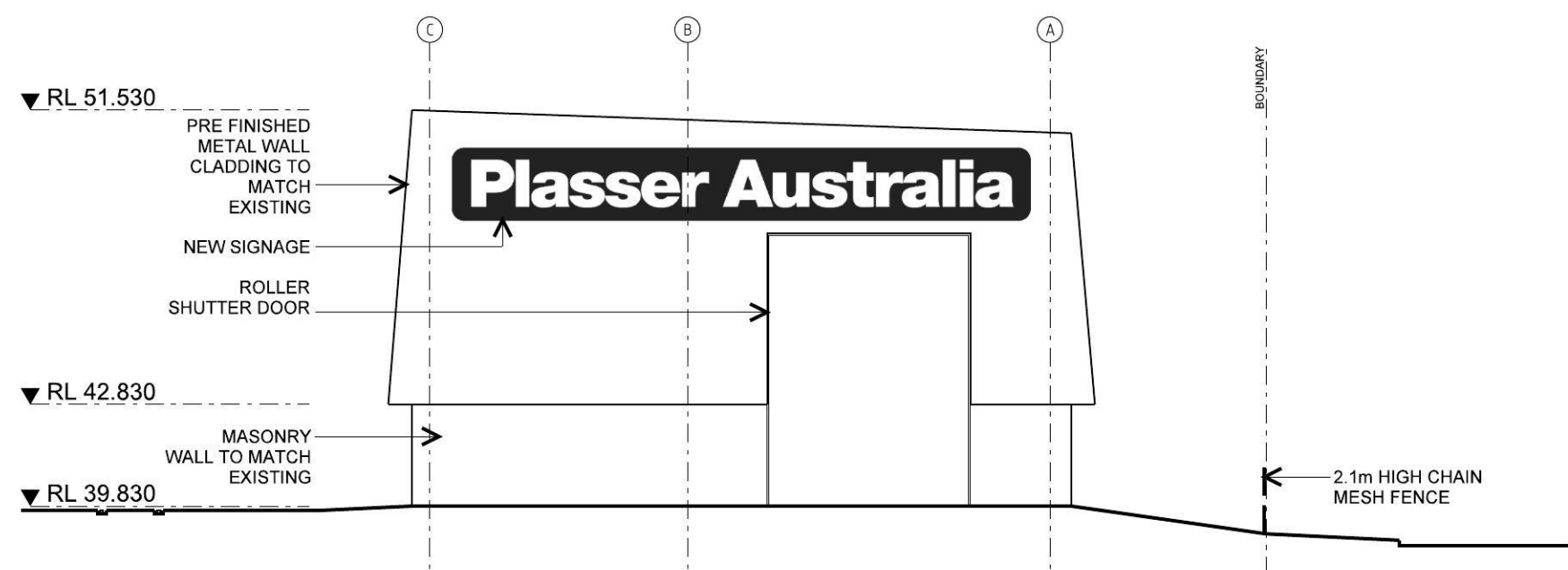
Drawing Title  
**ROOF PLAN**

|                        |            |
|------------------------|------------|
| Scale                  | 1:200@B1   |
| Drawing created        | 17/06/2014 |
| By                     | AA         |
| Plotted and checked by | AA         |
| Verified               | MT         |
| Approved               | MT         |
| Drawing No             | 2001       |
| Issue                  | A          |

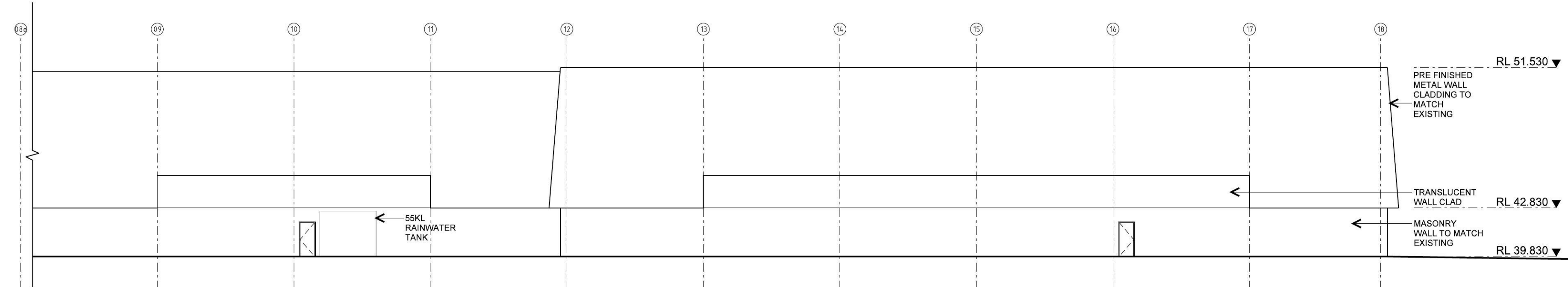
**14030**  
File A2001.dgn Plot Date 19/08/2014

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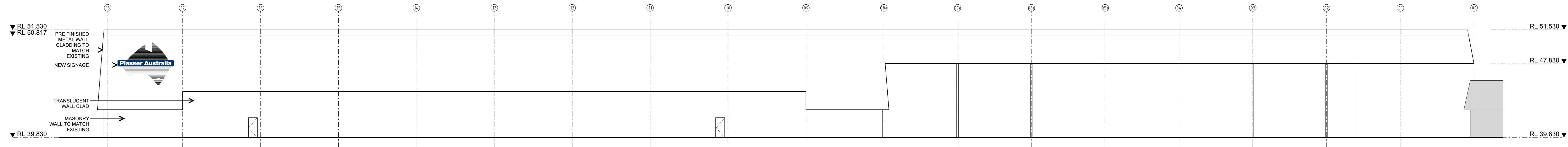




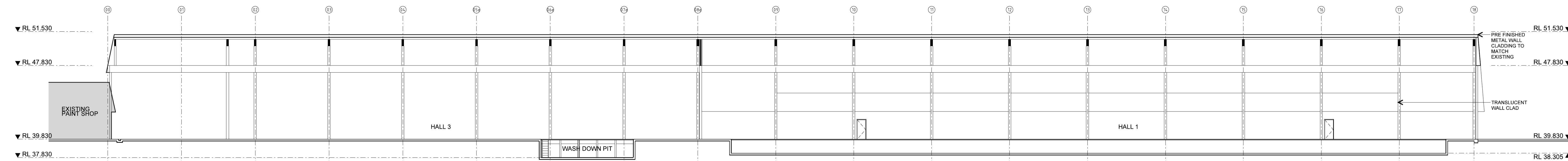
01 NORTH ELEVATION  
1:200



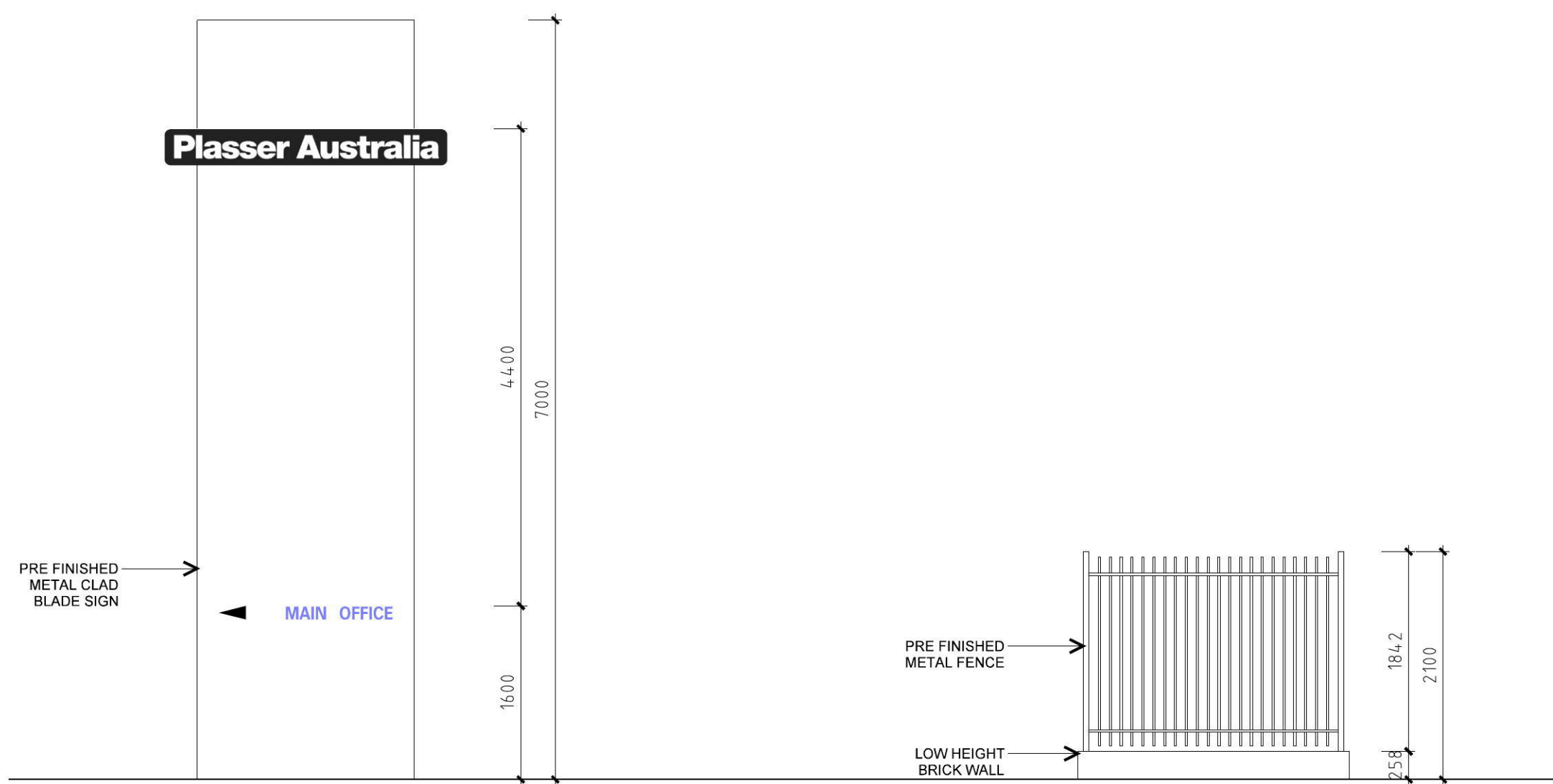
02 EAST ELEVATION  
1:200



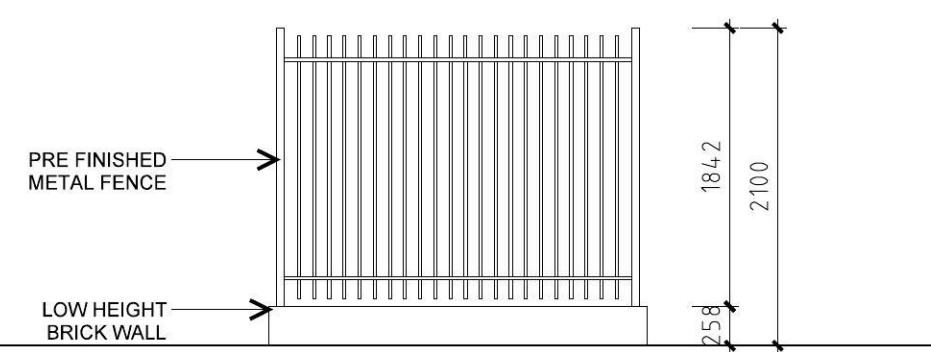
03 WEST ELEVATION  
1:200



04 SECTION  
1:200



05 BLADE WALL SIGN - ELEVATION  
1:50



06 TYPICAL FRONT FENCE - ELEVATION  
1:50

| Amendments | Issue Description       | Date     |
|------------|-------------------------|----------|
| A          | DEVELOPMENT APPLICATION | 19.08.14 |

NOT FOR CONSTRUCTION

Client



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nom architect M. Sheldon 3990



Project Title  
25 KURRAJONG RD  
NORTH ST. MARYS

Drawing Title  
PROPOSED -  
ELEVATIONS AND  
SECTION  
Scale 1:200 @ B1

Drawing created 17/06/2014

By AA

Plotted and checked by AA

Verified MT

Approved MT

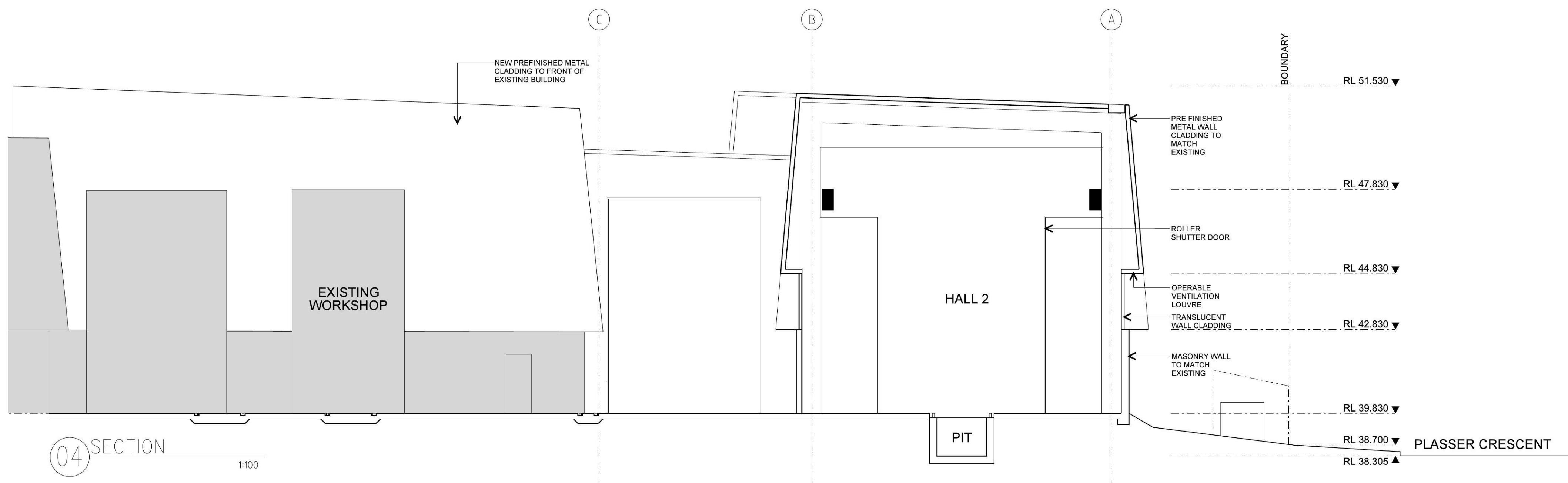
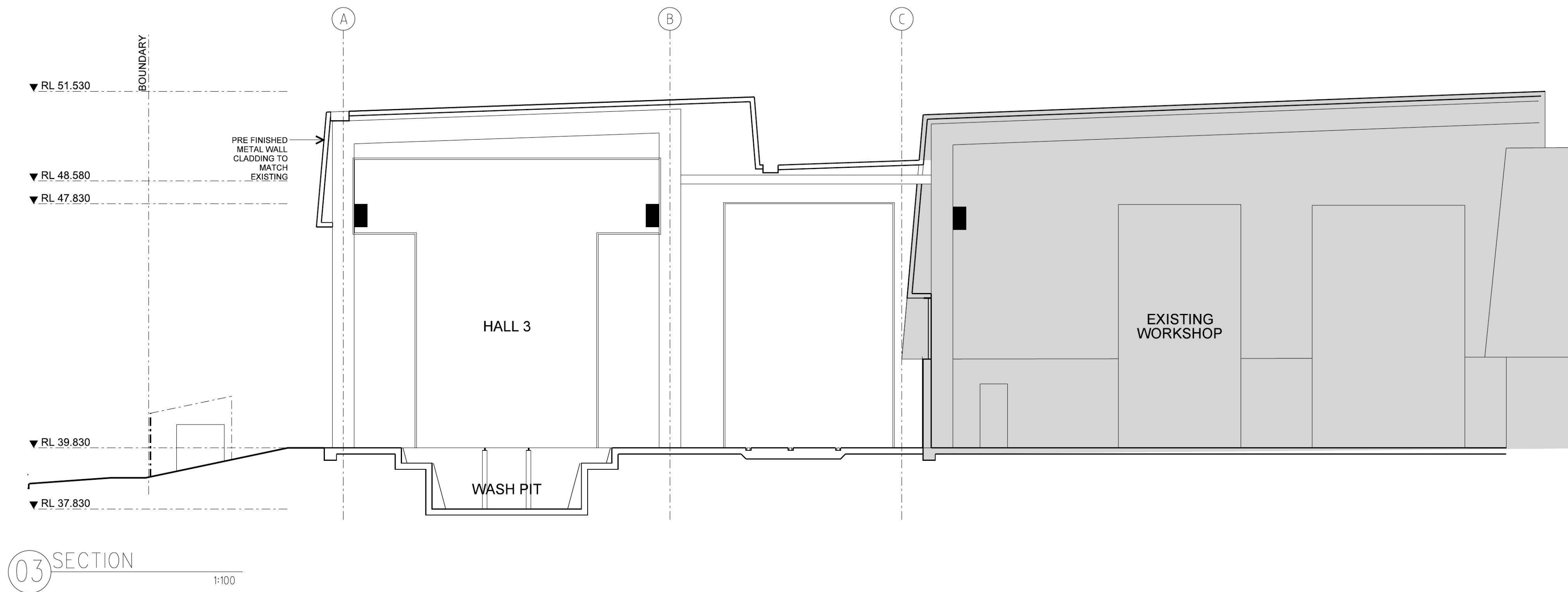
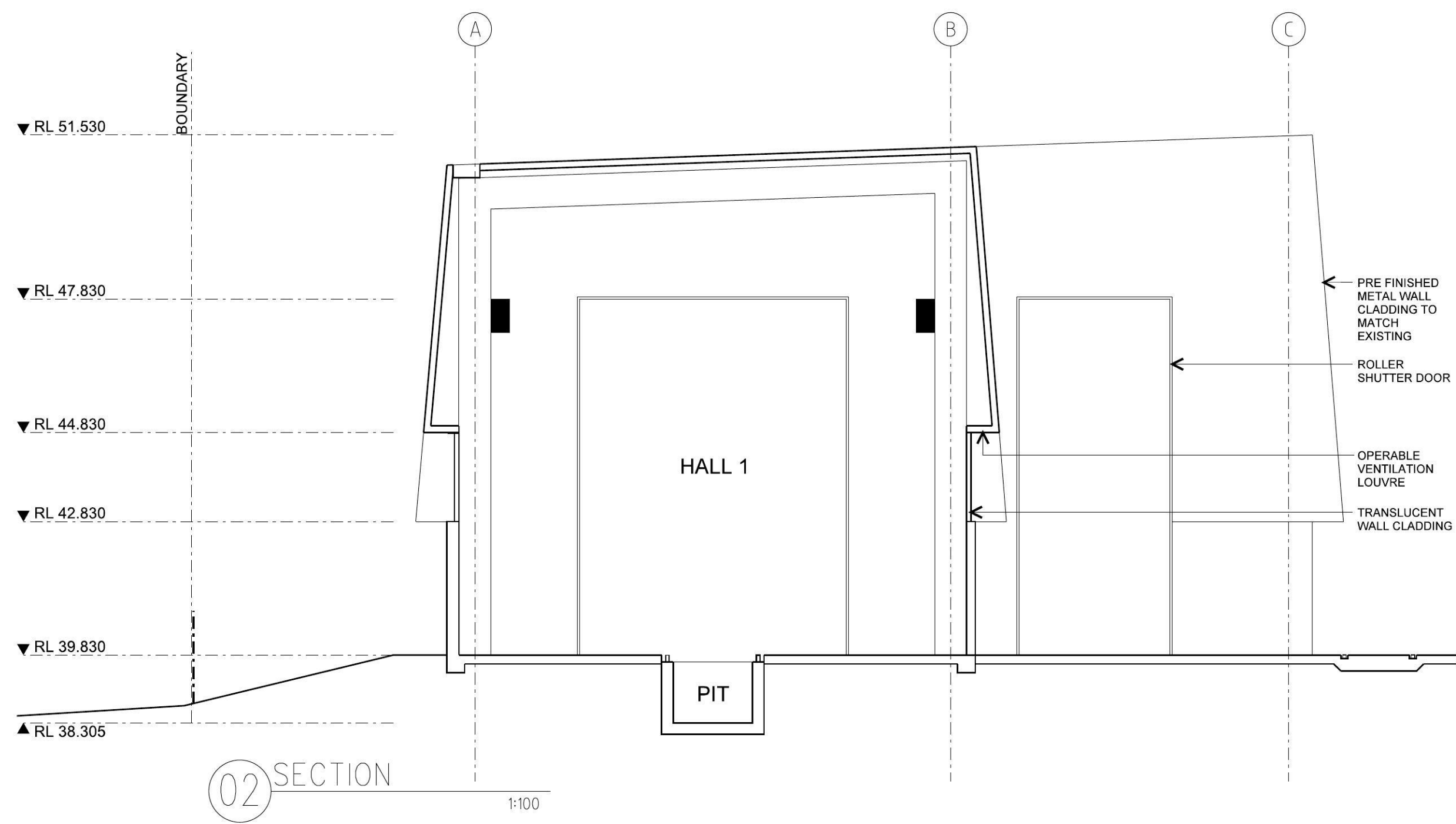
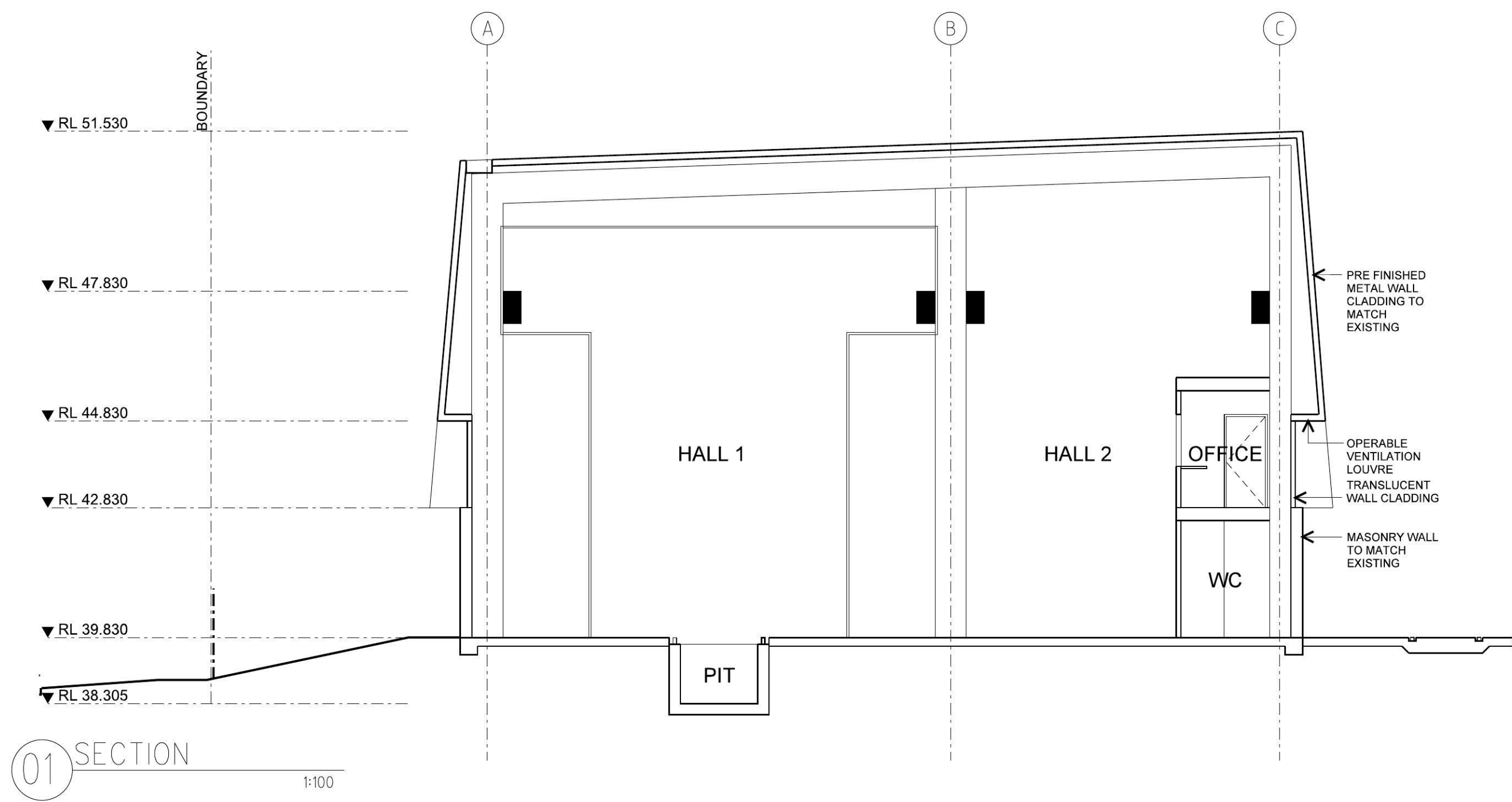
Drawing No 3000 Issue A

14030  
File Plot Date  
A3000.dgn 19/08/2014

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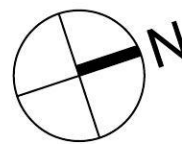
Client



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architecture interior design urban design landscape  
nom architect M. Sheldon 3990



Project Title

**25 KURRAJONG RD  
NORTH ST. MARYS**

Drawing Title

**PROPOSED -  
SECTIONS**

Scale 1:100@B1

Drawing created 17/06/2014

By AA

Plotted and checked by AA

Verified MT

Approved MT

Drawing No 3100 Issue A  
**14030**

File A3100.dgn Plot Date 19/08/2014

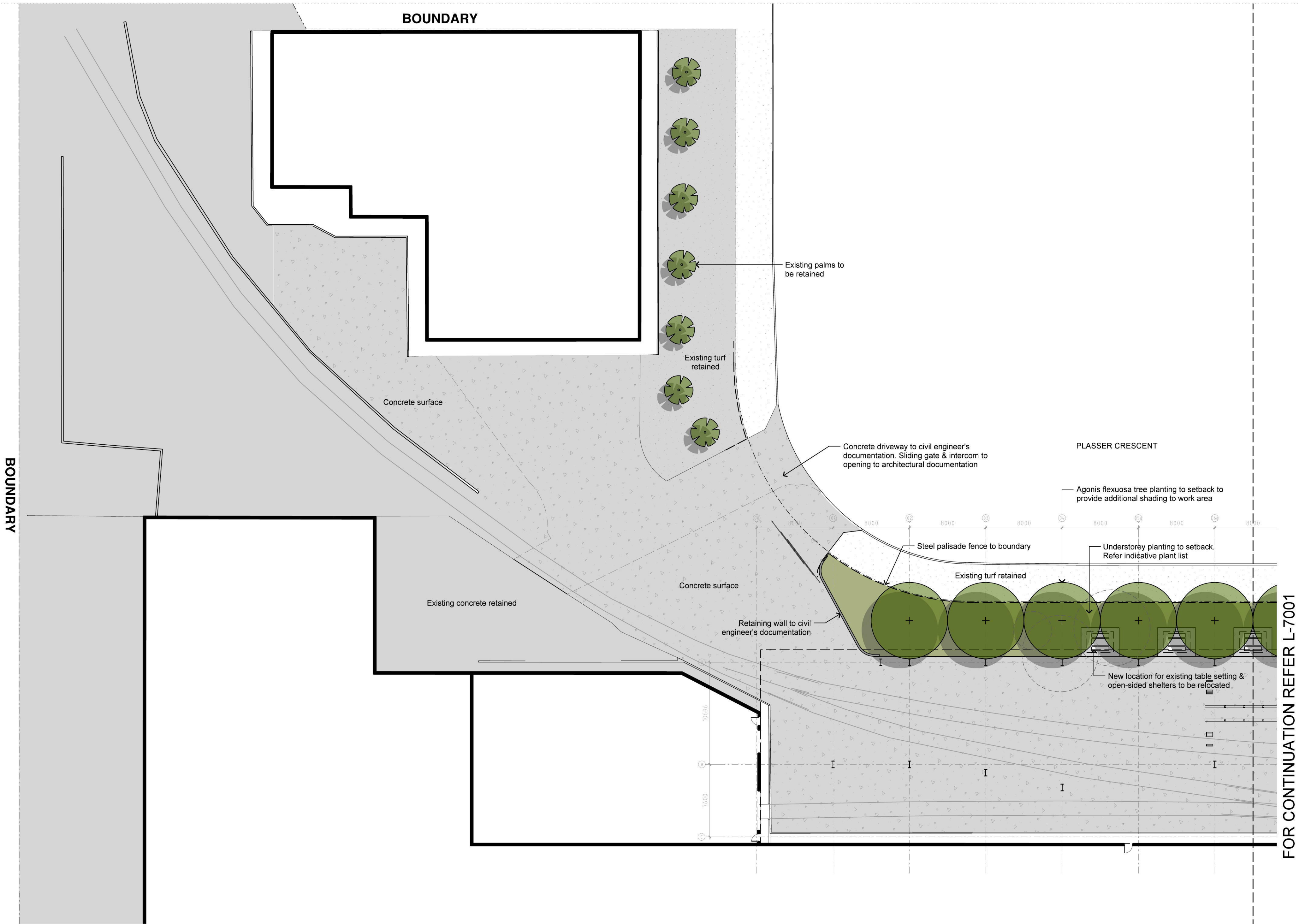
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## **APPENDIX 3**

### Landscape plans





- LEGEND
- Existing tree to be retained
  - Existing tree to be removed
  - New tree planting
  - Existing surface to be retained
  - New concrete surface
  - New & existing railway tracks in concrete surface
  - New location of existing table setting & open-sided shelter
  - New electrical substation to engineer's documentation
  - New retaining wall to engineer's documentation
  - New steel palisade fence. Refer to architectural documentation
  - Existing understorey planting to be retained
  - New understorey planting
  - Turf

| Amendments |                         |          |
|------------|-------------------------|----------|
| Issue      | Description             | Date     |
| A          | ISSUE FOR DA REVIEW     | 08/08/14 |
| B          | DEVELOPMENT APPLICATION | 20/08/14 |

Client



Architect

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architecture interior design urban design landscape  
nom architect M. Sheldon 3990

Project Title Project No.  
25 KURRAJONG RD 14030  
NORTH ST MARYS

Drawing Title  
**LANDSCAPE PLAN  
SHEET 1**

Scale 1:250 @ A1, 1:500 @ A3

Drawing created (date) 17/06/2014

By AA

Plotted and checked by AA

Verified MT

Approved MT

Drawing No Issue  
**L-7000 B**

File Plot Date  
L-7000-7001.dgn 20/08/2014

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## TREE PLANTING



WESTERN SETBACK  
Agonis flexuosa  
Willow Myrtle  
10 x 8m



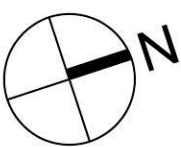
EASTERN FACADE  
Archontophoenix cunninghamiana  
Alexandra Palm  
13 x 4m



EASTERN FACADE  
Elaeocarpus reticulatus  
Blueberry Ash  
8 x 4m



CAR PARK (ELECTRICAL EASEMENT)  
Geijera parviflora  
Wilga  
10 x 6m





INDICATIVE UNDERSTOREY PLANTING



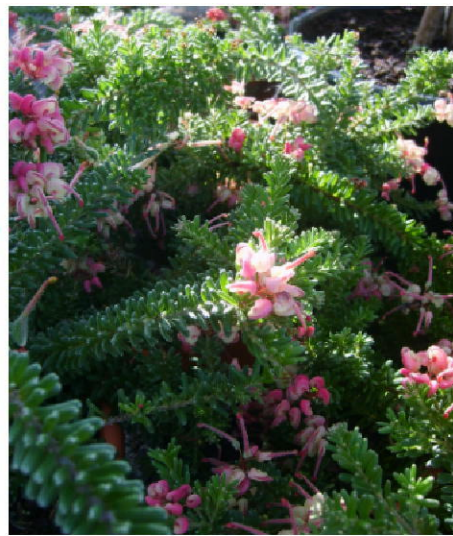
Aspidistra elatior  
Cast Iron Plant  
0.7 x 0.5m



Callistemon citrinus 'Splendens'  
Bottlebrush  
2 x 2m



Grevillea 'Clearview David'  
Grevillea  
2 x 2m



Grevillea 'Little Thicket'  
Groundcover Grevillea  
0.4 x 4m



Lomandra longifolia 'Tanika'  
Fine Mat Rush  
0.6 x 0.6m



Pennisetum alopecuroides 'Nafay' -  
Swamp Foxtail  
0.6 x 0.6m



Philodendron 'Xanadu'  
Xanadu  
0.8 x 1m

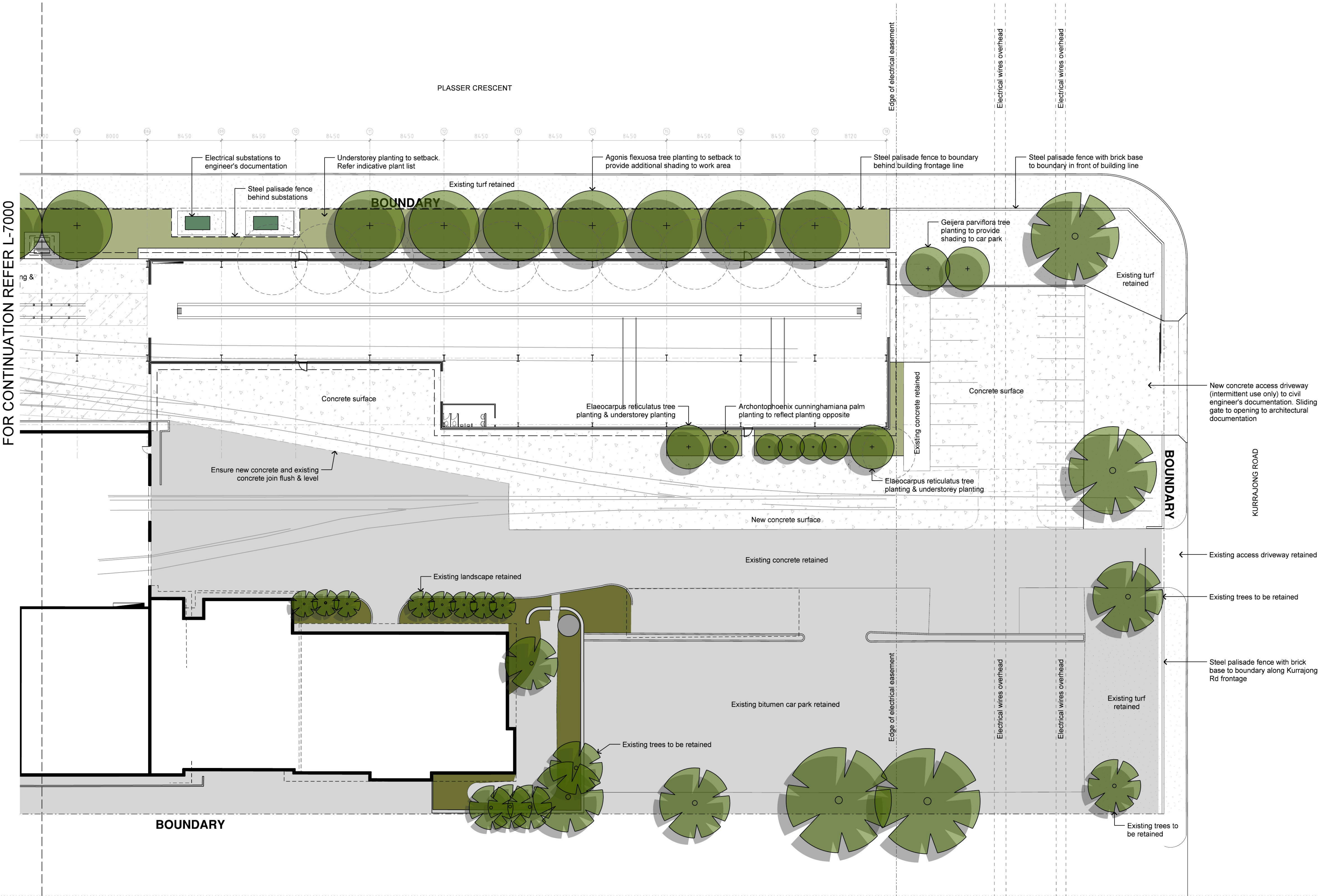


Poa labillardieri 'Eskdale'  
Tussock Grass  
0.6 x 0.5m

LEGEND

- Existing tree to be retained
- Existing tree to be removed
- New tree planting
- Existing surface to be retained
- New concrete surface
- New & existing railway tracks in concrete surface
- New location of existing table setting & open-sided shelter
- New electrical substation to engineer's documentation
- New retaining wall to engineer's documentation
- New steel palisade fence. Refer to architectural documentation
- Existing understorey planting to be retained
- New understorey planting
- Turf

| Amendments |                         | Date     |
|------------|-------------------------|----------|
| Issue      | Description             |          |
| A          | ISSUE FOR DA REVIEW     | 08/08/14 |
| B          | DEVELOPMENT APPLICATION | 20/08/14 |



FOR CONTINUATION REFER L-7000

Client

**Plasser Australia**

Architect

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architecture interior design urban design landscape  
nom architect M. Sheldon 3990

Project Title 25 KURRAJONG RD  
NORTH ST MARYS

Project No. 14030

Drawing Title

**LANDSCAPE PLAN  
SHEET 2**

Scale 1:250 @ A1, 1:500 @ A3

Drawing created (date) 17/06/2014

By AA

Plotted and checked by AA

Verified MT

Approved MT

Drawing No L-7001

Issue B

File L-7000-7001.dgn

Plot Date 20/08/2014

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# APPENDIX 4

## Civil plans



# PLASSER AUSTRALIA - PROPOSED WAREHOUSE EXTENSION

## CIVIL ENGINEERING DEVELOPMENT APPLICATION PACKAGE








LOCALITY PLAN

SOURCE : NEARMAP.COM.AU (©2014)

| DRAWING SCHEDULE |   |
|------------------|---|
| DRG No.          | DRAWING TITLE                                   |
| DA1.01           | COVER SHEET, DRAWING SCHEDULE AND LOCALITY PLAN |
| DA1.02           | SPECIFICATION NOTES                             |
| DA2.01           | CONCEPT SEDIMENT AND EROSION CONTROL PLAN       |
| DA2.02           | SEDIMENT AND EROSION CONTROL DETAILS            |
| DA3.01           | CIVIL SITEWORKS AND GRADING PLAN - SHEET 1      |
| DA3.02           | CIVIL SITEWORKS AND GRADING PLAN - SHEET 2      |
| DA6.01           | CONCEPT STORMWATER MANAGEMENT PLAN - SHEET 1    |
| DA6.02           | CONCEPT STORMWATER MANAGEMENT PLAN - SHEET 2    |
| DA7.01           | DETAILS SHEET 1                                 |
| DA7.02           | DETAILS SHEET 2                                 |

VERIFIER  
JOB MANAGER: W. PLATT  
DESIGNED: J. HOANG  
DRAWN: J. DAWES

NOT FOR CONSTRUCTION

| REVISION | DESCRIPTION                        | ISSUED | VER'D | APP'D | DATE     | CLIENT  | ARCHITECT   |  | ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK.<br>NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY.<br>THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE |   | PROJECT  | DRAWING TITLE | JOB NUMBER |                |          |
|----------|------------------------------------|--------|-------|-------|----------|---|---|---|--|--|--|---------------|------------|----------------|----------|
| 1        | 80% DESIGN ISSUE                   | RG     |       | JH    | 25.07.14 |  |  |   |  | <br>Sydney<br>The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000<br>Ph (02) 9241 4188 Fax (02) 9241 4324<br>P.O. Box H171 Australia Square, NSW 1215<br>Email sydney@northrop.com.au ABN 81 094 433 100 | PLASSER AUSTRALIA - PROPOSED WAREHOUSE EXTENSION | CIVIL DESIGN  | 140074     |                |          |
| 2        | 90% DESIGN ISSUE                   | UM     |       | JH    | 01.08.14 |   |   |   |  |  |  |               |            | DRAWING NUMBER | REVISION |
| 3        | ISSUED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 11.08.14 |   |   |   |  |  |  |               |            | DA1.01         | 3        |
|          |                                    |        |       |       |          | DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED  | THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD      |   |  |  | DRAWING SHEET SIZE = A1                          |               |            |                |          |



VERIFIER

JOB MANAGER: W. PLATTS

DESIGNED: J. HOANG

DRAWN: J. DAWES

| SITeworks |   |
|-----------|---|
| 1.        | ALL WORKS TO BE IN ACCORDANCE WITH LOCAL RELEVANT COUNCIL REQUIREMENTS, SPECIFICATIONS, AUSTRALIAN STANDARDS. CONFLICTS SHALL BE REFERRED TO THE SUPERINTENDENT FOR DIRECTION.  |
| 2.        | THE CONTRACTOR IS TO DESIGN, OBTAIN APPROVALS AND CARRY OUT REQUIRED TEMPORARY TRAFFIC CONTROL PROCEDURES DURING CONSTRUCTION IN ACCORDANCE WITH RMS AND LOCAL COUNCIL REGULATIONS AND REQUIREMENTS.  |
| 3.        | THE CONTRACTOR IS TO OBTAIN ALL AUTHORITY APPROVALS AS REQUIRED.  |
| 4.        | RESTORE ALL PAVED, COVERED, GRASSED AND LANDSCAPED AREAS TO THEIR ORIGINAL CONDITION ON COMPLETION OF WORKS. WHERE PLANTING OF NEW GRASS IS NECESSARY REFER TO LANDSCAPE ARCHITECT DOCUMENTATION.   |
| 5.        | ON COMPLETION OF ANY TRENCHING WORKS, ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL, GRASSED AREAS AND ROAD PAVEMENTS.  |
| 6.        | THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.  |
| 7.        | THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO LODGMENT OF TENDER AND ON SITE WORKS. THE PRICE AS TENDERED SHALL BE INCLUSIVE OF ALL WORKS SHOWN ON THE TENDER PROJECT DRAWINGS. ADDITIONAL PAYMENTS FOR WORKS SHOWN ON THE TENDER PROJECT DRAWINGS WILL NOT BE APPROVED.  |
| 8.        | THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING TO DEVELOPMENT OF THE SUBJECT SITE.  |
| 9.        | ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY: <div>9.1. PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE;</div> <div>9.2. ENSURING THAT NOTHING IS NAILED TO THEM;</div> <div>9.3. PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS:<div>9.3.1. ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 15 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE, THE DRIP LINE AND THE TRUNK, WHICH EVER IS GREATER.</div><div>9.3.2. A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH.</div><div>9.3.3. CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.</div></div> |
| 10.       | DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS.   |
| 11.       | IN CASE OF DOUBT OR DISCREPANCY REFER TO SUPERINTENDENT FOR CLARIFICATION OR CONFIRMATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.  |
| 12.       | WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.   |
| 13.       | MAKE SMOOTH TRANSITION TO EXISTING FEATURES AND MAKE GOOD WHERE JOINED.   |
| 14.       | THESE PLANS SHALL BE READ IN CONJUNCTION WITH ALL APPROVED DRAWINGS AND SPECIFICATIONS PREPARED BY OTHER PROJECT CONSULTANTS.   |
| 15.       | TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MIN 50mm IN BITUMINOUS PAVING.  |
| 16.       | ALL CIVIL ENGINEERING DESIGN HAS BEEN DOCUMENTED UNDER THE ASSUMPTION THAT ALL NECESSARY SITE CONTAMNATION REMEDIATION WORKS HAVE BEEN SATISFACTORILY COMPLETED (IF APPLICABLE) AND THAT THE SITE IS NOT AFFECTED BY ANY SOIL STRATA OR GROUNDWATER TABLE CONTAMINATION.  |

| ACCESS AND SAFETY |   |
|-------------------|---|
| 1.                | THE CONTRACTOR SHALL COMPLY WITH ALL STATUTORY AND INDUSTRIAL REQUIREMENTS FOR PROVISION OF A SAFE WORKING ENVIRONMENT INCLUDING TRAFFIC CONTROL. |
| 2.                | THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES ACCESS TO ALL BUILDINGS ADJACENT THE WORKS IS NOT DISRUPTED.  |
| 3.                | WHERE NECESSARY THE CONTRACTOR SHALL PROVIDE SAFE PASSAGE OF VEHICLES AND/OR PEDESTRIANS THROUGH OR BY THE SITE.                                  |




| EXISTING SERVICES |   |
|-------------------|---|
| 1.                | ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA, THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE AND CONFIRM THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY. |
| 2.                | CARE TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER COMMUNICATION, GAS OR ELECTRICAL SERVICES. HAND EXCAVATION ONLY IN THESE AREAS.  |
| 3.                | THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING SERVICES THAT ARE TO BE RETAINED IN THE VICINITY OF THE PROPOSED WORKS. ANY AND ALL DAMAGE TO THESE SERVICES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE SUPERINTENDENT, AND AT NO EXTRA COST.   |
| 4.                | THE CONTRACTOR SHALL ALLOW IN THE PROGRAM FOR ADJUSTMENT (IF REQUIRED) OF EXISTING SERVICES IN AREAS AFFECTED BY WORKS.   |
| 5.                | THE CONTRACTOR SHALL ALLOW IN THE PROGRAM FOR THE CAPPING OFF, EXCAVATION AND REMOVAL (IF REQUIRED) OF EXISTING SERVICES IN AREA AFFECTED BY WORKS UNLESS DIRECTED OTHERWISE ON THE DRAWINGS OR BY THE SUPERINTENDENT.  |
| 6.                | THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.  |
| 7.                | PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN APPROVAL OF THE PROGRAM FOR THE RELOCATION AND/OR CONSTRUCTION OF TEMPORARY SERVICES AND FOR ANY ASSOCIATED INTERRUPTION OF SUPPLY.  |
| 8.                | THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.   |

| SEDIMENT AND EROSION |  |
|----------------------|--|
| 1.                   | THE CONTRACTOR SHALL INSTIGATE ALL SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH STATUTORY REQUIREMENTS AND IN PARTICULAR THE "BLUE BOOK" (MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION, PRODUCED BY THE DEPARTMENT OF HOUSING). THESE MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED.   |
| 2.                   | THE SITE SUPERINTENDENT SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS INSTRUCTED IN THE DRAWINGS.   |
| 3.                   | INFORM ALL CONTRACTORS OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.  |
| 4.                   | THE SEDIMENT & EROSION CONTROL PLAN PRESENTS CONCEPTS ONLY, THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT & MANAGEMENT OF A DETAILED SCHEME MEETING COUNCIL'S DESIGN, AND ALL OTHER REGULATORY AUTHORITY REQUIREMENTS. PAY ALL FEES.  |
| 5.                   | WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE SHALL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE: <div>5.1. INSTALL ALL TEMPORARY SEDIMENT FENCES AND BARRIER FENCES. WHERE FENCES ARE ADJACENT TO EACH OTHER THE SEDIMENT FENCE CAN BE INCORPORATED INTO THE BARRIER FENCE.</div> <div>5.2. CONSTRUCT TEMPORARY STABILISED SITE ACCESS, INCLUDING SHAKE DOWN AND WASH PAD.</div> <div>5.3. INSTALL SEDIMENT CONTROL MEASURES AS OUTLINED ON THE APPROVED PLANS.</div> |
| 6.                   | UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF MINIMUM WORKABLE SIZE.   |
| 7.                   | MAINTAIN AND MANAGE ENVIRONMENTAL PROTECTION MEASURES THROUGHOUT CONTRACT.   |
| 8.                   | AT ALL TIMES AND IN PARTICULAR DURING WINDY AND DRY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.  |
| 9.                   | ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) SHALL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.   |
| 10.                  | WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN STABILISED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED OUT.   |
| 11.                  | TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE STABILISED / REHABILITATED.   |
| 12.                  | ALLOW FOR GRASS STABILISATION OF EXPOSED AREAS, OPEN CHANNELS AND ROCK BATTERS.  |
| 13.                  | ALLOW FOR THE ESTABLISHMENT OF OTHER EROSION PROTECTION MEASURES.  |
| 14.                  | EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED TO ENSURE THAT THEY OPERATE EFFECTIVELY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN REGULARLY AND AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.   |
| 15.                  | ACCEPTABLE RECEPTORS SHALL BE USED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.   |
| 16.                  | RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER SHALL BE DISPOSED OF IN ACCORDANCE WITH REGULATORY AUTHORITY REQUIREMENTS. PAY ALL FEES AND PROVIDE EVIDENCE OF SAFE DISPOSAL.  |

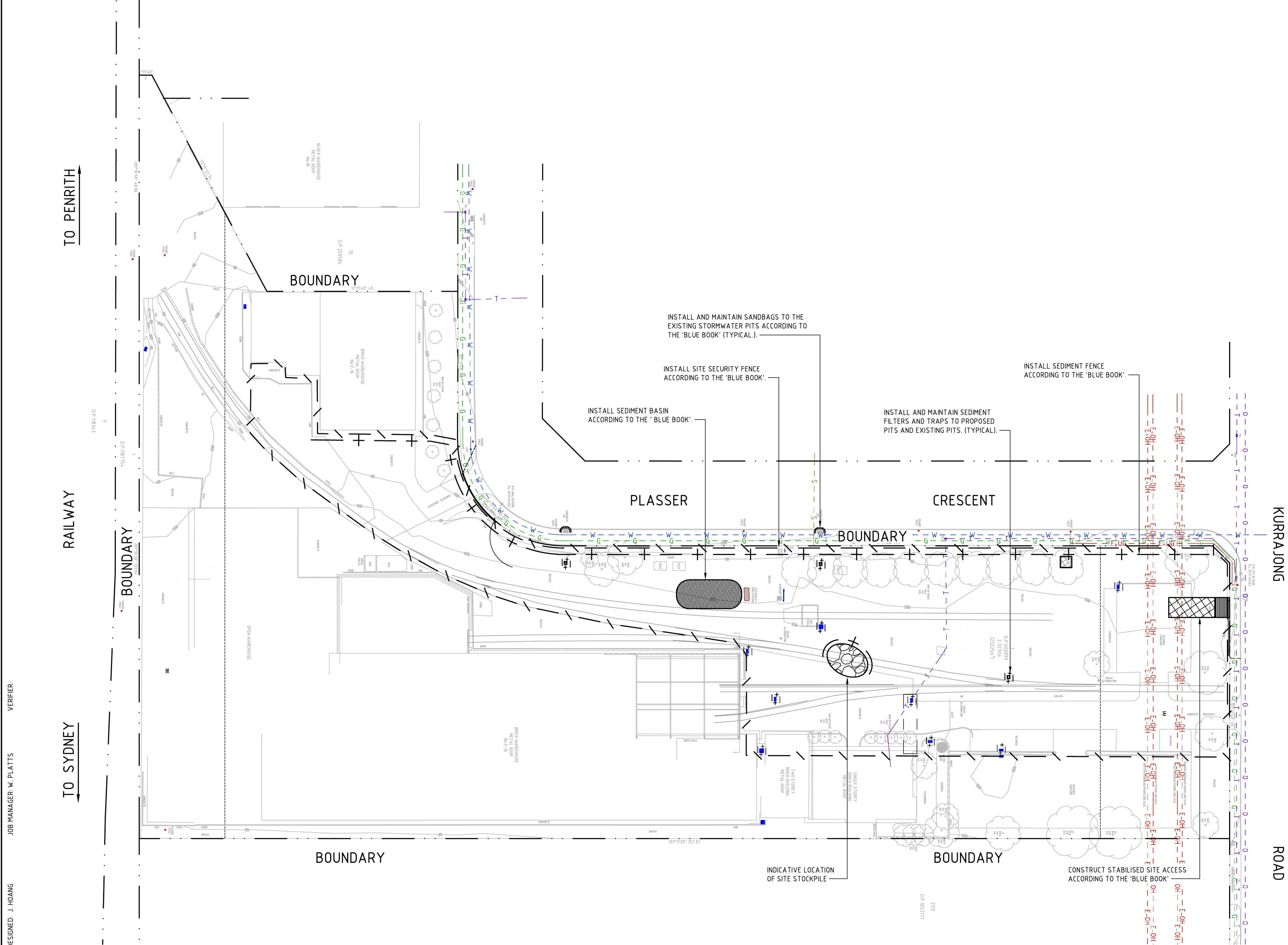
| STORMWATER DRAINAGE |   |
|---------------------|---|
| 1.                  | ALL PIPES LESS THAN OR EQUAL TO Ø225mm ARE TO BE SOLVENT WELD-JOINTED SEWER GRADE uPVC CLASS 5N8, OR (min) CLASS 2 RUBBER-RING JOINTED RCP (UNO).   |
| 2.                  | WHERE uPVC STORMWATER LINES PASS UNDER FLOOR SLABS SEWER GRADE RUBBER RING JOINTS ARE TO BE USED.   |
| 3.                  | PIPES GREATER THAN OR EQUAL TO Ø300mm ARE TO BE (min) CLASS 2 RUBBER-RING JOINTED RCP (UNO).  |
| 4.                  | FRC PIPES EQUIVALENT TO THE STEEL REINFORCED CONCRETE PIPE CLASS SPECIFIED ON THE DRAWINGS MAY BE USED - OBTAIN SUPERINTENDENTS APPROVAL.   |
| 5.                  | ALL PIPES ARE TO BE LAID AT (min) 1.0% GRADE (UNO)  |
| 6.                  | THE USE OF PRE-CAST STORMWATER DRAINAGE PITS IS NOT ACCEPTED WITHOUT CONFIRMATION BETWEEN NORTHPROP ENGINEERS AND THE CONTRACTOR REGARDING QUALITY CONTROL, AND CERTIFICATION OF FINISHES.  |
| 7.                  | COVERS <div>7.1. USE HOT DIPPED GALVANISED COVERS AND GRATES COMPLYING WITH RELEVANT AUSTRALIAN AND COUNCIL STANDARDS.</div> <div>7.2. ALL COVERS AND GRATES TO BE POSITIONED IN A FRAME AND MANUFACTURE AS A UNIT</div> <div>7.3. ALL COVERS AND GRATES TO BE FITTED WITH POSITIVE COVER LIFTING KEYS.</div> <div>7.4. OBTAIN SUPERINTENDENT'S APPROVAL FOR THE USE OF CAST IRON SOLID COVERS AND GRATES. CAST IRON SOLID COVERS (IF APPROVED) TO CONSIST OF CROSS-WEBBED, CELLULAR CONSTRUCTION WITH THE RIBS UPPERMOST TO ALLOW INFILLING WITH CONCRETE. INSTALL POSITIVE COVER LIFTING KEYS AND PLASTIC PLUGS.</div> <div>7.5. UNLESS DETAILED OR SPECIFIED OTHERWISE COVERS AND GRATES TO BE CLASS "D" IN VEHICULAR PAVEMENTS AND CLASS "B" ELSEWHERE.</div> <div>7.6. ALL GRATED TRENCH DRAINS SHOULD BE 'CLASS D' CAST IRON (UNO).</div> |
| 8.                  | ALL PIPE BENDS, JUNCTIONS, ETC. ARE TO BE PROVIDED USING PURPOSE MADE FITTINGS OR STORMWATER PITS.  |
| 9.                  | ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT PIPE PENETRATIONS SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.  |
| 10.                 | THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTERS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.  |
| 11.                 | U.N.O. MATERIAL USED FOR BEDDING OF PIPES SHALL BE APPROVED NON-COHESIVE GRANULAR MATERIAL HAVING HIGH PERMEABILITY AND HIGH STABILITY WHEN SATURATED AND FREE OF ORGANIC AND CLAY MATERIAL.  |
| 12.                 | WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50mm CONCRETE BED (OR 75mm THICK BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR ON THE ROCK.   |
| 13.                 | BEDDING SHALL BE (UNO) TYPE HS2 UNDER ROADS, H2 GENERAL AREAS, IN ACCORDANCE WITH CURRENT RELEVANT INDUSTRY STANDARDS AND GUIDELINES.   |
| 14.                 | THE WEATHER PROOFING OF THE BUILDING IS THE ARCHITECT'S /BUILDER'S RESPONSIBILITY. THIS INCLUDES THE SPECIFICATION AND FIXING DETAILS OF CLADDINGS, SHEETING, FLASHING AND MEMBRANES.   |
| 15.                 | THE CONTRACTOR SHALL ENSURE AND PROTECT THE INTEGRITY OF ALL STORMWATER PIPES DURING CONSTRUCTION. ANY AND ALL DAMAGE TO THESE PIPES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE SUPERINTENDENT, AND AT NO EXTRA COST.  |
| 16.                 | NOTE THAT THE PIT COVER LEVEL NOMINATED IN GUTTERS ARE TO THE INVERT OF THE GUTTER WHICH ARE 40mm LOWER THAN THE PAVEMENT LEVEL AT LIP OF GUTTER.   |
| 17.                 | Ø100mm SUB-SOIL DRAINAGE LINES WITH NON-WOVEN GEOTEXTILE SOCK SURROUND SHALL BE CONNECTED TO A STORMWATER DRAINAGE PIT (AT min. 1% LONGITUDINAL GRADE) AND PROVIDED IN THE FOLLOWING LOCATIONS: <div>17.1. THE HIGH SIDE OF PROPOSED TRAFFICKED AND CARPARK PAVEMENT AREAS.</div> <div>17.2. ALL PLANTER AND TREE BEDS PROPOSED ADJACENT TO PAVEMENT AREAS.</div> <div>17.3. BEHIND RETAINING WALLS (IN ACCORDANCE WITH DRAWINGS).</div> <div>17.4. ALL OTHER AREAS SHOWN ON THE DRAWINGS.</div>  |
| 18.                 | THE CONTRACTOR SHALL INSTALL INSPECTION OPENINGS TO ALL SUBSOIL DRAINAGE LINES AND DOWNPIPE LINES AS SPECIFIED ON DRAWINGS, AT MAXIMUM 60m CENTRES AND AT ALL UPSTREAM ENDPOINTS.   |
| 19.                 | WHERE SUBSOIL DRAINAGE LINES PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS SEALED uPVC SEWER GRADE PIPE SHALL BE USED.   |
| 20.                 | PROVIDE 3.0m LENGTH OF Ø100 SUBSOIL DRAINAGE PIPE WRAPPED IN A NON-WOVEN GEOTEXTILE FABRIC, TO THE UPSTREAM SIDE OF STORMWATER PITS, LAID IN STORMWATER PIPE TRENCHES AND CONNECTED TO THE DRAINAGE PIT.  |
| 21.                 | ALL RECTANGULAR HOLLOW SECTIONS (RHS) SPECIFIED AS STORMWATER CONDUITS TO BE HOT DIPPED GALVANISED AND HAVE (MINIMUM) 5mm WALL THICKNESS.   |

| RAINWATER RE-USE |   |
|------------------|---|
| 1.               | PROVIDE RAINWATER RE-USE SYSTEM TO SUPPLY WATER FOR IRRIGATION.   |
| 2.               | GUTTER GUARD TO BE INSTALLED ON ALL EAVES GUTTERS.  |
| 3.               | PRESSURE PUMP / TAP TO BE PROVIDED FOR THE RE-USE OF CAPTURED TANK WATER.   |
| 4.               | A PERMANENT SIGN IS TO BE LOCATED IN THE VICINITY OF THE TANK STATING THE WATER IS "NON POTABLE WATER" WITH APPROPRIATE HAZARD IDENTIFICATION.                                    |
| 5.               | ALL RAINWATER SERVICES SHALL BE CLEARLY LABELLED "NON-POTABLE WATER" WITH APPROPRIATE HAZARD IDENTIFICATION.  |
| 6.               | PIPEWORK USED FOR RAINWATER SERVICES SHALL BE COLOURED LILAC IN ACCORDANCE WITH AS1345.   |
| 7.               | ALL VALVES AND APERTURES SHALL BE CLEARLY AND PERMANENTLY LABELLED WITH SAFETY SIGNS TO COMPLY WITH AS1319.   |
| 8.               | AN AIR GAP OR RPZD TO BE INSTALLED TO ENSURE BACKFLOW PREVENTION (IF MAINS 'TOP UP' / BYPASS UTILISED).   |
| 9.               | RAINWATER TANK RETICULATION SYSTEM AND MAINS WATER BYPASS ARRANGEMENT TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.12-2003 AND THE NSW CODE OF PRACTICE: PLUMBING AND DRAINAGE. |
| 10.              | A FIRST FLUSH FILTRATION DEVICE IS TO BYPASS THE FIRST 1mm OF RAINWATER.  |

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|----------|------------------------------------|--------|-------|-------|----------|--|---|---|---|---|--|----------------------|----------------|
| 1        | 80% DESIGN ISSUE                   | RG     |       | JH    | 25.07.14 | <br><b>Plasser Australia</b> |  |   |   |   |  |                      | DRAWING NUMBER |
| 2        | 90% DESIGN ISSUE                   | UM     |       | JH    | 01.08.14 |  |   |   |   |   |  |                      | REVISION       |
| 3        | ISSUED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 11.08.14 |  |   |   |   |   |  |                      | DA1.02         |
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LEGEND

SITE BOUNDARY

SITE SECURITY FENCE

SEDIMENT FENCE

SANDBAG SEDIMENT FILTER

DROP INLET SEDIMENT TRAP

STABILISED SITE ACCESS

STOCKPILE

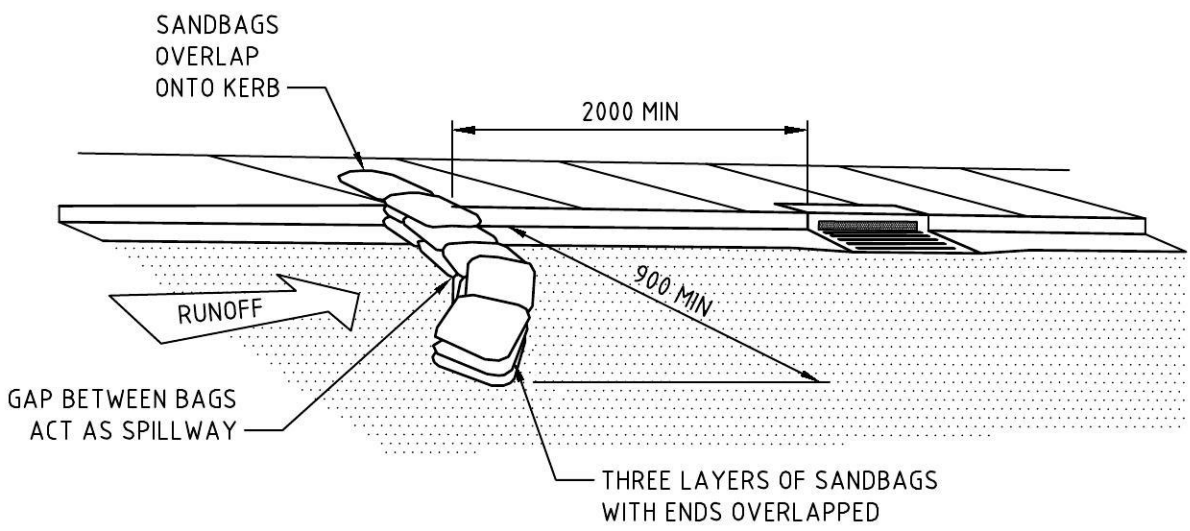
SEDIMENT BASIN

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| REVISION | DESCRIPTION                        | ISSUED | VER'D | APP'D | DATE     | CLIENT   | ARCHITECT  | PROJECT  | DRAWING TITLE                             | JOB NUMBER              |
|----------|------------------------------------|--------|-------|-------|----------|--|--|--|---|-------------------------|
| 1        | 80% DESIGN ISSUE                   | RG     |       | JH    | 25.07.14 | <div>Plasser Australia</div>   | <div>GROUPGSA</div>  | Plasser Australia - Proposed Warehouse Extension | CIVIL DESIGN                              | 140074                  |
| 2        | 90% DESIGN ISSUE                   | UM     |       | JH    | 01.08.14 |  |  |  |   |                         |
| 3        | ISSUED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 11.08.14 |  |  |  |   |                         |
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|          |                                    |        |       |       |          |  |  |  |   | REVISION                |
|          |                                    |        |       |       |          |  |  |  |   | DA2.01                  |
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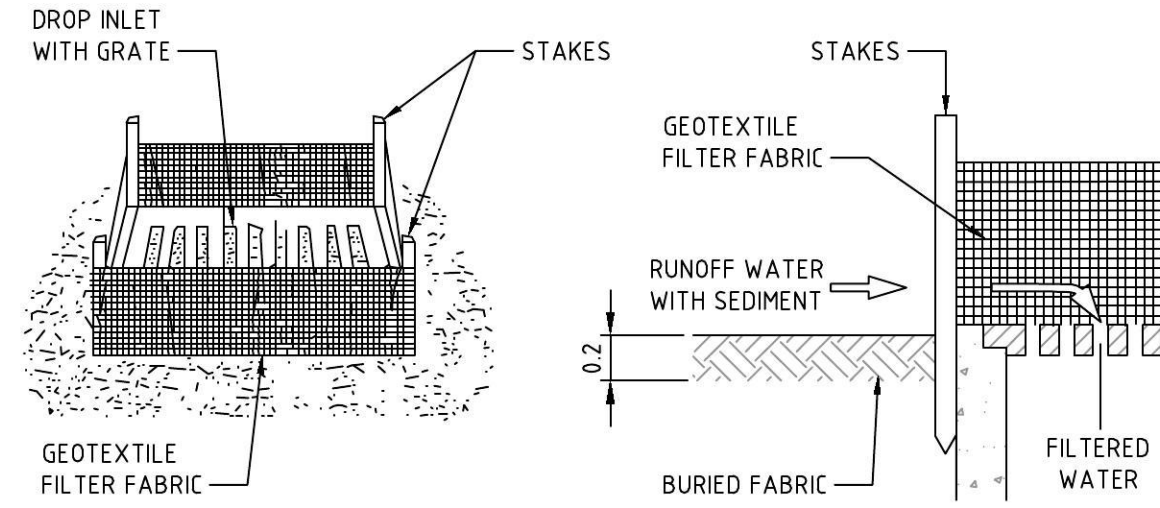


VERIFIER  
JOB MANAGER: W. PLATTS  
DESIGNED: J. HOANG  
DRAWN: J. DAWES



SEDIMENT TRAP FOR KERB INLET  
(ON GRADE - SANDBAG)

NOT TO SCALE

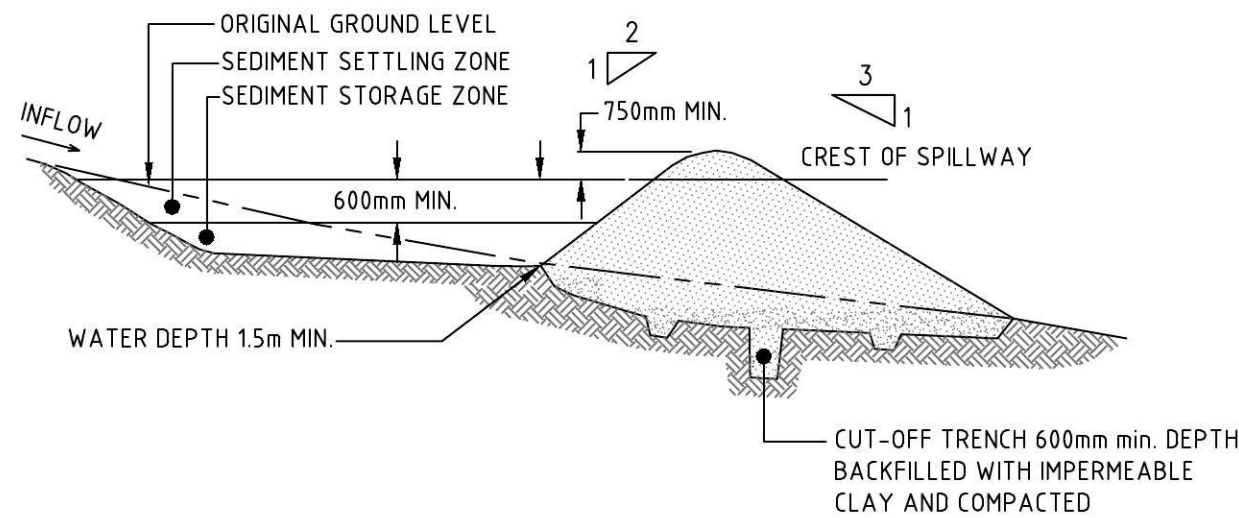


GEOTEXTILE INLET FILTER  
DROP INLET SEDIMENT TRAP

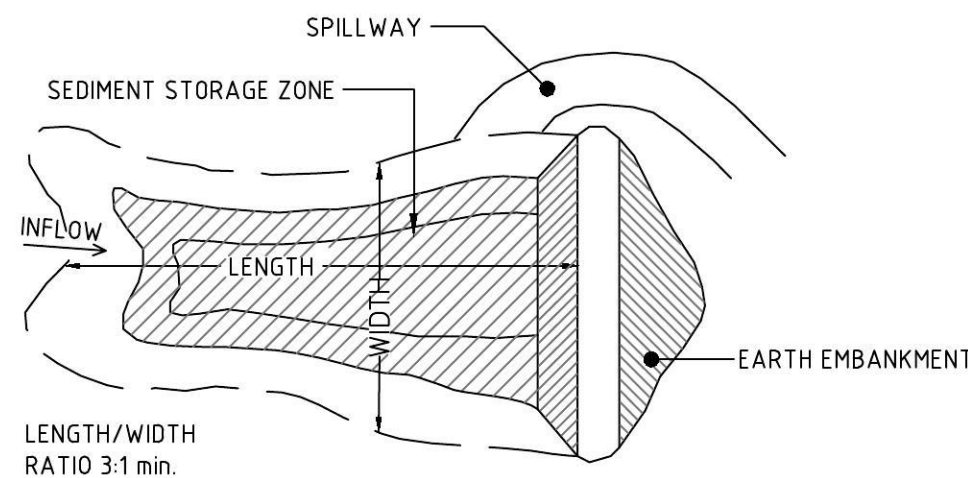
NOT TO SCALE

NOTES:

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. CUT A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 10m LONG STAR PICKETS INTO GROUND AT THE FOUR CORNERS OF PIT WALLS. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



CROSS-SECTION



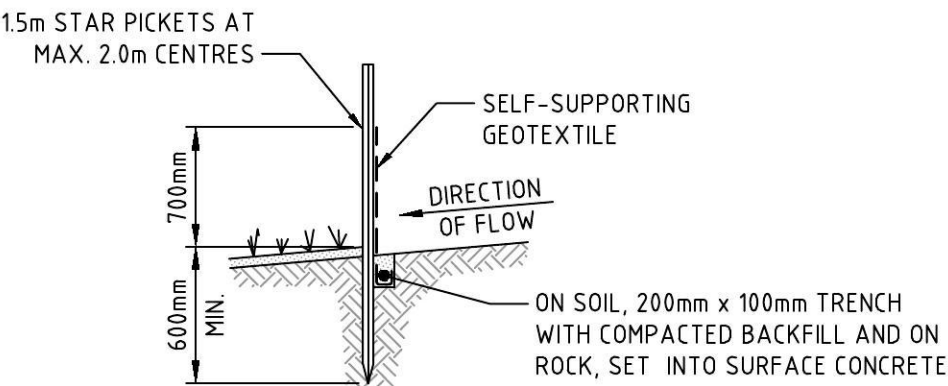
PLAN

SEDIMENT BASIN - WET

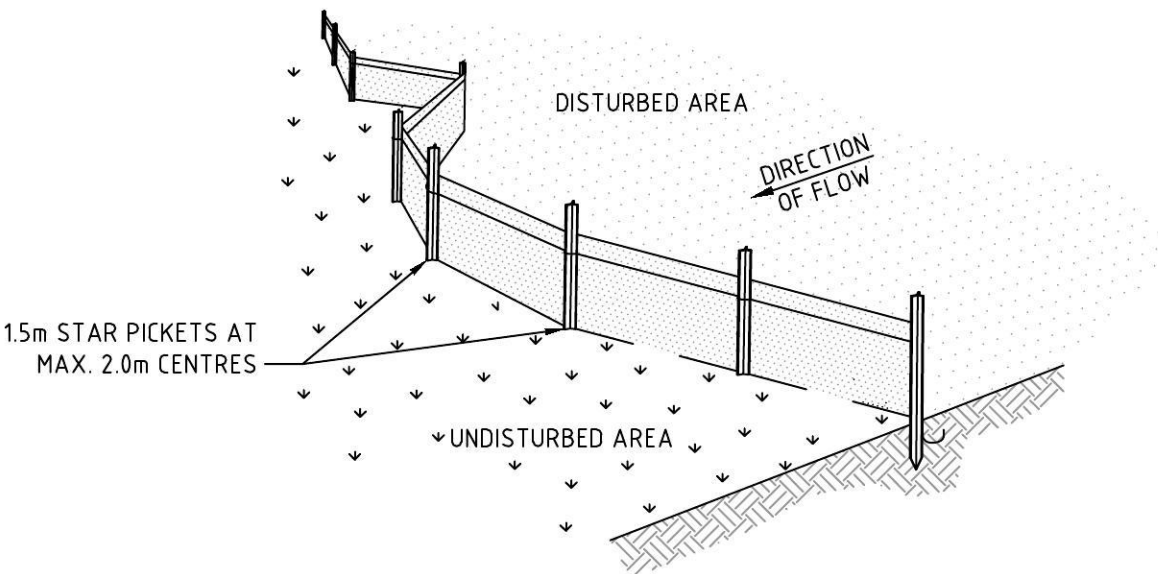
(APPLIES TO 'TYPE D' AND 'TYPE F' SOILS ONLY)  
NOT TO SCALE

CONSTRUCTION NOTES

1. REMOVE ALL VEGETATION AND TOPSOIL FROM UNDER THE DAM WALL AND FROM WITHIN THE STORAGE AREA.
2. CONSTRUCT A CUT-OFF TRENCH 500mm DEEP AND 1,200mm WIDE ALONG THE CENTRELIN OF THE EMBANKMENT EXTENDING TO A POINT ON THE GULLY WALL LEVEL WITH THE RISER CREST.
3. MAINTAIN THE TRENCH FREE OF WATER AND RECOMPACT THE MATERIALS WITH EQUIPMENT AS SPECIFIED IN THE SWMP TO 95% STANDARD PROCTOR DENSITY.
4. SELECT FILL FOLLOWING THE SWMP THAT IS FREE OF ROOTS, WOOD, ROCK, LARGE STONE OR FOREIGN MATERIAL.
5. PREPARE THE SITE UNDER THE EMBANKMENT BY RIPPING TO AT LEAST 100mm TO HELP BOND COMPACTED FILL TO THE EXISTING SUBSTRATE.
6. SPREAD THE FILL IN 100mm TO 150mm LAYERS AND COMPACT IT AT OPTIMUM MOISTURE CONTENT FOLLOWING THE SWMP.
7. CONSTRUCT THE EMERGENCY SPILLWAY.
8. REHABILITATE THE STRUCTURE FOLLOWING THE SWMP.



SECTION DETAIL



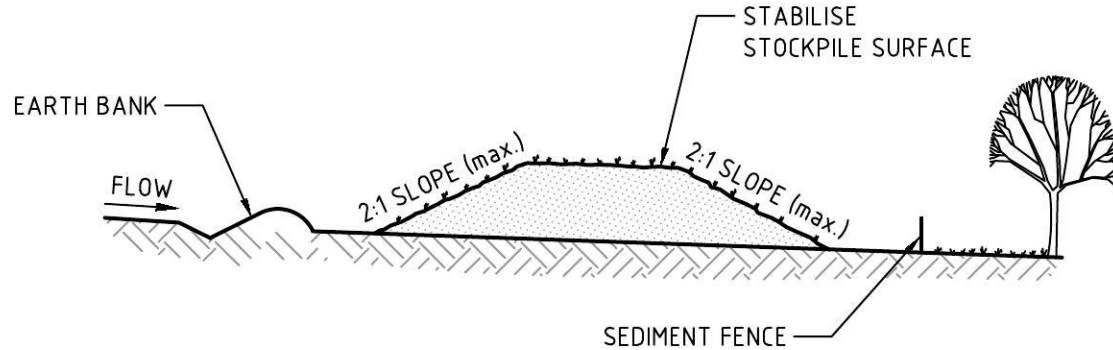
PLAN

SEDIMENT FENCE

NOT TO SCALE

NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50L/s IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 15m LONG STAR PICKETS INTO GROUND AT 2.0m INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

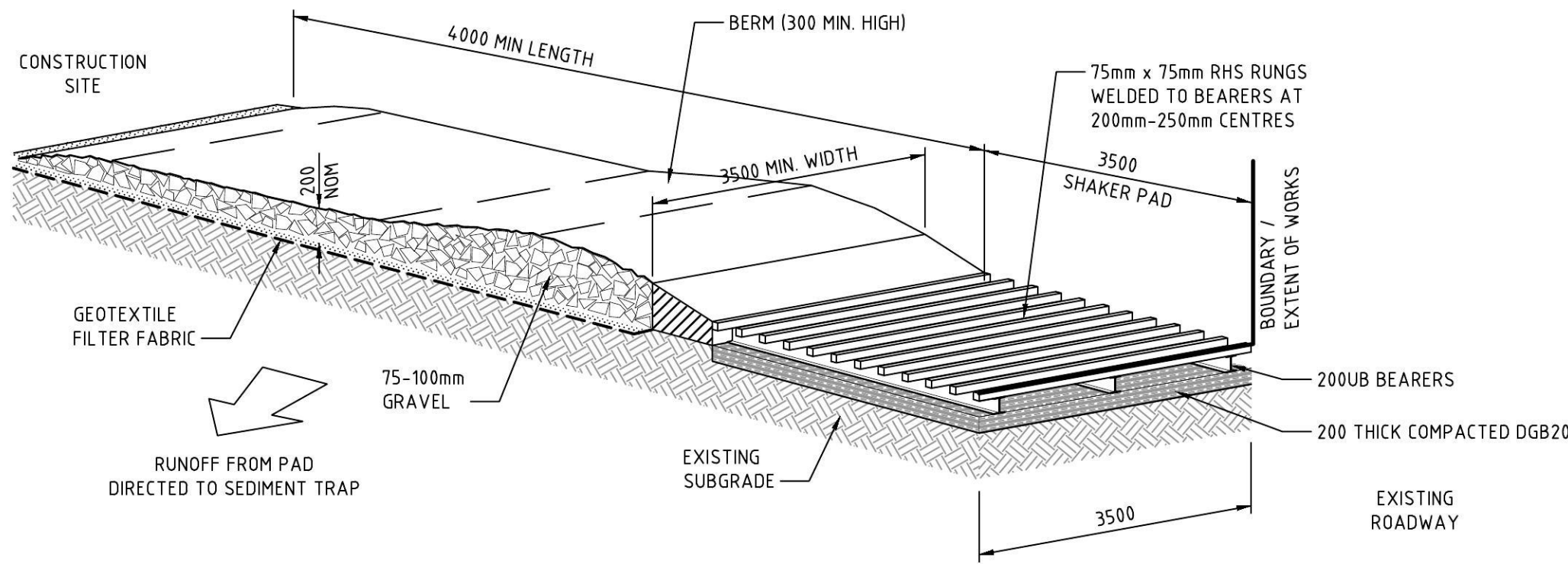


STOCKPILE

NOT TO SCALE

NOTES:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.





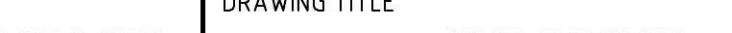
STABILISED SITE ACCESS

NOT TO SCALE

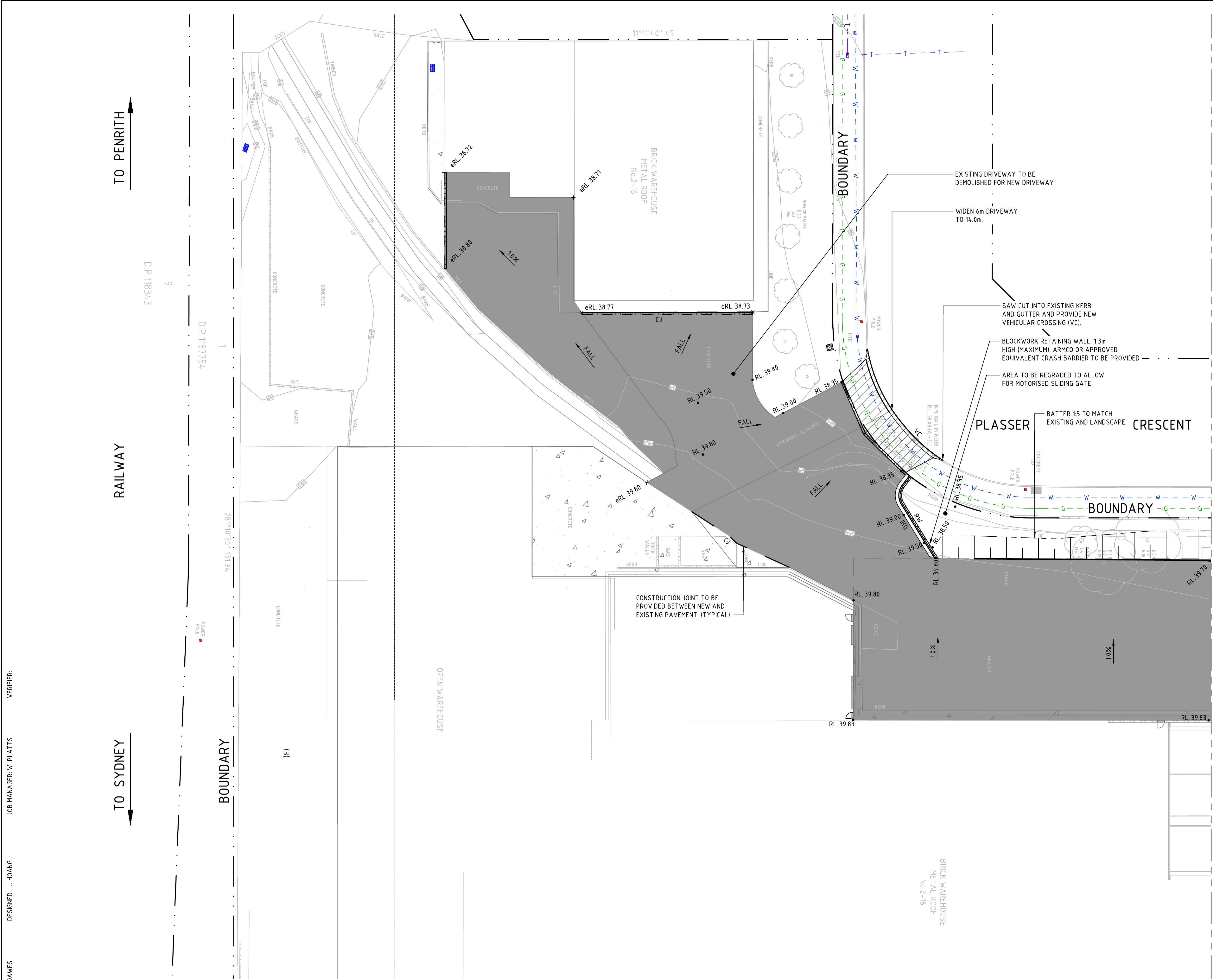
MAINTENANCE

- THE TEMPORARY ACCESS SHALL BE MAINTAINED IN A CONDITION THAT PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY.
- THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL GRAVEL AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
- INSTALL BARRIER ON EITHER SIDE OF SHAKER PAD TO ENSURE VEHICLES ARE GUIDED ON TO THE PAD.
- INVERT OF SHAKER PAD TO BE DRAINED VIA AGRICULTURAL PIPE WRAPPED IN GEOTEXTILE FABRIC.

NOT FOR CONSTRUCTION

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|--|------------------------------------|--------|-------|-------|----------|---|---|--|--|--|--|----------------|----------|
| 1  | 80% DESIGN ISSUE                   | RG     |       | JH    | 25.07.14 |  |  | NOT TO SCALE   | <br>Sydney<br>The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000<br>Ph (02) 9241 4188 Fax (02) 9241 4324<br>P.O. Box H171 Australia Square, NSW 1215<br>Email sydney@northrop.com.au ABN 81 094 433 100 | PLASSER AUSTRALIA - PROPOSED WAREHOUSE EXTENSION | CIVIL DESIGN<br><br>SEDIMENT AND EROSION CONTROL DETAILS | 140074         |          |
| 2  | 90% DESIGN ISSUE                   | UM     |       | JH    | 01.08.14 |   |   |  |  |  |  | DRAWING NUMBER | REVISION |
| 3  | ISSUED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 11.08.14 |   |   |  |  |  |  | DA2.02         | 3        |
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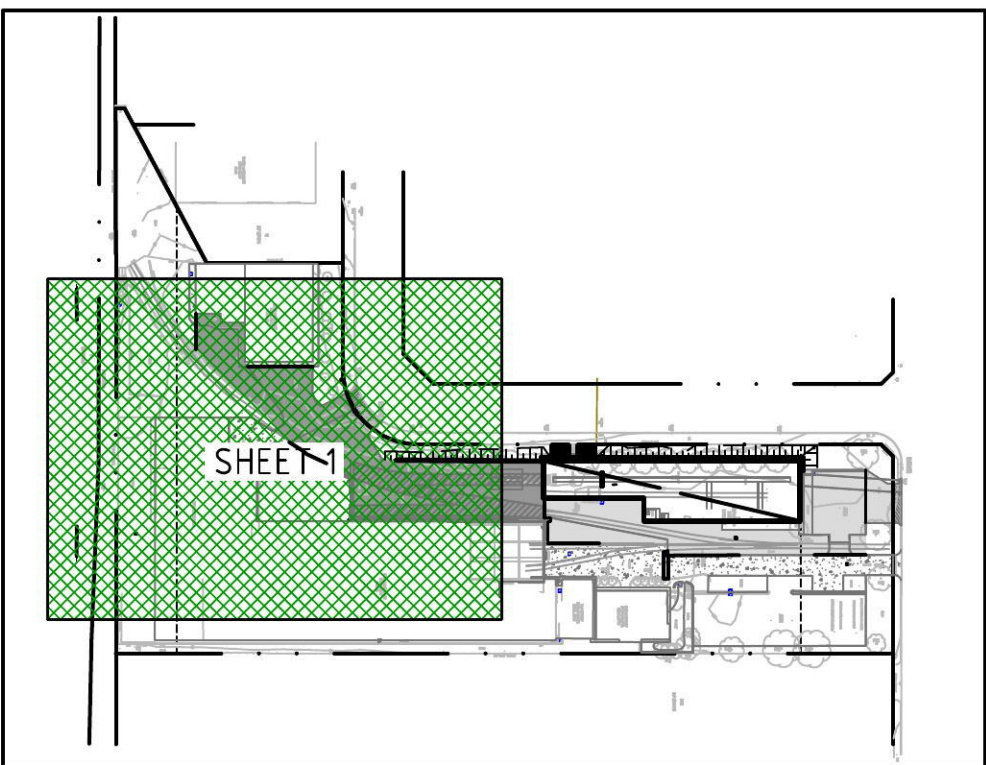
**LEGEND**

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| IKG                                 | INTEGRAL KERB AND GUTTER            |
| VC                                  | VEHICULAR CROSSING                  |
| RW                                  | RETAINING WALL                      |
| • RL 10.00                          | PROPOSED SPOT HEIGHT                |
| + eRL 10.00                         | EXISTING SPOT HEIGHT                |
| + eTK 10.00                         | EXISTING TOP OF KERB HEIGHT         |
| <b>FFL 39.80</b>                    | PROPOSED FINISHED FLOOR LEVEL       |
| 1.0%                                | DIRECTION OF GRADE                  |
| BATTERS                             | BATTERS                             |
| CJ                                  | CONTRACTION JOINT                   |
| SJ                                  | SAWN JOINT                          |
| HEAVY DUTY CONCRETE PAVEMENT TYPE 1 | HEAVY DUTY CONCRETE PAVEMENT TYPE 1 |
| EXISTING PAVEMENT                   | EXISTING PAVEMENT                   |
| DRIVEWAY CROSSING PAVEMENT          | DRIVEWAY CROSSING PAVEMENT          |
| HEAVY DUTY CONCRETE PAVEMENT TYPE 2 | HEAVY DUTY CONCRETE PAVEMENT TYPE 2 |

**NOTE**

REFER LANDSCAPE ARCHITECT'S DRAWINGS FOR LANDSCAPING PAVEMENT.

|             |                                 |
|-------------|---------------------------------|
| 0 - 0       | EXISTING OPTUS                  |
| T - T       | EXISTING TELSTRA                |
| G - G       | EXISTING GAS                    |
| W - W       | EXISTING WATER                  |
| S - S       | EXISTING SEWER                  |
| E-OH - E-OH | EXISTING ELECTRICITY (OVERHEAD) |



**KEY PLAN**  
SCALE 1:2500

**NOT FOR CONSTRUCTION**

| REVISION | DESCRIPTION                         | ISSUED | VER'D | APP'D | DATE     |
|----------|-------------------------------------|--------|-------|-------|----------|
| 1        | 80% DESIGN ISSUE                    | RG     |       | JH    | 25.07.14 |
| 2        | 90% DESIGN ISSUE                    | UM     |       | JH    | 01.08.14 |
| 3        | ISSUED FOR DEVELOPMENT APPLICATION  | SK     |       | JH    | 11.08.14 |
| 4        | AMENDED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 13.08.14 |
| 5        | AMENDED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 21.08.14 |

CLIENT

**Plasser Australia**

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ARCHITECT

**GROUP GSA**

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THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE

0 2 4 6 8 10 12m SCALE 1:250

**NORTHROP**

Sydney

Level 11, 345 George Street, Sydney NSW 2000  
Ph (02) 9241 4188 Fax (02) 9241 4324  
Email sydney@northrop.com.au ABN 81 094 433 100

PROJECT

**PLASSER AUSTRALIA - PROPOSED WAREHOUSE EXTENSION**

**ST MARYS, NSW**

DRAWING TITLE

**CIVIL DESIGN**

**CIVIL SITEWORKS AND GRADING PLAN - SHEET 1**

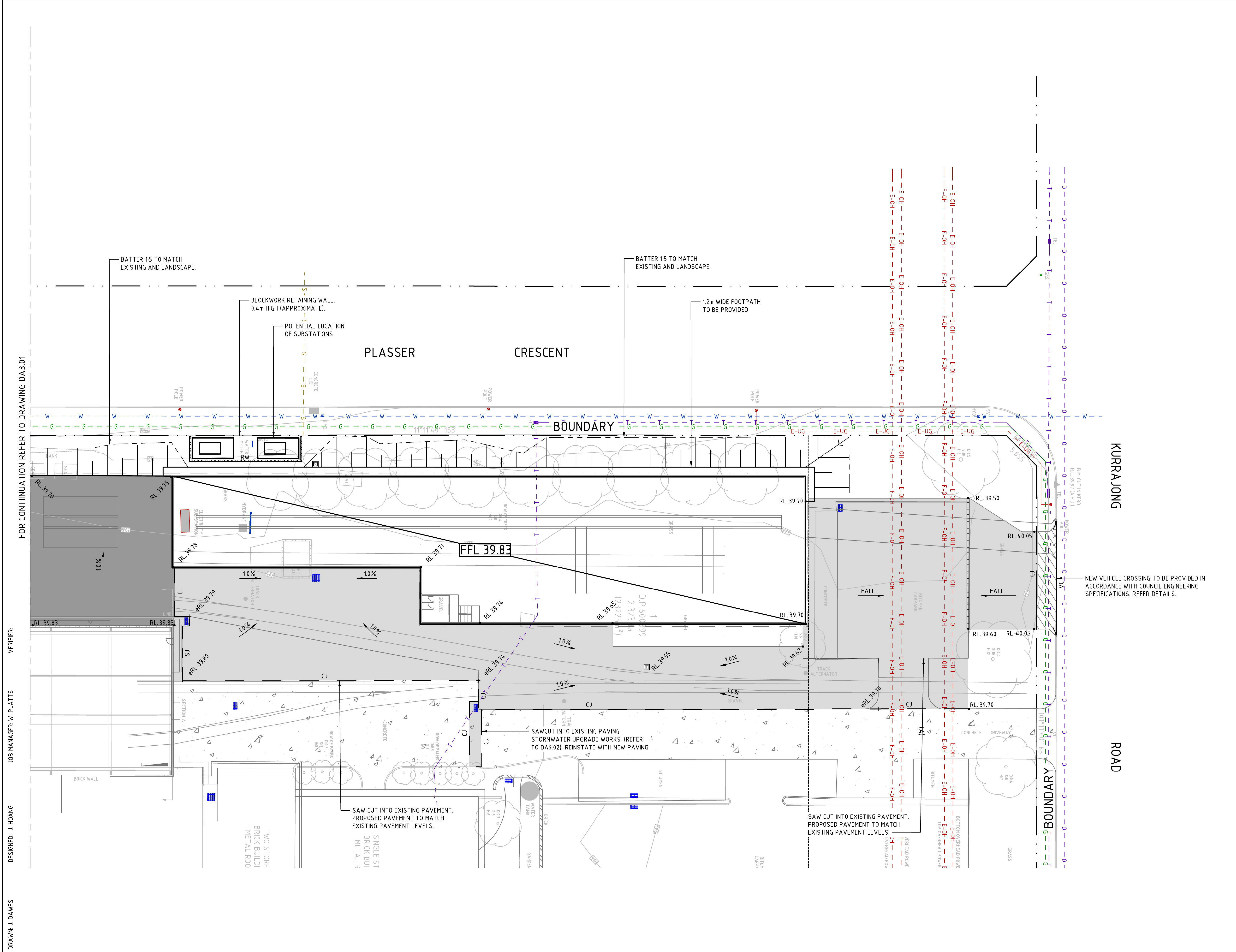
JOB NUMBER

**140074**

|                |          |
|----------------|----------|
| DRAWING NUMBER | REVISION |
| <b>DA3.01</b>  | <b>5</b> |

DRAWING SHEET SIZE = A1





**LEGEND**

IKG

VC

RW

•

RL 10.00

+ eRL 10.00

+ eTK 10.00

FFL 39.80

1.0%

CJ

SJ

INTEGRAL KERB AND GUTTER

VEHICULAR CROSSING

RETAINING WALL

PROPOSED SPOT HEIGHT

EXISTING SPOT HEIGHT

EXISTING TOP OF KERB HEIGHT

PROPOSED FINISHED FLOOR LEVEL

DIRECTION OF GRADE

BATTERS

CONTRACTION JOINT

SAWN JOINT

HEAVY DUTY CONCRETE PAVEMENT TYPE 1

EXISTING PAVEMENT

DRIVEWAY CROSSING PAVEMENT

HEAVY DUTY CONCRETE PAVEMENT TYPE 2

**NOTE**  
REFER LANDSCAPE ARCHITECT'S DRAWINGS FOR LANDSCAPING PAVEMENT.

**EXISTING SERVICES**

0-0-0

EXISTING OPTUS

T-T-T

EXISTING TELSTRA

G-G-G

EXISTING GAS

W-W-W

EXISTING WATER

S-S-S

EXISTING SEWER

E-OH-E-OH

EXISTING ELECTRICITY (OVERHEAD)

**NOT FOR CONSTRUCTION**

PROJECT

PLASSER AUSTRALIA - PROPOSED WAREHOUSE EXTENSION

ST MARYS, NSW

DRAWING TITLE

CIVIL DESIGN

CIVIL SITEWORKS AND GRADING PLAN - SHEET 2

JOB NUMBER

140074

DRAWING NUMBER

DA3.02

REVISION

5

DRAWING SHEET SIZE = A1

| REVISION   | DESCRIPTION                         | ISSUED | VER'D | APP'D | DATE     | CLIENT   | ARCHITECT | ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE. | PROJECT  | DRAWING TITLE  | JOB NUMBER |
|--|-------------------------------------|--------|-------|-------|----------|--|-----------|---|--|--|------------|
| 1  | 80% DESIGN ISSUE                    | RG     |       | JH    | 25.07.14 | Plasser Australia  | GROUP GSA | 0 2 4 6 8 10 12m<br>SCALE 1:250   | PROJECT<br>PLASSER AUSTRALIA - PROPOSED WAREHOUSE EXTENSION<br>ST MARYS, NSW | CIVIL DESIGN<br>CIVIL SITEWORKS AND GRADING PLAN - SHEET 2 | 140074     |
| 2  | 90% DESIGN ISSUE                    | UM     |       | JH    | 01.08.14 |  |           |   |  |  |            |
| 3  | ISSUED FOR DEVELOPMENT APPLICATION  | SK     |       | JH    | 11.08.14 |  |           |   |  |  |            |
| 4  | AMENDED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 13.08.14 |  |           |   |  |  |            |
| 5  | AMENDED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 21.08.14 |  |           |   |  |  |            |
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Document Set ID: 6126736  
Version: 1, Version Date: 02/09/2014



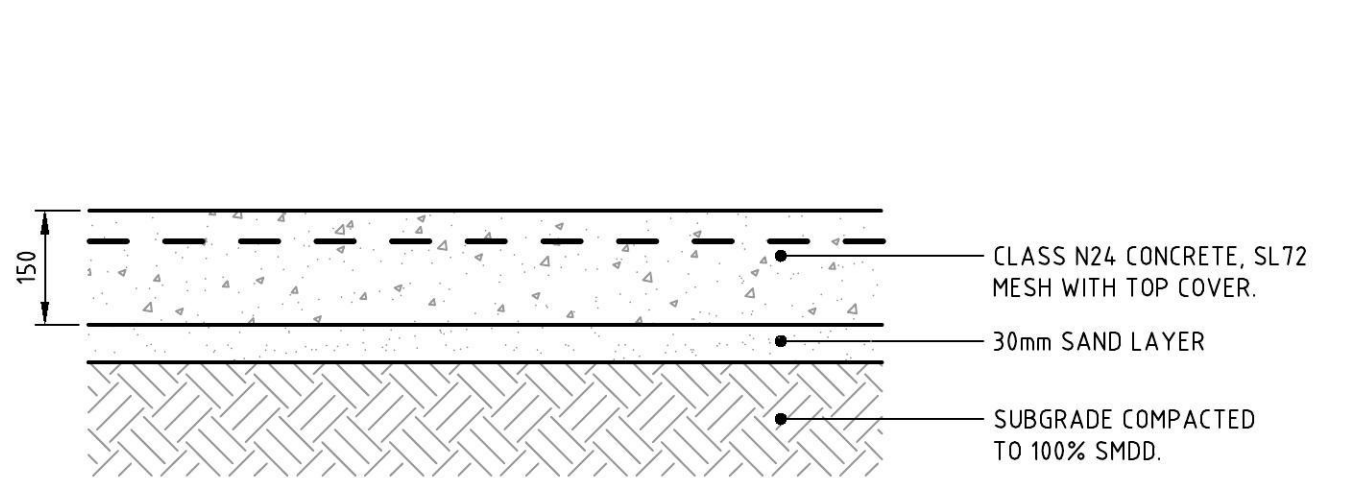




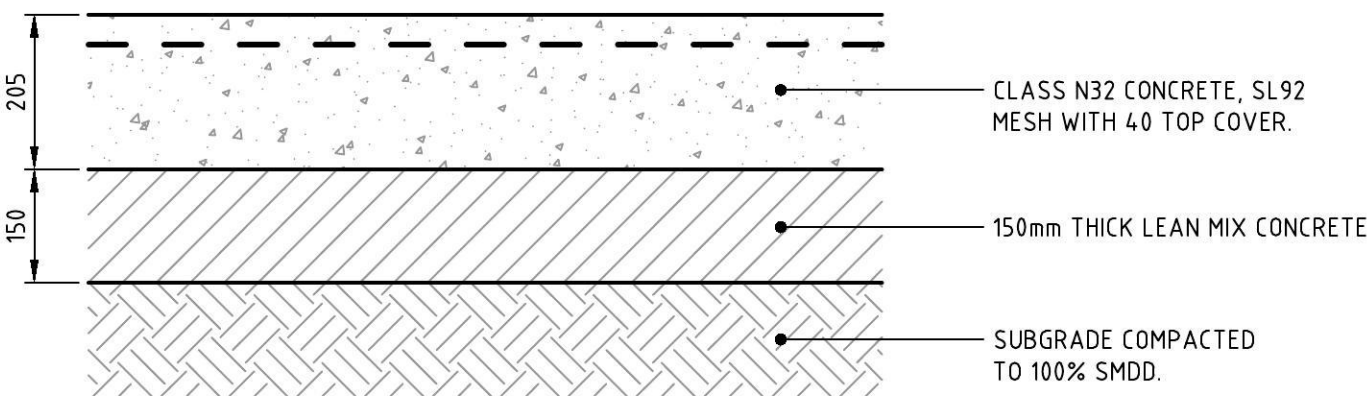




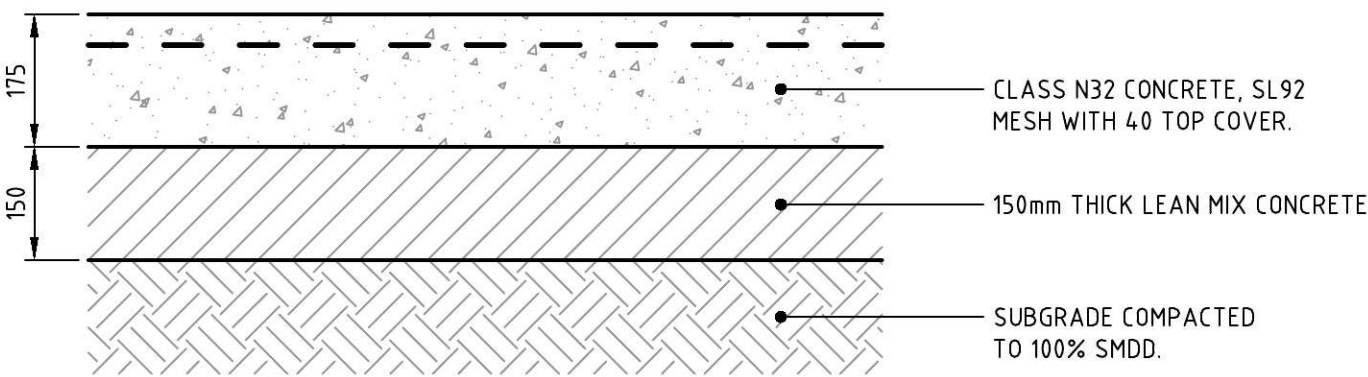
VERIFIER  
JOB MANAGER: W. PLATTS  
DESIGNED: J. HOANG  
DRAWN: J. DAWES



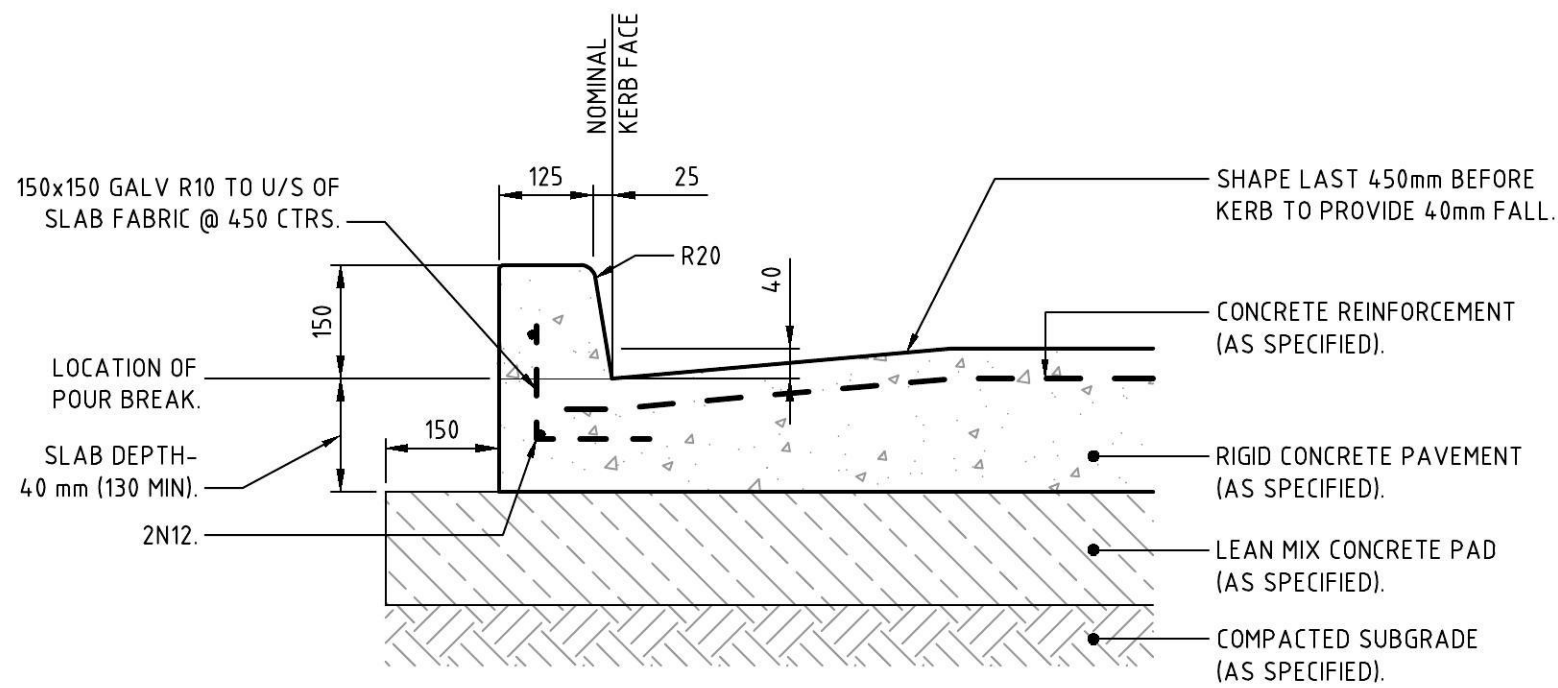
DRIVEWAY CROSSING PAVEMENT



HEAVY DUTY  
RIGID PAVEMENT (TYPE 1)  
- MIN CBR 10% (CONFIRM CBR)

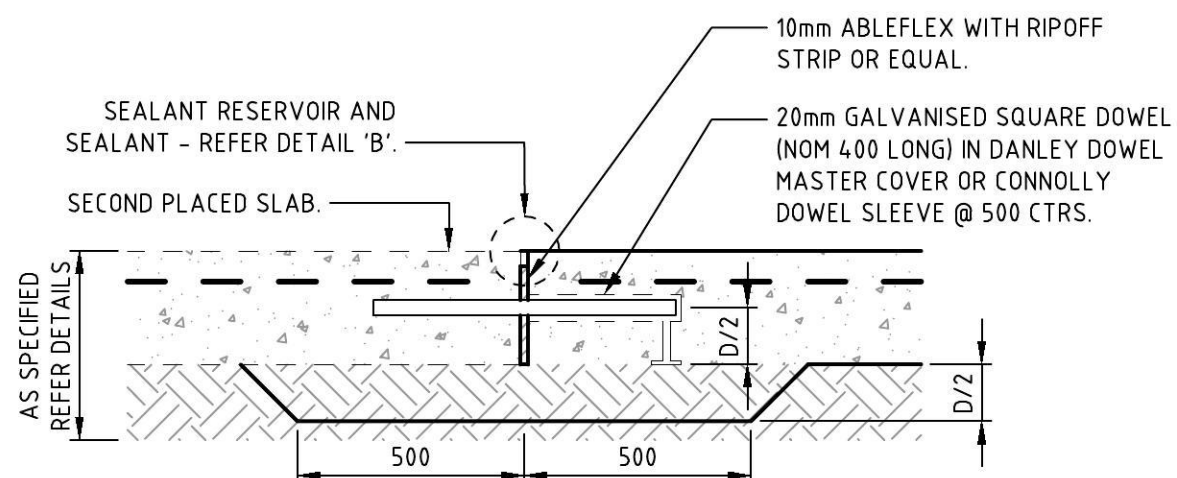


HEAVY DUTY  
RIGID PAVEMENT (TYPE 2)  
- MIN CBR 10% (CONFIRM CBR)



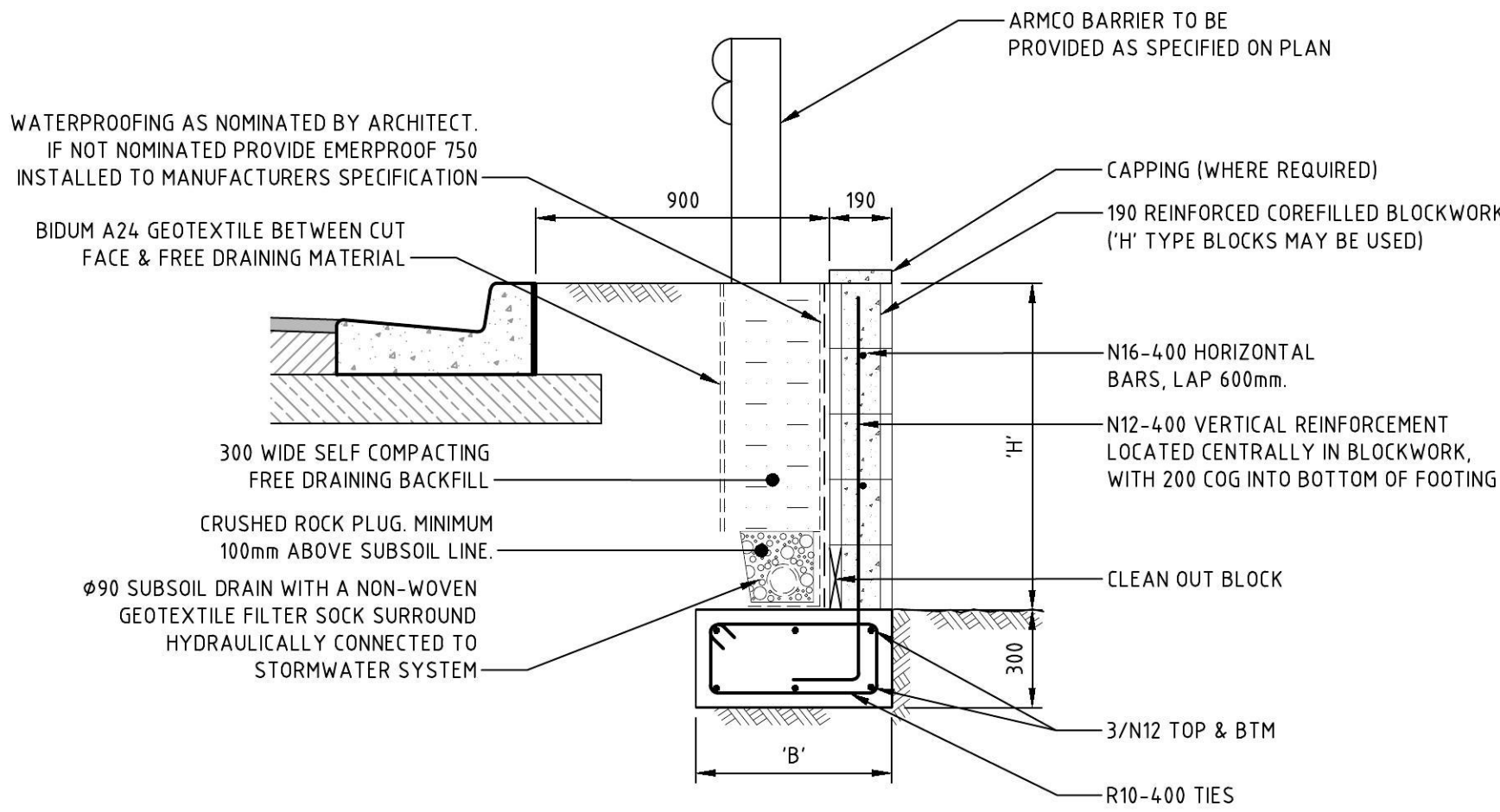
INTEGRAL KERB & GUTTER (IKG)

ALIGN KERB JOINTS WITH PAVEMENT JOINTS.  
ALL RADII TO BE 5mm UNLESS NOTED OTHERWISE.



TRAFFICKED EXPANSION / CONSTRUCTION JOINT (CJ2)

SHOULD BE USED AS A 'STOP WORK' JOINT.



HEIGHT to 1200

RETAINING WALL NOTES:

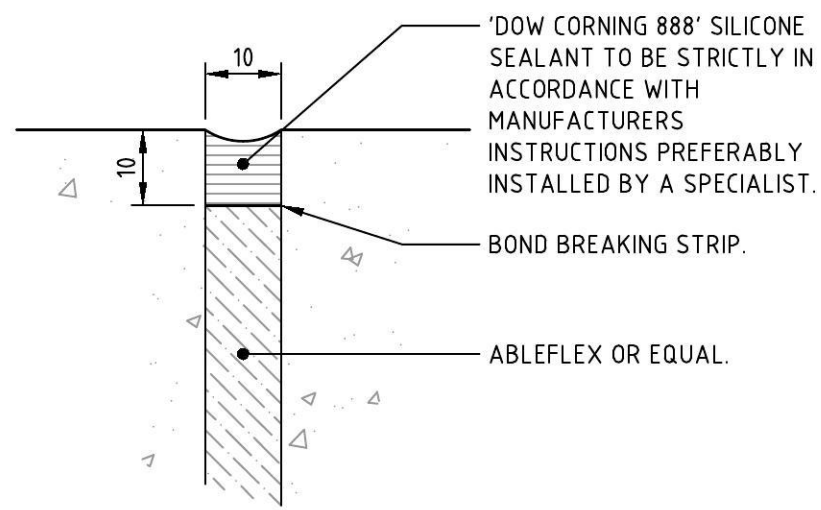
- BUILDER IS TO MAINTAIN STABILITY OF WALL DURING BACKFILLING PROCEDURE.
- PROVIDE CLEANOUT BLOCKS IN BOTTOM COURSE.
- LOADINGS FOR HANDRAILS, BALUSTRADES & FENCES HAVE **NOT** BEEN INCLUDED IN DESIGN OF WALL. REFER TO ENGINEER IF THESE ARE REQUIRED.
- BUILDER IS TO ENSURE THAT THE STABILITY OF THE TEMPORARY EXCAVATION IS MAINTAINED DURING THE CONSTRUCTION OF THE WALL & THAT NO ADJACENT FOOTINGS / STRUCTURES ARE WITHIN THE ZONE OF INFLUENCE OF THE EXCAVATION, CONTACT NORTHROP ENGINEERS OR A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER IF THERE ARE ANY CONCERNS.

RETAINING WALL SCHEDULE

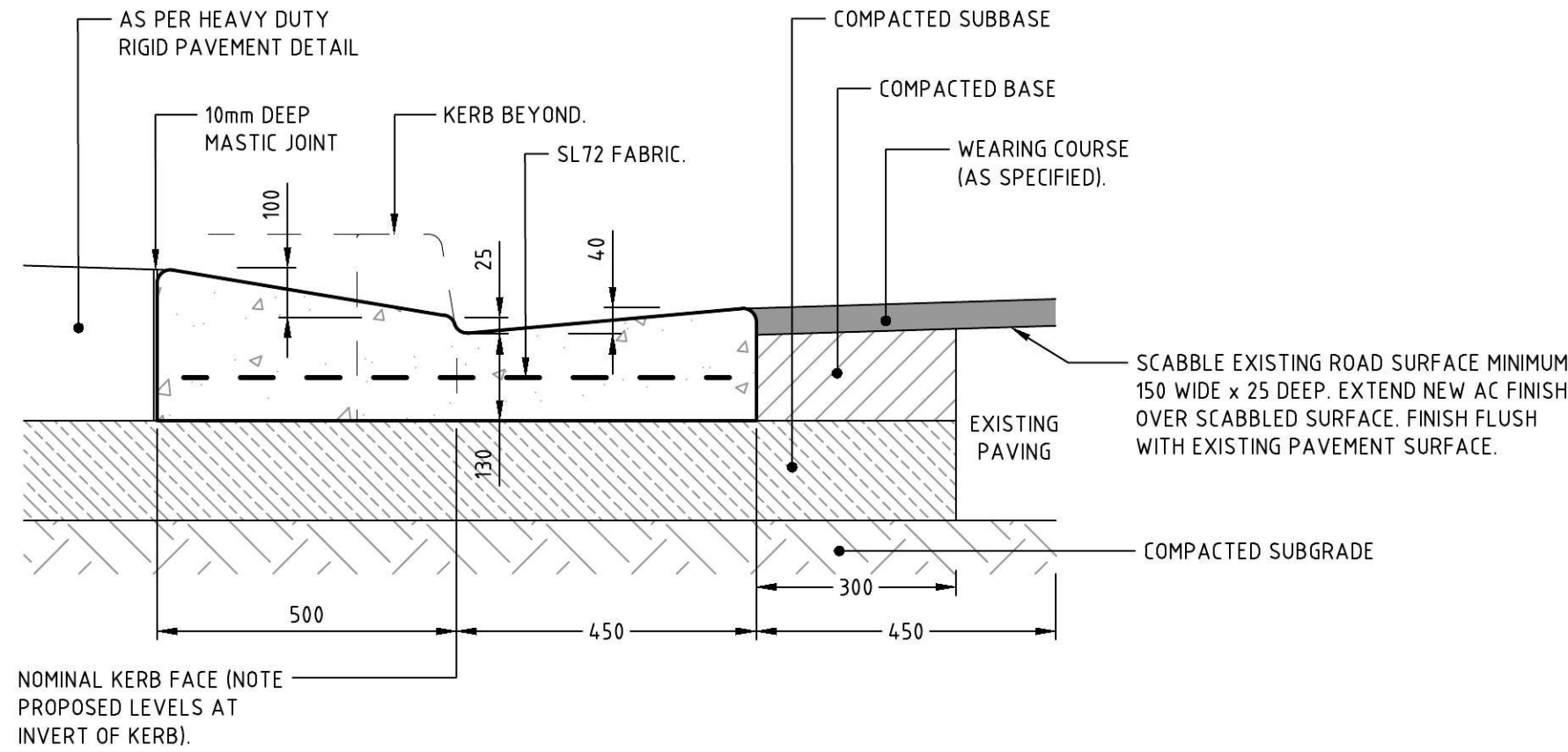
| HEIGHT 'H' | FOOTING WIDTH 'B' |
|------------|-------------------|
| 600        | 450               |
| 800        | 550               |
| 1200       | 700               |

FOR  $\phi^* = 25^*$  & 100kPa BEARING

RETAINING WALL (RW) DETAILS

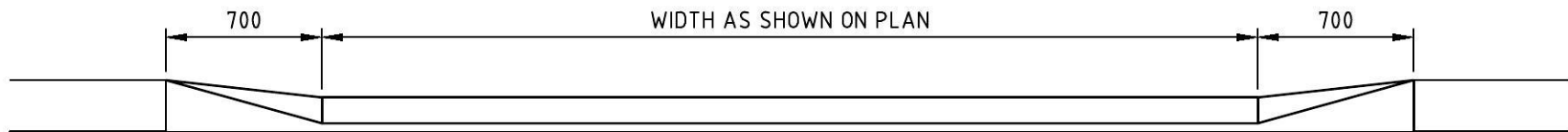


DETAIL B

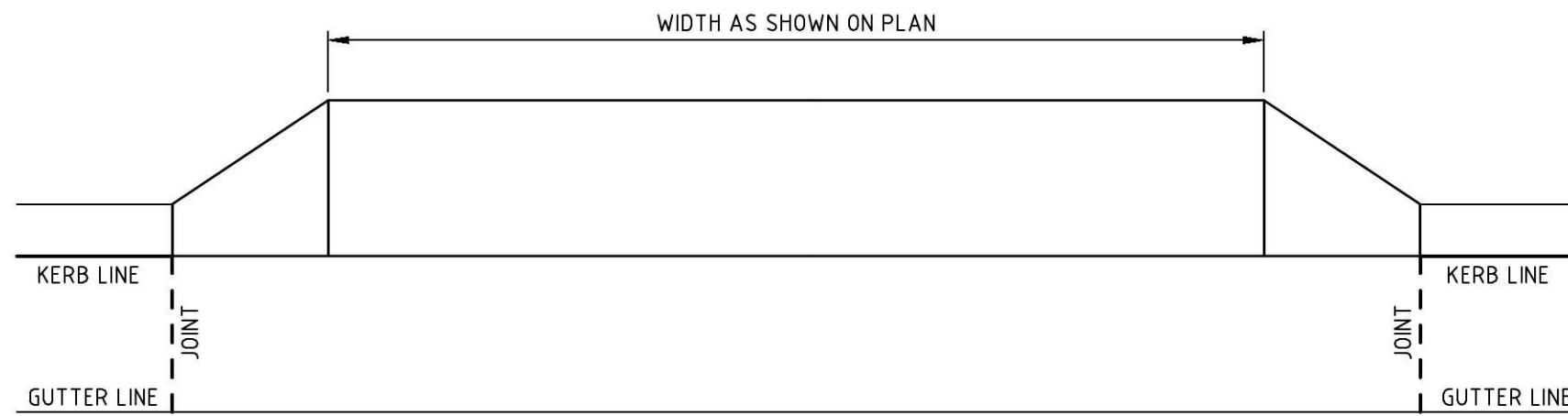


PAVEMENT INTERFACE (NEW TO EXISTING)

PROVIDE MASTIC EXPANSION JOINTS @ MAX 6m CTRS,  
MIN 4m CTRS. ALL RADII TO BE 20mm UNLESS NOTED OTHERWISE.





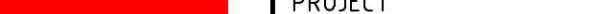
ELEVATION



PLAN

VEHICULAR CROSSING (VC) DETAILS

NOT FOR CONSTRUCTION

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|--|-------------------------------------|--------|-------|-------|----------|---|---|---|--|--|--|--|
| 1  | 80% DESIGN ISSUE                    | RG     |       | JH    | 25.07.14 |  |  |   |  |  |  |  |
| 2  | 90% DESIGN ISSUE                    | UM     |       | JH    | 01.08.14 |   |   |   |  |  |  |  |
| 3  | ISSUED FOR DEVELOPMENT APPLICATION  | SK     |       | JH    | 11.08.14 |   |   |   |  |  |  |  |
| 4  | AMENDED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 13.08.14 |   |   |   |  |  |  |  |
| 5  | AMENDED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 21.08.14 |   |   |   |  |  |  |  |
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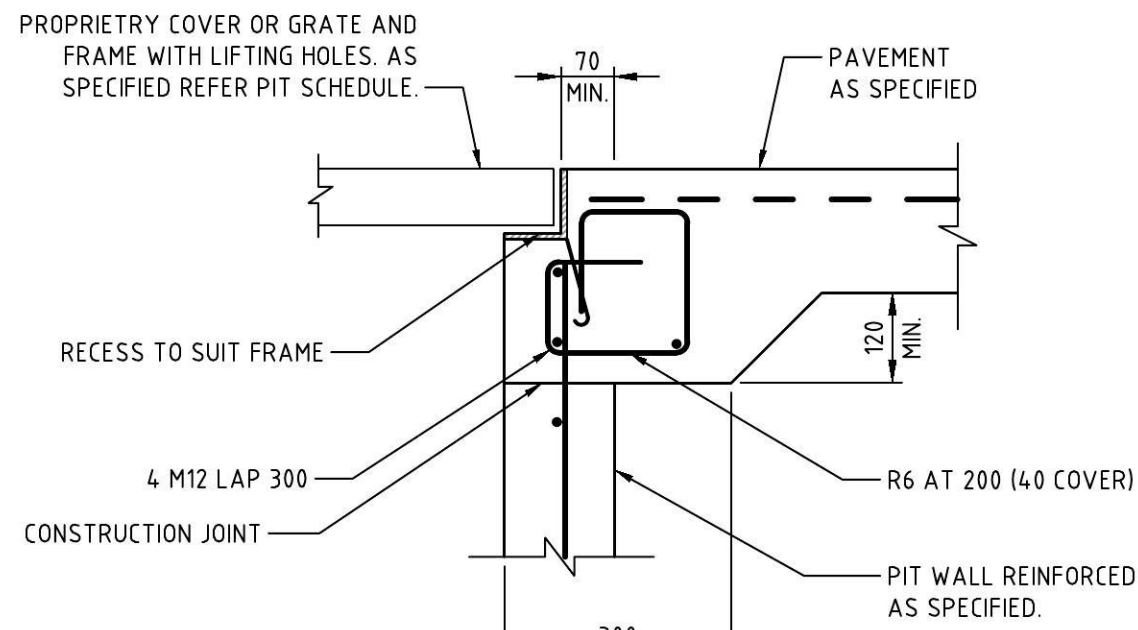


VERIFIER

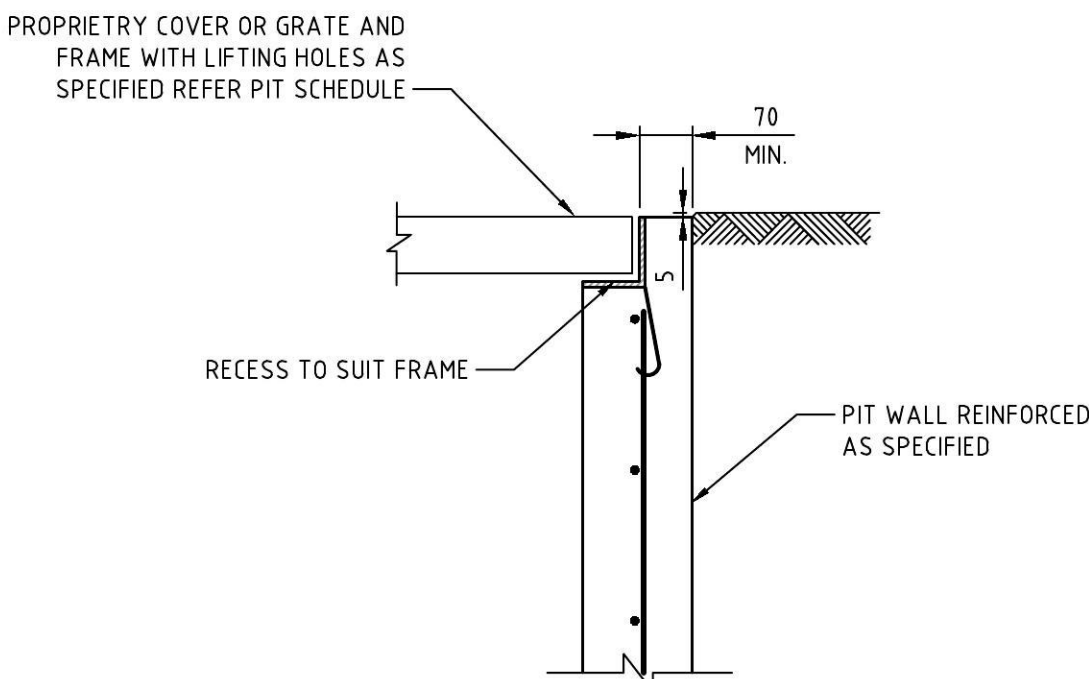
JOB MANAGER: W. PLATTIS

DESIGNED: J. HOANG

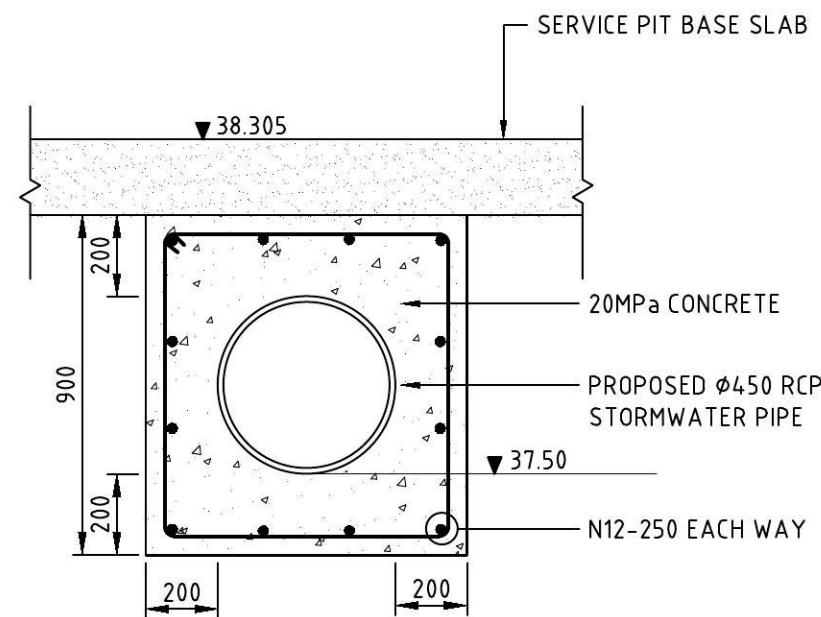
DRAWN: J. DAWES



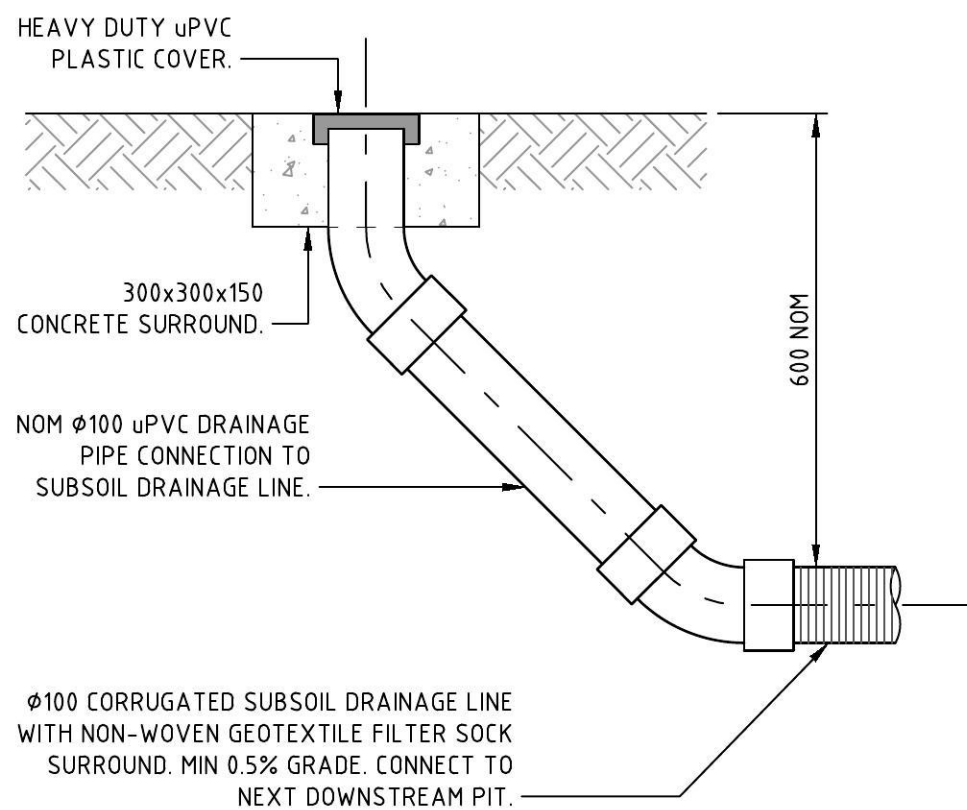
DETAIL 'B'



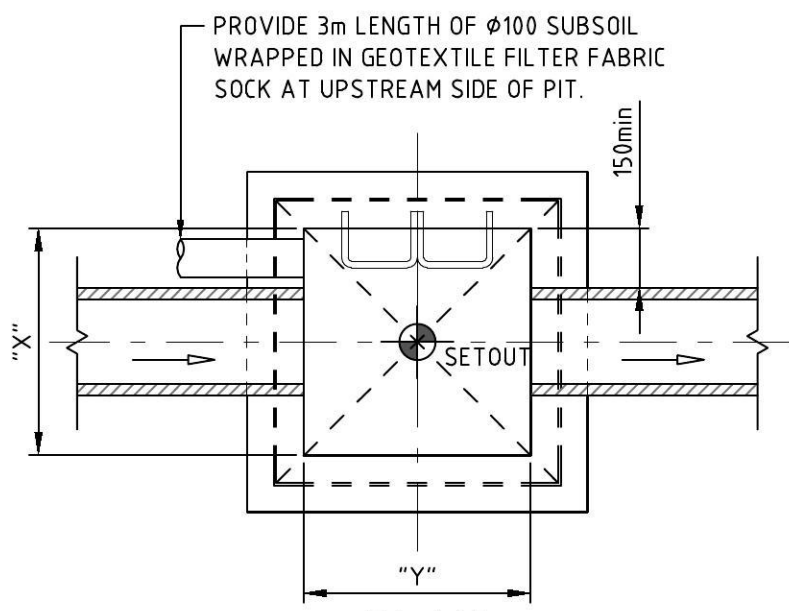
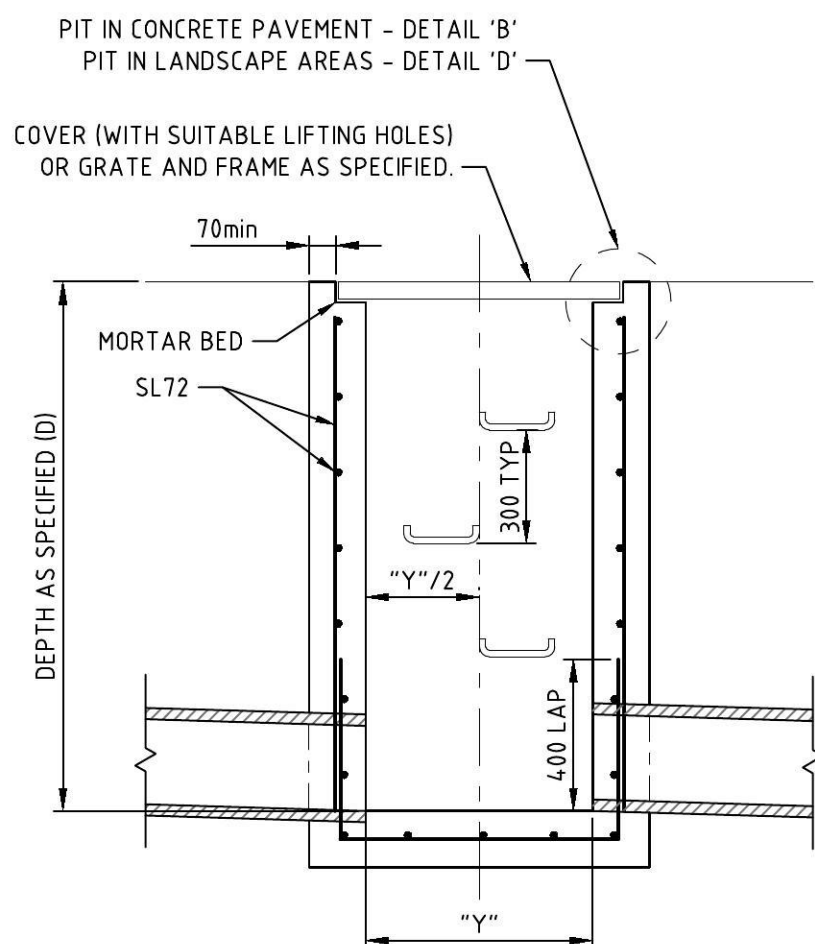
DETAIL 'D'



STORMWATER CONCRETE ENCASEMENT DETAIL



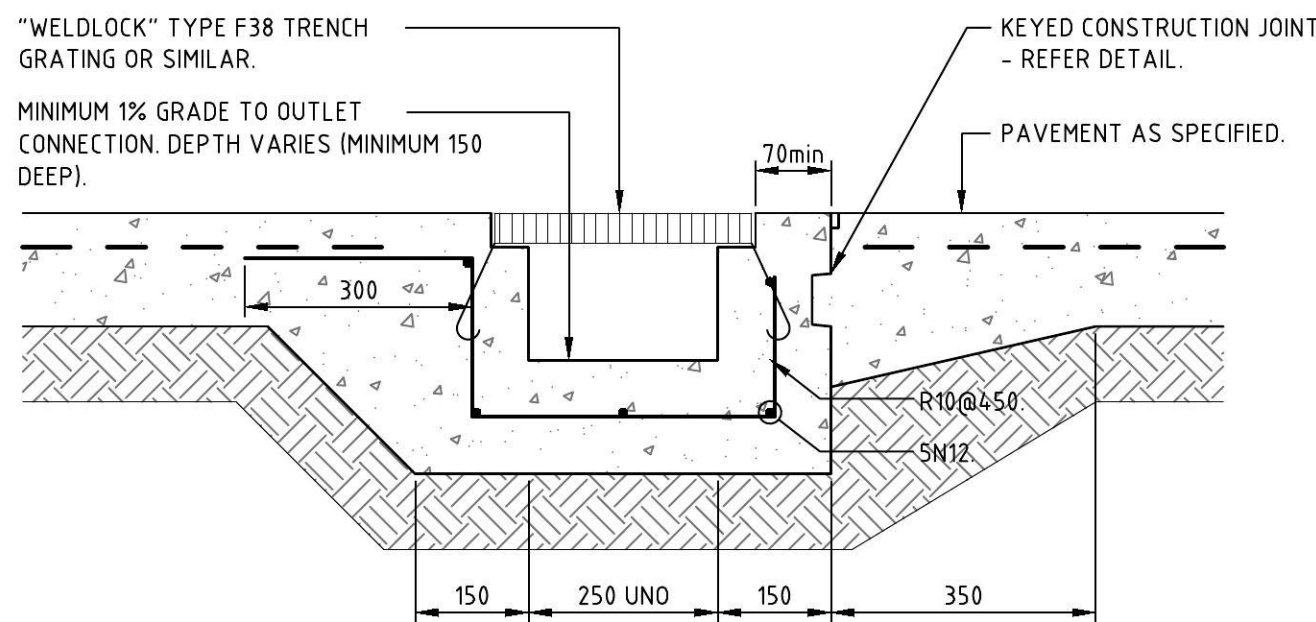
HIGH END RISER (HER)



PLAN




SURFACE INLET / JUNCTION PIT

- PIT STRUCTURE TO BE 150 THICK UNLESS NOTED OTHERWISE.  
- PROVIDE STEP IRONS IF PIT DEEPER THAN 900mm IN ACCORDANCE WITH AUSTRALIAN STANDARDS.  
NOT TO SCALE



GRATED TRENCH DRAIN

NOT FOR CONSTRUCTION

| REVISION   | DESCRIPTION                         | ISSUED | VER'D | APP'D | DATE     | CLIENT  | ARCHITECT   | ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK.<br>NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY.<br>THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE. | <br><b>Sydney</b><br>Level 11, 345 George Street, Sydney NSW 2000<br>Ph (02) 9241 4188 Fax (02) 9241 4324<br>Email sydney@northrop.com.au ABN 81 094 433 100 | PROJECT<br><b>PLASSER AUSTRALIA - PROPOSED WAREHOUSE EXTENSION</b> | DRAWING TITLE<br><b>CIVIL DESIGN<br/>DETAILS SHEET 2</b> | JOB NUMBER<br><b>140074</b> |          |
|--|-------------------------------------|--------|-------|-------|----------|---|---|---|---|--|--|-----------------------------|----------|
| 1  | 80% DESIGN ISSUE                    | RG     |       | JH    | 25.07.14 |  |  | NOT TO SCALE  |   |  |  | DRAWING NUMBER              | REVISION |
| 2  | 90% DESIGN ISSUE                    | UM     |       | JH    | 01.08.14 |   |   |   |   |  |  | <b>DA7.02</b>               | <b>4</b> |
| 3  | ISSUED FOR DEVELOPMENT APPLICATION  | SK     |       | JH    | 11.08.14 |   |   |   |   |  |  |                             |          |
| 4  | AMENDED FOR DEVELOPMENT APPLICATION | SK     |       | JH    | 21.08.14 |   |   |   |   |  |  |                             |          |
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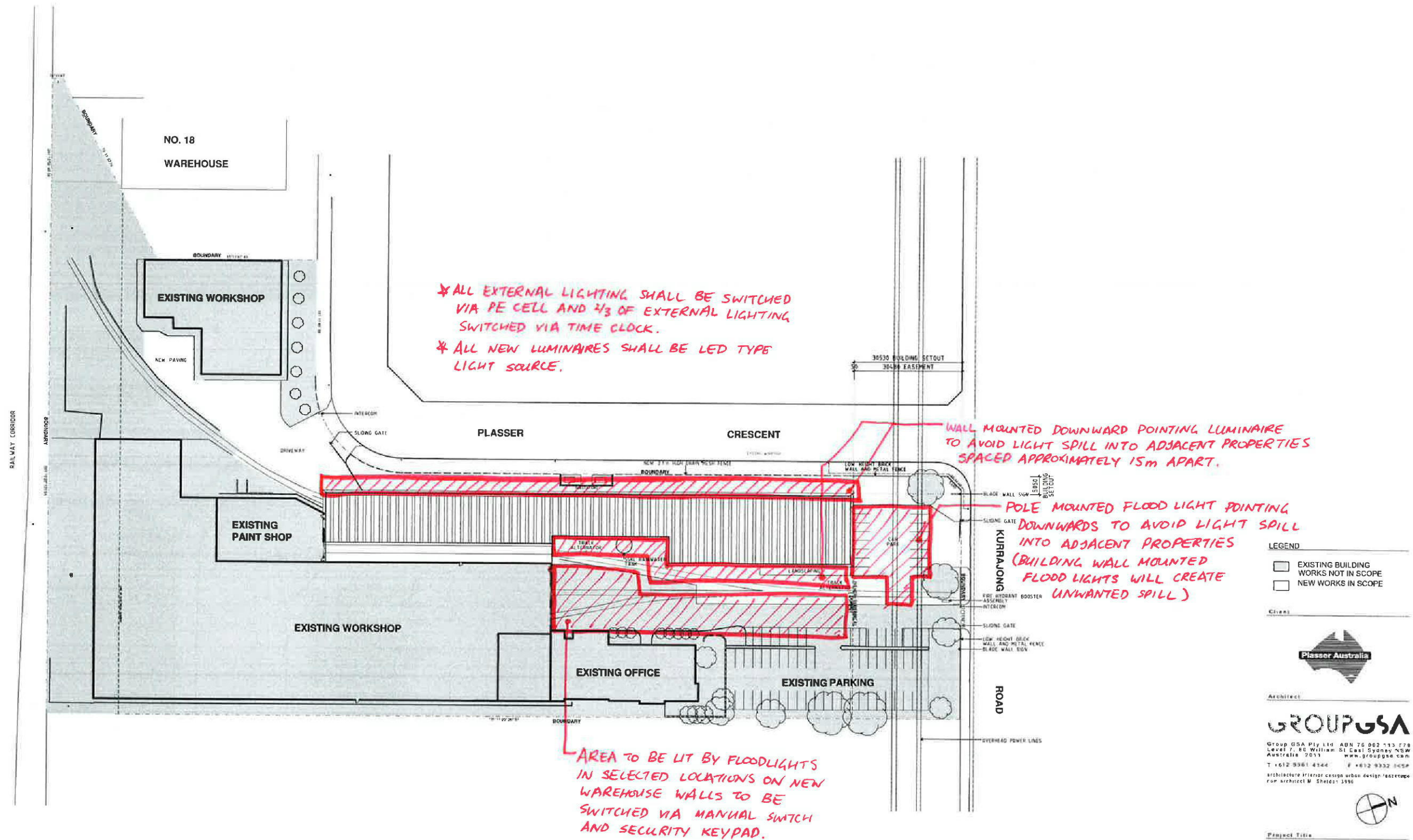


# APPENDIX 16

## Lighting Plan



19.08.2014



|             |                                  |             |                |
|-------------|----------------------------------|-------------|----------------|
| Date:       | 21/08/2014                       | Project No: | 140074         |
| Project:    | Plasser Australia                |             |                |
| Title:      | External Lighting Design Concept |             |                |
| Drawing No: | ESK01                            | Revision:   | 1              |
| Drawn:      | FH                               | Scale:      | AS PER DRAWING |





# APPENDIX 15

## Waste Management Overview



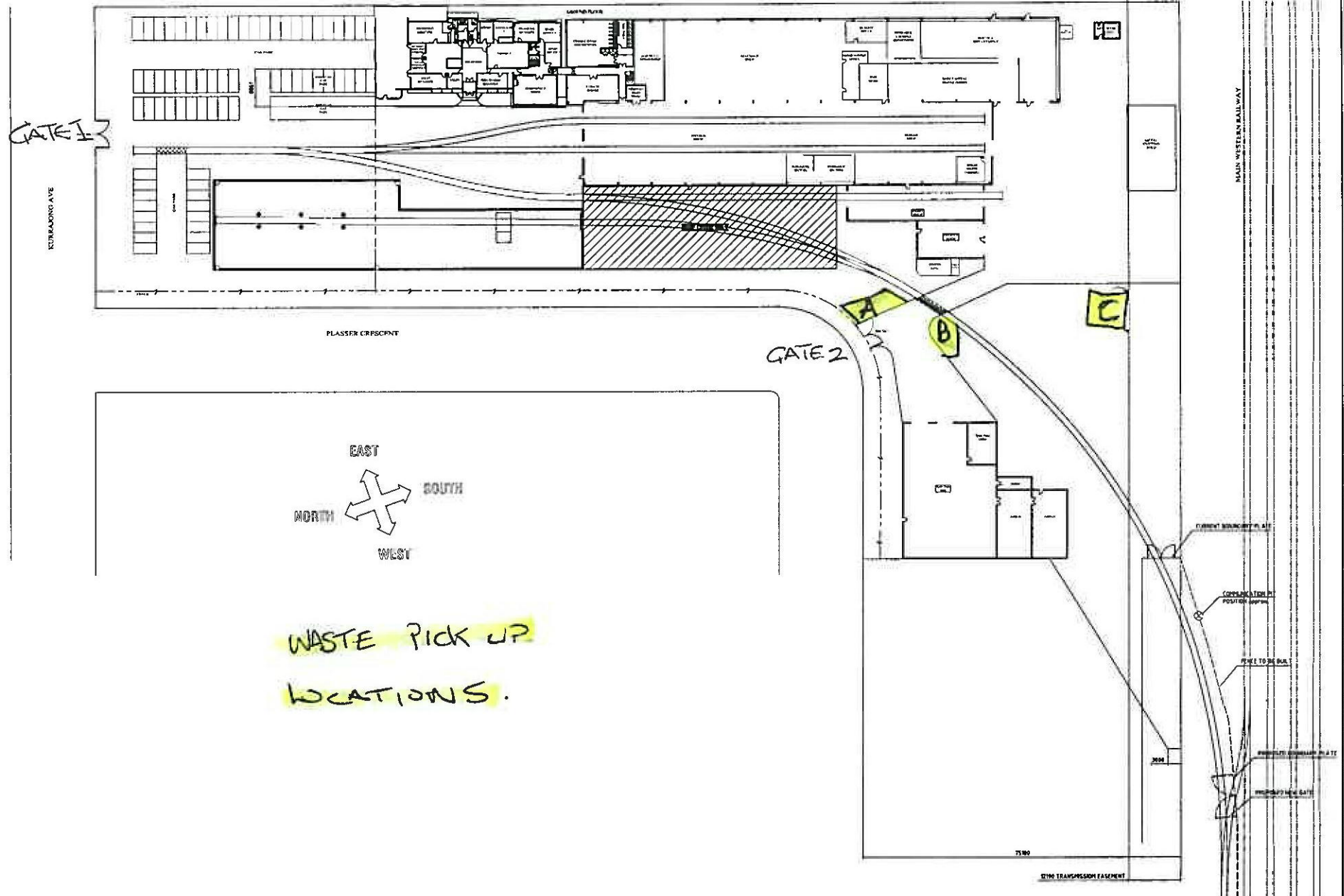
## Plasser Australia PTY LTD Waste Management Overview 2014

| Waste or Recycled | Material       | Location of bins | Bin Type   | Bin size | Pick up frequency   |
|-------------------|----------------|------------------|------------|----------|---------------------|
| Waste             | General        | B                | Front load | 4.5m3    | Weekly - Wednesday  |
| Waste             | Timber         | A                | Marrell    | 6.0m3    | Monthly as req.     |
| Recycled          | Cardboard      | B                | Front load | 3.0m3    | Weekly - Friday     |
| Recycled          | Steel offcuts  | A                | Marrell    | 9.0m3    | Fortnightly as req. |
|                   | Steel machine  |                  |            |          |                     |
| Recycled          | turnings       | A                | Marrell    | 9.0m3    | Fortnightly as req. |
| Recycled          | Oil            | C                | Drum       | 209l     | As req.             |
| Recycled          | Paint thinners | C                | Drum       | 209l     | As req.             |

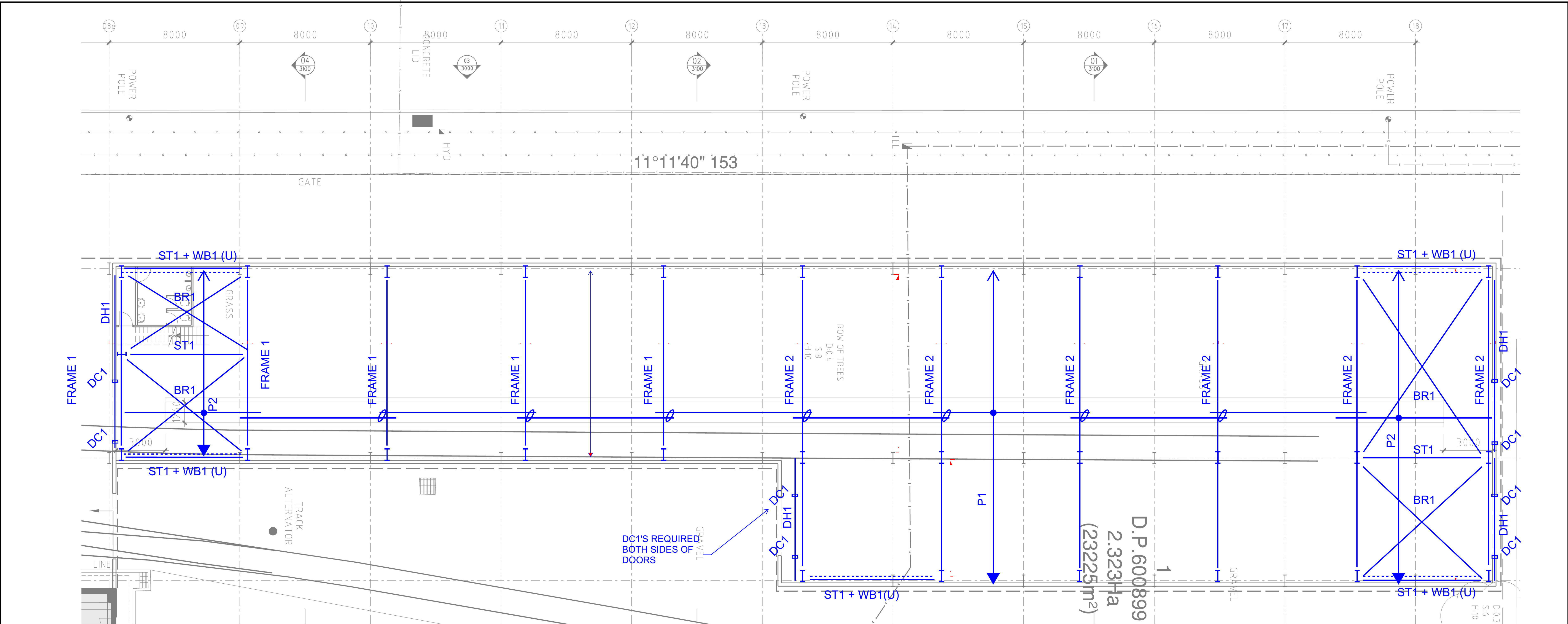
Note: Area C recycled material is not expected to be impacted by the DA.

For further information please call Scott Lawrence 0422 513 413



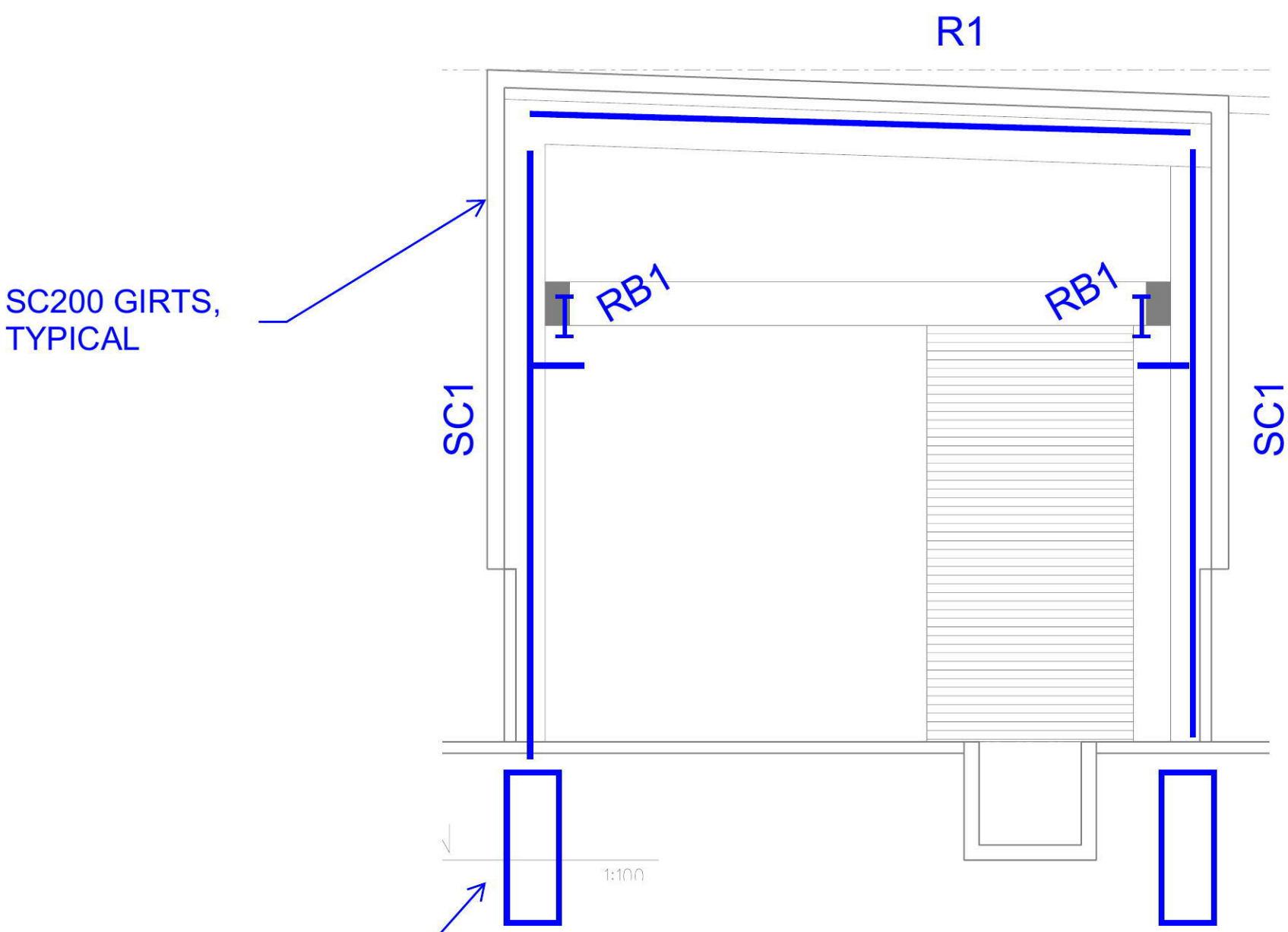




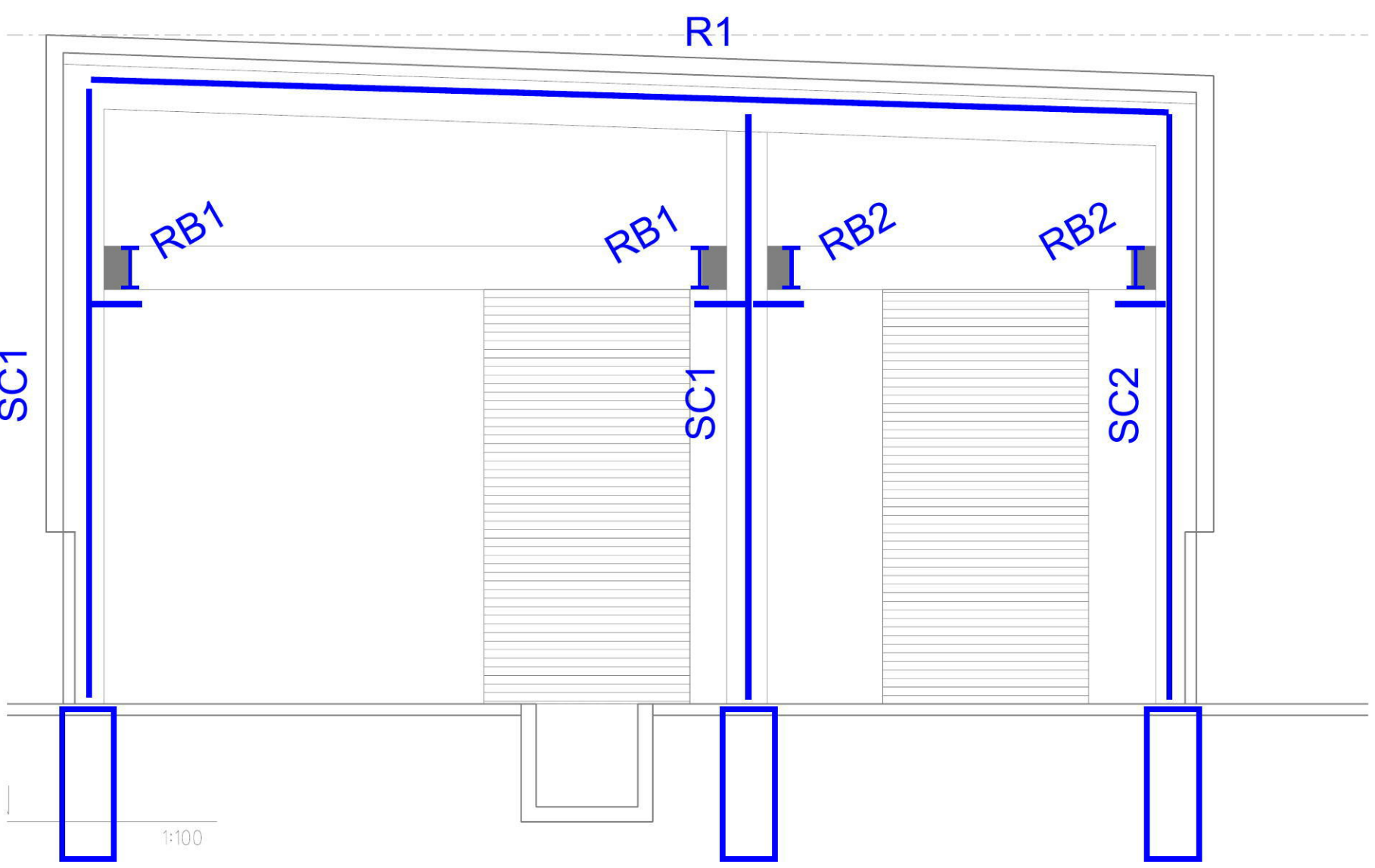


STEEL FRAMING PLAN

| MEMBER SCHEDULE                          |                   |  |  |
|--|-------------------|--|--|
| RB1: 900WB218 + WELDED PFC.              | CRANE RUNWAY BEAM |  |  |
| RB2: 460UB67 + 300PFC                    | CRANE RUNWAY BEAM |  |  |
| SC1: 700WB173                            | COLUMN            |  |  |
| SC2: 460UB67                             | COLUMN            |  |  |
| R1: 460UB67                              | RAFTER            |  |  |
| DC1: 250 x 150 x 5 RHS                   | DOOR COLUMN       |  |  |
| DH1:250PFC                               | DOOR HEADER       |  |  |
| P1: SZ20015 @ 1m cts. 2 ROWS OF BRIDGING | PURLIN            |  |  |
| P2: SZ20019 @ 1m cts. 2 ROWS OF BRIDGING | PURLIN            |  |  |
| ST1: 150 x 5 SHS                         | STRUT             |  |  |
| BR1: 100 x 10 EA                         | ROOF BRACING      |  |  |
| WB1: 100 x 10 EA                         | WALL BRACING      |  |  |



FRAME 1



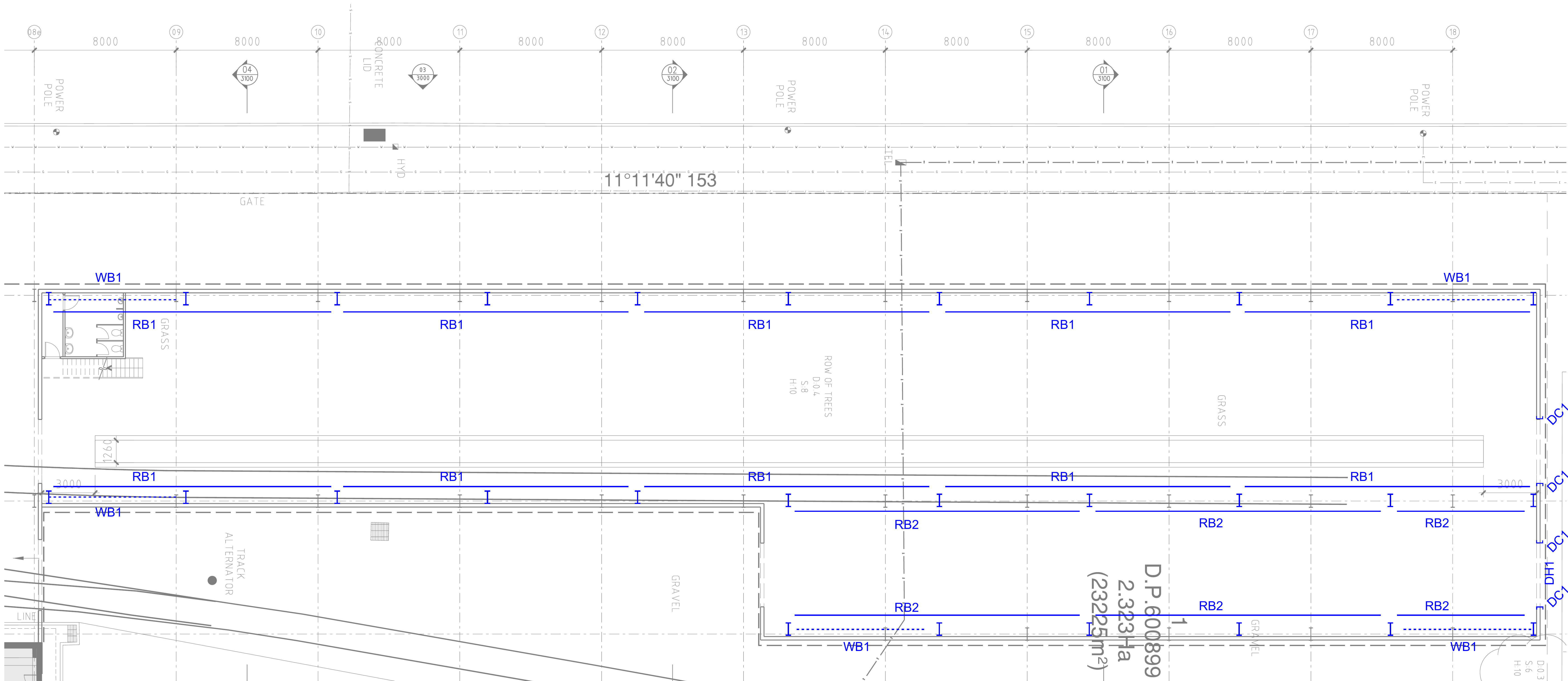
FRAME 2

NOT FOR CONSTRUCTION

| REV | DESCRIPTION       | ISSUED | VER'D | APP'D | DATE     | REV | DESCRIPTION | ISSUED | VER'D | APP'D | DATE | CLIENT   | ARCHITECT | PROJECT | DRAWING TITLE                         | JOB NUMBER | DRAWING NUMBER | REVISION                |
|-----|-------------------|--------|-------|-------|----------|-----|-------------|--------|-------|-------|------|--|-----------|---------|---------------------------------------|------------|----------------|-------------------------|
| 1   | PRELIMINARY ISSUE | AW     |       | AW    | 28/06/14 |     |             |        |       |       |      | PLASSER AUSTRALIA  | GROUP GSA | PLASSER | CLOSED ROOF FRAMING PLAN AND SECTIONS | 140074     | SK-01          | 1                       |
|     |                   |        |       |       |          |     |             |        |       |       |      | THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD |           |         |                                       |            |                | DRAWING SHEET SIZE = B1 |



VERIFIER:  
JOB MANAGER: A.WAITE  
DESIGNED: A.WAITE  
DRAWN: A.WAITE



RUNWAY BEAM FRAMING PLAN

| MEMBER SCHEDULE                          |                   |
|--|-------------------|
| RB1: 900WB218 + WELDED PFC.              | CRANE RUNWAY BEAM |
| RB2: 460UB67 + 300PFC                    | CRANE RUNWAY BEAM |
| SC1: 700WB173                            | COLUMN            |
| SC2: 460UB67                             | COLUMN            |
| R1: 460UB67                              | RAFTER            |
| DC1: 250 x 150 x 5 RHS                   | DOOR COLUMN       |
| DH1:250PFC                               | DOOR HEADER       |
| P1: SZ20015 @ 1m cts. 2 ROWS OF BRIDGING | PURLIN            |
| P2: SZ20019 @ 1m cts. 2 ROWS OF BRIDGING | PURLIN            |
| ST1: 150 x 5 SHS                         | STRUT             |
| BR1: 100 x 10 EA                         | ROOF BRACING      |
| WB1: 100 x 10 EA                         | WALL BRACING      |

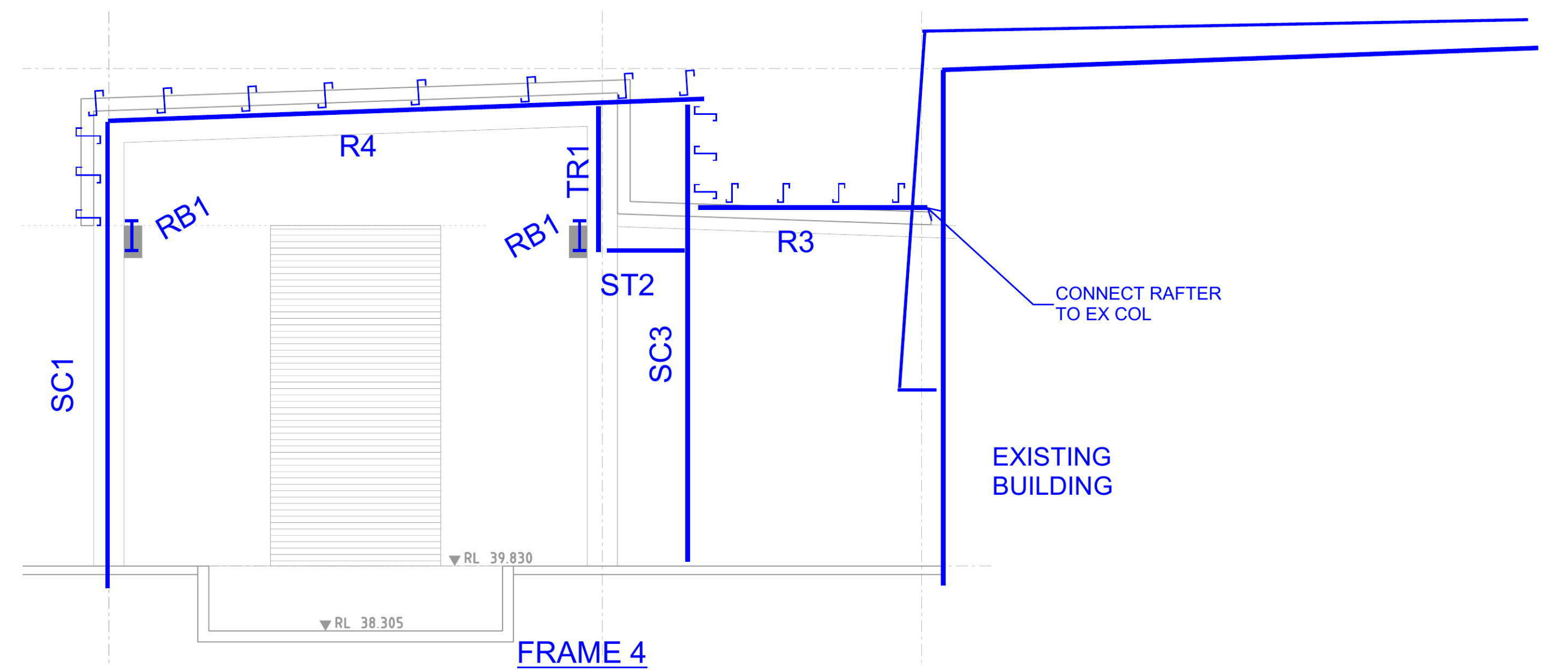
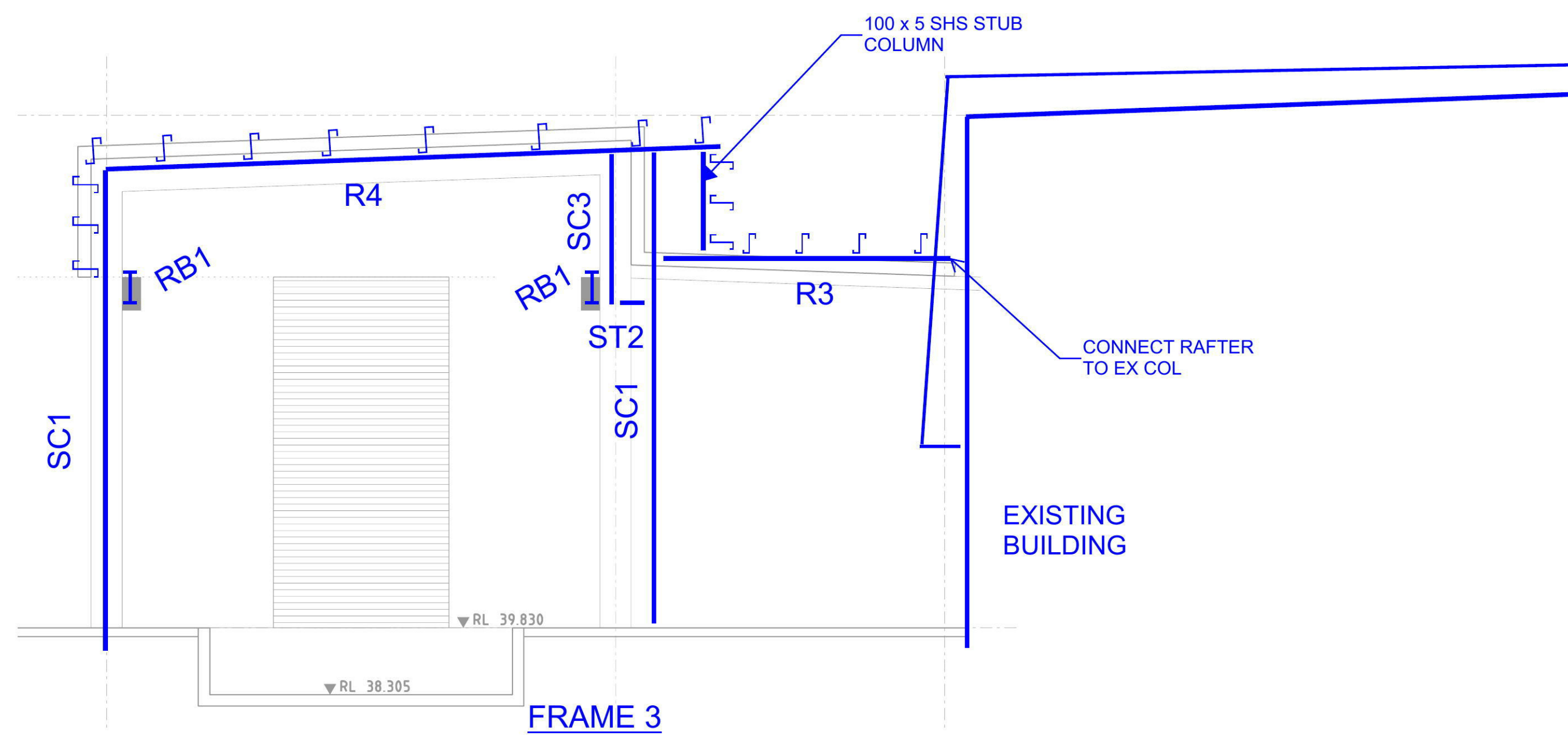
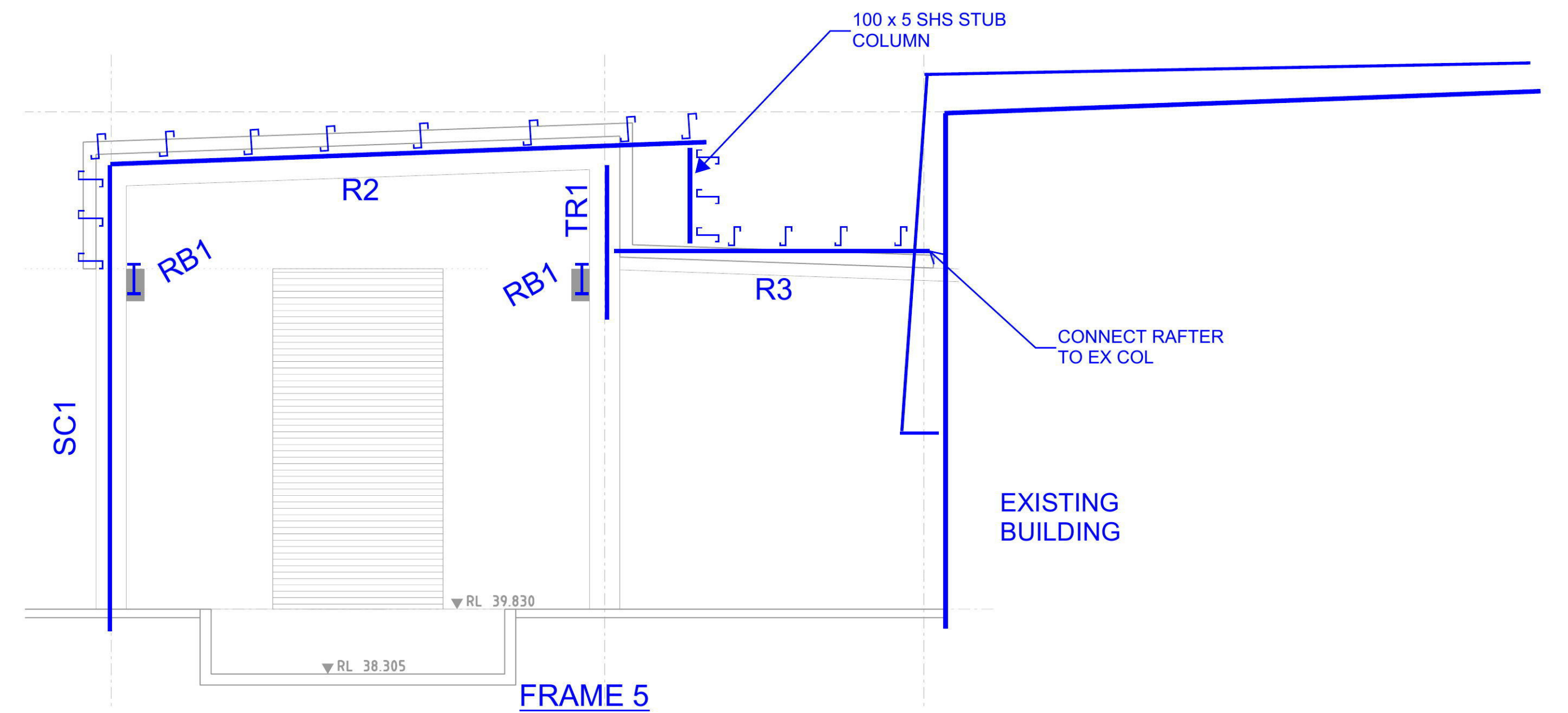
NOT FOR CONSTRUCTION


| REV | DESCRIPTION       | ISSUED | VER'D | APP'D | DATE     | REV | DESCRIPTION | ISSUED | VER'D | APP'D | DATE | CLIENT            | ARCHITECT |  | PROJECT | DRAWING TITLE            | JOB NUMBER |
|-----|-------------------|--------|-------|-------|----------|-----|-------------|--------|-------|-------|------|-------------------|-----------|--|---------|--------------------------|------------|
| 1   | PRELIMINARY ISSUE | AW     |       | AW    | 28/06/14 |     |             |        |       |       |      | PLASSER AUSTRALIA | GROUP GSA | <div>ALL SETOUT TO ARCHITECT'S DRAWINGS.<br/>DIMENSIONS TO BE VERIFIED WITH ARCHITECT AND<br/>BUILDER BEFORE COMMENCING SHOP DRAWINGS OR<br/>SITE WORK. NORTHROP ACCEPTS NO RESPONSIBILITY<br/>FOR THE USABILITY, COMPLETENESS OR SCALE OF<br/>DRAWINGS TRANSFERRED ELECTRONICALLY.</div> <div><b>NORTHROP</b><br/>Sydney<br/>The Grafton Board Store, 60 Hickson Road, Sydney NSW 2000<br/>Ph (02) 9241 4168 Fax (02) 9241 4324<br/>P.O. Box H171 Australia Square, NSW 1215<br/>Email sydney@northrop.com.au ABN 81 094 433 100</div> | PLASSER | RUNWAY BEAM FRAMING PLAN | 140074     |
|     |                   |        |       |       |          |     |             |        |       |       |      |                   |           |  |         |                          |            |
|     |                   |        |       |       |          |     |             |        |       |       |      |                   |           |  |         |                          |            |
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|-----|-------------------|--------|-------|-------|----------|--|---|--|---|--|-------------------------|---------------------------------|----------------|----------|
| REV | DESCRIPTION       | ISSUED | VER'D | APP'D | DATE     | CLIENT   | ARCHITECT   |  | ALL SETOUT TO ARCHITECT'S DRAWINGS.<br>DIMENSIONS TO BE VERIFIED WITH ARCHITECT AND<br>BUILDER BEFORE COMMENCING SHOP DRAWINGS OR<br>SITE WORK. NORTHROP ACCEPTS NO RESPONSIBILITY<br>FOR THE USABILITY, COMPLETENESS OR SCALE OF<br>DRAWINGS TRANSFERRED ELECTRONICALLY. |  <p><b>NORTHROP</b></p> <p>Sydney</p> <p>The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000<br/>Ph (02) 9241 4188 Fax (02) 9241 4324<br/>P.O. Box H171 Australia Square, NSW 1215<br/>Email <a href="mailto:sydney@northrop.com.au">sydney@northrop.com.au</a> ABN 81 094 433 100</p> | PROJECT                 | DRAWING TITLE                   | JOB NUMBER     |          |
| 1   | PRELIMINARY ISSUE | AW     |       | AW    | 29.07.14 | PLASSER AUSTRALIA  | GROUP GSA   |  |   |  | PLASSER                 | OPEN ROOF STRUCTURE<br>SECTIONS | 140074         |          |
|     |                   |        |       |       |          |  |   |  |   |  |                         |                                 | DRAWING NUMBER | REVISION |
|     |                   |        |       |       |          |  |   |  |   |  |                         |                                 | <b>SK-04</b>   | <b>1</b> |
|     |                   |        |       |       |          | DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS<br>SPECIFICALLY NOTED OTHERWISE | THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP<br>CONSULTING ENGINEERS PTY LTD |  |   |  | DRAWING SHEET SIZE = A1 |                                 |                |          |





GROUP USA

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Australia 2011 [www.groupgsa.com](http://www.groupgsa.com)  
T +612 9336 4144 F +612 9332 3451  
architecture interior design urban design landscape  
new architecture Melbourne 1991



Project Title  
25 KURRAJONG RD  
NORTH ST. MARYS

Drawing Title  
— PROPOSED PLAN -  
GROUND FLOOR

Scale \_\_\_\_\_ 1-200000

Drawing created 17/06/2014

By \_\_\_\_\_ AA

Plotted and checked by AA

Verified M7

Approved \_\_\_\_\_ MT  
2000

Drawing No. 2000 Issue -  
14030

File Plot Date

A-2003 op 11/17/2014

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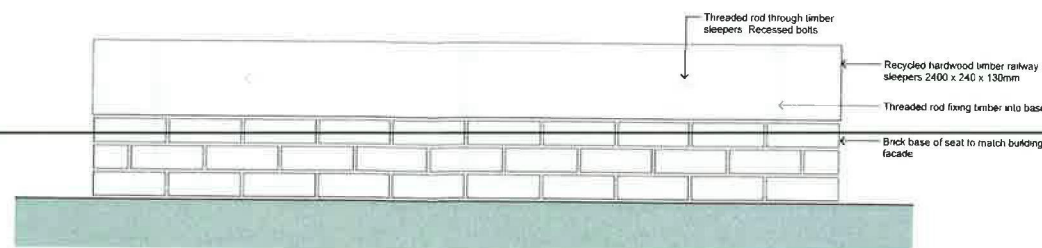
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on site prior to the commencement of any work making of shop drawings or fabrication of components.

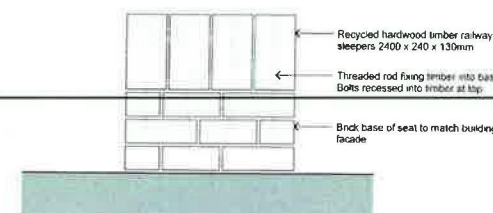
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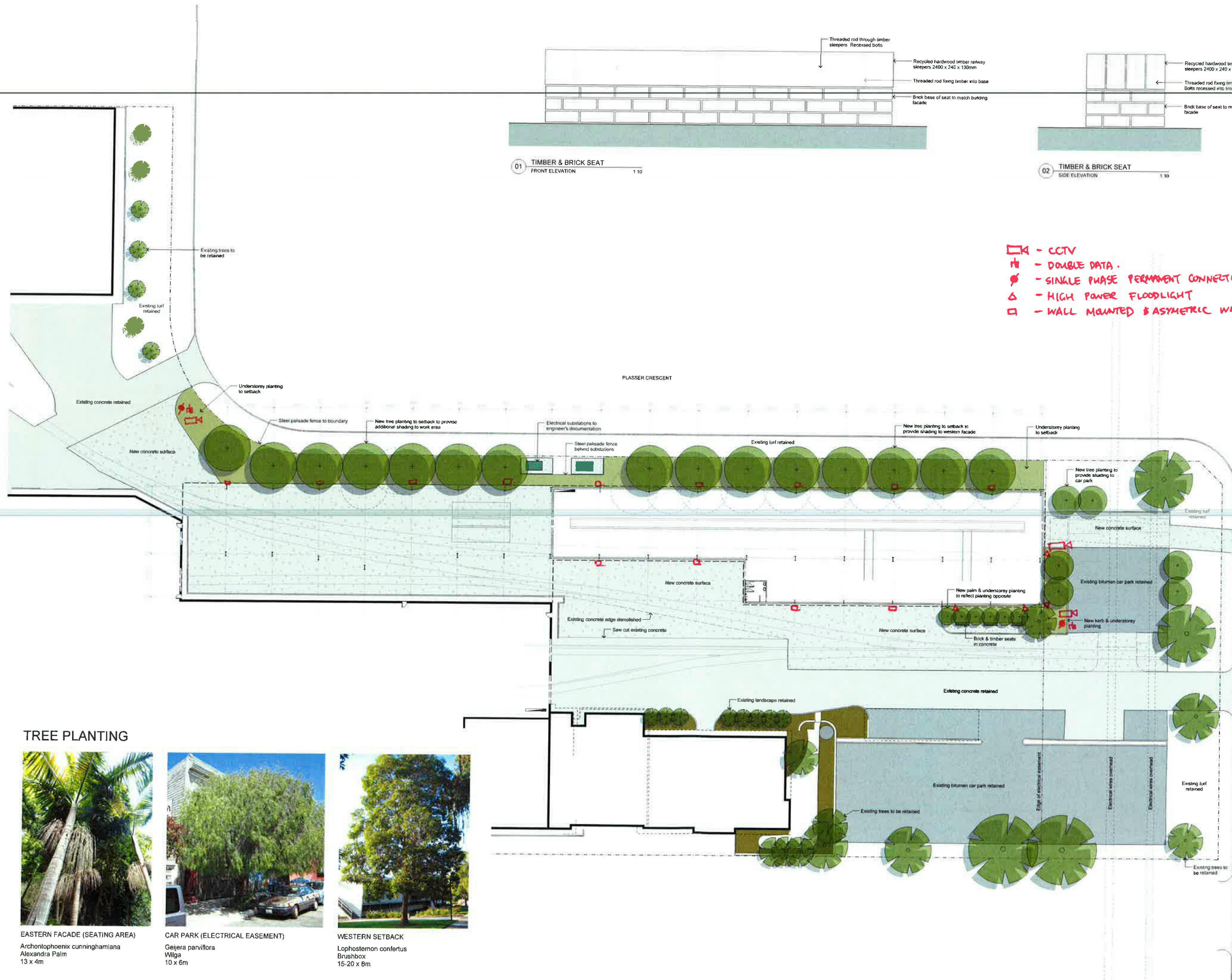


01 TIMBER & BRICK SEAT  
FRONT ELEVATION 1:10



02 TIMBER & BRICK SEAT  
SIDE ELEVATION 1:10

- - CCTV
- ⌂ - DOUBLE DATA
- ⊕ - SINGLE PHASE PERMANENT CONNECTION
- △ - HIGH POWER FLOODLIGHT
- - WALL MOUNTED & ASYMETRIC WALL LIGHT



KURRAJONG ROAD

Client



Architect

**GROUP GSA**

Group GSA Pty Ltd ABN 76 082 113 779  
Level 7, 80 William St East Sydney NSW  
Australia 2011 www.grouppsa.com  
T +612 9381 4144 F +612 9332 3458  
Architectural Interior Design Urban Design Landscape  
Not attached to Shaleby 3962



Project Title  
**25 KURRAJONG RD  
NORTH ST. MARYS**

Drawing Title  
**LANDSCAPE CONCEPT  
PLAN**

Scale 1:250 @ B1

Drawing created 17/06/2014

By AA

Plotted and checked by AA

Verified MT

Approved MT

Drawing No. LSK01

14030

File Plot Date

15/07/14 15/07/14

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## TREE PLANTING



**EASTERN FACADE (SEATING AREA)**  
Archontophoenix cunninghamiana  
Alexandra Palm  
13 x 4m




**CAR PARK (ELECTRICAL EASEMENT)**  
Geijera parviflora  
Wilga  
10 x 6m




**WESTERN SETBACK**  
Lophostemon confertus  
Brushbox  
15-20 x 8m




DRAWN: SCOTT MURRAY    DESIGNED: GERIAN ROMO    JOB MANAGER: XX    VERIFIER: XX

| REV | DESCRIPTION               | ISSUED | VERD | APP'D | DATE     | CLIENT  |
|-----|---------------------------|--------|------|-------|----------|---|
| 1   | PRELIMINARY ISSUE         | SM     |      | GR    | 01.07.14 |  |
| 2   | REVISED PRELIMINARY ISSUE | SM     |      | GR    | 22.07.14 |   |
|     |                           |        |      |       |          |   |
|     |                           |        |      |       |          |   |
|     |                           |        |      |       |          |   |

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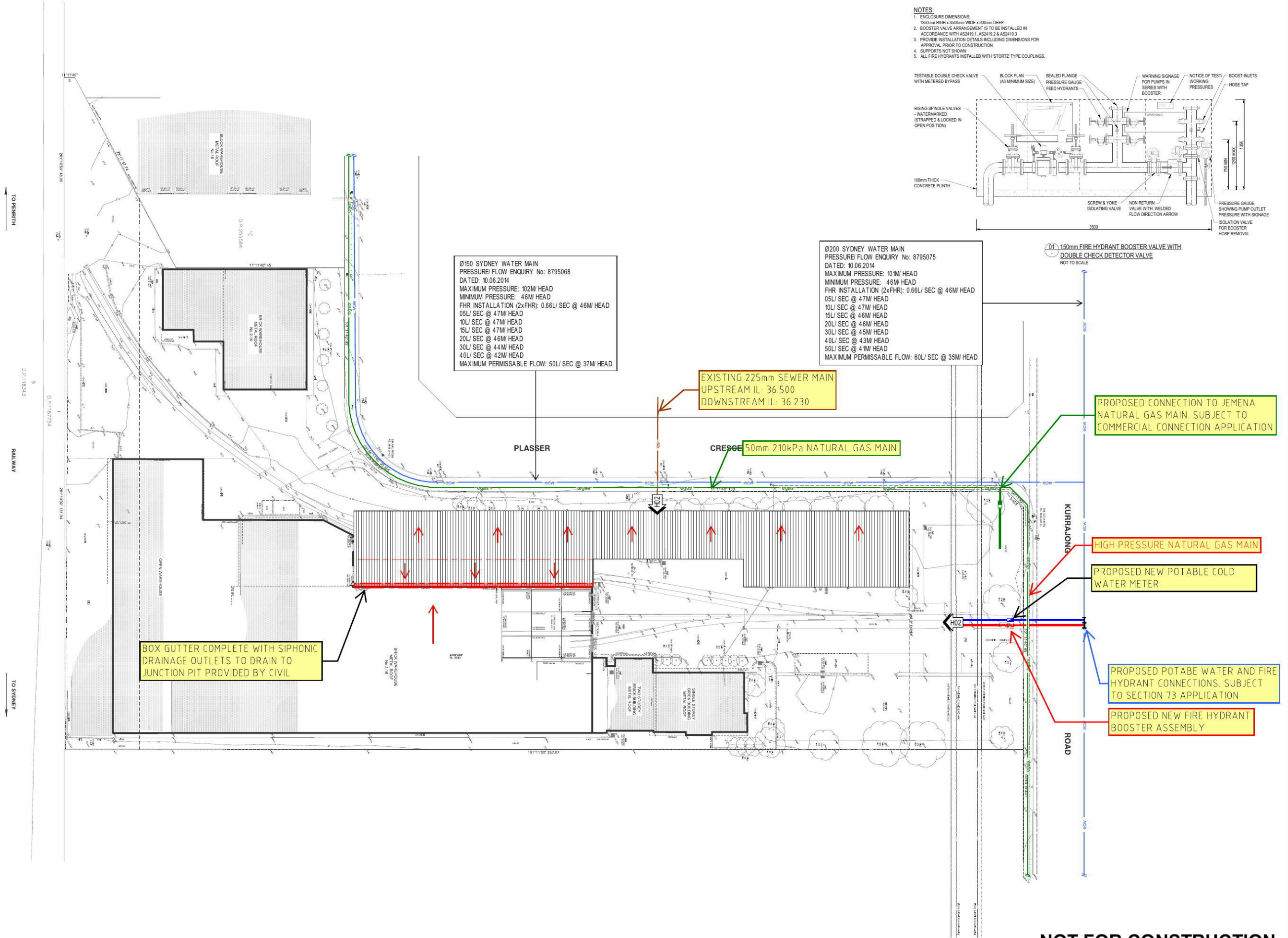
Sydney

The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000  
Ph (02) 9241 4188 Fax (02) 9241 4324  
P.O. Box H171 Australia Square, NSW 1215  
Email: sydney@northrop.com.au ABN 81 094 433 100

| PROJECT                        |
|--------------------------------|
| PLASSER AUSTRALIA<br>ST. MARYS |

| DRAWING TITLE                   |
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| HYDRAULIC SERVICES<br>SITE PLAN |

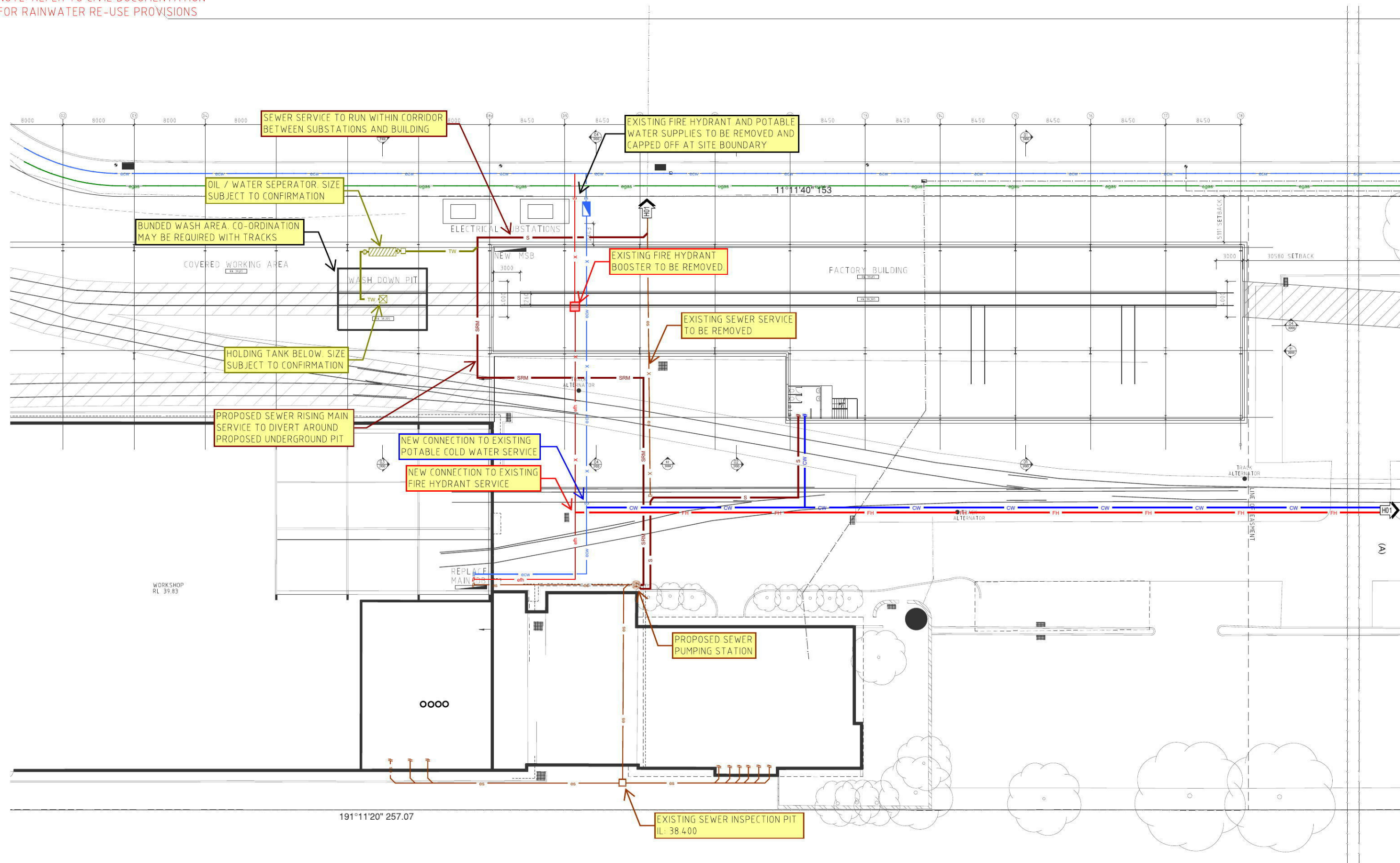
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| H01                     | 2        |
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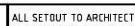


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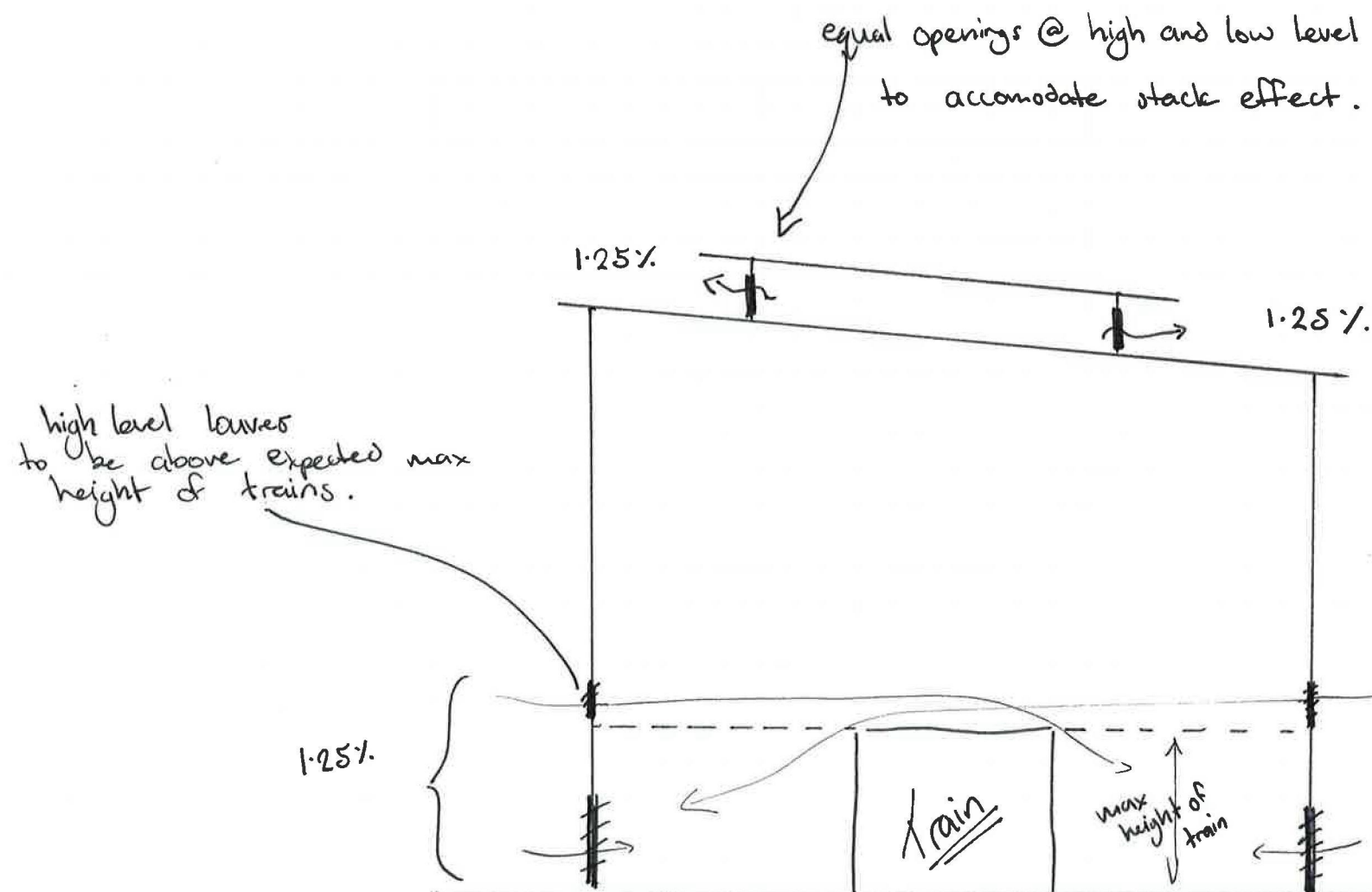
NOTE: REFER TO CIVIL DOCUMENTATION  
FOR RAINWATER RE-USE PROVISIONS



**NOT FOR CONSTRUCTION**

| REV | DESCRIPTION               | ISSUED | VER'D | APP'D | DATE     | CLIENT  | ARCHITECT   |  | PROJECT                        | DRAWING TITLE                   | JOB NUMBER              |          |
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| 1   | PRELIMINARY ISSUE         | SM     |       | GR    | 01.07.14 | <br><br>DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS<br>VERIFIED FOR SIGNATURE BY HAZEL HARRIS | <br><br>THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP<br>CONSULTING ENGINEERS PTY, LTD | <br>Sydney<br>The Grafton Bond Store, 60 Hickson Road, Sydney NSW 2000<br>Ph (02) 9241 4166 Fax (02) 9241 4324<br>P.O. Box H171 Australia Square, NSW 1215<br>Email sydney@northrop.com.au ABN #1 094 433 100 | PLASSER AUSTRALIA<br>ST. MARYS | HYDRAULIC SERVICES<br>SITE PLAN | 140074                  |          |
| 2   | REVISED PRELIMINARY ISSUE | SM     |       | GR    | 22.07.14 |   |   |  |                                |                                 | DRAWING NUMBER          | REVISION |
|     |                           |        |       |       |          |   |   |  |                                |                                 | H01                     | 2        |
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|     |                           |        |       |       |          |   |   |  |                                |                                 |                         |          |





Total building openings to be  
5% of total enclosed footprint.

Footprint : 1385 m<sup>2</sup>

req opening free area: 69 m<sup>2</sup>

• louvers/openings to  
be distributed evenly  
along facade.

|      |     |                 |     |     |
|------|-----|-----------------|-----|-----|
|      |     |                 |     |     |
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| DATE | REV | ISSUE AMENDMENT | VER | APP |

PROJECT: **Plasser**

DRAWING TITLE: **MSK 01**  
**Ventilation Req.**

All dimensions to be verified on site before making shop drawings or commencing any work  
Drawing not to be used for construction unless verification signature has been added  
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**NORTHROP**  
CONSULTING ENGINEERS

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Tel: (02) 9241 4188 Fax: (02) 9241 4324

DATE: **25/7/14**  
DRAWN: **AJ**  
SCALE: **1:100**  
JOB No: **140674**  
DRAWING No/Rev: