

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY THAT ALL ASPECTS OF THE DRAWINGS REPRESENTING THE PROPOSED WORKS AND THE ASSOCIATED CONSTRUCTION COSTS ARE UNDERSTOOD. THE COMMENCEMENT OF ANY ASPECT OF THE PROPOSED WORKS DETAILED ON THESE DRAWINGS CONFIRMS ACCEPTANCE OF THIS CONDITION. IN CASE OF DOUBT – ASK!
2. ALL LEVELS TO AUSTRALIAN HEIGHT DATUM (AHD).
3. ALL DIMENSIONS ARE IN METRES (PLANS AND SECTIONS) AND MILLIMETRES (DETAILS) UNLESS NOTED OTHERWISE (UNO).
4. VERIFY ALL DIMENSIONS. DO NOT SCALE DRAWINGS.
5. THE CONTRACTOR SHALL VERIFY THE ACCURACY AND COMPLETENESS OF ALL ASPECTS OF THE WORKS REPRESENTED ON THE DRAWINGS ON SITE, PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ALLOW ALL COSTS TO UNDERTAKE SUCH ACTION WITH NO COST IMPROVED UPON THE DEVELOPER FOR CONSTRUCTION ERRORS/DEFECTS AS A RESULT OF OMITTING SUCH ACTIONS.
6. WORKS NOT SPECIFICALLY REFERRED TO, ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL AUTHORITY OR FUTURE ASSET OWNER WHERE THEY DIFFER. THE CONTRACTOR SHALL ALLOW ALL COSTS TO UNDERTAKE SUCH WORKS WHERE REQUIRED.
7. ANY DAMAGE TO EXISTING INFRASTRUCTURE OR SERVICES SHALL BE MADE GOOD AT THE CONTRACTOR'S EXPENSE.
8. WHERE TEMPORARY WORKS ARE REQUIRED TO CARRY OUT THE CONSTRUCTION OF ANY ASPECT OF THE WORKS DETAILED ON THE DRAWINGS, THE TEMPORARY WORKS SHALL BE UNDERTAKEN AT THE CONTRACTOR'S EXPENSE. EXAMPLES OF SUCH WORKS INCLUDE TEMPORARY DRAINAGE FOR EARTHWORK OPERATIONS AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES.
9. ALL LIASION WITH THE LOCAL, STATE AND ANY STATUTORY AUTHORITY IS THE CONTRACTOR'S RESPONSIBILITY.
10. THE CONTRACTOR SHALL LIASE WITH THE ENGINEER AND/OR LOCAL AUTHORITY TO ANY PRE-SCHEDULE REQUIRED INSPECTIONS FOR ALL HOLD POINTS ASSOCIATED WITH ALL ASPECTS OF THE WORKS. A MINIMUM OF 48 HOURS NOTICE SHALL BE PROVIDED FOR ALL INSPECTIONS TO BE UNDERTAKEN BY THE ENGINEER. NOTIFICATION OF REQUIRED INSPECTIONS BY THE CONTRACTOR ARE DEEMED TENTATIVE ONLY UNTIL SUCH TIME AS THE ENGINEER HAS VERIFIED THE INSPECTION DATE AND TIME.
11. THE ENGINEER RESERVES THE RIGHT TO DEEM ANY ASPECT OF THE WORKS CONSTRUCTED UNSATISFACTORY OR DEFECTIVE WITH A REQUEST FOR RECTIFICATION PROVIDED AS A FORMAL WRITTEN INSTRUCTION TO THE CONTRACTOR. ALL DEFECTIVE WORKS SHALL BE RECTIFIED AT THE CONTRACTOR'S EXPENSE INCLUSIVE OF DELAYS RESULTING FROM SUCH DEFECTS.
12. THE CONTRACTOR SHALL MAINTAIN ALL CURRENT WORKPLACE HEALTH AND SAFETY PRACTICES AT ALL TIMES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PUBLIC SAFETY AT AND ADJACENT TO PUBLIC SPACES AT THE PROJECT SITE.
13. THE SITE IS TO BE LEFT NEAT AND TIDY AT THE COMPLETION OF THE WORKS. ALL RUBBISH AND DEBRIS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH THE LOCAL AUTHORITY REQUIREMENTS AND SATISFACTION.
14. AT THE COMPLETION OF WORKS, THE CONTRACTOR SHALL ARRANGE FOR AN INDEPENDANT SURVEYOR TO UNDERTAKE AN "AS-CONSTRUCTED" DETAILED SURVEY. THE SURVEY SHALL BE CERTIFIED BY A REGISTERED SURVEYOR AND SHALL BE SUBMITTED TO THE ENGINEER. THE "AS-CONSTRUCTED" SURVEY SHALL BE PROVIDED IN DIGITAL FORMATS (DWG (2004) AND .PDF). THE CONTRACTOR SHALL ENSURE THAT SUFFICIENT AS-CONSTRUCTED INFORMATION IS RECORDED THROUGHOUT THE COURSE OF CONSTRUCTION TO PROVIDE A COMPLETE AS-CONSTRUCTED PLAN AT THE END OF THE PROJECT.

EXISTING INFORMATION AND DATA NOTES

1. ALL INFORMATION PROVIDED ON THE DRAWINGS HAS BEEN DERIVED FROM ALL INFORMATION AND DATA AVAILABLE TO THE DESIGNER AT THE TIME OF DEVELOPMENT OF THE DRAWINGS. NOTWITHSTANDING THE DETAILS PROVIDED ON THE DRAWINGS, THE CONTRACTOR SHALL UNDERTAKE ALL NECESSARY ACTIONS TO VERIFY THE ACCURACY AND COMPLETENESS OF THE INFORMATION PRESENTED, PRIOR TO CONSTRUCTION, AT THE CONTRACTOR'S EXPENSE.
2. SUCH ACTIONS MAY INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
- CONDUCTING ADDITIONAL DETAILED SURVEY
 - SOURCING "AS-CONSTRUCTED" INFORMATION
 - OBTAINING COUNCIL RECORDS
 - OBTAINING "DUAL-BEFORE-YOU-DIG" PLANS
 - GROUND-TRUTHING

CONSTRUCTION SAFETY NOTES

1. CONSTRUCTION ACTIVITY CAN BE HAZARDOUS. POTENTIAL SAFETY HAZARDS CONSIDERED BY THIS FIRM TO HAVE A HIGHER RISK THAN NORMAL FOR THE CONSTRUCTION ACTIVITY INVOLVED IN THIS PROJECT THAT HAVE NOT BEEN PREVIOUSLY NOTIFIED TO THE CONTRACTOR ARE IDENTIFIED WITH APPROPRIATE NOTES ON THESE DRAWINGS. IT SHOULD BE NOTE THAT FARR ENGINEERS ARE DESIGNERS AND THEREFORE HAVE A DIFFERENT LEVEL OF UNDERSTANDING OF THE RISKS INVOLVED IN CONSTRUCTION COMPARED TO THAT OF A COMPETENT CONTRACTOR. IT IS THEREFORE ESSENTIAL THAT AN ADEQUATE SAFETY PLAN IS PREPARED BY THE CONTRACTOR FOR THE WORKS. FARR ENGINEERS MAY NOT BE AWARE OF ALL SAFETY RISKS AND HAZARDS INVOLVED IN THIS PROJECT AND THE ABSENCE OF COMMENT DOES NOT IMPLY THAT THERE ARE NO RISKS OR HAZARDS INVOLVED IN THIS PROJECT.

EARTHWORKS NOTES

1. THE CONTRACTOR SHALL REFER TO THE PROJECT GEOTECHNICAL INVESTIGATION REPORT AND ADHERE TO ALL REQUIREMENTS CONTAINED THEREIN UNLESS AGREED OTHERWISE IN WRITING BY THE ENGINEER.
2. NOTWITHSTANDING THE DETAILS PROVIDED ON THE DRAWINGS, THE CONTRACTOR SHALL ALLOW ALL COSTS TO UNDERTAKE A BULK SITE SIEP TO A MINIMUM DEPTH OF 1000mm OR COMPLETE REMOVAL OF TOPSOIL, WHICHEVER IS GREATER. THE SITE SIEP SHALL EXTEND TO REMOVE ALL NOXIOUS, HAZARDOUS, DELETERIOUS AND ORGANIC MATERIALS LOCATED WITHIN THE EXTENT OF WORKS AS NAMED ON THE PROJECT DRAWINGS. ALLOW ALL COSTS TO REMOVE OFF-SITE AND DISPOSED OF TO THE LOCAL AUTHORITY REQUIREMENTS AND SATISFACTION.
3. PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING BY WAY OF A FORMAL APPLICATION TO THE LOCAL AUTHORITY:
- 3.1. THE TYPE OF FILL TO BE USED AND THE MANNER IN WHICH IT IS TO BE COMPACTED.
- 3.2. DETAILS OF ANY PROPOSED ACCESS ROUTES TO THE SITE WHICH ARE INTENDED TO BE USED TO TRANSPORT FILL TO SITE.
- 3.3. DETAILS OF ANY HAIL ROADS TO BE BUILT TO FACILITATE THE PLACEMENT OF FILL ON THE SITE.
- 3.4. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ACCESS AND HAIL ROADS TO THE SITE SUCH THAT THEY REMAIN FREE OF SOIL AND FOREIGN MATERIALS DEPOSITED BY TRUCKS, PLANTS AND EQUIPMENT TRAVELLING TO AND FROM THE SITE. DETAILS SHALL BE PROVIDED DEMONSTRATING HOW THIS CONDITION WILL BE ADHERED TO.
4. ALL FILL MATERIAL PLACED ON SITE SHALL COMPRISE ONLY OF NATURAL EARTH AND ROCK AND IS TO BE FREE OF CONTAMINANTS (AS DENIED BY SECTION 11 OF THE ENVIRONMENTAL PROTECTION ACT 1994). NOXIOUS, HAZARDOUS, DELETERIOUS AND ORGANIC MATERIALS. SUITABLE FILL MATERIAL IS DEEMED TO COMPLY WITH THE REQUIREMENTS OF CLAUSE 4.3 OF AS3798 GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS. ALL FILL MATERIAL SHALL BE APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO USE.
5. ALL FILL PLACEMENT TO BE UNDERTAKEN TO LEVEL 1 GEOTECHNICAL STANDARD AS PER AS3798. CONTRACTOR SHALL ALLOW FOR FULL-TIME GEOTECHNICAL SUPERVISION BY A QUALIFIED GEOTECHNICAL ENGINEER (WITH MATA ACCREDITATION). WHERE NOT OTHERWISE STATED ON DRAWINGS AND SPECIFICATIONS, THE COMPACTATION REQUIREMENTS STIPULATED WITHIN TABLE 1.1 SHALL BE ACHIEVED TO.

TABLE 1.1: MINIMUM COMPACTATION REQUIREMENTS

LOCATION	GRANULAR SOIL DENSITY INDEX	CLAY SOIL STANDARD COMPACTION
UPPER 300mm OF SUBGRADE	75%	100%
BALANCE OF PLATFORM	70%	98%

6. ALL AREAS REQUIRE APPLICATION OF PROOF-ROLL WHICH SHALL BE UNDERTAKEN UNDER LEVEL 1 GEOTECHNICAL SUPERVISION AS PER AS3798. CONTRACTOR SHALL ALLOW FOR SUCH BY A QUALIFIED GEOTECHNICAL ENGINEER. PROOF-ROLLING SHALL BE UNDERTAKEN WITH A LOADED WATER TRUCK OR ROLLER OF MINIMUM STATIC WEIGHT OF 12T UNLESS DIRECTED OTHERWISE BY THE GEOTECHNICAL OR CIVIL ENGINEER.
7. THE CONTRACTOR SHALL UNDERTAKE ALL SUBGRADE REMEDIATION WORKS AS DEEMED NECESSARY BY THE GEOTECHNICAL OR CIVIL ENGINEER AT THE CONTRACTOR'S EXPENSE. NOTWITHSTANDING, THE CONTRACTOR SHALL ALLOW TO LIME OR CEMENT STABILISE TO IMPROVE SUBGRADE TO A MINIMUM CBR VALUE OF THREE (3) PRIOR TO CONSTRUCTION OF STRUCTURES, FOOTINGS AND PAVEMENTS. ALL SUBGRADE TREATMENT SHALL BE APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER.
8. UNLESS AGREED OTHERWISE, THE CONTRACTOR SHALL ALLOW FOR A MINIMUM OF ONE (1) DAY SORCED CRUSHING/COMPACT OF DEVELOPMENT WORKS AREA AT THE NOMINATED SUBGRADE LEVEL. THE SURVEYING AND TESTING SHALL BE UNDERTAKEN BY A QUALIFIED GEOTECHNICAL ENGINEER (WITH MATA ACCREDITATION). THE TEST RESULTS SHALL BE PROVIDED TO THE CIVIL ENGINEER FOR REVIEW AND FURTHER INSTRUCTION.
9. THE CONTRACTOR SHALL PROVIDE NECESSARY MAINTENANCE OF THE SUBGRADE AFTER PLATFORM PREPARATION SO AS TO MAINTAIN ALL ENGINEERING REQUIREMENTS AND SPECIFICATIONS. SUCH MAINTENANCE PROVISIONS SHALL INCORPORATE REWORKING AND DRYING OF THE SUBGRADE FOLLOWING RAIN EVENTS IS TO RETURN THE SUBGRADE TO AN APPROVED STATE. ALL COSTS ASSOCIATED WITH REWORK/REMEDIATION AND DELAYS THAT MAY ENSUE SHALL BE ALLOWED FOR AT THE CONTRACTOR'S EXPENSE.
10. ALL SERVICES CROSSING PAVEMENT AREAS ARE THE RESPONSIBILITY OF THE CIVIL CONTRACTOR TO EITHER ENSURE ADEQUATE COMPACTATION IS PROVIDED BY OTHER CONTRACTORS OR THE CIVIL CONTRACTOR ALLOWING FOR THIS BACKFILLING OPERATION.
11. SERVICE TRENCH BACKFILL:
1. TRENCHES 450mm WIDE USE STABILISED SAND TO PAVEMENT SUBGRADE
 2. TRENCHES > 450 APPROVED IMPORTED SELECT FILL OR SITE MATERIAL AT THE SOLE DISCRETION OF THE ENGINEER.
 3. ALL BACKFILL USING OTHER THAN STABILISED SAND TO BE COMPACTED TO LEVEL 1 GEOTECHNICAL REQUIREMENTS IN ACCORDANCE WITH AS3798.

TRENCH BACKFILL REQUIREMENTS

1. ALL SERVICES CROSSING PAVEMENT AREAS ARE THE RESPONSIBILITY OF THE CIVIL CONTRACTOR TO EITHER ENSURE ADEQUATE COMPACTATION IS PROVIDED BY OTHER CONTRACTORS OR THE CIVIL CONTRACTOR ALLOWING FOR THIS BACKFILLING OPERATION.
2. SERVICE TRENCH BACKFILL:
1. TRENCHES 450mm WIDE USE STABILISED SAND TO PAVEMENT SUBGRADE
 2. TRENCHES > 450 APPROVED IMPORTED SELECT FILL OR SITE MATERIAL AT THE SOLE DISCRETION OF THE ENGINEER.
 3. ALL BACKFILL USING OTHER THAN STABILISED SAND TO BE COMPACTED TO LEVEL 1 GEOTECHNICAL REQUIREMENTS IN ACCORDANCE WITH AS3798.

STORMWATER DRAINAGE NOTES

1. STORMWATER DRAINAGE PIPES SHALL MEET THE MINIMUM REQUIREMENTS DETAILED WITHIN TABLE 2.1 UNLESS NOTED OTHERWISE ON DRAWINGS. THE CONTRACTOR SHALL SEEK APPROVAL FROM THE CIVIL ENGINEER FOR ANY VARIATION TO THE REQUIREMENTS STIPULATED WITHIN TABLE 2.1 PRIOR TO CONSTRUCTION.

TABLE 2.1: STORMWATER DRAINAGE PIPE MINIMUM REQUIREMENTS

DRAINAGE TYPE	PIPE SIZE (mm)	PIPE TYPE	PPE CLASS
SURFACE	ø150 – ø225	uPVC	SN8
	- ø300	RCP	2
ROOFWATER	ø100	uPVC	SN10
	> ø150	uPVC	SN8
SUB-SURFACE	ø100	PE/PVC (SLOTTED)	400/1000
	> ø100	PE (SLOTTED)	200

- 1.1. NOMINAL PIPES SIZES SMALLER THAN ø100 SHALL NOT BE USED FOR SURFACE AND SUB-SURFACE DRAINAGE APPLICATIONS UNLESS APPROVED OTHERWISE BY THE CIVIL ENGINEER.
- 1.2. ALL SUB-SURFACE DRAINAGE PIPES SHALL HAVE A MINIMUM SLOTTED OPENING AREA OF 1500mm²/m IN ACCORDANCE WITH AS2439. ALL SUB-SURFACE DRAINAGE PIPES SHALL BE FITTED WITH A WOVEN FABRIC FILTER SOCK APPROVED FOR USE WITH THE PIPE MANUFACTURER UNLESS NOTED OTHERWISE.
- 1.3. ALL SUB-SURFACE DRAINAGE SHALL BE LAID AT A MINIMUM PIPE GRADIENT OF 1:200.
- 1.4. ALL SUB-SURFACE DRAINAGE SHALL BE PROVIDED WITH ONE (1) FLUSH POINT/300 LINEAR METRES OF PIPE, COMMENCING WITH ONE (1) FLUSH POINT AT THE UPSTREAM END OF THE DRAIN. THE FLUSH POINT SHALL BE FORMED BY A PLAN WALL (NON-PERFORATED) RISER EXTENDING TO THE FINISHED SURFACE LEVEL. THE FLUSH POINT SHALL BE PROVIDED WITH A SKEW CAP FLUSH WITH THE ADJACENT FINISHED SURFACE LEVEL.
- 1.5. NOTWITHSTANDING THE DETAILS PROVIDED ON THE DRAWINGS, SUB-SURFACE DRAINAGE SHALL BE INSTALLED BELOW ALL KERB ALIGNMENTS AND EDGE DRAINAGE. SEPARATING WALLS AND PAVEMENTS. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 100mm CLEARANCE TO ALL WALLS TO ENSURE THE SATISFACTION OF THE ENGINEER.
2. ALL DRAINAGE PIPES SHALL BE LAID WITH THE MINIMUM COVER REQUIREMENTS AS DETAILED WITHIN THE LOCAL AUTHORITY GUIDELINES FOR PUBLIC DRAINAGE INFRASTRUCTURE OR AS3500.3 STORMWATER DRAINAGE FOR PRIVATE PROPERTY DRAINAGE.
3. ALL DRAINAGE PIPES SHALL BE PROVIDED WITH RUBBER-RING JOINTS (RRJ) UNLESS NOTED OTHERWISE.
4. ALL REINFORCED CONCRETE PIPES SHALL BE PROVIDED WITH TYPE '1x2' SUPPORT.
5. ALL PIPE BEDDING AND HAUNCH MATERIAL SHALL BE NON-COHESIVE GRANULAR MATERIAL SUCH AS WASHED RIVER SAND OR CLEAN UNWEATHERED HARD BASALTIC OR SEMENTARIUS CRUSHED ROCK, FREE OF SALT, CLAY OR ORGANIC CONTAMINANTS. SUCH MATERIAL SHALL HAVE A MINIMUM OF 85% PASSING THE 2.8mm SIEVE AND NOT MORE THAN 15% PASSING THE 0.075mm SIEVE. BEDDING AND HAUNCH MATERIAL SHALL BE COMPACTED FOR THE FULL WIDTH OF THE TRENCH BY TWO (2) PASSES OF A VIBRATING PLATE OR HAND TAMPING METHOD TO THE SATISFACTION OF THE SUPERINTENDENT.
6. ALL TRENCHES UNDER THE ROAD SHALL BE BACKFILLED IN LAYERS NOT EXCEEDING 150mm OF COMPACTED THICKNESS. COMPACT TO NOT LESS THAN 95% MAXIMUM DRY DENSITY BY MODIFIED COMPACTION TEST (AS1289). ELSEWHERE 95% MAXIMUM DRY DENSITY STANDARD COMPACTION TEST (AS1289). THE CONTRACTOR SHALL UNDERTAKE ONE (1) COMPACTION TEST / 7.40 LINEAR METRES OF TRENCHING. THE TESTING SHALL BE UNDERTAKEN BY A QUALIFIED GEOTECHNICAL ENGINEER (WITH MATA ACCREDITATION) WITH THE RESULTS SUPPLIED TO THE CIVIL ENGINEER.
7. ALL STORMWATER DRAINAGE ACCESS CHAMBERS/MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA (OLD DIVISION) IPWEAO STANDARD DRAWINGS D-0010 – D0017, UNLESS NOTED OTHERWISE.
8. ALL STORMWATER DRAINAGE GULLIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA (OLD DIVISION) IPWEAO STANDARD DRAWINGS D-0060 – D0064, D0065 – D0070, UNLESS NOTED OTHERWISE.
9. ALL STORMWATER DRAINAGE FIELD INLETS AND OVERFLOW GULLIES SHALL BE TYPE '2' WITH APRON CONSTRUCTION IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA (OLD DIVISION) IPWEAO STANDARD DRAWING D-0050, UNLESS NOTED OTHERWISE.
10. WHERE NOT SPECIFIED ON DRAWINGS, THE CONTRACTOR SHALL REQUEST THE SPECIFICATION FOR ALL DRAINAGE STRUCTURE LOADING CLASS TYPES FOR LIDS, GRATES AND THE ASSOCIATED FRAMING. THE CONTRACTOR SHALL NOT ASSUME A TYPE.
11. ALL STORMWATER DRAINAGE INLETS AND OUTLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA (OLD DIVISION) IPWEAO STANDARD DRAWING D-0060. UNLESS NOTED OTHERWISE.

STORMWATER DRAINAGE NOTES CONT.

12. ALL STORMWATER DRAINAGE INFRASTRUCTURE SHALL BE CLEANED/FLUSHED WITH WATER AND BE LEFT FREE OF DEBRIS AND SOIL AT THE COMPLETION OF THE CONSTRUCTION PROGRAMME.
13. THE ENGINEER RESERVES THE RIGHT TO REQUEST A PIPE SURVEY (CCTV) AT ANY TIME TO INSPECT CONSTRUCTED PIPED DRAINAGE WHERE CONSTRUCTION HAS PRECURED A DIRECT INSPECTION OF THE DRAINLINE. THE CONTRACTOR SHALL ALLOW ALL COSTS TO COMPLY WITH THIS CONDITION.
14. WHERE OMITTED ON DRAWINGS, THE CONTRACTOR SHALL UNDERTAKE ALL ACTIONS AND ALLOW ALL COSTS TO CONNECT FOOTWATER PLUMBING TO A POINT OF DISCHARGE APPROVED BY THE ENGINEER.

CONCRETE PAVEMENT NOTES

1. ALL CONCRETE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH AS3600 AND THE PROJECT DRAWINGS AND SPECIFICATIONS.
2. UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL ADHERE TO THE FOLLOWING SPECIFICATION:
- CHARACTERISTIC STRENGTH f_{ck} = S32 MPa (28 days)
 - CHARACTERISTIC FLEXURAL STRENGTH f_{ctd} = 4.5 MPa
 - MAXIMUM DRYING SHRINKAGE = 650 μ STRAIN
 - MAXIMUM AGGREGATE SIZE = 20mm
 - TARGET SLUMP = 80mm
3. THE CONCRETE MIX DESIGN SHALL ADHERE TO THE PROJECT SPECIFICATIONS AND SHALL BE CARRIED OUT AND CERTIFIED BY A QUALIFIED CONCRETE SUPPLIER NOMINATED BY THE CONTRACTOR.
4. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING EACH INDIVIDUAL CONCRETE BATCH PROVIDED ON SITE MEETS THE PROJECT SPECIFICATIONS. THE CONTRACTOR IS REQUIRED TO SITE A CERTIFICATE FROM THE CONCRETE SUPPLIER CERTIFYING THAT THE PROJECT SPECIFICATIONS HAVE BEEN MET.
5. SAMPLE AND TEST AS SPECIFIED IN AS1012 USING PROJECT ASSESSMENT OF STRENGTH GRADES AS PER AS3600.
6. PLACEMENT AND COMPACTATION OF CONCRETE SHALL MEET THE REQUIREMENTS OUTLINED IN AS3600.
7. CONSOLIDATE ALL CONCRETE BY VIBRATION WITH NO WATER ADDED DURING VIBRATION.
8. PROVIDE COVER TO REINFORCEMENT IN ACCORDANCE WITH AS3600, WHERE UNSPECIFIED ON DRAWINGS AND/OR SPECIFICATION, DO NOT ASSUME – ASK!

REINFORCED MASONRY NOTES

1. CARRY OUT ALL REINFORCED MASONRY IN ACCORDANCE WITH AS3700 & THE RELEVANT PROJECT SPECIFICATIONS.
2. BED CONCRETE MASONRY UNITS CONFORMING TO STRENGTH GRADE 12.
3. PLACE UNITS IN FRESHLY PREPARED MORTAR MIXED IN THE RATIO OF ONE PART CEMENT, SIX PARTS SAND AND ONE PART LIME CONFORMING TO AS3700.
4. POINT GROUT HAVING A f_{ck} OF 15 MPa AT 28 DAYS, SLUMP OF 225 +/- 25mm, 100mm AGGREGATE.
5. FILL REINFORCEMENT TO COVERS SHOWN ON THE DRAWINGS.
6. PROVIDE CLEANOUT OPENINGS AT BASE OF ALL WALLS TO ALL CORES FOR INSPECTION AND TYPING OF STEEL.
7. FULLY BED FLAGE SKELLS.
8. CLEAN OUT CORES AFTER EACH DAY'S LAYING.
9. EXTREME CARE MUST BE TAKEN TO POSITION STARTER BARS IN FOOTINGS.
10. STOP ALL GROUT POURS 25mm BELOW THE TOP OF THE BLOCKS.
11. LOCATE CONTROL JOINTS 100mm WIDE OR AS DETAILED AT LOCATIONS SPECIFIED OR AT 7500 CRS. SEAL JOINTS WITH POLYSULPHIDE SEALANT ON BACKING ROD.
12. CORE FILL WALLS IN 2400 HIGH MAXIMUM LIFTS.
13. MAINTAIN STABILITY OF WALLS UNTIL ALL SUPPORTING MEMBERS ARE ATTACHED.
14. WATERPROOF TO CLIENT'S REQUIREMENTS.

SAFETY

- ALL REINFORCED MASONRY ERECTION TO BE CARRIED OUT IN ACCORDANCE WITH A SAFETY PLAN, AUSTRALIAN STANDARDS AND CURRENT 'WORKSAFE' HEALTH AND SAFETY REGULATIONS AND RELEVANT WORKERS' CODE OF PRACTICE.

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2022/1275

Date: 24/06/2022

ISSUED FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES

PROJECT No. 221407

DRAWING No. C001

ISSUE 1

FORM 100 20 30 40 50

SCALE: A4 AT 1:100

100% 40% 60%



THE GENERAL NOTES

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PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2022/1275
Date: 24/06/2022



Queensland
Government

EARTHWORKS			
ITEM	HOLD POINT	TEST/ASPECT	CONSTRUCTION QUALITY ASSURANCE DOCUMENTATION
SUBGRADE/IMPORTED FILL	FINAL SUBGRADE AFTER CUT/FILL OPERATION IS COMPLETED AND PRIOR TO INSTALLATION OF PAVEMENT BEDDING SAND.	4No. COMPACTION TESTS TO CONFIRM 98% STANDARD MAXIMUM DRY DENSITY AS PER AS3798	COMPACTION TEST REPORT BY NATA ACCREDITED TESTING AUTHORITY
		INSPECTION BY ENGINEER, PROOF-ROLL WITH 8T MIN. STATIC LOAD, 10,000 LITRE LOADED (FULL) WATER INCUPT WITH SINGLE ROLL SUFFICIENT.	ENGINEER'S INSPECTION REPORT
		PROVIDE MATERIAL CERTIFICATES FOR CERTIFICATES TO INCLUDE CBR, PARTICLE SIZE, DISTRIBUTION AND ATTERBERG LIMITS TESTS.	CERTIFICATES BY NATA ACCREDITED TESTING AUTHORITY

STORMWATER WORKS			
ITEM	HOLD POINT	TEST/ASPECT	CONSTRUCTION QUALITY ASSURANCE DOCUMENTATION
STORMWATER PIPEWORK	STORMWATER PIPEWORK IN TRENCH WITH BEDDING SAND PRIOR TO BACKFILLING.	1No. TRENCH COMPACTION TESTS PER PIPE RUN BETWEEN PITS (2No TOTAL) TO CONFIRM 98% STANDARD MAXIMUM DRY DENSITY AS PER AS3798	COMPACTION TEST REPORT BY NATA ACCREDITED TESTING AUTHORITY
		VISUAL INSPECTION BY ENGINEER	ENGINEER'S INSPECTION REPORT
STORMWATER STRUCTURES	STORMWATER STRUCTURES IN-GROUND PRIOR TO BACKFILLING	VISUAL INSPECTION BY ENGINEER	ENGINEER'S INSPECTION REPORT
	AT COMPLETION OF PENETRATION AND REDUNDANT CONNECTION TO EXISTING INFRASTRUCTURE	VISUAL INSPECTION BY ENGINEER	ENGINEER'S INSPECTION REPORT

PAVEMENT WORKS			
ITEM	HOLD POINT	TEST/ASPECT	CONSTRUCTION QUALITY ASSURANCE DOCUMENTATION
CONCRETE PAVEMENT	ONCE FULL MESU AND CONCRETE SUPPLY DOCKET AND PRIOR TO CONCRETE POUR.	CONCRETE SUPPLY VERIFICATION	CONCRETE TEST CERTIFICATE, SUPPLY DOCKET AND MIX DESIGN CERTIFICATE BY SUPPLIER.
		VISUAL INSPECTION BY ENGINEER	ENGINEER'S INSPECTION REPORT

UW SEWER WORKS			
ITEM	HOLD POINT	TEST/INSPECTION	CONSTRUCTION QUALITY ASSURANCE DOCUMENTATION
SEWER PIPEWORK	CONNECTION TO EXISTING UNITY WATER SEWER CONNECTION PRIOR TO BACKFILLING.	VISUAL INSPECTION BY ENGINEER	ENGINEER'S INSPECTION REPORT
	EXISTING SEWER CONNECTION PIPE CCTV SURVEY FOOTAGE AND CONDITIONS REPORT.	REVIEW OF FOOTAGE AND REPORT BY ENGINEER	ENGINEER'S INSPECTION REPORT
SEWER STRUCTURES	RAISING OF EXISTING MANHOLE.	VISUAL INSPECTION BY ENGINEER OF COMPLETED LIFT AND INTERNALLY FOR INTERFACE BETWEEN OLD AND NEW MANHOLE WALL.	ENGINEER'S INSPECTION REPORT

UW WATER WORKS			
ITEM	HOLD POINT	TEST/INSPECTION	CONSTRUCTION QUALITY ASSURANCE DOCUMENTATION
WATER PIPEWORK	CONNECTION TO EXISTING UNITY WATER MAIN AND SERVICE LINES PRIOR TO BACKFILLING.	VISUAL INSPECTION BY ENGINEER	ENGINEER'S INSPECTION REPORT
		CONTRACTOR TO SUPPLY MATERIALS AND FITTINGS DOCKETS.	
WATER METERS	WATER METERS TO BE INSPECTED PRIOR TO BACKFILLING (WHERE IN GROUND). ABOVE-GROUND METERS TO BE COMPLETE PRIOR TO MAKING LIVE.	VISUAL INSPECTION BY ENGINEER OF COMPLETED METERING ASSEMBLIES.	ENGINEER'S INSPECTION REPORT
		CONTRACTOR TO SUPPLY MATERIALS AND FITTINGS DOCKETS.	

DRAWN	GP	DESIGNED	THN	EXTENDED	ACF			
PROJECT NUMBER		THN	DESIGN APPROVAL					
PROJECT DIRECTOR		ACF	DATE					
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100. 03/06/22 FOR APPROVAL

NEW LINK PROPERTY GROUP

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LOTS 1189-1190
EDISON CRESCENT,
BARINGA, QLD, 4551

TEST INSPECTION AND HOLD POINTS

SCALE: A1 AT
NOT TO SCALE
PROJECT No. DRAWING No. ISSUE
221407 C002 1
FORMAL SHEET SEE A1 FOR DIMS

ISSUED FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

RISK REGISTER -- CIVIL

Category	Risk/Hazard	Possible Cause	Persons affected	Possible Consequences	Risk Rank	Design Response	Action
Earthworks	Retaining Walls	Retaining walls solutions may result in temporary loss of access and/or be retained permanently, resulting in dangerous construction methods.	Construction workers.	Serious injury	E2	Temporary retention solutions are provided for the permanent design.	Temporary retention solutions are designed and documented on drawings/specifications.
	Retention heights in excess of 1m	Trips/falls	All persons	Serious injury	E2	Where retention heights exceed 1m, adequate trench/barrier is provided.	Proposed trenching/barriers are specified on drawings at relevant locations.
	Structure Grades	Point of heel can be caught between grating resulting in fall.	Persons wearing heel footwear.	Serious injury	L7	Heel-proof grating installed where pedestrian traffic is high or likely.	Heel-proof grating specified on drawings and verified during construction audits as required.
Stormwater	Structure Access	Access may be restricted for maintenance possibly leading to unsafe entry/ext personnel manoeuvres.	Maintenance personnel.	Serious injury	L7	Maintenance access openings are to current Australian and local authority standards. Access provisions such as of openings, location and step runs where required, where depths exceed 0.8m.	Drawings clearly identify access provisions such as size of openings, location and step runs where required.
	Trenching	Soil collapse	Construction workers.	Serious injury	M6	Where pipe trenching is excessive and 1:1 benching or battering is unachievable, attention is brought to contractor for temporary shoring/ground support to ensure that unsafe trenching does not occur.	Details provided on drawings as applicable.
	Excessive Gradients	Grades which exceed maximum industry-accepted standards may result in poor serviceability and access.	Vehicular and pedestrian traffic.	Vehicles are unable to manoeuvre possibly resulting in dangerous manoeuvres and/or excessive manoeuvres e.g. additional point turning possibly resulting in congestion. Vehicle damage may also be possible e.g. "bottoming out" or scraping. Pedestrian efforts for manoeuvring on excessive grades are often unimaginable or severely restricted with the potential for injury. Pedestrians handling bulky goods may be unable to do so on excess grades.	L7		Excess grades are avoided where possible.
Surface Grating and Finished Levels	Excessively Shallow Grades	Grades which are below minimum industry-accepted standards may result in poor serviceability and drainage issues.	Pedestrian traffic.	Insufficient gradients may result in poor drainage and possible ponding.	L7		Below minimum grades are avoided in the design and/or sufficient drainage structures are included at those locations.
	Vertical Step at Kerbing > 150mm	Steps at kerbing that exceed the standard 150mm in general pedestrian trafficable areas may be potential trip hazards as kerbs are generally understood by the public as 150mm high.	Pedestrian traffic.	Fall leading to injury.	L8	Kerbs greater than 150mm high in step are avoided on design.	Areas that are the subject of insufficient grades are identified on plans and/or have been addressed with sufficiently sized drainage structures as specified on drawings.

RISK RATING MATRIX

WHEN ESTABLISHING ACTIONS TO BE TAKEN, THE HIERARCHY OF CONTROLS TO BE FOLLOWED IS:

- ELIMINATION
- SUBSTITUTION
- ENGINEERING
- ADMINISTRATIVE
- PERSONAL PROTECTIVE EQUIPMENT

Consequence	To People	To Property	To Environment
Destructous	Multiple fatality	Virtual complete loss of plant or system	Long term, widespread, significant impact
Critical	Permanent injury, disability or death	Extensive damage to plant or system	Medium to long term wide spread impact
Serious	Lost time injury	Significant damage to plant or system	Moderate but reversible impact
Significant	Medical treatment injury	Damages impact on budget and program	Minor, short-medium term impact to local area of limited significance
Minor	First aid injury	Minor damage to plant or system	Limited impact to minimal area

Risks in the type of building construction and use considered typical in building type and therefore are not specifically addressed by the structural engineer during the design process. These risks are considered unavoidable and are to be reduced or minimised or eliminated by the buldier and end user of the building.

- Heavy manual lifting during construction
- Lighting of work areas
- Use of heavy machinery for erection, excavation or other works
- Safety of work area underfoot
- Noise and acoustic suppression
- Traffic Management
- Emergency Egress
- Access to amenities
- Temporary bracing of structure

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2022/1275
Date: 24/06/2022



PLAN	CP	ISSUED	THN	EXTENDED	ACF
PROJECT INFORMATION					
PROJECT REFERENCE			ACF	DATE	
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Copying or reproducing in whole or part of this document in any form constitutes an infringement of copyright without the written permission of the copyright owner.					
DISCLAIMER					
The Engineer and Associates Pty Ltd accepts no responsibility for the accuracy or for any consequence resulting from the use of this drawing and other data in electronic form or otherwise. It is intended for use by the client for the purpose of obtaining a building permit. It is not intended for use for any other purpose. It is not intended to be used as a basis for any other design or construction. It is not intended to be used as a basis for any other design or construction.					
NOTES					
1. Commencing Construction with all dimensions against existing, other Consultant or sub-Contractor drawings.					

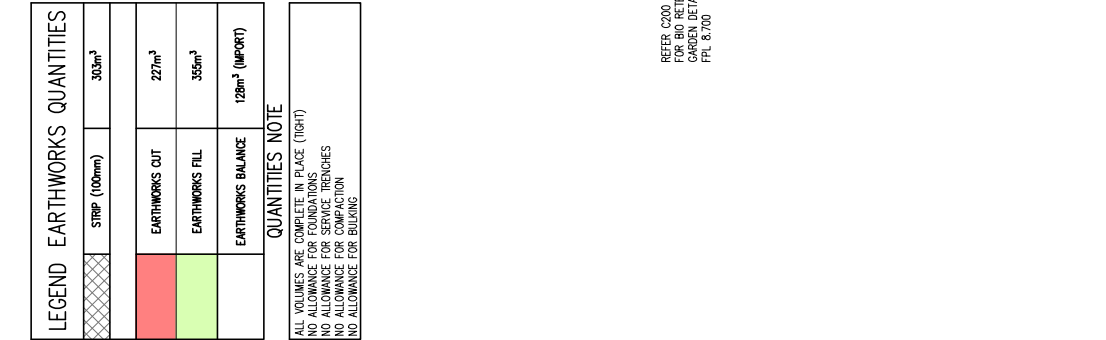
1	03/05/22	FOR APPROVAL	EL
REV	DATE	AMENDMENT	INT.
AMENDMENTS			
CLIENT			

EARTHWORKS LEGEND

EXISTING CONTOUR (MAJOR)	— 11.00 —
EXISTING CONTOUR (MINOR)	— 11.50 —
PROPOSED EARTHWORKS CONTOURS (MAJOR 0.5m)	— 7.00 —
PROPOSED EARTHWORKS CONTOURS (MINOR 0.1m)	— 6.50 —



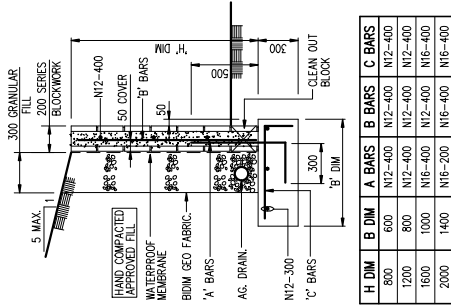
ISSUED FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES



PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2022/1275
Date: 24/06/2022

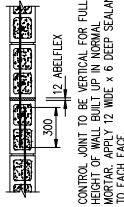
Date: 24/06/2022



H DIM	B DIM	A BARS	B BARS	C BARS
800	600	N12-400	N12-400	N12-400
1200	800	N12-400	N12-400	N12-400
1600	1000	N16-400	N12-400	N16-400
2000	1400	N16-200	N16-400	N16-400

DESIGN CRITERIA
8 kPa EQUIVALENT FLUID PRESSURE
2t/sq.m BACKFILL DENSITY
MAX 1:5 SLOPE BEHIND WALL
MIN ALLOWABLE BEARING CAPACITY 100kPa

RETAINING WALL RW2 DETAIL

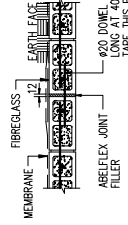


MET 5-3 OR SIMILAR
APPROVED AT 600 CRS.

REINFORCED
BLOCKWALL

BLOCKWALL CONTROL JOINT
(RECOMMEND EVERY 7.5m)

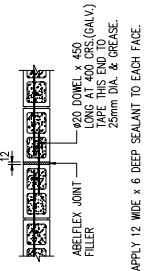
CONTROL JOINT CORNER



— ABLEFLEX JOINT —
 FILLER
 — ϕ 20 DOWEL x 450
 LONG AT 400 CRS.(GALV.)
 TAPE THIS END TO
 ϕ 25mm & GREASE.
 APPLY 12 WIDE x 6 DEEP SEALANT TO EACH
 FACE. COAT EARTH FACE WITH FIBREGLASS
 AND 2 COATS OF MULSEAL.

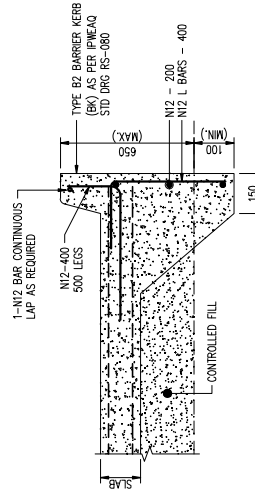
RETAINING WALL EXPANSION JOINT

STARTER BAR DETAIL



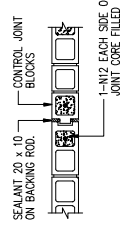
BLOCKWALL EXPANSION JOINT

BLOCKWALL EXPANSION JOINT



CONCRETE DOWN TURN DETAIL (ET2)

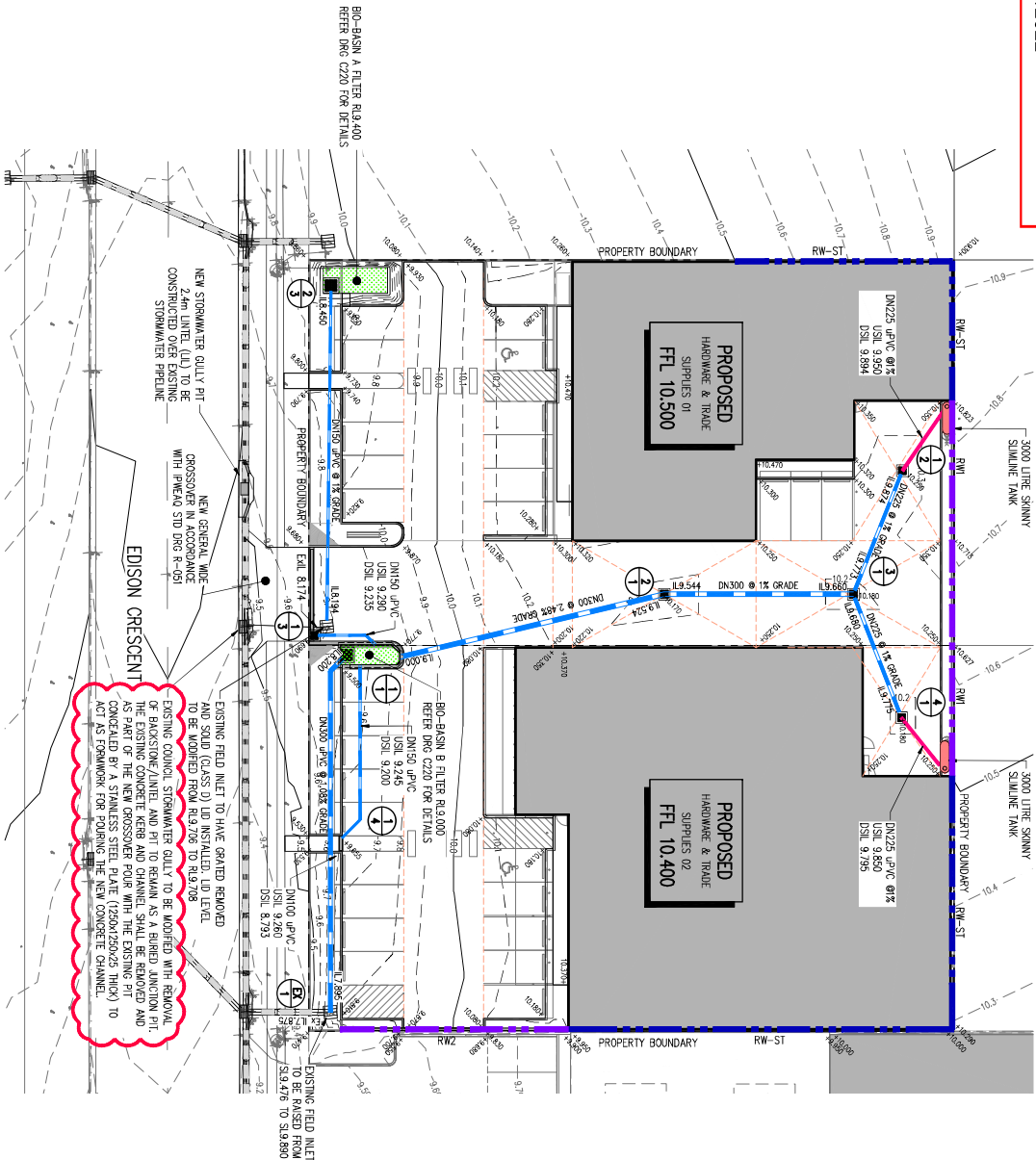
NOT TO SCALE



BLOCKWORK CONTROL JOINT

BLOCKWORK CONTROL JOINT

ISSUED FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES



LEGEND

- PROPERTY BOUNDARY
- EXISTING STOPWATER DRAINAGE
- PROPOSED STOPWATER PIPE
- PROPOSED STOPWATER GULLY PIT
- PROPOSED STOPWATER MANHOLE
- PIT NO. LINE NO.
- PROPOSED STOPWATER PIPE (BY OTHERS)
- 100% PVC IRRIGATION SERVICE CONDUIT
- 600/600 STOPWATER FIELD INLET PIT FITTED WITH OCEAN PROTECT OCEANGLARD WITH OIL/HYDROCARBON ABSORBENT LINING
- FINISHED SURFACE LEVEL
- PROPOSED FINISHED SURFACE CONTOURS (MAJOR 1m)
- PROPOSED FINISHED SURFACE CONTOURS (MINOR 0.2m)
- PROPOSED BLOCK RETAINING WALL REFER STRUCTURAL DRAWINGS FOR DETAILS
- PROPOSED BLOCK RETAINING WALL REFER DRG 010 FOR DETAILS



ISSUED FOR APPROVAL

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ISSUE NO.	ISSUED BY	THIN	THIN	RECORD ACT
1	THIN	THIN	THIN	THIN
2	THIN	THIN	THIN	THIN
3	THIN	THIN	THIN	THIN
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9	THIN	THIN	THIN	THIN
10	THIN	THIN	THIN	THIN



NEW LINK PROPERTY GROUP



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PROJECT
PROPOSED COMMERCIAL
DEVELOPMENT
LOTS 1189-1190
EDISON CRESCENT,
BARINGA, QLD, 4551

TITLE
FINISHED GRADING AND
STOPWATER LAYOUT PLAN

SCALE	DRAWING NO.	ISSUE
1:200	C200	7
221407		

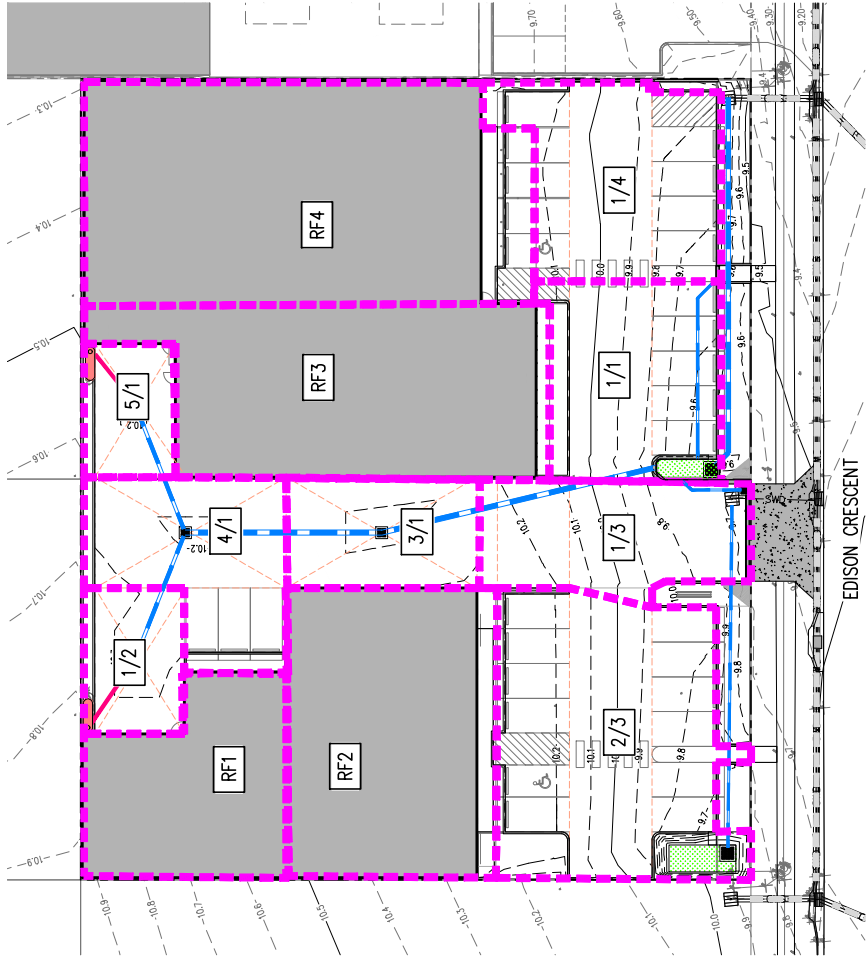
PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2022/1275
Date: 24/06/2022



CATCHMENT AREAS

STRUCT	AREA (ha)
RF1	0.0200
RF2	0.0339
RF3	0.0386
RF4	0.0515
1/1	0.0194
2/1	0.0119
3/1	0.0175
4/1	0.0068
1/2	0.0082
1/3	0.0164
2/3	0.0359
1/4	0.0196



RATIONAL METHOD FLOW CALCULATIONS – GROUND CATCHMENTS (1420m²)

Catchment	1/1	2/1	3/1	4/1	1/2	1/3	2/3	1/4
Catchment Area (m ²)	19.0	118.0	175.0	68.0	82.0	164.0	850.0	196.0
Catchment Area (ha)	0.019	0.012	0.018	0.007	0.008	0.016	0.036	0.020
10-Year Coefficient of Discharge	C ₁₀	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Frequency Factor	F ₁₀	1.05	1.05	1.00	1.00	1.00	1.00	1.00
Coefficient of Discharge	C ₁	0.945	0.945	0.900	0.900	0.900	0.900	0.900
Average Rainfall Intensity (mm/hr)	I	229	229	229	229	229	229	229
Time of Concentration (min)	t _c	5.3	5.0	5.0	5.0	5.0	5.0	5.0
Discharge (m ³ /s)	Q	0.012	0.067	0.010	0.004	0.009	0.021	0.011
Discharge (L/s)	Q	12	7	10	4	9	21	11

RATIONAL METHOD FLOW CALCULATIONS – ROOF CATCHMENTS (1440m²)

Catchment	RF1	RF2	RF3	RF4
Catchment Area (m ²)	200.0	380.0	366.0	515.0
Catchment Area (ha)	0.020	0.038	0.036	0.052
10-Year Coefficient of Discharge	C ₁₀	0.90	0.90	0.90
Frequency Factor	F ₁₀	1.05	1.05	1.00
Coefficient of Discharge	C ₁	0.945	0.945	0.900
Average Rainfall Intensity (mm/hr)	I	262	262	262
Time of Concentration (min)	t _c	5.0	5.0	5.0
Discharge (m ³ /s)	Q	0.014	0.023	0.025
Discharge (L/s)	Q	14	23	25



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LANDSCAPING TO BE SPECIFIED AND CERTIFIED
BY LANDSCAPE ARCHITECT IN ACCORDANCE
WITH HEALTHY WATERWAYS WATER-SENSITIVE
URBAN DESIGN TECHNICAL GUIDELINES

400mm FILTER MEDIA LAYER
SANDY LOAM (MEAN PARTICLE SIZE 0.45mm.)
HYDRAULIC CONDUCTIVITY 180mm/hr.
5% ORGANIC CONTENT
REFER BIO-RETENTION BASIN FILTER MEDIA NOTE

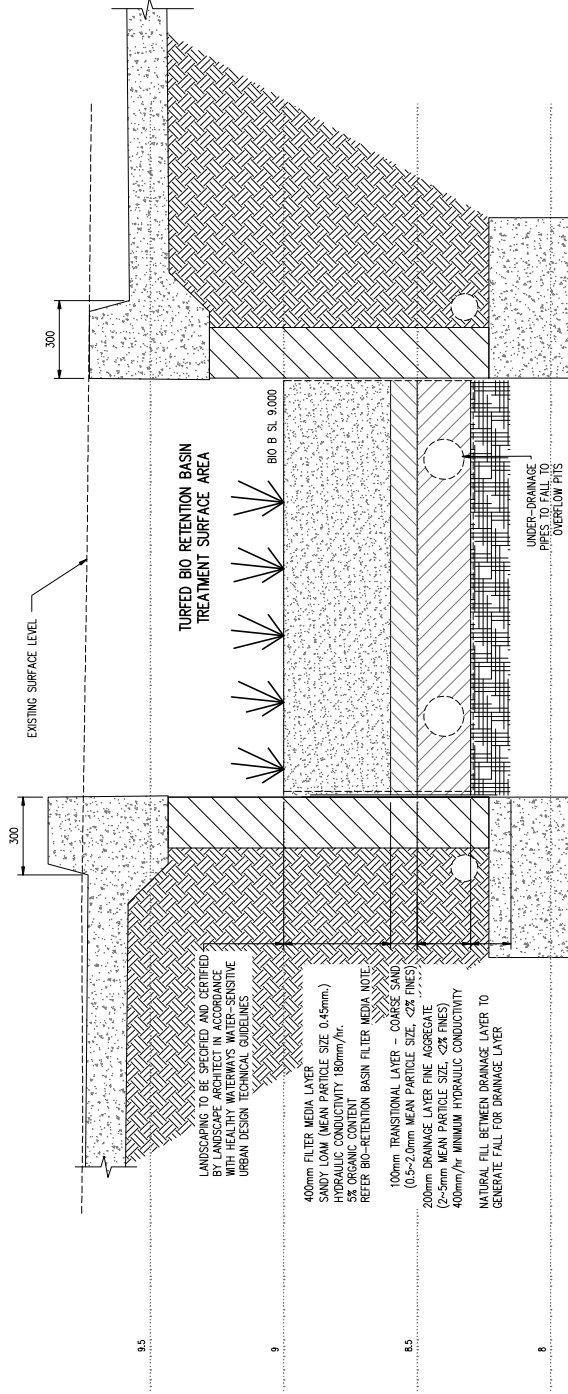
100mm TRANSITIONAL LAYER - COARSE SAND
(0.5-2.0mm MEAN PARTICLE SIZE <2% FINES)
200mm DRAINAGE LAYER FINE AGGREGATE
(2-5mm MEAN PARTICLE SIZE <2% FINES)
400mm/hr MINIMUM HYDRAULIC CONDUCTIVITY
NATURAL FILL BETWEEN DRAINAGE LAYER TO
GENERATE FALL FOR DRAINAGE LAYER

BASIN WALLS AND BASE TO BE LINED WITH 2mm
IMPERMEABLE HDPE LINER UP TO FILTER LEVEL.
LINER TO BE PINNED AND SEALED TO
MANUFACTURER'S SPECIFICATIONS

SECTION C
SCALE 1:10
C720

TURFED BIO RETENTION BASIN A TREATMENT DETAIL

SCALE 1:10



SECTION D
SCALE 1:10
D720

TURFED BIO RETENTION BASIN B TREATMENT DETAIL

SCALE 1:10



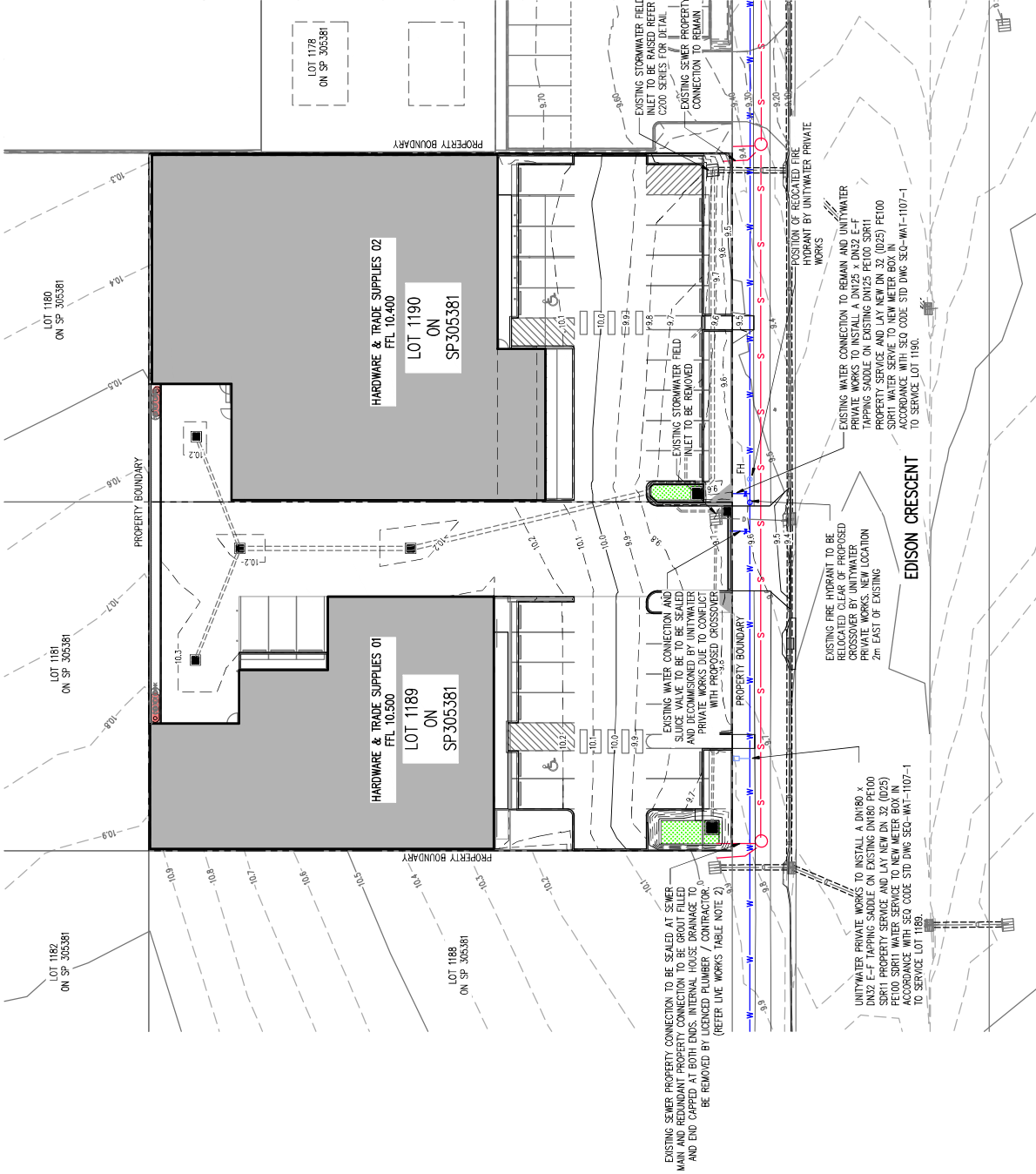
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DRAWN	EL	DESIGNED	THIN	CHECKED	ACF
PROJECT MANAGER	THIN	DESIGN APPLICATION	DATE		
PROJECT DIRECTOR	ACF				

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DISCLAIMER
Farr Engineering Associates Pty Ltd accepts no responsibility for the use of this drawing and other data in electronic form or otherwise, including its use in connection with any copy version.
NOTES:
1. Connecting Construction with all dimensions subject to Architect's, other Consultant's and Sub-Contractor's drawings.

1	10/03/22	FOR APPROVAL	EL
REV	DATE	AMENDMENT	INT.
AMENDMENTS			
CLIENT			
NEW LINK PROPERTY GROUP			

RAINWATER TANKS NOTE:
ALL RAINWATER TANKS ARE TO BE CONNECTED TO NON-POTABLE FIXTURES FOR RE-USE AND APPROVED UNDER A FUTURE PLUMBING APPROVAL.



PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2022/1275

Date: 24/06/2022

- EXISTING SERVICES NOTE:**
- THE CONTRACTOR IS TO CONFIRM THE LOCATION OF ALL SERVICES AND CONTACT 'DIAL BEFORE YOU DIG' ON 1100 PRIOR TO COMMENCING CONSTRUCTION WORKS OR ORDERING MATERIAL.
 - THE CONTRACTOR IS TO CONFIRM THE LOCATION AND LEVEL OF ALL SEWER AND DRAINAGE CONNECTION POINTS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS. THE SUPERVISING ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF ANY INVERT LEVELS DIFFER TO LEVELS SHOWN ON ALL FARR ENGINEERS ASSOCIATES PLANS.
 - EXISTING SERVICES SHOWN ON ALL FARR ENGINEERS ASSOCIATES PLANS ARE AS PER DETAILED SURVEY AND AVAILABLE COUNCIL DOCUMENTATION. LOCATIONS ARE TO BE CONFIRMED PRIOR TO COMMENCEMENT OF WORKS.
 - ALL COUNCIL SERVICES ARE TO BE LOCATED AND CONFIRMED BY LOCAL AUTHORITY.
 - A REPRESENTATIVE OF EACH SERVICE PROVIDER IS TO BE PRESENT ON SITE WHEN WORKING WITHIN 3.0m OF EACH SERVICE.

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 AND MAXIMUM DEPTH OF PROPERTY CONNECTION AT 1.5m UNLESS OTHERWISE STATED. FOR JUNCTION DETAILS REFER SEQ-SEW-1106-1 TO SEQ-SEW-1106-7.

NOTE: REFER HYDRAULIC CONSULTANT FOR THE LOCATION OF SANITARY HOUSE DRAINAGE.

WASTE WASHDOWN NOTE:
THE WASTE WASHDOWN AREA SHALL BE BUNDLED AND DISCHARGED TO THE SANITARY SEWER SYSTEM UNDER A PLUMBING APPROVAL AND UNITYWATER CONNECTION APPROVAL.

- 6 02/06/22 AMENDED WASTE WASHDOWN NOTE EL
5 03/05/22 ISSUED FOR APPROVAL EL
4 09/03/22 LAYOUT UPDATED EL
3 17/02/22 LAYOUT UPDATED EL
2 10/02/22 FOR APPROVAL EL
1 22/11/21 FOR APPROVAL EL
REVISED DRAINAGE LAYOUT GP
AMENDMENTS
CLIENT

NEW LINK PROPERTY GROUP

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ARCHITECT

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PROJECT
PROPOSED COMMERCIAL DEVELOPMENT
LOTS 1189-1190
EDISON CRESCENT,
BARINGA, QLD, 4551

TITLE
SEWER AND WATER RETICULATION LAYOUT PLAN

- LEGEND**
- S — EXISTING SEWER MAIN
 - W — EXISTING WATER MAIN
 - ===== STORMWATER DRAINAGE
 - W — EXISTING WATER MAIN

ISSUED FOR APPROVAL

NOT TO BE USED FOR CONSTRUCTION PURPOSES

SCALE 1:200 (A1)

SCALE A1 AT 1:200	PROJECT No.	DRAWING No.	ISSUE
	221407	C800	6