Memo

To:	Brisbane City Council
From:	Steve Novak
Subject:	48 Eagleview place, Eagle Farm – Engineering Memo
Our ref:	PS130139-MEM-CIV_Engineering Memo - 48 Eagleview Pl_RevA_20220421
Date:	**22 April 2022**

1. Introduction

The proposed extension to the existing infill development at 48 Eagleview place, Eagle Farm is a 735m2 increase in size of the existing warehouse facility located in the southwest corner of the 10,970m2 block on a previously unused portion of the land. The works will include associated concrete paving and carparking works to allow for vehicle access and additional parking.

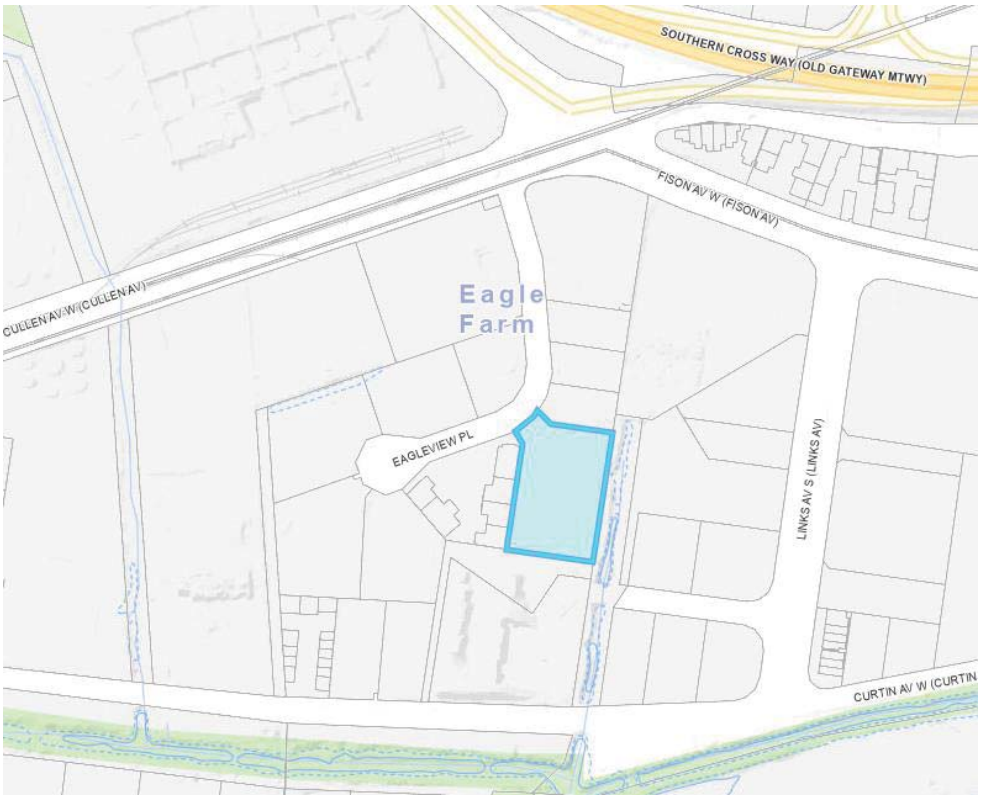

Figure 1 - Site Locality Plan

Level 12, 900 Ann Street
Fortitude Valley QLD 4006
GPO Box 2907
Brisbane QLD 4001

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2. Stormwater Quantity

2.1 Stormwater Quantity Management

To ensure the proposed development's stormwater runoff will not cause an actionable nuisance to downstream properties, existing and developed stormwater peak flows from the proposed developable areas have been calculated and analysed. These have been modelled using the hydraulic software DRAINS. The ILSAX hydrological model was used in the DRAINS analysis. The ILSAX hydrological model uses hydrological losses and depression storage.

The worst-case scenario, being a 1% AEP storm, results in the proposed extension northern roof catchment producing 25L/s and southern roof catchment producing 35L/s. This is an increase of 5L/s and 6L/s over the existing site conditions in the worse-case scenario.

As per BCC City Plan Schedule 6 Chapter 7 Stormwater Drainage, Section 7.5.2 states stormwater detention is unlikely to be required at the bottom one-third of the catchment. Due to the limited volumes being produced by the development, and the proximity to the Brisbane River, stormwater quantity controls are not required.

2.2 Proposed Infrastructure

The proposed stormwater network involves the installation of a minor pit and pipe network to capture the new site runoff from the extension. Roof water will be captured by downpipes and discharged in new pipes to the existing internal stormwater infrastructure within the site. The stormwater will then be discharged to the existing lawful point of discharge, primarily being the swale drainage to the east of the site. The preliminary infrastructure layout can be found at Appendix A.

3. Stormwater Quality

Due to the limited size of the proposed extension in an otherwise fully developed impervious precinct, this area has likely already been considered fully impervious at a precinct level. Furthermore, due to the proposed structure, limited runoff could be appropriately captured for stormwater quality purposes and a redesign of the existing stormwater infrastructure would be required to allow for appropriate capture. Incorporation of water quality treatment infrastructure is therefore not recommended and has not been included in the proposed design.

4. Flooding

A BCC Flood Wise property report has been generated, and the development site is indicated as impacted by flood events. The results suggest a defined flood event level of 2.5mAHD during 1%AEP stormtide events. Expected FFL of the building has yet to be provided, however the existing levels suggest a floor level of 2.9mAHD would be expected. The flood Wise report suggests contacting BCC to confirm a minimum habitable floor level, but the extension will likely tie in with the existing structure and determine the proposed floor levels as such. The Flood Wise report has been attached in Appendix B.

5. Engineering

5.1 Site Grading and Vehicle Access

The site is an existing infill site graded to tie in with the existing street levels and surrounding properties. The existing levels range from a low point of 2.5mAHD at the north-west site entry at 48 Eagleview Place, to a high point of 3mAHD at the centre of the block. The site also falls back to 2.5mAHD at the south-east corner.

An existing concrete driveway has been constructed at the north-west corner of the site from Eagleview Place, which provides access to the existing structures and associated carparking.

Preliminary bulk earthworks volumes and finished floor levels are to be established as the design develops.

A Traffic Impact Assessment has also been provided in a separate report by WSP (PS130139-P&M-REP-001_RevB, dated 19 April 2022).

6. Erosion and Sediment Control

6.1 Site Controls

The erosion and sediment control measures will be designed during the detail design stage to include in the building contract. The contractor will engage a RPEQ or CPESC engineer to design and certify the required erosion and sediment control mitigation measures. It will be the responsibility of the contractor to implement and maintain an erosion and sediment control plan during the construction and on-maintenance period.

6.2 General Requirements

All erosion and sediment control measures are required to be installed and functional prior to works commencing. The following implementation sequence shall be adopted where practicable with the construction program. Plans shall be updated, and measures moved and reinstated to reflect the progression of the works.

A site-based Erosion and Sediment Control Management Plan will be required and implemented under the direct supervision of a Registered Professional Engineer of Queensland. Indicative ESC measures will be required on the detailed design drawings and a final Erosion and Sediment Control Management Plan (ESCMP) shall be prepared by the Contractor as part of the Construction Management Plan for the information of the relevant parties prior to the Pre-start Meeting. The ESCMP to be generally in accordance with Best Practice Erosion & Sediment Control Document published by International Erosion Control Association (Australasia) 2008.

The contractor is, at all times, responsible for the establishment, management and maintenance of the erosion and sediment control measures, to ensure minimal environmental harm and to comply with Council's standards.

Once the site is stripped, the contractor will need to ensure that sediment is not washed into drains and that the loose dense silty sand and clays are not eroded away and bypass the site. Sediment fencing around the area of works and to direct the flows needs to be provided.

The preliminary erosion and sediment control plan can be found at Appendix A.

7. Conclusion

The proposed extension to the existing building at 48 Eagleview Place, Eagle Farm will incorporate new stormwater infrastructure to appropriately discharge the roof water, associated concrete pavement and carpark works to support the additional warehouse space, and limited earthworks and changes to existing site levels. Further details will be developed at the next stage of design.

Yours sincerely

Steve Novak
B.Eng (Civil), RPEQ, MIEAust, CPEng,

Civil Director for WSP Australia Pty Ltd

Appendix A CIVIL ENGINEERING DRAWINGS

DO NOT SCALE

48 EAGLEVIEW PLACE

EAGLEFARM, QUEENSLAND 4009

CIVIL DESIGN DRAWINGS

LOCALITY PLAN

NTS - IMAGE SOURCE GOOGLE MAPS 2022

DRAWING SCHEDULE	
DRAWING No.	DRAWING TITLE
C000	COVER SHEET, LOCALITY PLAN AND DRAWING SCHEDULE
C001	PROJECT NOTES
C010	EROSION AND SEDIMENT CONTROL LAYOUT PLAN
C011	EROSION AND SEDIMENT CONTROL NOTE AND DETAILS
C030	PAVEMENT JOINTING LAYOUT PLAN
C040	STORMWATER DRAINAGE LAYOUT PLAN
C050	CIVIL DETAILS SHEET

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SERVICE CLASHES

CONTRACTOR TO REFER TO SERVICES DOCUMENTATION AND LIAISE WITH THE RELEVANT AUTHORITY TO MITIGATE ANY SERVICE CLASHES WITH THE PROPOSED WORKS.

WARNING

BEWARE OF UNDERGROUND SERVICES.
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE BY CIVIL CONTRACTOR PRIOR TO CONSTRUCTION OF ANY CIVIL WORKS. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

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DATE PLOTTED: 22/04/2022 3:08:52 PM BY: MACLENNAN, RYAN

REV	DATE	BY	DESCRIPTION	CHK	APP
P1	22/04/2022	FM	PRELIMINARY	JF	JF

DRAWING STATUS: PRELIMINARY ISSUE
NOT TO BE USED FOR CONSTRUCTION

wsp
http://www.wsp.com

CLIENT: RUSSO INVESTMENTS PTY LTD

ARCHITECT: REALSERVE

PROJECT: 48 EAGLEVIEW PLACE EAGLE FARM, QLD 4009

TITLE: COVER SHEET, LOCALITY PLAN AND DRAWING SCHEDULE

SCALE @ A1:	CHECKED:	APPROVED:
N/A	JF	JF
PROJECT NUMBER:	DRAWN:	DATE:
PS130139	FM	22/04/2022

DRAWING No: C000 REV: P1

DO NOT SCALE

GENERAL

1. ORIGINAL SITE SURVEY PREPARED BY:
   VISION SURVEYS QUEENSLAND
   CONTOUR INTERVAL: 0.2m
   DATUM:
   VERTICAL: AHD
   HORIZONTAL: RP898828
   REAL PROPERTY DESCRIPTION:
   LOT 8 ON RP898828
   LOCAL AUTHORITY: BRISBANE CITY COUNCIL
2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
3. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT.
4. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT BY A LICENSED LAND SURVEYOR. CONFIRM SETOUT WITH ARCHITECT.
5. ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH APPROVED FILL MATERIAL AND COMPACTED TO 100% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 E1.1.
6. ON COMPLETION OF SERVICES INSTALLATION, ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AREAS, GRASSED AREAS AND ROAD PAVEMENTS.
7. WHERE NEW WORK ABUTS EXISTING, THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE FREE FROM ABRUPT CHANGES, IS OBTAINED.
8. CARE TO BE TAKEN WHEN EXCAVATING ENERGEX, TELSTRA AND ORIGIN GAS SERVICES. NO MECHANICAL EXCAVATION TO BE UNDERTAKEN OVER ENERGEX, TELSTRA AND ORIGIN GAS; HAND EXCAVATE IN THESE AREAS. LIAISE WITH RELEVANT AUTHORITY.
9. ALL WORKS SHALL BE IN ACCORDANCE WITH RELEVANT COUNCIL STANDARDS, DETAILS SHOWN ON THE DRAWINGS, THE SPECIFICATION AND THE DIRECTIONS OF THE ARCHITECT.
10. THE CONTRACTOR SHALL NOT DISTURB ANY EXISTING SURVEY BENCH MARKS OR REFERENCE MARKS (UNLESS INDICATED FOR REMOVAL) WITHOUT DEPT. OF NATURAL RESOURCES APPROVAL IN WRITING.
11. THE CONTRACTOR SHALL OBTAIN ALL RELEVANT AUTHORITIES APPROVALS. (PRIOR TO COMMENCEMENT AND UPON COMPLETION).
12. WORK ON EXISTING EXTERNAL STORMWATER SERVICES BY CONTRACTOR ARE SUBJECT TO INSPECTION AND APPROVAL BY COUNCIL.
13. THE CONTRACTOR SHALL LOCATE AND CONFIRM LEVELS OF ALL EXISTING SERVICE CONNECTIONS PRIOR TO COMMENCING WORK.
14. THE CONTRACTOR SHALL REFER TO LANDSCAPE DRAWINGS FOR DETAILS OF TREATMENT OF BATTERS, SWALE DRAINS AND ANY OTHER AREAS DISTURBED AS PART OF CIVIL WORKS.
15. ROAD OPENINGS:
    THE CONTRACTOR'S ATTENTION IS DRAWN TO THE REQUIREMENTS OF COUNCIL. WHERE THE WORK IS LOCATED IN A ROAD RESERVE OR CROSSES THE PAVEMENT OF A PUBLIC ROADWAY OR FOOTWAY, OBTAIN A CONSENT COVERING THE NECESSARY OPENINGS AND COMPLY WITH ALL THE CONDITIONS COVERING THE ISSUE OF SUCH A CONSENT. A CHARGE IS MADE FOR PERMITS ISSUED IN RESPECT OF PAVEMENT OPENINGS. CONTRACTOR TO OBTAIN DETAILS FROM COUNCIL, MEET ALL REQUIREMENTS AND PAYMENTS, AND CARRY OUT ALL LIAISON AT NO EXTRA COST. ALL PAVEMENT SURFACING IS TO BE UNDERTAKEN BY THE CONTRACTOR. ALL PAVEMENT REINSTATEMENT TO BE UNDERTAKEN BY THE CONTRACTOR.
16. REFER ALSO TO HYDRAULIC, LANDSCAPING, MECHANICAL AND ELECTRICAL CONSULTANTS' DRAWINGS FOR ADDITIONAL SITE SERVICES TO BE CO-ORDINATED FOR CONSTRUCTION UNDER PROPOSED CARPARK AND ROAD PAVEMENTS.

18. ALL CONSTRUCTION WORK SHALL BE CARRIED OUT SO THAT AT ANY TIME ADJOINING PROPERTY OWNERS ARE NOT DEPRIVED OF AN ALL-WEATHER ACCESS OR SUBJECTED TO ADDITIONAL STORM WATER RUN-OFF DURING THE PERIOD OF CONSTRUCTION.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO COUNCIL'S INFRASTRUCTURE. SUCH REPAIR OR REINSTATEMENT TO BE CARRIED OUT IMMEDIATELY TO THE SATISFACTION OF THE SUBDIVISION AND DEVELOPMENT MANAGER OF COUNCIL.
20. SITE INSPECTIONS REQUIRED AS SPECIFIED.
21. FOR CIVIL SETOUT INFORMATION CONTACT WSP (PH 3854 6200) AND AN AUTOCAD DRAWING FILE WILL BE ISSUED FOR SITE SETOUT SUBJECT TO CONDITIONS.
22. CONTRACTOR IS TO ALLOW TO INCLUDE ANY REQUIRED COUNCIL INSPECTION AND COMPLIANCE FEES IN THE CONTRACT.

EARTHWORKS

1. FOLLOWING DEMOLITION OF EXISTING STRUCTURES, ALL VEGETATION, SOILS CONTAINING ORGANIC AND DELETERIOUS MATERIAL, CONCRETE SLABS, CONCRETE BUILDING FOOTINGS AND PAVEMENT AREAS SHALL BE STRIPPED AND REMOVED FROM SITE.
2. ALL EXISTING TREE STUMPS AND ROOTS SHALL BE GRUBBED OUT TO A MINIMUM DEPTH OF 750mm.
3. DEPRESSIONS FORMED BY REMOVAL OF UNDERGROUND ELEMENTS AND OR WEAKENED AREAS SHOULD BE CLEANED OUT AND FILLED WITH COMPACTED IMPORTED FILL MATERIAL.
4. EXPOSED CONSTRUCTION AREAS SHALL BE PROOF ROLLED USING A VEHICLE WITH A LOADING OF AT LEAST 5 TONNES PER AXLE IN THE PRESENCE OF THE NOMINATED GEOTECHNICAL TESTING AUTHORITY AND A REPRESENTATIVE OF OPUS. AREAS DEMONSTRATING EXCESSIVE MOVEMENT SHALL BE TREATED IF POSSIBLE, OR REMOVED TO COMPETENT MATERIAL AND REPLACED WITH COMPACTED IMPORTED FILL MATERIAL. CONTRACTOR TO ALLOW A PROVISIONAL SUM FOR REMOVAL OF UNSUITABLE MATERIAL AND REPLACEMENT WITH COMPACTED IMPORTED FILL MATERIAL. ALLOW A PROVISIONAL QUANTITY OF XXXm³.
5. ALL SOFT, WET OR UNSUITABLE MATERIAL IS TO BE REMOVED AND REPLACED WITH APPROVED MATERIAL SATISFYING THE REQUIREMENTS LISTED BELOW FOR IMPORTED FILL MATERIAL.
6. PLACE IMPORTED FILL MATERIALS SATISFYING THE REQUIREMENTS LISTED BELOW TO NOMINATED BULK EARTHWORKS LEVELS ON BULK EARTHWORKS PLAN.
7. ALL IMPORTED FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING:
   a) FREE FROM ORGANIC AND PERISHABLE MATTER
   b) MAXIMUM PARTICLE SIZE 100mm
   c) PLASTICITY INDEX MAXIMUM 15%
   d) LIQUID LIMIT, MAX OF 45%
   e) PASSING 19mm SIEVE, MAX 80%
   f) MINIMUM CBR 10%
   g) SHRINK/SWELL INDEX, MAX OF 1.0%
8. CONTRACTOR TO PROVIDE CERTIFICATION TO SUPERINTENDENT FROM NATA REGISTERED LAB THAT THE FILL MATERIAL IS FREE OF ACTUAL OR POTENTIAL ACID SULFATE SOILS AND MEETS CURRENT DPI REGULATIONS FOR THE CONTROL OF RED IMPORTED FIRE ANTS (RIFA).
9. ALL ENGINEERED FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200mm THICK LAYERS AND COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR - 2%) TO ACHIEVE THE FOLLOWING MINIMUM COMPACTION VALUES:

LOCATION	COHESIVE SOILS	COHESIONLESS SOILS
BUILDING AREAS		
• FOUNDATION SUPPORT	98%	80%
• FLOOR SLABS	98%	80%
PAVEMENT AREAS		
• TOP 300mm BELOW SUBGRADE LEVEL	98%	80%
• BELOW THE TOP 300mm	95%	75%
LANDSCAPE AREAS	95%	75%

WHERE THE ABOVE VALUES ARE DETERMINED IN ACCORDANCE WITH AS 1289.5.1.1 (STANDARD COMPACTION) FOR COHESIVE SOILS AND AS 1289.5.6.1 (STANDARD METHOD) FOR COHESIONLESS SOILS.

10. ALL EARTHWORKS OPERATIONS SHALL BE CARRIED OUT WITH 'LEVEL 1' ENGINEERING SUPERVISION IN ACCORDANCE WITH APPENDIX B OF AS 3798. THE GEOTECHNICAL TESTING AUTHORITY SHALL BE FROM THE NOMINATED PANEL OF PROVIDERS WITHIN THE CIVIL SPECIFICATION. THE NOMINATED GEOTECHNICAL TESTING AUTHORITY SHALL PROVIDE CERTIFICATION AS NOTED IN THE GEOTECHNICAL REPORT THAT ALL GENERAL EARTHWORKS OPERATIONS HAVE BEEN CARRIED OUT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AND THE CONTROLLED FILL IS SUITABLE FOR PURPOSE WITH A MINIMUM 150 KPa BEARING CAPACITY UNDER THE BUILDING.

11. THE CONTRACTOR SHALL PROGRAMME THE EARTHWORKS OPERATION SO THAT THE WORKING AREAS ARE ADEQUATELY DRAINED DURING THE PERIOD OF CONSTRUCTION. THE SURFACE SHALL BE GRADED AND SEALED OFF TO REMOVE DEPRESSIONS, ROLLER MARKS AND SIMILAR WHICH WOULD ALLOW WATER TO POND AND PENETRATE THE UNDERLYING MATERIAL. ANY DAMAGE RESULTING FROM THE CONTRACTOR NOT OBSERVING THESE REQUIREMENTS SHALL BE RECTIFIED BY THE CONTRACTOR AT THEIR COST. CONTRACTOR IS TO ALSO NOTE THAT THE EXISTING SOILS INCLUDING NATURAL SILTY SAND AND HIGH PLASTICITY CLAYS ARE LIKELY TO BE SUSCEPTIBLE TO SOFTENING WHEN WET, TO THE POINT WHERE THE SITE MAY BECOME UNTRAFICABLE. THE CONTRACTOR IS TO PROVIDE TEMPORARY HAUL ROADS WHERE NECESSARY TO ALLOW ACCESS TO THE WORKS AREAS.
12. TESTING OF THE SUBGRADE SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 3798 BY AN APPROVED NATA REGISTERED LABORATORY AT THE CONTRACTOR'S EXPENSE.
13. ALL BASE AND SUB-BASE MATERIALS SHALL BE PLACED IN MAXIMUM 150mm THICK LAYERS AND COMPACTED AT OPTIMUM MOISTURE CONTENT OF (+ OR - 2%) TO ACHIEVE A DRY DENSITY IN ACCORDANCE WITH AS 1289.5.2.1 OF NOT LESS THAN THE FOLLOWING:

LAYER	MODIFIED DRY DENSITY
BASE COURSE	98% MODIFIED (AS 1289.5.2.1)
SUB-BASE COURSE	95% MODIFIED (AS 1289.5.2.1)

14. CONTRACTOR TO ENSURE VIA THE APPROPRIATE SELECTION OF FILL MATERIAL AND EARTHWORKS THAT, UPON COMPLETION OF THE EARTHWORKS, THAT THE BUILDING PLATFORM HAS A CLASS 'M' CLASSIFICATION IN ACCORDANCE WITH AS 2870.
15. ANY SURPLUS EXCAVATED MATERIAL SHALL BE DISPOSED OF OFF SITE AT AN APPROVED TIP SITE. CONTRACTOR TO ALLOW TO COMPLY WITH CURRENT DPI REGULATIONS FOR THE CONTROL OF RED IMPORTED FIRE ANTS.
16. ANY CONTAMINATED MATERIAL SHALL BE MANAGED AND DISPOSED OF ACCORDING TO THE CURRENT LOCAL COUNCIL AND EPA REQUIREMENTS INCLUDING CERTIFICATION.
17. THE USE OF POTABLE WATER IS NOT PERMITTED IN ACTIVITIES ASSOCIATED WITH ROAD AND PAVEMENT CONSTRUCTION, THE COMPACTION OF FILL MATERIAL OR DUST SUPPRESSION CONTRACTOR TO UTILISE RECYCLED OR SUITABLE NON POTABLE WATER FOR THESE ACTIVITIES WITHIN THE CONTRACT. USE OF RECYCLED WATER MUST BE IN ACCORDANCE WITH THE REQUIREMENTS OF COUNCIL.

EXISTING SERVICES AND FEATURES

1. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL IF REQUIRED OF ALL EXISTING SERVICES IN AREAS AFFECTED BY THE WORKS WITHIN THE CONTRACT AREA, AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. ALL TO REGULATORY AUTHORITY STANDARDS AND APPROVAL.
2. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.
3. PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL OBTAIN THE SUPERINTENDENT'S APPROVAL FOR HIS PROGRAMME FOR THE RELOCATION/CONSTRUCTION OF TEMPORARY SERVICES.
4. EXISTING BUILDINGS, EXTERNAL STRUCTURES, AND TREES SHOWN ON THESE DRAWINGS ARE FEATURES EXISTING PRIOR TO ANY SEPARATE AND PRECEDING DEMOLITION WORKS.
5. 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.
6. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE ADJACENT RESIDENCES. CONTRACTOR TO GAIN APPROVAL OF THE SUPERINTENDENT FOR TIME OF INTERRUPTION.

STORMWATER

1. ALL 300 DIA. DRAINAGE PIPES AND LARGER SHALL BE CLASS "3" APPROVED SPIGOT AND SOCKET RCP PIPES WITH RUBBER RING JOINTS, (U.N.O.). ALL DRAINAGE PIPES UP TO AND INCLUDING 225 DIA. SHALL BE SEWER GRADE uPVC WITH SOLVENT WELD JOINTS, (U.N.O.).
2. EQUIVALENT STRENGTH FRC PIPES MAY BE USED.
3. ALL PIPE JUNCTIONS UP TO AND INCLUDING 450 DIA. AND ALL TAPERS SHALL BE VIA PURPOSE MADE FITTINGS.
4. MINIMUM GRADE TO STORMWATER LINES TO BE 1% (U.N.O.).
5. CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION TO DISSIMILAR PIPEWORK.
6. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH. THE CONTRACTOR IS TO REPLACE DOWNSTREAM RECEIVING STORMWATER STRUCTURES, SHOULD THE STRUCTURE BE DAMAGED DURING INSTALLATION.
7. WHERE SUBSOIL DRAINAGE LINES PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS UNSLOTTED uPVC SEWER GRADE PIPE SHALL BE USED.
8. PROVIDE 3.0m LENGTH OF 100 DIA. SUBSOIL DRAINAGE PIPE WRAPPED IN FABRIC SOCK, AT UPSTREAM END OF EACH STORMWATER STRUCTURE (UNO)
9. BEDDING SHALL BE TYPE H1 (U.N.O.) IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS.
10. AT CONNECTION TO PITS, INVERT OF SUBSOIL DRAINS TO BE ABOVE MAIN STORMWATER PIPE OBVERT.
11. EQUIVALENT STRENGTH PRECAST STORMWATER PITS AND MANHOLES MAY BE USED.
12. PROVIDE CCTV INSPECTION AND REPORT OF ALL INSTALLED STORMWATER PIPES AT COMPLETION OF WORKS.
13. ALL PIPES TO BE INSTALLED IN ACCORDANCE WITH THE LOCAL AUTHORITY STANDARDS AND METHODS.

REINFORCED CONCRETE

GENERAL
1. CARRY OUT ALL CONCRETE WORK IN ACCORDANCE WITH AS 3600 AND THE SPECIFICATION. KEEP A COPY OF THE DOCUMENTS ON SITE.
2. VERIFY ALL SETTING OUT DIMENSIONS WITH THE SUPERINTENDANT AND/OR THE SURVEYOR.
3. DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS.

CONCRETE
4. ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH AS 3600 CURRENT EDITIONS WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
5. CONCRETE CHARACTERISTICS:

ELEMENT	COMPRESSIVE STRENGTH F'c - 28 DAYS (MPa)	SLUMP (mm)	MAX AGG SIZE (mm)
ALL KERBS, PITS ETC	32	80	20
FOOTPATH	32	80	20
CARPARK PAVEMENT	32	65	20
OSD TANK BASE AND LID	40	80	20

6. NO 'BRECCIA' TYPE AGGREGATE IS TO BE USED.
7. CEMENT TO BE TYPE SL TO AS 3972 U.N.O. MAX CONCRETE SHRINKAGE TO BE 600 MICRON TO AS3102 .
8. NO ADMIXTURES ARE TO BE USED WITHOUT THE APPROVAL OF THE ENGINEERS.
9. A VIBRATOR IS TO BE USED FOR THE COMPACTION OF ALL CONCRETE.
10. ALL CONCRETE PLACEMENT TO UTILISE ASPHALTIC ALCOHOL APPLIED TO THE CONCRETE AFTER THE INITIAL SCREED. CONCRETE SHALL BE CURED IN ACCORDANCE WITH AS 3600 FOR A MINIMUM OF 7 DAYS AFTER POURING, UTILISING AN APPROVED, NON-OIL BASED CURING COMPOUND OR THE COVERING OF THE ENTIRE SLAB WITH A CLEAR PLASTIC SHEET.
11. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEERS.
12. ALL CONCRETE SHALL BE SUBJECT TO PROJECT CONTROL SAMPLE AND TESTING TO AS 3600.
13. THE CONTRACTOR MAY ADD AN APPROVED SUPERPLASTICISING ADMIXTURE TO INCREASE SLUMP OF PAVEMENT CONCRETE TO NOT MORE THAN 100mm. QUALITY AND MIXING PROCEDURE TO BE IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS.

FINISHING
14. THE CONCRETE SHALL BE SCREEDED TO THE REQUIRED CROSS SECTION PROFILE, FREE OF DEPRESSIONS AND HIGH AREAS TO SATISFY THE REQUIREMENTS OF AN INITIAL FINISH.
15. FINAL FINISHING SHALL COMMENCE ONLY AS SOON AS THE WATER SHEEN HAS LEFT THE PAVEMENT SURFACE AND NOT IN ANY AREA WHERE THERE IS FREE SURFACE WATER. REFER ARCHITECTURAL SPECIFICATIONS FOR FINISHES TO SURFACES.

REINFORCEMENT
16. COVER TO REINFORCEMENT FOR CORROSION PROTECTION SHALL BE AS DETAILED OR AS A MINIMUM 40mm TO TOP REINFORCEMENT, 50mm TO BOTTOM REINFORCEMENT.
17. PIPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE COVER TO REINFORCEMENT.
18. REINFORCEMENT QUALITY
    19.1 BAR REINFORCEMENT

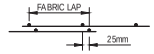
SYMBOL	BAR SHAPE	STRENGTH GRADE (MPa)	DUCTILITY CLASS	TO COMPLY WITH AUST. STANDARD
N	DEFORMED RIBBED BAR	500	NORMAL	AS 4671
R	PLAIN ROUND BAR	250	NORMAL	AS 4671

ALL BARS TO BE 'N" UNLESS NOTED OTHERWISE THE NUMBER FOLLOWING THE SYMBOL IS THE NOMINAL BAR SIZE IN mm. FOR EXAMPLE, N16 DENOTES A DEFORMED RIBBED BAR, OF GRADE 500MPa NORMAL DUCTILE STEEL, WITH A NOMINAL 16mm DIAMETER.
*NOTE: Y BARS MAY BE REPLACED WITH N BARS OF SAME SIZE.
19.2 MESH REINFORCEMENT

SYMBOL	DENOTES	STRENGTH GRADE (MPa)	DUCTILITY CLASS	TO COMPLY WITH AUST. STANDARD
RL	RECTANGULAR MESH OF DEFORMED RIBBED BARS	500	LOW	AS 4671
SL	SQUARE MESH OF DEFORMED RIBBED BARS	500	LOW	AS 4671

THE NUMBERS FOLLOWING THE SYMBOL DENOTE THE PRODUCT CODE. FOR EXAMPLE, SL92 DENOTES A SQUARE MESH OF 9mm (NOMINAL DIAMETER) DEFORMED RIBBED BARS AT 200mm CENTRES, OF GRADE 500MPa LOW DUCTILITY STEEL.

19. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY; IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
20. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITION SHOWN. THE WRITTEN APPROVAL OF THE ENGINEER SHALL BE OBTAINED FOR ANY OTHER SPLICE.
21. WELDING OF REINFORCEMENT WILL BE PERMITTED ONLY AFTER APPROVAL BY THE ENGINEER.
22. SITE BENDING OF N BARS SHALL BE DONE COLD WITH POWER OR MECHANICAL BENDING TOOLS.
23. FABRIC LAPS



24. FABRIC TO EXTEND 70 WITH A CROSS WIRE ONTO WALLS UNLESS NOTED OTHERWISE.
25. ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN CORRECT POSITION DURING CONCRETING BY APPROVED PLASTIC BAR CHAIRS UNO. MAXIMUM CENTERS OF SUPPORTING CHAIRS SHALL BE 600mm FOR FABRIC, 600mm FOR BARS UP TO 12mm DIAMETER AND 900mm FOR BARS 16mm AND GREATER.

ASPHALTIC CONCRETE

GENERAL
1. ASPHALTIC CONCRETE MIX DESIGN, MANUFACTURE, PLACING AND COMPACTION SHALL BE IN ACCORDANCE WITH THE SPECIFICATION AND AS2734 - 2005 ASPHALT (HOT MIXED) PAVING - A GUIDE TO GOOD PRACTICE.

PAVEMENT PREPARATION
2. THE EXISTING SURFACE TO BE SEALED SHALL BE DRY AND BROOMED BEFORE COMMENCEMENT OF WORK TO ENSURE COMPLETE REMOVAL OF ALL SUPERFICIAL FOREIGN MATTER.
3. ALL DEPRESSIONS OR UNEVEN AREAS ARE TO BE TACK-COATED AND BROUGHT UP TO GENERAL LEVEL OF PAVEMENT WITH ASPHALTIC CONCRETE BEFORE LAYING OF MAIN COURSE.

TACK COAT
4. THE WHOLE OF THE AREA TO BE SHEETED WITH ASPHALTIC CONCRETE SHALL BE LIGHTLY AND EVENLY COATED WITH RAPID SETTING BITUMEN.

JOINTS
5. THE NUMBER OF JOINTS BOTH LONGITUDINAL AND TRANSVERSE SHALL BE KEPT TO A MINIMUM.
6. THE DENSITY AND SURFACE FINISH AT JOINTS SHALL BE SIMILAR TO THOSE OF THE REMAINDER OF THE LAYER.

COMPACTION
7. ALL COMPACTION SHALL BE UNDERTAKEN USING SELF PROPELLED ROLLERS.
8. INITIAL ROLLING SHALL BE COMPLETED BEFORE THE MIX TEMPERATURE FALLS BELOW 105°C.
9. SECONDARY ROLLING SHALL BE COMPLETED BEFORE THE MIX TEMPERATURE FALLS BELOW 60°C.

FINISHED PAVEMENT PROPERTIES
10. FINISHED SURFACES SHALL BE SMOOTH, DENSE AND TRUE TO SHAPE AND SHALL NOT VARY MORE THAN THE SPECIFIED TOLERANCES.

CONCRETE PAVEMENT JOINT

1. WHERE NOMINATED, JOINTS TO BE SAWN AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY THAT IT WILL NOT BE DAMAGED BY SAWING. IF AN UNPLANNED CRACK OCCURS THE CONTRACTOR SHALL REPLACE WHOLE SLABS EITHER SIDE OF THE UNPLANNED CRACK, UNLESS DIRECTED OTHERWISE.
2. a) PROVIDE JOINTS AS DETAILED
   b) ALL LONGITUDINAL JOINTS SHALL BE FORMED AND INCLUDE TIE BARS OR DIAMOND DOWELS AS SPECIFIED. ALL TRANSVERSE CONSTRUCTION JOINTS SHALL BE FORMED AND INCLUDE PLATES OR DIAMOND DOWELS AS SPECIFIED.
   c) UNO BOND BREAKER TO BE PROPRIETARY DANLEY PLATE AND DIAMOND DOWEL COVERS.
3. DOWELS, PLATES AND TIE BARS SHALL BE:
   • STRAIGHT
   • TO LENGTH SPECIFIED
   • CLEAN AND FREE FROM MILL SCALE, RUST AND OIL
   • SAWN TO LENGTH NOT CROPPED
   • HOT DIPPED GALVANISED AFTER SAWING TO LENGTH
4. DIMENSIONS OF SEALANT RESERVOIR DEPENDANT ON THE SEALANT TYPE ADOPTED. ENGINEERS APPROVAL TO BE OBTAINED FOR SEALANT AND RESERVOIR DIMENSIONS AND DETAIL PROPOSED BY THE CONTRACTOR. REFER TO DETAILS FOR TYPICAL ARRANGEMENT AND SEALANT.
5. PRIOR TO THE PLACEMENT OF CONCRETE IN THE ADJACENT SLAB, SELF 10mm ABELFLEX WITH RIPOFF STRIP SHALL BE ADHERED TO THE ALREADY CAST AND CLEANED CONCRETE FACE USING AN APPROVED WATERPROOF ADHESIVE. ADHESIVE SHALL BE LIBERALLY APPLIED TO THE FULL FACE OF THE CONCRETE SLAB TO BE COVERED BY THE FILLER, AND ON THE FULL FACE OF THE FILLER TO BE ADHERED.
6. REFER TO EARTHWORKS NOTES FOR PREPARATION OF SUB-BASE AND SUB-GRADE.
7. CONTRACTION, LONGITUDINAL, ISOLATION AND CONSTRUCTION JOINTS SHALL BE LOCATED AS SPECIFIED.
8. SAWCUTTING SHALL COMMENCE AS EARLY AS POSSIBLE UTILISING SOFTCUT TO AVOID UNCONTROLLED SHRINKAGE CRACKING, BUT NOT SO EARLY AS TO CAUSE UNACCEPTABLE RAVELING OF JOINT EDGES. PROGRAM SITE AND TIME OF CONCRETE POURS TO PERMIT SAWING TO BE CARRIED OUT WITHOUT CAUSING NOISE POLLUTION.
9. CONCURRENTLY WITH THE SAWING OPERATIONS THE SAWN GROOVE SHALL BE WASHED FREE OF MATERIAL.
10. SAWN GROOVES FORMING THE RESERVOIR FOR A JOINT SEALANT SHALL BE FORMED IN TWO STAGES, THE SECOND SAWCUT SHALL BE MADE AS LATE AS POSSIBLE.

DANLEY DOWEL JOINT

1. WHERE NOMINATED THE CONTRACTOR IS TO ALLOW FOR ALL COMPONENTS OF DANLEY DOWEL JOINT SYSTEM INCLUDING TEMPLATES & PEGGING TO ENSURE THAT ALL DOWEL BARS REMAIN IN THE CORRECT ALIGNMENT & POSITION REFER DETAILS.

LINEMARKING

1. ALL LINEMARKING TO BE IN ACCORDANCE WITH AS 1742 PARTS 1 AND 2.
2. ALL INTERNAL CARPARK LINE MARKING SHALL BE 90mm WIDE UNO AND BE COMPLETED USING WHITE REFLECTORISED PAINT UNO IN ACCORDANCE WITH AS 1742 AND AS SPECIFIED IN THE ARCHITECTURAL SPECIFICATION.
3. THE INTERNATIONAL SYMBOL OF ACCESS SHALL BE WHITE ON A BLUE BACKGROUND IN ACCORDANCE WITH AS 1428. THE BLUE SHALL BE B21, ULTRAMARINE OF AS 2700, OR SIMILAR APPROVED.

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SERVICE CLASHES
CONTRACTOR TO REFER TO SERVICES DOCUMENTATION AND LIAISE WITH THE RELEVANT AUTHORITY TO MITIGATE ANY SERVICE CLASHES WITH THE PROPOSED WORKS.

WARNING
BEWARE OF UNDERGROUND SERVICES.
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE BY CIVIL CONTRACTOR PRIOR TO CONSTRUCTION OF ANY CIVIL WORKS. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

REV	DATE	BY	DESCRIPTION	CHK	APP
P1	22/04/2022	FM	PRELIMINARY	JF	JF

DRAWING STATUS: PRELIMINARY ISSUE
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CLIENT: RUSSO INVESTMENTS PTY LTD
ARCHITECT: REALSERVE
PROJECT: 48 EAGLEVIEW PLACE EAGLE FARM, QLD 4009
TITLE: PROJECT NOTES

SCALE @ A1:	CHECKED:	APPROVED:
N/A	JF	JF
PROJECT NUMBER:	DRAWN:	DATE:
PS130139	FM	22/04/2022

DRAWING No: C001
REV: P1

CAD FILE: P:\130139\CAD\1.DWG
DATE PLOTTED: 22/04/2022 3:04:48 PM BY: MACLENNAN, RYAN

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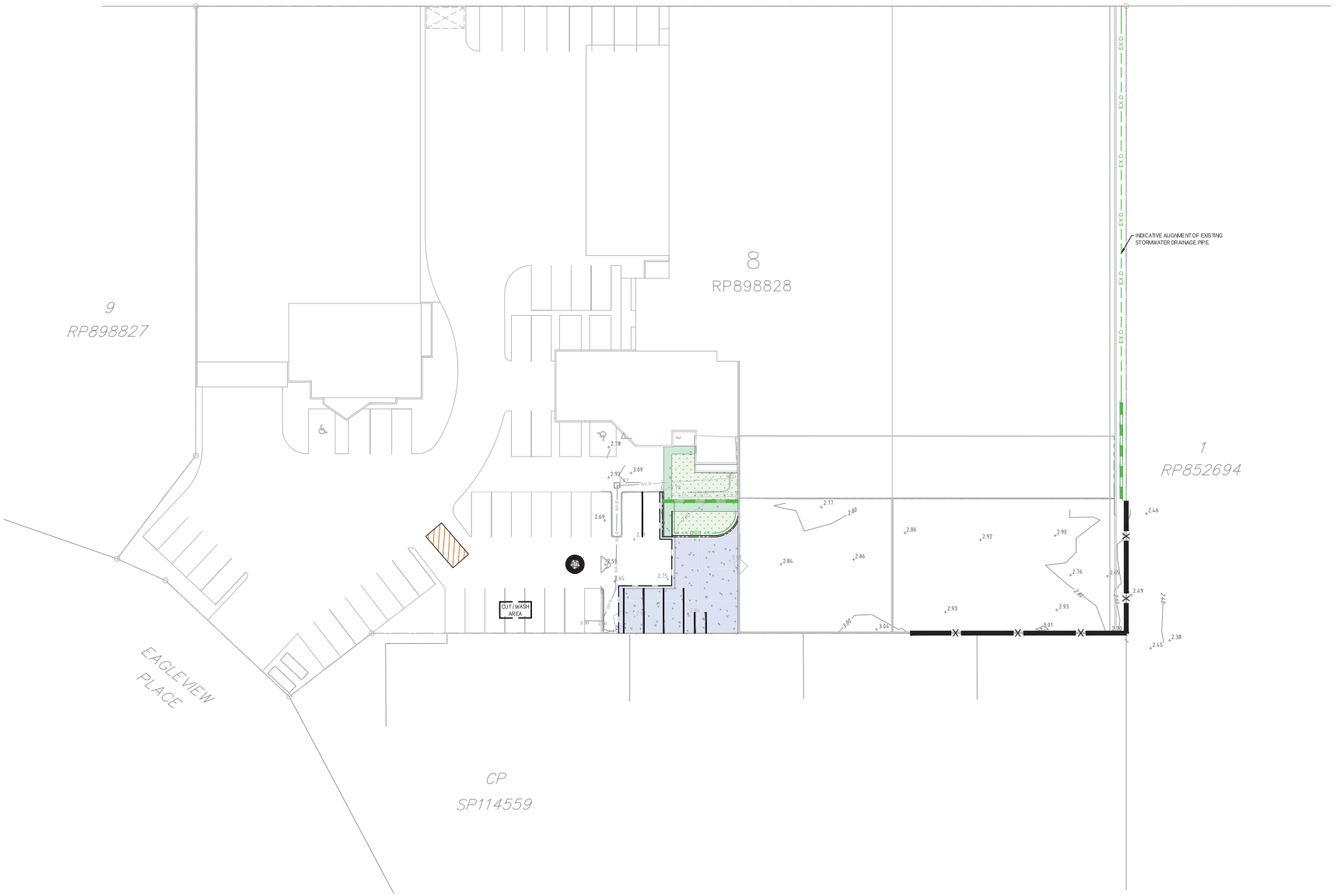

LEGEND

- PROPOSED BUILDING AREA
- PROPOSED STABILISED SITE ENTRY/EXIT LOCATION TO BE DETERMINED BY CONTRACTOR
- PROPOSED SEDIMENT FENCE
- PROPOSED INLET SEDIMENT TRAP

NOTES

1. SEDIMENT AND CONTROL MEASURES SHOWN ON THIS PLAN ARE PREPARED AS A GUIDE FOR CONSTRUCTION APPROVAL BY COUNCIL. IT DOES NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PLAN AND IMPLEMENT ENVIRONMENTAL PROTECTION MEASURES AS REQUIRED BY LAW, THE COUNCIL AND THE CONTRACT THROUGHOUT THE WORKS.
2. NO WATER TO LEAVE SITE UNTIL THE SITE HAS 70% COVERAGE/STABILISATION.
3. USE DETENTION TANK EXCAVATION AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION.
4. FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS REFER DWG C011.

SERVICE CLASHES
CONTRACTOR TO REFER TO SERVICES DOCUMENTATION AND LIAISE WITH THE RELEVANT AUTHORITY TO MITIGATE ANY SERVICE CLASHES WITH THE PROPOSED WORKS.

WARNING
BEWARE OF UNDERGROUND SERVICES.
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REV	DATE	BY	DESCRIPTION	CHK	APP
P1	22/04/2022	FM	PRELIMINARY	JF	JF

DRAWING STATUS: PRELIMINARY ISSUE
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CLIENT: RUSSO INVESTMENTS PTY LTD

ARCHITECT: REALSERVE

PROJECT: 48 EAGLEVIEW PLACE EAGLE FARM, QLD 4009

TITLE: EROSION AND SEDIMENT CONTROL LAYOUT PLAN

SCALE @ A1:	CHECKED:	APPROVED:
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PROJECT NUMBER:	DRAWN:	DATE:
PS130139	FM	22/04/2022

DRAWING No: C010 REV: P1

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EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

1. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, LANDSCAPING PLANS AND WRITTEN INSTRUCTIONS RELATING TO THE SUBJECT DEVELOPMENT.
2. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.
3. THE EXTENT AND POSITION OF THE EROSION AND SEDIMENT CONTROL MEASURES TO BE DETERMINED ON SITE BY THE CONTRACTOR TO SUIT THE CONSTRUCTION PROGRAM.
4. THESE PLANS PRESENT CONCEPTS ONLY AND THE MEASURES SHOWN ON THIS DRAWING(S) ARE MINIMUM REQUIREMENTS ONLY.
5. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT, MANAGEMENT AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES TO MEET COUNCIL STANDARDS.
6. LARGE OPEN AREAS OR STEEP BATTERS SHOULD NOT BE LEFT EXPOSED/UNSTABILISED FOR MORE THAN 10 DAYS OR IF WET WEATHER IS FORECAST.
7. EXPOSED AREAS INCLUDING BATTERS WHICH REMAIN UN-WORKED FOR MORE THEN 10 DAYS SHOULD BE STABILISED USING TEMPORARY HYDROMULCHING, HYDROSEEDING OR MULCHING, EVEN IF AREAS WILL BE WORKED AT A LATER TIME.
8. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST VERSION OF THE INSTITUTION OF ENGINEERS AUSTRALIA, 'SOIL EROSION AND SEDIMENT CONTROL - ENGINEERING GUIDELINES FOR QUEENSLAND CONSTRUCTION SITES.
9. THE CONTRACTOR SHALL BE AWARE OF ITS RESPONSIBILITIES FOR PROTECTING THE DOWNSTREAM ENVIRONMENT AND RECEIVING WATER FROM POLLUTION AND ENVIRONMENTAL HARM, UNDER THE ENVIRONMENTAL PROTECTION ACT. 1994.
10. ADDITIONALLY THE CONTRACTOR SHALL BE AWARE OF ITS DUTY TO NOTIFY THE LOCAL AUTHORITY AND THE ENVIRONMENTAL PROTECTION AGENCY (QLD) OF A POTENTIAL OR ACTUAL INCIDENT OF ENVIRONMENTAL HARM, UNDER THE ENVIRONMENTAL PROTECTION ACT. 1994.

RECOMMENDED IMPLEMENTATION SEQUENCE:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO WORKS COMMENCING AND IN THE FOLLOWING SEQUENCE.
   a. CONSTRUCT TEMPORARY STABILISED SITE ACCESS, ENSURING ADJACENT STORMWATER RUN OFF IS DIVERTED AWAY FROM ACCESS
   b. INSTALL SEDIMENT FENCING AND/OR BARRIER FENCING TO CONFINE INGRESS TO AND EGRESS FROM THE SITE TO STABILISED ACCESS POINT(S) ONLY.
   c. PROVIDE INLET PROTECTION TO STORMWATER INLETS AND GULLIES ON ALL ROADS ADJOINING THE SITE.
   d. CONSTRUCT BARRIER FENCING AROUND RESTRICTED 'NO-GO' ZONES OF RETAINED VEGETATION, AREAS NOT TO BE DISTURBED AND AREAS WHICH WILL REMAIN UN-WORKED.
   e. CONSTRUCT UPSTREAM DIVERSION CHANNELS TO DIVERT CLEAN WATER AROUND WORKSITE, AND INSTALL APPROPRIATE CHANNEL STABILISATION.
   f. CONSTRUCT LOW FLOW EARTH BANKS AS CATCH DRAINS PARALLEL TO CONTOURS TO LIMIT LARGE SLOPE LENGTHS (SLOPES SHOULD BE LESS THEN 80M IN LENGTH).
   g. INSTALL ALL TEMPORARY SEDIMENT FENCES.
   h. CONSTRUCT ANY NOMINATED SEDIMENT BASINS AND SEDIMENT TRAPS.
   i. STABILISE ALL DISTURBED AREAS ASAP AND PROGRESSIVELY AS WORKS ARE COMPLETED. TEMPORARY STABILISATION TO BE DONE USING MULCHING, HYDROMULCHING, HYDROSEEDEDING OR DIRECT SEEDING TO GIVE A 70% COVERAGE OF GROUND SURFACE WITHIN 14 DAYS OF WORKS COMPLETING (EVEN IF WORKS MAY CONTINUE LATER).
2. UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO MINIMUM WORKABLE AREAS.
3. DISTURBED AREAS TO EXTEND NO MORE THAN 5 METRES (PREFERABLY 2 METRES) FROM ESSENTIAL WORKS AREAS.
4. WORK AREAS TO BE DELINEATED BY BARRIER FENCING AND DIVERSION CHANNEL UPSLOPE AND SEDIMENT FENCING DOWNSLOPE.
5. THE CONTRACTOR SHALL ENSURE THAT THE EXISTING VEGETATION AND GROUNDCOVER IS RETAINED AS MUCH AS POSSIBLE.
6. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR LATER USE ONSITE.
7. NATIVE SITE VEGETATION REQUIRED AND APPROVED FOR CLEARING SHOULD BE MULCHED AND STOCKPILED FOR LATER USE IN LANDSCAPING, STABILISATION AND/OR SITE REHABILITATION WORKS.
8. AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND RECEIVING ENVIRONMENTS.
9. EROSION AND SEDIMENT CONTROL PROTECTION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONTRACT.
10. PLANS AND CONTROL MEASURES FOR LARGE SITES WILL NEED TO BE REVISED AND UPDATED TO REFLECT THE SITE STAGES AND PROGRESSION OF WORKS.
    11. MEASURES INCLUDING SEDIMENT FENCES SHOULD BE MOVED AND REINSTATED AS WORKS PROGRESS.
12. FOOT AND VEHICULAR TRAFFIC TO BE RESTRICTED IN RECENTLY STABILISED AREAS INCLUDING THOSE HYDROSEEDED, TURFED OR SEEDED.

CONTROL MEASURES

1. FINAL SITE LANDSCAPING SHALL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS OF CONSTRUCTION COMPLETION
2. SEDIMENT LADEN WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM BY USING INLET PROTECTION.
3. ALL PERIMETER BANKS AND CHANNEL DRAINS SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
4. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL ONLY BE REMOVED ONCE SITE IS STABILISED AND UPSTREAM WORKS HAVE BEEN COMPLETED.
5. AT CONSTRUCTION COMPLETION ALL TEMPORARY EARTH STRUCTURES, INCLUDING SOIL STOCKPILES ARE TO BE TRACK ROLLED AND SEEDED. THE CONTRACTOR IS TO ENSURE A 70% COVERAGE WITHIN 14 DAYS.

DUST CONTROL

1. DURING WINDY AND DRY WEATHER ANY UNPROTECTED AREAS SHALL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL. WHERE WATER IS NOT AVAILABLE IN SUFFICIENT QUANTITIES, SOIL BINDERS OR DUST RETARDANTS TO BE USED FOR DUST SUPPRESSION.
2. EXPOSED SURFACES INCLUDING BATTERS SHOULD BE LEFT ROUGH TO REDUCE WIND SPEEDS AND POTENTIAL FOR WIND EROSION.
3. USE OPEN WEAVE BARRIER FENCING ON WINDWARD SIDE OF SITE IF REQUIRED (REFER DETAIL). FENCING IS GENERALLY REQUIRED WHERE AREA OF DISTURBANCE IS >500m².

OTHER MATTERS

1. ACCEPTABLE RECEPTORS AND DISPOSAL PRACTICES WILL BE USED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHERS, LITTER AND GENERAL WASTE MATERIALS.
2. ANY EXISTING TREES WHICH ARE NOT REQUIRED OR APPROVED TO BE CLEARED FOR THE WORKS AND/OR FORM PART OF THE FINAL LANDSCAPING PLAN SHOULD BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
   a. PROTECTING THEM WITH BARRIER FENCING OR MARKERS.
   b. ENSURING NOTHING IS NAILED TO THEM
   c. PROHIBITING PAVING, GRADING OR PLACING OF STOCKPILES WITHIN DRIP LINE.
3. ALL VEHICLE AND EQUIPMENT WASHING SHOULD BE CONTAINED IN SPECIFIC BUNDED AREAS, DISCONNECTED FROM CONCENTRATED FLOW PATHS AND THE STORMWATER SYSTEM.
4. ANY NECESSARY VEHICLE OR EQUIPMENT REFUELING SHOULD BE UNDERTAKEN AWAY FROM CONCENTRATED FLOW PATHS AND PREFERABLY WITHIN A BUNDED AREA.
5. ANY ONSITE FUEL STORAGE AREAS SHOULD BE COVERED AND BUNDED.

MAINTENANCE OF PUBLIC ROADS

1. ALL CONSTRUCTION VEHICLES DEPARTING FROM THE SITE SHALL HAVE THEIR TYRES WASHED DOWN OR SEDIMENT REMOVED BY A STABILISED SITE ACCESS DEVICE.
2. THE STABILISED SITE ACCESS AREAS SHALL BE LOCATED SUCH THAT SILTED WATER IS FILTERED THROUGH A SUITABLE SEDIMENT TRAP (SUCH AS A SEDIMENT FENCE) INSTALLED DOWNSTREAM OF ACCESS.
3. THE CONTRACTOR SHALL INSPECT THE PUBLIC ROADS ADJACENT TO THE SITE DAILY AND MANUALLY REMOVE ANY SEDIMENT DEPOSITS (BY SWEEPING NOT WASH DOWN).

SITE INSPECTION AND MAINTENANCE

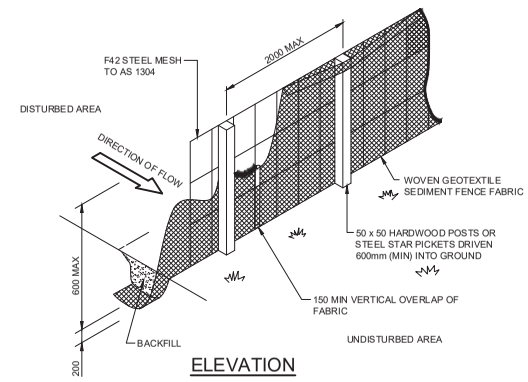
1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED REGULARLY, IMMEDIATELY BEFORE SITE CLOSURE, PRIOR TO PREDICTED LARGE STORM EVENTS AND AFTER EVERY SIGNIFICANT (>5MM) RAINFALL EVENT OR AT LEAST ON A WEEKLY BASIS.
2. THE CONTRACTOR WILL AS A MINIMUM CONDUCT EACH INSPECTION IN LINE WITH THE FOLLOWING
   a. RECORD TYPE OF DEVICE/CONTROL MEASURE BEING INSPECTED AND ITS LOCATION;
   b. RECORD THE CONDITION OF EVERY CONTROL MEASURE;
   c. RECORD MAINTENANCE REQUIREMENTS FOR EVERY CONTROL DEVICE;
   d. RECORD SEDIMENT VOLUMES REMOVED FROM SEDIMENT TRAPPING DEVICES;
   e. RECORD DETAILS OF SEDIMENT BASIN TREATMENT, FLOCCULANT DOSAGE AND CLEANOUT;
   f. RECORD SEDIMENT DISPOSAL PROCEDURES AND LOCATION.
3. REPAIRS AND MAINTENANCE OF ALL DEVICES AND MEASURES INCLUDING DIVERSION CHANNELS SHALL BE UNDERTAKEN AS REQUIRED, ENSURING ALL MEASURES ARE FULLY FUNCTIONAL AT ALL TIMES.
4. ENSURE SEDIMENT LADEN WATER HAS NOT BEEN DIVERTED AROUND DEVICES.
5. REPAIR SCOUR DAMAGE TO SEDIMENT CONTROL MEASURES AFTER RAINFALL EVENTS AND REINSTATE DEVICES AS NECESSARY.
6. SEDIMENT FENCES WILL REQUIRE CLEANING WHEN SEDIMENT REACHES 300MM DEPTH OR ONE-HALF THE HEIGHT OF THE FILTER FABRIC AND ALL OTHER SEDIMENT TRAPS WILL REQUIRE CLEANING OUT WHEN 30% OF DESIGN CAPACITY IS REACHED.
7. ALL INLET AND GULLY TRAPS TO BE CLEANED NOT HOSED AFTER EVERY RAINFALL EVENT, (1>5mm) OR AT LEAST ON A WEEKLY BASIS.
8. SEDIMENT REMOVED FROM ANY TRAPPING DEVICE TO BE RELOCATED, ENSURING FURTHER POLLUTION TO DOWNSTREAM ENVIRONMENTS WILL NOT OCCUR.
9. ALL SEEDING, HYDROSEEDING AND TURFING REQUIRES REGULAR WATERING, UNTIL EFFECTIVE COVER ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY. WATERING SHOULD VARY DEPENDING ON WEATHER AND SOIL CONDITIONS.
10. WATERING SHOULD START IMMEDIATELY AFTER PLANTING AND SHOULD COMPLY WITH THE FOLLOWING AS A MINIMUM:
    WEEK 1 3 WATERINGS/WEEK
    WEEK 2-6 2 WATERINGS/WEEK
    WEEK 7-12 1 WATERING/WEEK
11. EXCESSIVE VEGETATION GROWTH WILL BE CONTROLLED THROUGH MOWING OR SLASHING.
12. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE INSPECTION, MAINTENANCE AND TESTING OF DEVICES IS UNDERTAKEN ON SITE.
13. THE CONTRACTOR TO KEEP DETAILED AND LEGIBLE RECORDS OF ALL INSPECTION AND MAINTENANCE UNDERTAKEN ON THE EROSION AND SEDIMENT CONTROL DEVICES.
14. ALL SITE WASTE INCLUDING GENERAL RUBBISH TO BE DISPOSED OF IN AN ENVIRONMENTALLY RESPONSIBLE MANNER IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION (WASTE MANAGEMENT) POLICY 2000 AND ENVIRONMENTAL PROTECTION (WASTE MANAGEMENT) REGULATION 2000.
15. THE CONTRACTOR SHALL CONSTRUCT AND IMPLEMENT ADDITIONAL MEASURES AS NECESSARY TO ENSURE PROTECTION OF DOWNSTREAM ENVIRONMENTS.

SEDIMENT BASIN MAINTENANCE

1. THE CONTRACTOR SHALL KEEP DETAILED AND ACCURATE RECORDS OF THE MONITORING, TREATMENT, TESTING AND MAINTENANCE OF THE SEDIMENT BASIN INCLUDING RECORDED RAINFALL VOLUME, FLOCCULATING AGENTS USED AND TEST RESULTS PRIOR TO DEWATERING.
2. THE STORMWATER RUNOFF COLLECTED IN THE SEDIMENT BASIN SHALL BE MONITORED, TREATED AND TESTED PRIOR TO DISCHARGE, INCLUDING WATER TO BE REUSED ON SITE.
3. WATER TESTING TO BE UNDERTAKEN BY A SUITABLY QUALIFIED PERSON.
4. ALL LABORATORY TESTING TO BE UNDERTAKEN BY A NATA ACCREDITED LABORATORY.
5. ALL WATER PUMPED FROM THE SEDIMENT BASIN SHALL BE TESTED FOR ENVIRONMENTAL COMPLIANCE AGAINST THE RELEASE CRITERIA IN THE TABLE BELOW (AS A MINIMUM), UNLESS ALTERNATIVE (MORE STRINGENT) STANDARDS ARE SPECIFIED BY THE LOCAL AUTHORITY PRIOR TO RELEASE.

PARAMETER	RELEASE CRITERIA
SUSPENDED SOLIDS	50mg/l MAX
pH	WITHIN RANGE 6.5-8.5
VISUAL AMENITY	NO VISUAL PLUME

6. WATER TESTING TO BE UNDERTAKEN USING EITHER A HANDHELD PHTURBIDITY METER OR SAMPLES COLLECTED FOR LABORATORY TESTING PRIOR TO BASIN DEWATERING.
7. THE SEDIMENT BASIN SHALL BE TREATED BY FLOCCULATION AFTER ALL RAINFALL EVENTS (>5MM) USING GYPSUM OR ALUM. MANUAL DOSAGE OF BASIN SHALL BE UNDERTAKEN USING A MINIMUM RATE OF 32kg/100m3 FOR GYPSUM AND 1.5-8kg/100m3 FOR ALUM. HIGHER DOSAGE MAY BE REQUIRED DEPENDING ON SOIL TYPE AND APPLICATION TECHNIQUE.
8. THE CHOSEN FLOCCULENT SHALL BE SPREAD EVENLY OVER THE BASIN SURFACE AREA. THE BASIN WILL REQUIRE A PUMP SYSTEM TO SPRAY SLURRY OF FLOCCULANTS OVER SURFACE AT AN ANGLE OF 10 - 20 DEGREES.
9. THE TREATED BASIN SHALL BE DEWATERED WITH A PUMP SYSTEM WITH A FLOATING INLET TO ENSURE SETTLED SEDIMENT IS NOT ENTRAINED AND DISCHARGED.
10. BASIN DEWATERING SHALL OCCUR WITHIN 5 DAYS FROM CONCLUSION OF RAINFALL EVENT.
11. SEDIMENT BASINS WILL REQUIRE DEWATERING AND SEDIMENT CLEANOUT ONCE STORAGE CAPACITY REACHES 70%.
12. CAPTURED SEDIMENT WILL BE DISPOSED OF IN AN ENVIRONMENTALLY RESPONSIBLE MANNER AS TO NOT CAUSE FURTHER CONTAMINATION OR DOWNSTREAM POLLUTION. SEDIMENT SHOULD NOT BE DISPOSED OF IN CONCENTRATED FLOWS, WHERE IT CAN BE RE-ENTRAINED OR WHERE THE RECEIVING WATER HAS A PH OF < 5.5.
13. THE BASIN AND ALL OTHER CONTROL DEVICES WILL BE MAINTAINED IN AN OPERATIONAL STATE UNTIL SITE STABILISED.
14. REPAIR ANY SCOUR DAMAGE TO THE SEDIMENT BASIN BATTERS AND EMERGENCY SPILLWAY FOLLOWING RAINFALL EVENTS.
15. SEDIMENT BASIN SHOULD NOT BE CONSTRUCTED WITH SMOOTH INTERNAL SLOPES AND BASIN BATTERS SHOULD NOT BE STEEPER THEN 3(H):1(V).
16. BASINS SHOULD BE APPROPRIATELY FENCED AND MARKED BY WARNING SIGNS IF UNSUPERVISED PUBLIC ACCESS IS LIKELY AND PUBLIC SAFETY IS AT RISK.



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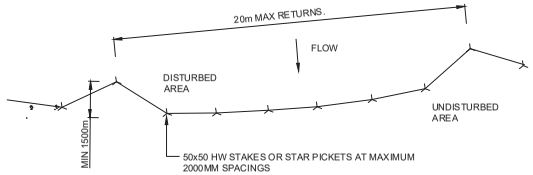
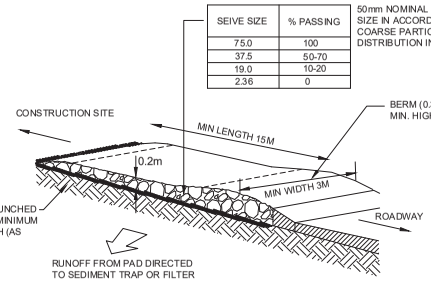


PLAN

SEDIMENT FENCE DETAIL

SCALE N.T.S.

NOTES:
1. HORIZONTAL BAR STEEL MESH TO BE FLUSH WITH TOP OF GEOTEXTILE FABRIC WITH NO VERTICAL BARS PROTRUDING PAST TOP OF SEDIMENT FENCE.
2. NO SHADE CLOTH TO BE USED FOR SEDIMENT FENCING.
3. CATCHMENT DRAINING TO SEDIMENT FENCE SHOULD BE MAX 0.6ha.
4. UPSTEAM SLOPE TO BE 1:2 max AND SLOPE LENGTH 60m MAX.
5. SEDIMENT FENCES ARE TO BE INSTALLED PARALLEL TO CONTOURS WHERE POSSIBLE AND HAVE RETURNS EVERY 20 METRES, TO LIMIT CONTRIBUTING CATCHMENT AND ENCOURAGE PONDING
6. SEDIMENT FENCES TO BE INSTALLED NO MORE THAN 5 METRES FROM DISTURBED AREAS OR STOCKPILES.



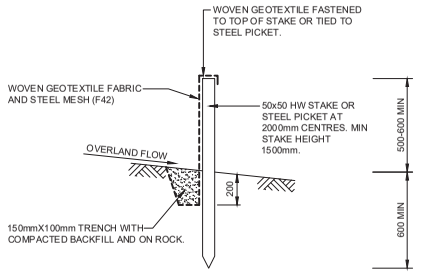
SEIVE SIZE	% PASSING
75.0	100
37.5	50-70
19.0	10-20
2.36	0

50mm NOMINAL AGGREGATE SIZE IN ACCORDANCE WITH COARSE PARTICLE SIZE DISTRIBUTION IN TABLE.

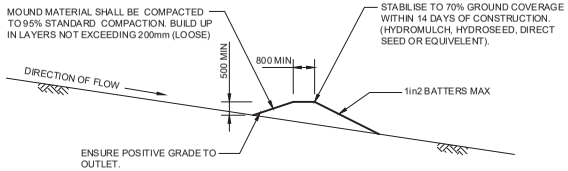
TEMPORARY STABILISED SITE ENTRY/EXIT (ROCK)

SCALE N.T.S.

NOTES:
1. STABILISED ACCESS SHOULD BE CLEANED AND MAINTAINED AFTER EVERY RAINFALL EVENT (>5mm) AND WHEN SEDIMENT ACCUMULATION IS NOTED.
2. FINE ACCUMULATED SEDIMENTS SHOULD BE REMOVED FROM AGGREGATE REGULARLY.

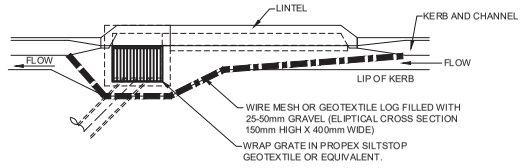


SECTION DETAIL



DIVERSION MOUND / BUNDWALL DETAIL

SCALE N.T.S.



TEMPORARY GULLY TRAP DETAIL

SCALE N.T.S.

SERVICE CLASHES
CONTRACTOR TO REFER TO SERVICES DOCUMENTATION AND LIAISE WITH THE RELEVANT AUTHORITY TO MITIGATE ANY SERVICE CLASHES WITH THE PROPOSED WORKS.

WARNING
BEWARE OF UNDERGROUND SERVICES.
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DIAL BEFORE YOU DIG www.1100.com.au

REV	DATE	BY	DESCRIPTION	CHK	APP
P1	22/04/2022	FM	PRELIMINARY	JF	JF

DRAWING STATUS: PRELIMINARY ISSUE
NOT TO BE USED FOR CONSTRUCTION

wsp
http://www.wsp.com

CLIENT: RUSSO INVESTMENTS PTY LTD

ARCHITECT: REALSERVE

PROJECT: 48 EAGLEVIEW PLACE EAGLE FARM, QLD 4009

TITLE: EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

SCALE @ A1:	CHECKED:	APPROVED:
1:250	JF	JF
PROJECT NUMBER:	DRAWN:	DATE:
PS130139	FM	22/04/2022

DRAWING No: C011 REV: P1

CAD FILE: PS130139-C001.DWG
DATE PLOTTED: 22/04/2022 3:08:06 PM BY: MACLENNAN, RYAN

DO NOT SCALE

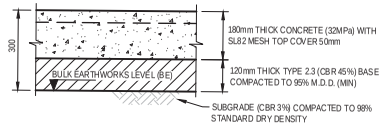
5 2.5 0 5 10 15m
1:250 @A1

LEGEND

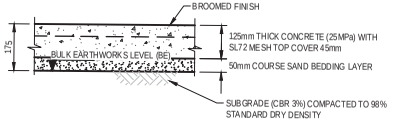
- PROPOSED HEAVY DUTY CONCRETE PAVEMENT - REFER DETAIL
- PROPOSED PEDESTRIAN CONCRETE PAVEMENT - REFER DETAIL
- PROPOSED LANDSCAPE AREA REFER LANDSCAPE PLANS FOR DETAILS
- PROPOSED SAW CUT LINE
- BK PROPOSED BARRIER KERB

NOTES

1. ALL CHAMFERS TO BE MIN 500mm LONG OR AS SHOWN ON THE DRAWING.
2. SAW CUTTING TO BE PERFORMED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY, TO PREVENT EXCESSIVE CHIPPING, SPALLING OR TEARING REGARDLESS OF TIME OR WEATHER CONDITIONS.
3. ANY FORM OF SLAB CRACKING OR RAIN DAMAGE SLABS OR KERBS WILL NOT BE ACCEPTED AND SHALL BE REMOVED AND REPLACED. REFER SPECIFICATION FOR DETAILS OF SLAB CURING, SAW CUTTING AND JOINT FINISHING.
4. DO NOT STORE MATERIALS ON NEW PAVEMENTS THAT MAY CAUSE STAINING. DO NOT TRAFFIC PAVEMENTS. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ALL PAVEMENTS ARE IN AS NEW CONDITION AT TIME OF HAND OVER.
5. LOCALLY LOWER CONCRETE WITHIN THE KERBS TO PREVENT PONDING OF STORMWATER.
6. ALL 'SOFCUT' SAWCUTS TO BE CUT TO SPECIFIED DEPTH TO FULL WIDTH OF ALL SLABS.



HEAVY DUTY CONCRETE FOOTPATH
SCALE 1:10



REINFORCED CONCRETE FOOTPATH
SCALE 1:10

NOTES:
1. CONTROL JOINTS AT 3m CENTRES, 30mm DEEP x 6mm WIDE RECESS, SAW CUT OR CRACK INDUCER 25mm DEEP OR KEY JOINT.
2. EXPANSION JOINTS AT 18m MAX CENTRES, 10mm THICK, FULL DEPTH CLOSED CELL CROSS LINKED POLYRTHYLENE FOAM (85-150kg/m3)

SERVICE CLASHES
CONTRACTOR TO REFER TO SERVICES DOCUMENTATION AND LIAISE WITH THE RELEVANT AUTHORITY TO MITIGATE ANY SERVICE CLASHES WITH THE PROPOSED WORKS.

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DRAWING STATUS: PRELIMINARY ISSUE
NOT TO BE USED FOR CONSTRUCTION

wsp
http://www.wsp.com

CLIENT: RUSSO INVESTMENTS PTY LTD
ARCHITECT: REALSERVE
PROJECT: 48 EAGLEVIEW PLACE EAGLE FARM, QLD 4009
TITLE: PAVEMENT LAYOUT PLAN

SCALE @ A1:	CHECKED:	APPROVED:
1:200	JF	JF
PROJECT NUMBER:	DRAWN:	DATE:
PS130139	FM	22/04/2022

DRAWING No: C030 REV: P1

CAD FILE: P:\130139\CAD\DWG
DATE PLOTTED: 22/04/2022 3:11:08 PM BY: MACLENNAN, RYAN

DO NOT SCALE

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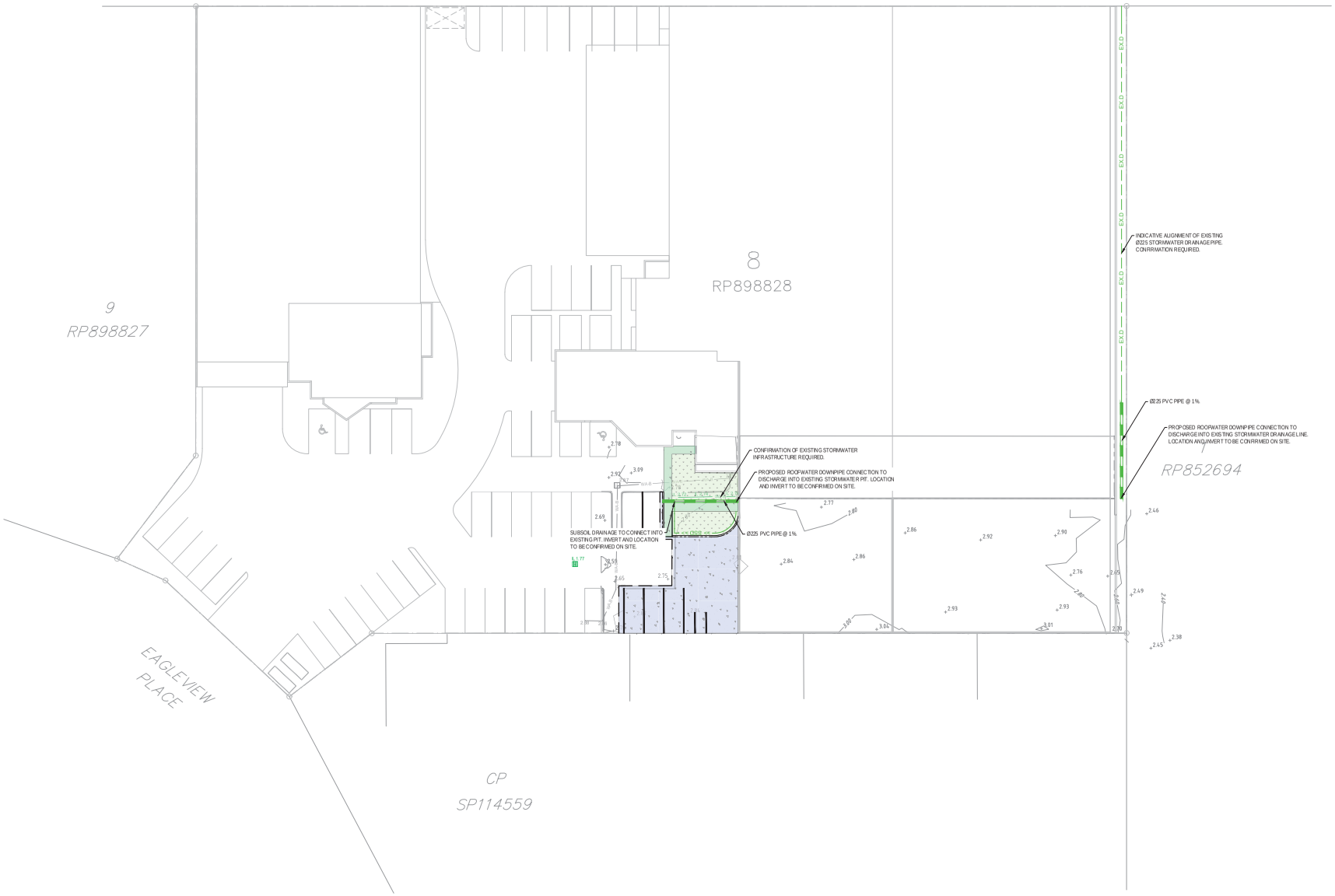
1:250 @A1



LEGEND

- SW-B — EXISTING STORMWATER DRAINAGE (SURVEY)
- EX.D — EXISTING STORMWATER DRAINAGE (INDICATIVE)
- PROPOSED STORMWATER DRAINAGE PIPE
- >> SSD >> — PROPOSED SUBSOIL DRAINAGE

SERVICE CLASHES
CONTRACTOR TO REFER TO SERVICES DOCUMENTATION AND LIAISE WITH THE RELEVANT AUTHORITY TO MITIGATE ANY SERVICE CLASHES WITH THE PROPOSED WORKS.

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REV	DATE	BY	DESCRIPTION	CHK	APP
P1	22/04/2022	FM	PRELIMINARY	JF	JF

DRAWING STATUS: PRELIMINARY ISSUE
NOT TO BE USED FOR CONSTRUCTION

http://www.wsp.com

CLIENT: RUSSO INVESTMENTS PTY LTD

ARCHITECT: REALSERVE

PROJECT: 48 EAGLEVIEW PLACE EAGLE FARM, QLD 4009

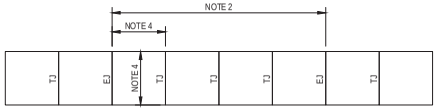
TITLE: STORMWATER DRAINAGE LAYOUT PLAN

SCALE @ A1:	CHECKED:	APPROVED:
1:250	JF	JF
PROJECT NUMBER:	DRAWN:	DATE:
PS130139	FM	22/04/2022

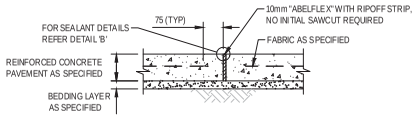
DRAWING No: C040 REV: P1

CAD FILE: P:\130139\CAD\C040.DWG
DATE PLOTTED: 22/04/2022 3:04:00 PM BY: MACLENNAN, RYAN

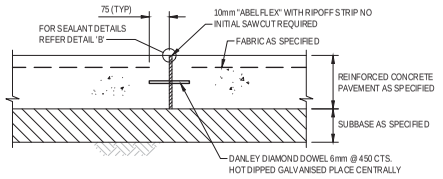
DO NOT SCALE



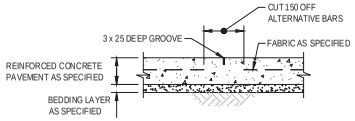
REINFORCED CONCRETE FOOTPATH
JOINT SPACINGS
SCALE 1:10



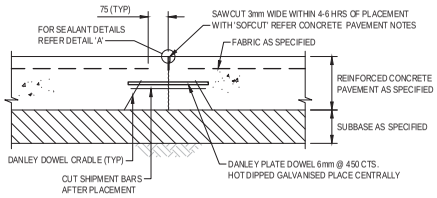
REINFORCED CONCRETE FOOTPATH
EXPANSION JOINT (EJ)
SCALE 1:10



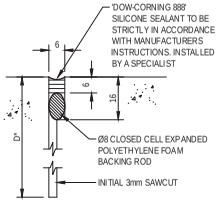
ISOLATION JOINT (IJ)
ALSO TRANSVERSE STOP WORK JOINT
SCALE 1:10



REINFORCED CONCRETE FOOTPATH
TOOLED CONTRACTION JOINT (TJ)
SCALE 1:10

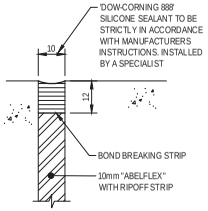


CONTRACTION JOINT (CJ)
(POUR OVER)
SCALE 1:10

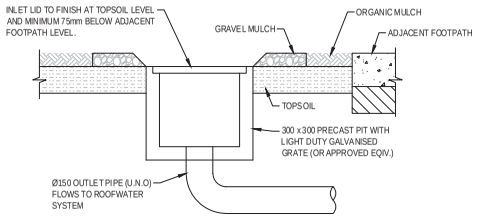


DETAIL A
SCALE 1:1

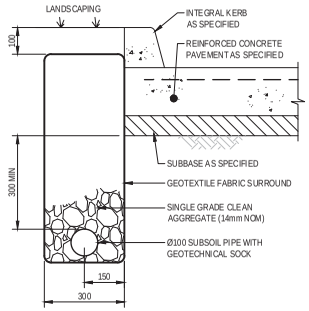
D* = PAVEMENT THICKNESS / 4



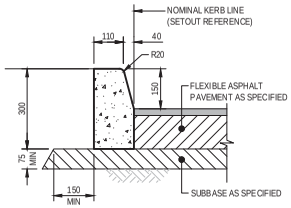
DETAIL B
SCALE 1:1



LANDSCAPE SURFACE DRAINAGE PIT DETAIL
SCALE 1:10



SUBSOIL DRAINAGE IN CONCRETE PAVEMENT
SCALE 1:10



BARRIER KERB (BK)
SCALE 1:10

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SERVICE CLASHES
CONTRACTOR TO REFER TO SERVICES DOCUMENTATION AND LIAISE WITH THE RELEVANT AUTHORITY TO MITIGATE ANY SERVICE CLASHES WITH THE PROPOSED WORKS.

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REV	DATE	BY	DESCRIPTION	CHK	APP
P1	22/04/2022	FM	PRELIMINARY	JF	JF

DRAWING STATUS: PRELIMINARY ISSUE
NOT TO BE USED FOR CONSTRUCTION

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http://www.wsp.com

CLIENT: RUSSO INVESTMENTS PTY LTD
ARCHITECT: REALSERVE
PROJECT: 48 EAGLEVIEW PLACE EAGLE FARM, QLD 4009
TITLE: CIVIL DETAILS SHEET

SCALE @ A1:	CHECKED:	APPROVED:
AS SHOWN	JF	JF
PROJECT NUMBER:	DRAWN:	DATE:
PS130139	FM	22/04/2022
DRAWING No:		REV:
C050		P1

CAD FILE: P:\130139\CAD\02.DWG
DATE PLOTTED: 22/04/2022 3:04:02 PM BY: MACLENNAN, RYAN

Appendix B BCC FLOOD WISE REPORT

Brisbane City Council

FloodWise Property Report

Report Reference
1650499213610
21/04/2022 10:00:13

Dedicated to a better Brisbane

THIS REPORT IS FOR BUILDING AND DEVELOPMENT PURPOSES ONLY

The FloodWise Property Report provides property or lot-based flood information for building and development requirements. This report provides information on estimated flood levels, habitable floor level requirements and more technical information on the four sources of flooding: river, creek / waterway, storm tide and overland flow. Refer to the Useful Definitions section for a glossary of terms.

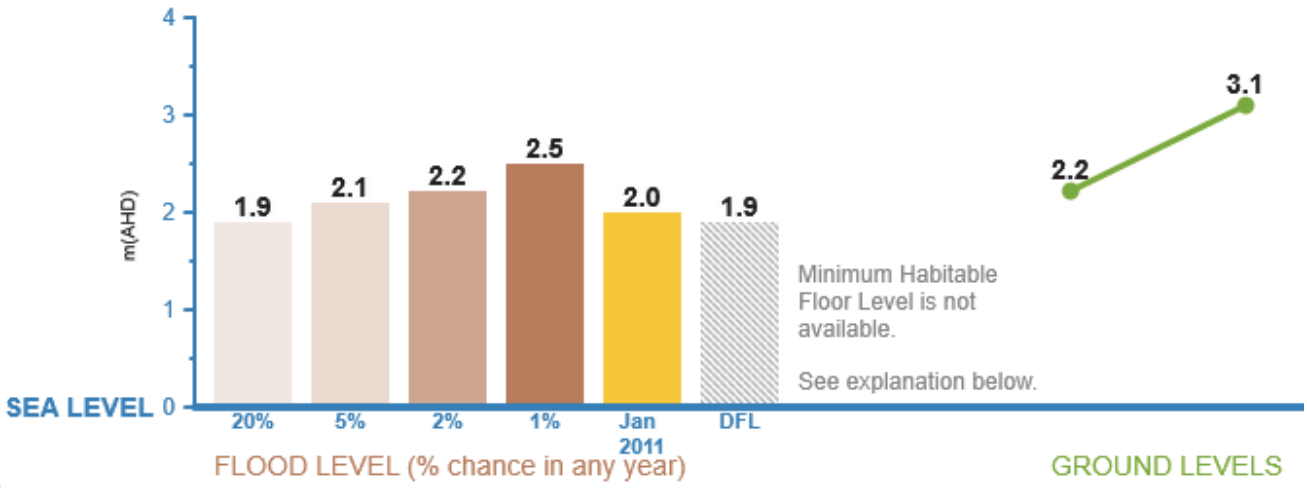
To find out more about how the contents of this report may affect building or development on this property, please visit www.brisbane.qld.gov.au/planning-building.For more general information about understanding your flood risk and how to prepare your property, family or business for potential flooding visit www.brisbane.qld.gov.au/beprepared

THIS IS A REPORT FOR:

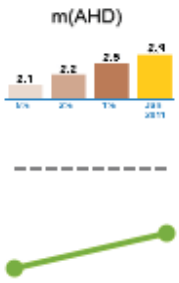
Rateable Address: 46 EAGLEVIEW PL, EAGLE FARM QLD 4009

Lot Details: L.8 RP.898828

FLOOD LEVEL INFORMATION



EXPLANATION



m(AHD) - Metres Australia Height Datum. The level of 0.0m AHD is approximately mean sea level.

Flood Levels - The Flood level bar chart above shows the possible flooding level and percentage chance of that level being reached or exceeded in any year. If an orange bar shows, it is the calculated January 2011 flood level at this address or lot. Refer to 'Useful Definitions' for further information.

Minimum Habitable Floor Level - Applies to residential development only. Please refer to Council's planning scheme to learn how this may affect you. If a property is in an overland flow path, or a large allotment, a minimum habitable floor level cannot be provided. Refer flood and planning development flags below.

Ground Levels- The green line above shows this property's approximate lowest and highest ground levels based on latest available information (2019 airborne laser survey) to Council. If you are building, please confirm with a surveyor.

For further information and definitions please refer to the Useful Definitions page

FLOOD AND PLANNING DEVELOPMENT FLAGS

DEVELOPMENT FLAG(S)

This property may also be affected by one or more flood or property development overlays or flags. These include: LARGE ALLOTMENT,WATERWAY CORRIDOR

Please review the technical summary over page and refer to Council's planning scheme for further information.

Brisbane City Council

FloodWise Property Report

Report Reference
1650499213610
21/04/2022 10:00:13

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TECHNICAL SUMMARY

This section of the FloodWise Property Report contains more detailed flood information for this property so surveyors, builders, certifiers, architects and engineers can plan and build in accordance with Council's planning scheme. For more information about building and development in Brisbane please visit www.brisbane.qld.gov.au/planning-building or talk to a Development Assessment Planning Information Officer via Council's Contact Centre on (07) 3403 8888.

THIS IS A REPORT FOR:

Rateable Address: 46 EAGLEVIEW PL, EAGLE FARM QLD 4009

Lot Details: L.8 RP.898828

PROPERTY INFORMATION (Summary)

The following table provides a summary of flood information for this property. More detailed flood level information is provided in the following sections of this report.

PROPERTY SUMMARY	LEVEL (mAHD)
Minimum Ground Level	2.2
Maximum Ground Level	3.1
Min Habitable Floor Level	Contact Council
Defined Flood Event Level	2.5
Defined Flood Event Level Source	STORMTIDE
Source of Highest Flooding	STORMTIDE
Flooding may also occur from	STORMTIDE,RIVER

ESTIMATED PEAK FLOODING LEVELS

The table below displays the peak estimated flood levels by probability for this property. Estimated flood level data should be used in conjunction with applicable planning scheme requirements - Refer to Flood Planning Development Information.

Note that the overland flow flooding level maybe higher than the levels below from other sources.

DESCRIPTION	LEVEL (mAHD)	SOURCE
20% AEP	1.9	STORMTIDE
5% AEP	2.1	STORMTIDE
2% AEP	2.2	STORMTIDE
1% AEP	2.5	STORMTIDE
1% AEP	2.1	RIVER
January 2011	2.0	RIVER
DFL	1.9	RIVER
RFL	2.1	RIVER

FLOOD PLANNING DEVELOPMENT INFORMATION

This section of the FloodWise Property Report contains information about Council's planning scheme overlays. Overlays identify areas within the planning scheme that reflect distinct themes that may include constrained land and/or areas sensitive to the effects of development.

FLOOD OVERLAY CODE

The Flood overlay code of Council's planning scheme uses the following information to provide guidelines when developing properties. The table below summarises the Flood Planning Areas (FPAs) that apply to this property. Development guidelines for the FPAs are explained in Council's planning scheme, which is available from www.brisbane.qld.gov.au/planning-building.

FLOOD PLANNING AREAS (FPA)		
RIVER	CREEK/WATERWAY	OVERLAND FLOW
FPA5		Not Applicable

COASTAL HAZARD OVERLAY CODE

The coastal hazard overlay code of Council's planning scheme uses the following information to provide guidelines when conducting new development. The table below summarises the coastal hazard categories that apply to this property. Development guidelines for the following coastal hazard overlay sub-categories are explained in the planning scheme, which is available from www.brisbane.qld.gov.au/planning-building.

COASTAL HAZARD OVERLAY SUB-CATEGORIES
Medium Storm Tide Inundation Area

NOTE: Where land is identified within one or more flood planning area on the Flood Overlay, or is identified within a Storm Tide Inundation area on the Coastal Hazard Overlay, the assessment criteria that provide the highest level of protection from any source of flooding applies.

PROPERTY DEVELOPMENT FLAGS

Waterway Corridor - This property may also be located within a mapped waterway corridor as identified in the waterway corridors overlay map of Council's planning scheme. Please consider this in conjunction with Council's planning scheme requirements.

Large Allotment - This property is either a Large Allotment of over 1000 square metres or is located within a Large Allotment. Flood levels may vary significantly across allotments of this size. Further investigations may be warranted in determining the variation in flood levels and the minimum habitable floor level across the site. For more information or advice, it is recommended you engage a Registered Professional Engineer of Queensland.

Brisbane City Council

FloodWise Property Report

Report Reference
1650499213610
21/04/2022 10:00:13

Dedicated to a better Brisbane

Useful Definitions

Australian Height Datum (AHD) - The reference level for defining ground levels in Australia. The level of 0.0m AHD is approximately mean sea level.

Annual Exceedance Probability (AEP) – The probability of a flood event of a given size occurring in any one year, usually expressed as a percentage annual chance.

Defined Flood Level (DFL) - The DFL for Brisbane River flooding is a level of 3.7m AHD at the Brisbane City Gauge based on a flow of 6,800 m^3/s.

Maximum and Minimum Ground Level – Highest and lowest ground levels on the property based on available ground level information. A Registered Surveyor can confirm exact ground levels.

Minimum Habitable Floor Level – The minimum level in metres AHD at which habitable areas of development (generally including bedrooms, living rooms, kitchen, study, family and rumpus rooms) must be constructed.

Council's Planning Scheme - The City Plan (planning scheme) has been prepared in accordance with the Sustainable Planning Act as a framework for managing development in a way that advances the purpose of the Act. In seeking to achieve this purpose, the planning scheme sets out the Council's intention for future development in the planning scheme area, over the next 20 years.

Residential Flood Level (RFL) – Residential flood level (RFL) for the Brisbane River flooding equates to the 1% Annual Exceedance Probability flood level.

Rateable Address - A Lot or Property may have more than one street address. The address shown on this report is the address used by Council for the Lot or property selected.

Property - A property will contain 1 or more lots. The *Multiple Lot Warning* is shown if you have selected a property that contains multiple lots.

Brisbane City Council's Online Flood Tools

Council provides a number of online flood tools:

- to guide planning and development
- to help residents and businesses understand their flood risk and prepare for flooding.

Planning and Development Online Flood Tools

Council's online flood tools for planning and development purposes include:

- FloodWise Property Report
- Flood Overlay Code

For more information on Council's planning scheme and online flood tools for planning and development:

- phone 07 3403 8888 to talk to a Development Assessment Customer Liaison Officer
- visit www.brisbane.qld.gov.au/planning-building
- visit a Regional Business Centre.

Helping residents and businesses be prepared for flooding

Council has a range of free tools and information to help residents and businesses understand potential flood risks and how to be prepared. This includes:

- Flood Awareness Map
- Flooding in Brisbane – A Guide for Residents
- Flooding in Brisbane – A Guide for Businesses
- Early Warning Alert Service. Visit www.brisbane.qld.gov.au/earlywarning to register for email, home phone or SMS severe weather alert updates.

Note: The Flood Awareness Map shows four levels of flood likelihood from high likelihood (flooding is very likely to occur) through to very low likelihood (very rare and extreme flood events).

For more information on Council's online flood tools for residents and business:

- Visit www.brisbane.qld.gov.au/beprepared
- Phone (07) 3403 8888.

Brisbane City Council

FloodWise Property Report

Report Reference
1650499213610
21/04/2022 10:00:13

Dedicated to a better Brisbane

Disclaimer

1. Defined Flood Levels and Residential Flood Levels, and the Minimum Habitable Floor Levels are determined from the best available information to Council at the date of issue. These flood levels, for a particular property, may change if more detailed information becomes available or changes are made in the method of calculating flood levels.
2. Council makes no warranty or representation regarding the accuracy or completeness of a FloodWise Property report. Council disclaims any responsibility or liability in relation to the use or reliance by any person on a FloodWise Property Report.