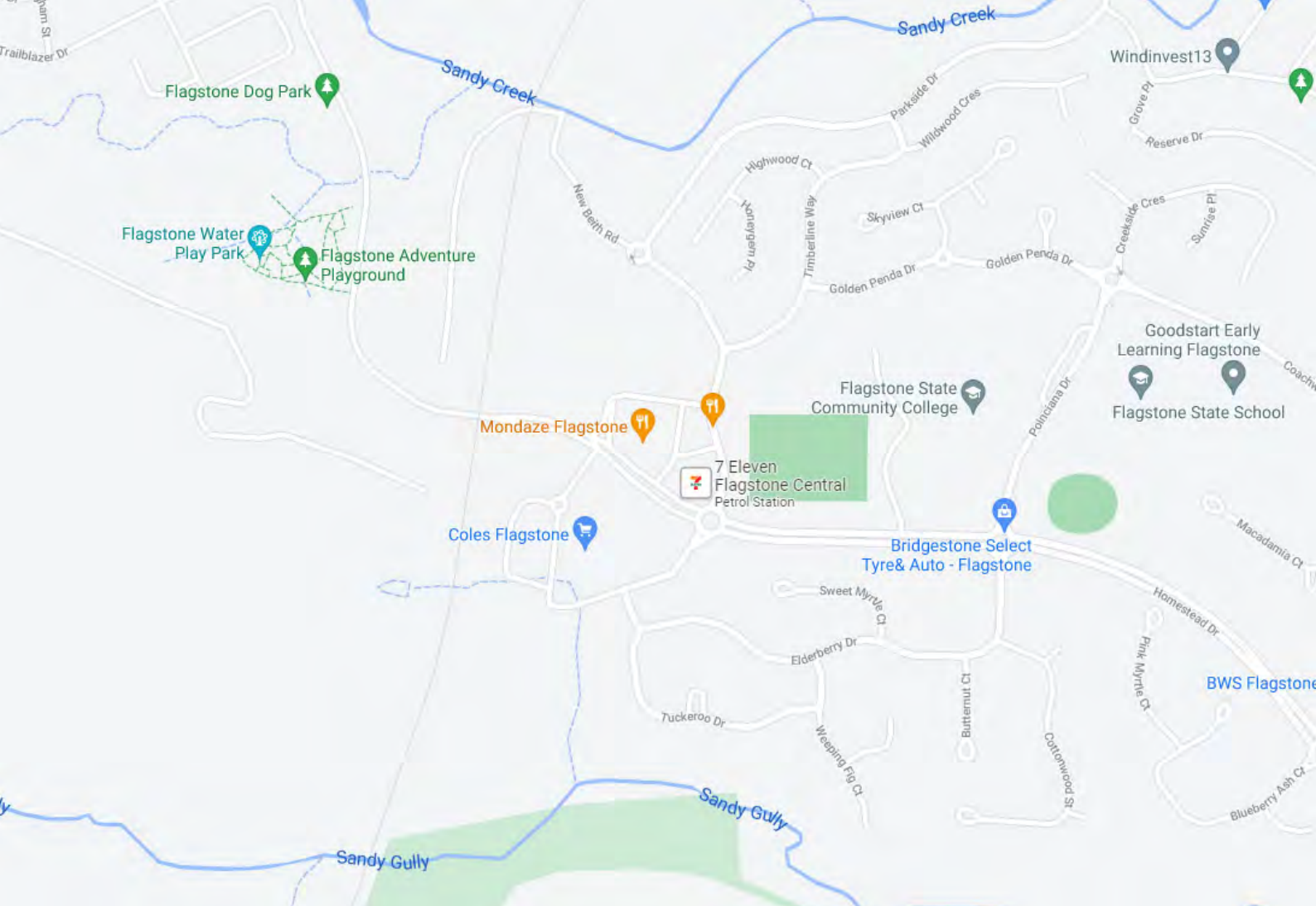




PROPOSED CHILDCARE CENTRE

**Lot 25008 Allis Street, Flagstone QLD
for Flag Land Pty Ltd**

Civil Engineering Report

REPORT NUMBER: Q21-181-ALLIS-CER
REVISION: 1
DATE: 14/05/2021

AMENDED IN RED

By: Anita Torbey Fuller
Date: 02-Jun-2021



**PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL**

Approval no: DEV2021/1189
Date: 18-Jun-2021



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Document Control

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1	14/05/2021	Eli Houghton	Giorgio Giaroli	DA SUBMISSION



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1.0 INTRODUCTION

BG Group QLD Pty Ltd has been engaged by Flag Land Pty Ltd to prepare a civil engineering report for the proposed childcare centre at Lot 25008 Allis Street, Flagstone. This report will form part of the development application which will be submitted to EDQ.

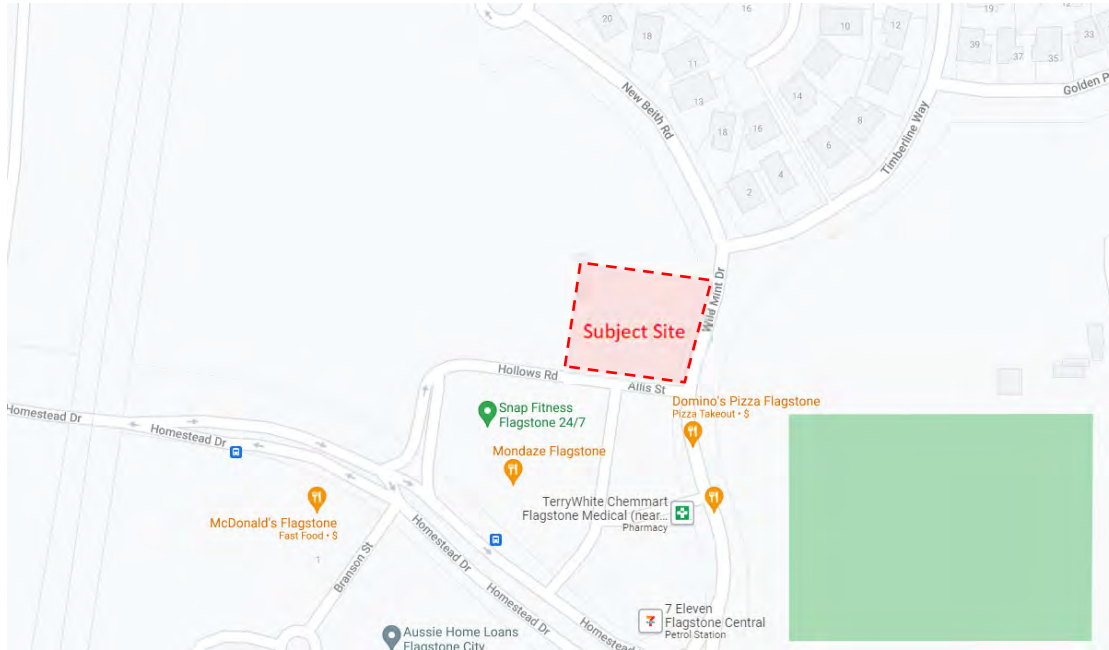
1.1. AVAILABLE INFORMATION

- Architectural Plans prepared by Raymond Design (Ref: RD20029)
- Subdivision Plans prepared by Peak Urban (Ref:20-0178)
- Plan of Development (POD) prepared by RPS (Ref: 110056-503)
- Flagstone Stage 7 – Town Centre East – Plan of Subdivision
- Stormwater Management Plan prepared by Peak Urban (Ref 20-0178SMP01-V1)

2.0 SITE CHARACTERISTICS

2.1. LOCATION

The development site is located approximately 30km south-west of Logan Central. The site address is Lot 25008 Allis Street Flagstone which is a new lot proposed as part of Flagstone Precinct 1 – Stage 7C.



2.2. SITE DESCRIPTION

The site in its current state is vacant, generally flat (average slopes of 0.5% toward the rear of the site) with a total area of approximately 0.35ha. The subject sites primary site frontage is Allis Street. It also has secondary site frontage to Wild Mint Drive.





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3.0 CIVIL ENGINEERING

3.1. FILLING AND EXCAVATION

Site Preparation including stripping and any subgrade improvements (if required) will be nominated on final design drawings in accordance with recommendations and requirements of the geotechnical report.

All earthworks are to be designed and constructed in accordance with Australian Standard AS3798 and Logan City Council Planning Scheme Policies. All filling on site is to be undertaken under level 1 supervision by a suitably qualified geotechnical engineer and a level 1 report and certification must be submitted by the contractor to the principal upon completion of filling activities.

A preliminary Filling and Excavation Plan has been prepared and is included in Appendix A. Further development of this plan is to be undertaken at the detailed design phase of the development following review of a site-specific geotechnical report.

3.2. STORMWATER DRAINAGE

A site-based stormwater management plan (SBSMP) has been prepared for the subdivision of which the subject site has been created (Flagstone Stage 7C). Refer to SBSMP 20-0178SMP01-V1 prepared by Peak Urban.

BG Group has reviewed the SBSMP and confirm that stormwater quality treatment will be provided for the subject site as part of the subdivision. An existing communal bio-retention basin located off site to the north of Flagstone stage 7 will be modified to incorporate additional filter area required to treat the stormwater discharge generated by the subject site. No on-site stormwater quality devices are required to be incorporated into the on-site drainage system proposed as part of the childcare centre development.

Stormwater infrastructure to be provided to the subject site as part of Flagstone Subdivision Stage 7C has been designed to cater for the fully developed site. Stormwater discharge from the subject site does not require mitigation on site and therefore no on-site detention has been proposed.

Design of on-site stormwater drainage infrastructure has been documented in accordance with requirements outline in QUDM (V4), Logan City Council PSP's and Australian Standard AS3500.3:2018 – Plumbing and Drainage – Stormwater Drainage.

3.3. SEWERAGE RETICULATION

The subject site will be serviced by a 150mm sewer property connection to a 150mm sewer reticulation main. This infrastructure will be delivered as part of the subdivision on which the subject site will be created.

Private Sanitary Drainage and Plumbing will be designed and constructed in accordance with AS3500.2:2018 – Plumbing and Drainage – Sanitary Plumbing and Drainage. Design plans will be prepared by a suitably qualified and experienced hydraulic consultant and submitted to Logan City Council for Plumbing Approval prior to construction.



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3.4. WATER RETICULATION

The subject site will be serviced by a 100mm water property connection to a 100mm water reticulation main. This infrastructure will be delivered as part of the subdivision on which the subject site will be created.

Private water services will be designed and constructed in accordance with AS3500.1:2018 – Plumbing and Drainage – Water Services. Design plans will be prepared by a suitably qualified and experienced hydraulic consultant and submitted to Logan City Council for Plumbing Approval prior to construction.

3.5. ELECTRICITY & TELECOMMUNICATIONS

The development will be serviced by infrastructure delivered as part of the subdivision on which the subject site will be created.

Prior to construction, an application will be made to energy and telecommunications providers for supply of Electrical and Communication services. Any electrical or telecommunication infrastructure upgrades required due to this development shall be done by the relevant infrastructure provider (Energex, Telstra, NBN etc) at the developer's expense.

3.6. EXTERNAL ROADWORKS

No external roadworks are proposed as part of the development. It is expected that all external road infrastructure will be delivered as part of the subdivision works in which the site is created.

3.7. SITE ACCESS, INTERNAL CARPARKING AND MANOEUVRING

Permanent site access will be limited to Allis Street (primary street frontage). Direct vehicular access from Wild Mint Drive will not be provided. A general wide flared permanent vehicle crossover will be constructed in accordance with IPWEA Standard Drawing RS-051.

Internal carparking and manoeuvring will be provided with grades and dimensions in accordance with Australian Standard AS2890.1-6 (where relevant). PWD spaces will be provided where required. Refer to Architectural and Traffic Engineering documentation for details.

3.8. REFUSE COLLECTION

A private refuse collection agreement will be entered into by the site operator. It will be determined through consultation with on site operators and the appointed refuse collection company the frequency of collection.

APPENDIX A – CIVIL ENGINEERING DRAWINGS



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PROPOSED CHILDCARE CENTRE AT
AT LOT 25008 ALLIS STREET, FLAGSTONE QLD
FOR FLAG LAND PTY LTD

DRAWING LIST

CK001	B	COVER SHEET
CK002	B	EXISTING FEATURES PLAN
CK101	B	EROSION & SEDIMENT CONTROL NOTES
CK102	B	EROSION & SEDIMENT CONTROL LAYOUT PLAN
CK201	B	FILLING & EXCAVATION NOTES
CK202	B	FILLING & EXCAVATION LAYOUT PLAN
CK301	B	PAVEMENT & STORMWATER DRAINAGE NOTES
CK302	B	PAVEMENT & STORMWATER DRAINAGE LAYOUT PLAN
CK501	B	WATER CONNECTION LAYOUT PLAN
CK601	B	SEWERAGE CONNECTION LAYOUT PLAN

NOTES

1. THE CONTRACTOR IS TO VERIFY THE LOCATION & RELATIVE LEVELS OF EXISTING SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO TAKE ALL NECESSARY PRECAUTIONS REGARDING CONSTRUCTION ADJACENT TO EXISTING SERVICES.
2. THE CONTRACTOR SHALL PREPARE AN "AS CONSTRUCTED" DETAIL SURVEY PLAN SHOWING FINISHED SURFACE LEVELS & CONTOURS TO LOCAL AUTHORITY STANDARDS.
3. THE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE LANDSCAPE ARCHITECTS, OTHER CONSULTANTS PLANS, SPECIFICATIONS AND OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED BY THE SUPERINTENDENT DURING THE COURSE OF THE CONTRACT.
4. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT LOCAL AUTHORITY & BG GROUP QLD PTY LTD STANDARD METHODS, SPECIFICATION & DRAWINGS.
5. TRAFFIC & PEDESTRIAN CONTROL MEASURES ARE TO BE PROVIDED TO LOCAL AUTHORITY & SUPERINTENDENTS SATISFACTION.

IMAGERY, CADASTRAL AND SURVEY DATA DISCLAIMER

WHILE EVERY CARE IS TAKEN BY BG GROUP QLD PTY LTD TO ENSURE THE ACCURACY OF THE DATA SUPPLIED BY LOCAL AUTHORITIES, DIAL BEFORE YOU DIG (DBYD) RECORDS, AS CONSTRUCTED INFORMATION AND DETAILED SURVEY, WE MAKE NO REPRESENTATIONS OR WARRANTIES ABOUT ITS ACCURACY, RELIABILITY, COMPLETENESS OR SUITABILITY FOR ANY PARTICULAR PURPOSE AND DISCLAIM ALL RESPONSIBILITY AND ALL LIABILITY (INCLUDING WITHOUT LIMITATION, LIABILITY IN NEGLIGENCE) FOR ALL EXPENSES, LOSSES, DAMAGES (INCLUDING INDIRECT OR CONSEQUENTIAL DAMAGE) AND COSTS WHICH MAY BE INCURRED AS A RESULT OF DATA BEING INACCURATE OR INCOMPLETE IN ANY WAY AND FOR ANY REASON.

PRE-START MEETING

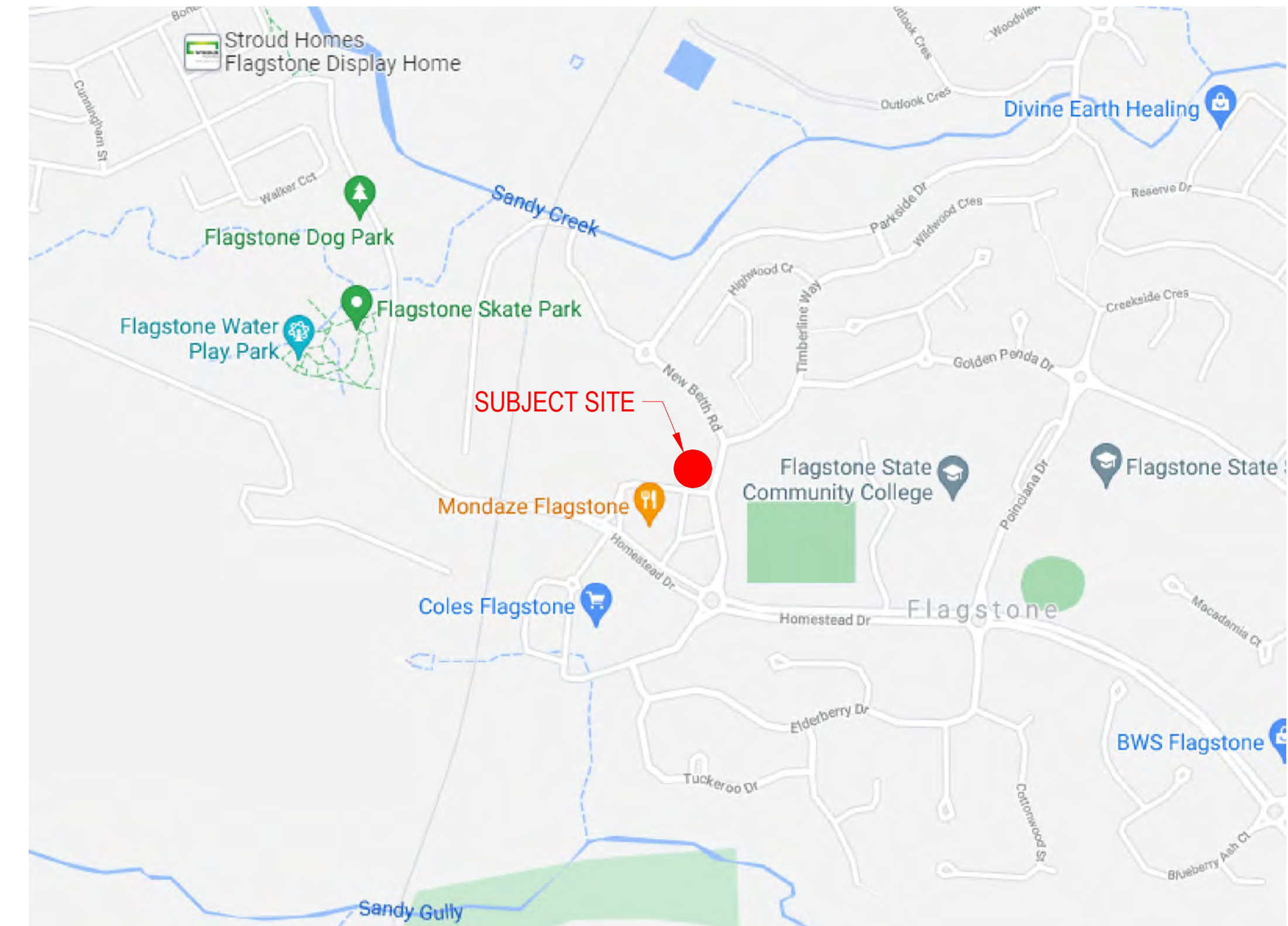
PRIOR TO COMMENCEMENT OF WORKS A PRE-START MEETING MUST BE HELD ON SITE. THE FOLLOWING REPRESENTATION SHALL BE INVITED TO ATTEND;

- LOCAL COUNCIL
- PRINCIPAL CONTRACTOR
- CIVIL CONTRACTOR
- SUPERVISING ENGINEER
- ALL RELEVANT REFERRAL AGENCIES
- OTHER SERVICES PROVIDERS (TELSTRA, ERGON, ETC)

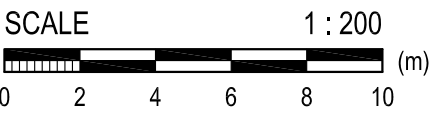
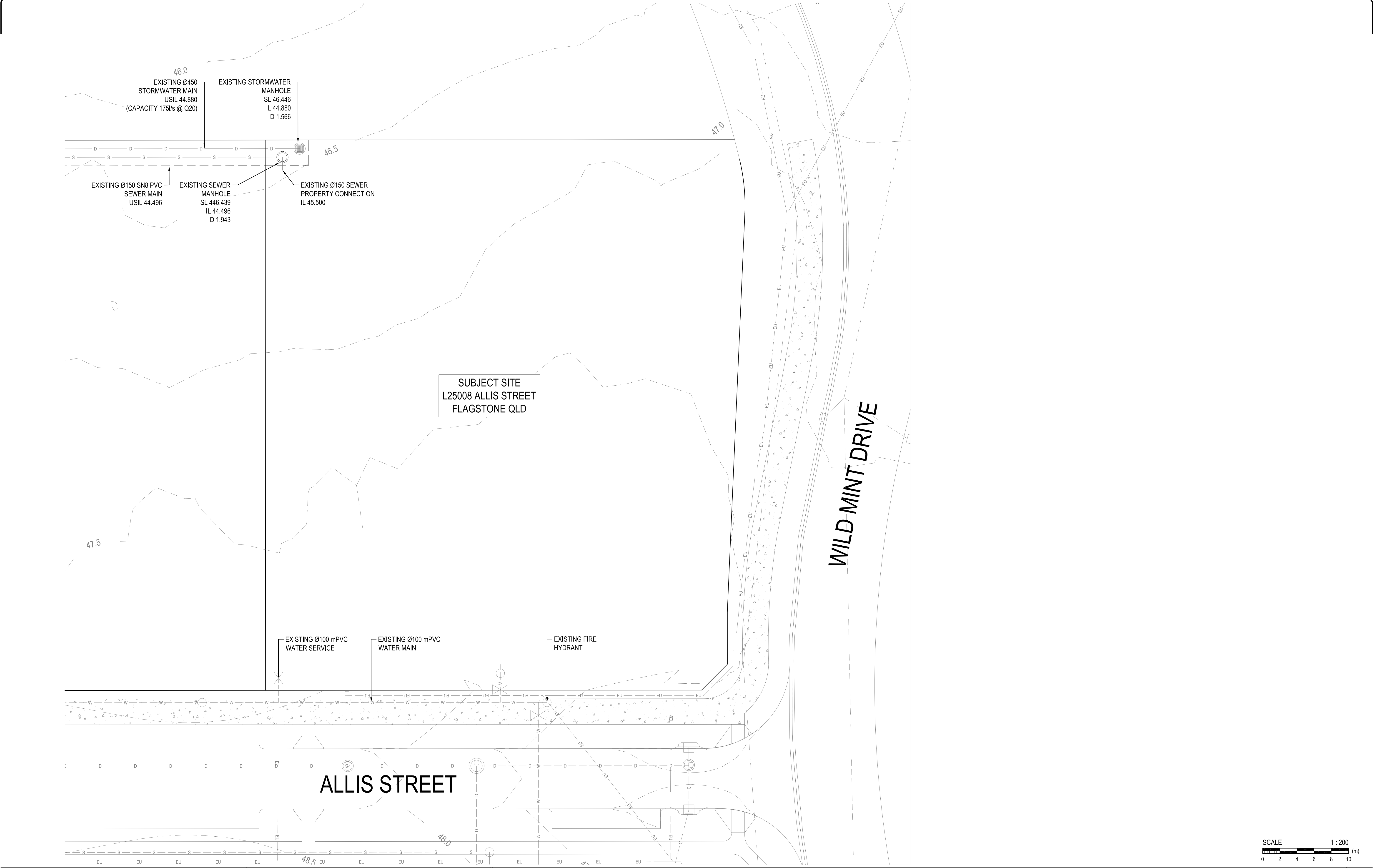
RPEQ CERTIFICATION

THE CONTRACTOR IS RESPONSIBLE IN CONTACTING BG GROUP QLD PTY LTD ON (07) 3839 3366 TO ARRANGE INSPECTIONS (48 HOURS NOTICE). THESE INSPECTIONS ARE REQUIRED TO ATTAIN CONSTRUCTION CERTIFICATES FOR "ON MAINTENANCE" AND PLAN SEALING.

LOCALITY PLAN



No.	Description	Date	By	No.	Description	Date	By
A	FOR REVIEW	13/05/21	EH				
B	FOR APPROVAL	14/05/21	JM				
Associated Consultant:				Drawn:	Design:	Checked:	Supervisor:
-				JM	EH	GG	GG



No.		Description		Date	By	No.	Description		Date	By	Images, Cadastral and Survey Data Disclaimer While every care is taken by bg group qld Pty Ltd to ensure the accuracy of the data supplied by local authorities, dial before you dig (dbvd) records, as constructed information and detailed survey, we make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate or incomplete in any way and for any reason. Surveyor: RP Description: Plan Ref: Level Datum AHD BG Group ENGINEERS CIVIL ENGINEERING BG Group QLD ABN, 73 108 808 699 L9/316 Adelaide Street Brisbane QLD 4000 GPO Box 3073 Brisbane QLD 4001 t. +61 7 3839 3366 f. +61 7 3839 3377 w. www.bgroup.com.au North: Size of Land: 3,500m² Client: FLAG LAND PTY LTD Project: PROPOSED CHILDCARE CENTRE AT LOT 25008 ALLIS STREET, FLAGSTONE QLD Title: EXISTING FEATURES PLAN Scale: 1:200 (m) Orig. Dwg. Size A1 Job No. Q21-181 Drawing No. CK002 Revision: B APPROVAL	
A	FOR REVIEW	13/05/21	EH									
B	FOR APPROVAL	14/05/21	JM									
Associated Consultant:		Drawn:	Design:	Checked:	Supervisor:	Approved:	RPEQ.		Date:			
		JM	EH	GG	GG							

DESIGNED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL ENGINEERING GUIDELINES FOR QUEENSLAND & REGULATORY AUTHORITIES REQUIREMENTS.

PROVIDE, INSTALL AND MAINTAIN ALL BARRIERS, GROSS POLLUTANT TRAPS, CONSTRUCTION EXITS, PUMP SUCTION PITS, POLLUTANT AND SEDIMENT TRAPS FENCES NECESSARY FOR THE CONTROL OF EROSION AND SEDIMENTATION WITHIN AND AROUND THE SITE DURING CONSTRUCTION. ALL IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL ENGINEERING GUIDELINES FOR QUEENSLAND & REGULATORY AUTHORITIES REQUIREMENTS.

PROVIDE AND INSTALL 750mm HIGH SEDIMENT FENCE AROUND SITE. EXACT EXTENT OF FENCE SHALL BE DETERMINED ON SITE IN CONJUNCTION WITH REGULATORY AUTHORITY.

PROVIDE AND INSTALL 450mm HIGH SEDIMENT FENCE COMPLETELY AROUND ALL OPEN STORMWATER PIPES AT THE END OF EACH DAYS WORK & IMMEDIATELY PRIOR TO ANY STORM EVENT.

PROVIDE AND INSTALL 450mm HIGH SEDIMENT FENCE COMPLETELY AROUND ALL SWSs, GRATED TRENCHES & GRATES.

PROVIDE AND INSTALL CONSTRUCTION ENTRY / EXIT SEDIMENT CONTROL STRUCTURE.

PROVIDE AND INSTALL SEDIMENT BARRIERS TO ALL EXISTING ROAD INLET GULLIES AFFECTED BY CONSTRUCTION.

CONSTRUCTION OF ALL SEDIMENT MANAGEMENT DEVICES SHALL BE COMPLETED AND EFFECTIVE PRIOR TO STRIPPING OF TOP SOIL AND GRASS, BULK EARTHWORKS TO SITE, AND SERVICE INSTALLATION.

ALL SEDIMENT MANAGEMENT DEVICES ARE TO REMAIN IN PLACE UNTIL WRITTEN NOTICE FROM LICENSING AND COMPLIANCE.

BOTH TEMPORARY AND PERMANENT SEDIMENTATION MANAGEMENT DEVICES SHALL BE MAINTAINED AT A SUITABLE LEVEL / CONDITION THROUGHOUT CONSTRUCTION. SEDIMENT FENCES ARE TO BE CLEANED OUT WHEN CAPACITY IS REDUCED BY 30%.

PRIOR TO COMMENCEMENT OF CONSTRUCTION, APPROVAL SHALL BE OBTAINED FROM LICENSING AND COMPLIANCE FOR THE LOCATION OF THE SITE ACCESS POINT AND WASH DOWN AREA WHICH SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

IF EROSION AND SEDIMENT CONTROL DEVICES HAVE BEEN FOUND TO BE DEFICIENT OR FAILED IN SERVICE, DUE TO UNFORESEEN CIRCUMSTANCES, CORRECTIVE ACTION IS TO BE UNDERTAKEN IMMEDIATELY WHICH MAY INCLUDE AMENDMENTS / ADDITIONS TO THE ORIGINAL EROSION CONTROL PLANS. SUCH ADDITIONS OR AMENDMENTS ARE TO BE APPROVED BY LICENSING AND COMPLIANCE OFFICER AND REGULATORY AUTHORITY.

THE INSTALLATION, REMOVAL, RELOCATION, OR MODIFICATION TO EROSION AND SEDIMENT CONTROL DEVICES MAY BE MADE BY A LICENSING AND COMPLIANCE OFFICER AND REGULATORY AUTHORITY IF DEEMED NECESSARY AND RELEVANT.

ALL MUD TRACKED ONTO COUNCIL ROADS SHALL BE BROOMED OFF IMMEDIATELY (NOT WASHED OFF ONTO COUNCIL STORMWATER SYSTEM).

ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION WHERE AS DIRECTED BY COUNCIL REPRESENTATIVE.

MESH AND INLET PROTECTION DEVICES TO ALL GULLY PITS TO BE REMOVED DURING CONSTRUCTION OF ROADWAYS. AFTER ROADS HAVE BEEN COMPLETED CONTRACTOR TO ENSURE ALL GULLY GRATES ARE WRAPPED IN GEOFABRIC AND ROCK FILLED AGRICULTURAL PIPE PLACED ALONG LINTELS. (REFER DETAIL).

MESH AND INLET PROTECTION DEVICES TO FIELD INLETS TO REMAIN UNTIL SWALES HAVE BEEN TOPSOILED AND TURFED.

SEDIMENT PONDS TO BE REMOVED AT THE COMPLETION OF ALL WORKS OR WHEN ALL ALLOTMENTS HAVE 80% GRASS COVERAGE.

SEDIMENT FENCES TO REMAIN ALONG PROPERTY BOUNDARIES AND TO BE MAINTAINED/REPLACED DURING THE 'ON MAINTENANCE' PERIOD OR UNTIL LOTS ARE SOLD AND BUILDING CONSTRUCTION COMMENCES.

THE CONTRACTOR TO REMOVE GULLY PIT PROTECTION DEVICES AFTER SUCCESSFUL 'ON MAINTENANCE' INSPECTION.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES DURING CONSTRUCTION UNTIL AFTER SUCCESSFUL 'ON MAINTENANCE' INSPECTION.

1. ERECT SEDIMENT FENCE ALONG ADJACENT PROPERTY BOUNDARIES AND DOWNSTREAM RUNOFF BOUNDARIES. INSTALL SHAKE DOWN DEVICE AT ENTRY.
2. CONSTRUCT DRAINAGE, SEWER AND WATER RETICULATION. ALL GULLY INLETS TO BE CLEAN WATER ONLY.
3. ALL ALLOTMENTS TO GRASS SEED AS DIRECTED.
4. ON COMPLETION OF WORKS AND 70% GRASS COVER AND APPROVAL BY COUNCIL. SEDIMENT BASIN TO BE REMOVED AND AREA TO BE REHABILITATED.

ALL CONSTRUCTION VEHICLES DEPARTING THE SITE SHALL HAVE THEIR TYRES WASHED DOWN.

THE CONTRACTOR SHALL INSPECT THE PUBLIC ROADS ADJACENT TO THE SITE DAILY AND REMOVE ANY SOIL OR SILT DEPOSITS.

THE CONTRACTOR SHALL PROVIDE A WASH-DOWN AREA AND ANY STORMWATER INLETS ADJACENT TO THIS AREA ARE TO BE PROTECTED FROM SILT INFILTRATION.

THE WASH-DOWN AREA SHALL BE LOCATED SUCH THAT SILTED WATER IS FILTERED PRIOR TO LEAVING THE SITE. SHOULD THE WATER POND IT MUST BE TESTED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PROGRAM PRIOR TO DISPOSAL.

1. CLEARING

- EARTH BANK AND TABLE DRAIN TO BE CONSTRUCTED ALONG THE TOP OF THE EXISTING BATTER.
- SEDIMENT FENCE, SAND BAGS, SEDIMENT BASINS AND EARTH RILLS TO BE ERECTED AS INDICATED OR REQUIRED.
- EXISTING GRASSED AREAS TO BE KEPT WHERE POSSIBLE.
- SHAKE DOWN/WASH DOWN BAY AT ENTRY/EXIT POINT AS REQUIRED BY COUNCIL OFFICER.

- SEDIMENT FENCES, SEDIMENT BASINS AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS INDICATED OR REQUIRED.

- EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH AND TO PROTECT PIPE WORK AND DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS.
- TOPSOIL AND GRASS SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION.
- DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SEDIMENT POND.

- SEDIMENT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILE.

- SEDIMENT FENCES TO ALLOTMENTS TO BE ERECTED.
- KERB INLET PROTECTION TO BE PROVIDED.
- SAND BAGS SURROUND SAG GULLY PITS AS INDICATED

- MULCH AS DIRECTED AND TOPSOIL AND SEED ALLOTMENTS.
- SEDIMENT FENCES TO ALLOTMENTS TO BE RE-ERECTED.
- COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATES THE GRASS STRIKE IS SUFFICIENT.
- ESTABLISHMENT OF 70% COVERAGE WITHIN 30 CALENDAR DAYS OF COMPLETION OF WORKS.

- ALL ESC MEASURES SHALL BE INSPECTED.
 - a. AT LEASE DAILY (WHEN WORK IS OCCURRING ON SITE) OR WEEKLY (WHEN WORK IS NOT OCCURRING ON SITE)
 - b. WITHIN 24 HOURS OF EXPECTED RAIN, AND
 - c. WITHIN 18 HOURS OF A RAINFALL EVENT
- ALL ESC MEASURES SHALL BE MAINTAINED THE SAME DAY WHEN THE CAPACITY OF THE ESC MEASURE FALLS BELOW 75%.

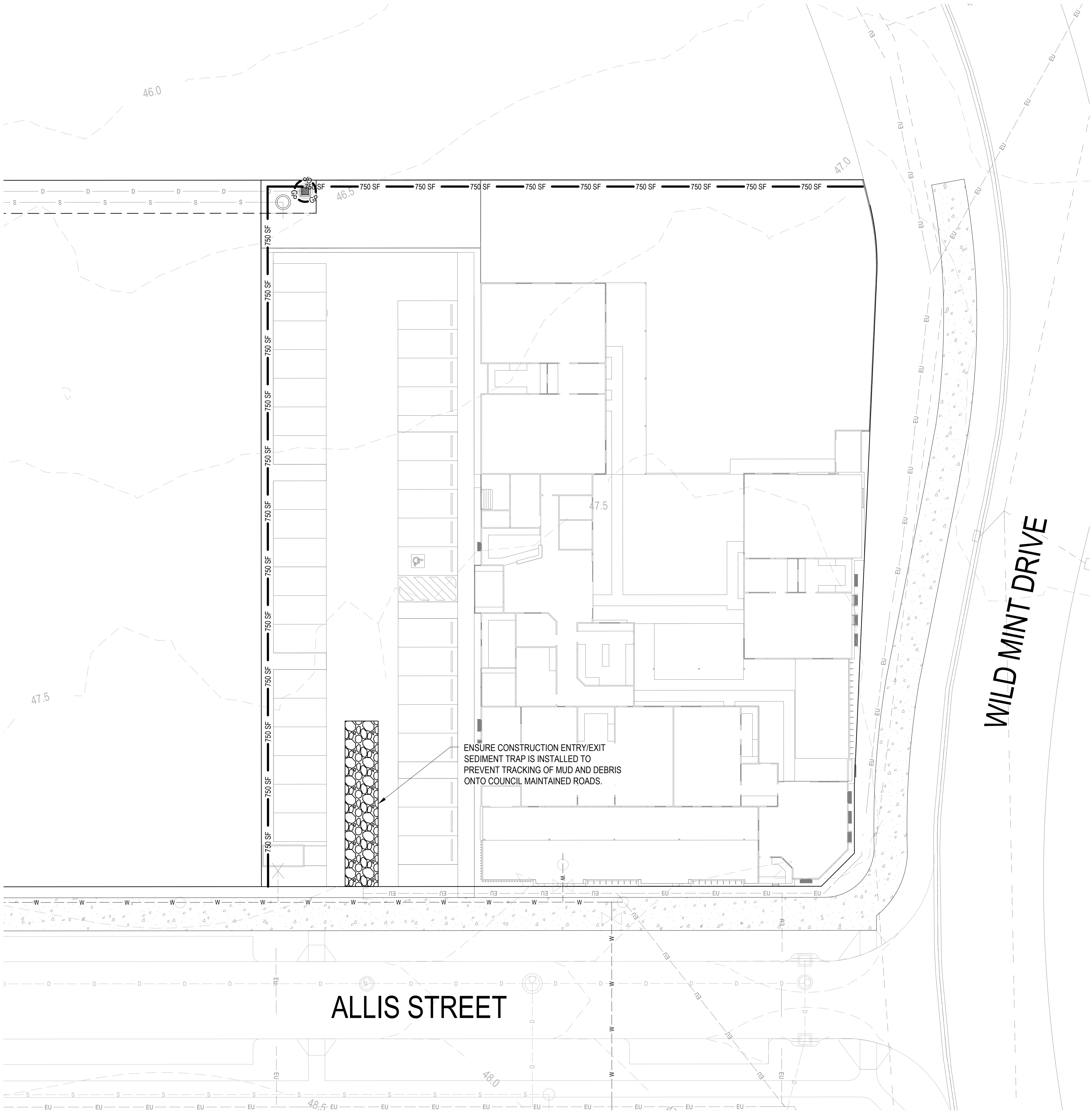
ALL RELEASE OF STORMWATER CAPTURED IN A SEDIMENT BASIN MUST NOT EXCEED THE FOLLOWING LIMITS:

- 50mg/L OF TOTAL SUSPENDED SOLIDS (TSS) AS A MAXIMUM CONCENTRATION;
- TURBIDITY (NTU) VALUE LESS THAN 10% ABOVE BACKGROUND;
- pH VALUE MUST BE IN THE RANGE 6.5 TO 8.5 EXCEPT WHERE, AND TO THE EXTENT THAT, THE NATURAL RECEIVING WATERS LIE OUTSIDE THIS RANGE

1. TEMP CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP.
 - 1.a. ADJACENT STORMWATER RUNOFF TO BE DIVERTED AWAY FROM ENTRY/EXIT.
 - 1.b. WHEEL - WASH OR SPRAY UNIT MAY BE REQUIRED DURING WET WEATHER.
2. SAFETY ISSUES MUST BE CONSIDERED AT ALL TIMES. INCORPORATE TRAFFIC CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT.
3. ALL DIMENSIONS IN MILLIMETRES UNLESS INDICATED OTHERWISE.

TEMPORARY CONSTRUCTION ENTRY / EXIT
SEDIMENT TRAP

No.		Description	Date	By	No.	Description	Date	By	Imagery, Cadastral and Survey Data Disclaimer While every care is taken by bg group qld Pty Ltd to ensure the accuracy of the data supplied by local authorities, dial before you dig (dbdd) records, as constructed information and detailed survey, we make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate or incomplete in any way and for any reason. Surveyor: RP Description: Plan Ref.: Level Datum AHD BG Group ENGINEERS CIVIL ENGINEERING BG Group QLD ABN. 73 108 808 699 L9/316 Adelaide Street Brisbane QLD 4000 GPO Box 3073 Brisbane QLD 4001 t. +61 7 3839 3366 f. +61 7 3839 3377 w. www.bggroup.com.au North: Client: Project: Title: Size of Land: Scale: Orig. Dwg. Size Job No. Drawing No. Revision: FLAG LAND PTY LTD PROPOSED CHILDCARE CENTRE AT LOT 25008 ALLIS STREET, FLAGSTONE QLD EROSION & SEDIMENT CONTROL NOTES 3,500m² A1 Q21-181 CK101 B APPROVAL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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LEGEND

750 SF

450 SF

750 HIGH BOUNDARY SEDIMENT FENCE

450 HIGH INTERNAL SEDIMENT FENCE

TEMPORARY SILT TRAPS

- FABRIC DROP INLET PROTECTION

- ON GRADE GULLY PROTECTION

- SAG GULLY PROTECTION

PROVIDE SHAKE-DOWN AREAS TO ROADS ENTRIES

37

37.00

EXISTING SURFACE CONTOUR

BULK EARTHWORKS CONTOUR

NOTES

ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND GUIDELINES OUTLINED BY THE INTERNATIONAL EROSION CONTROL ASSOCIATION & THE LOCAL AUTHORITY (COUNCIL).

PRINCIPAL CONTRACTOR TO ENSURE ALL EXISTING SERVICES IN THE COUNCIL RESERVE ARE PROTECTED FROM CONSTRUCTION ACTIVITIES AND LOADS.

PRINCIPAL CONTRACTOR TO ENSURE SEDIMENT CONTROLS ARE INSTALLED, MAINTAINED AND ARE FIT FOR PURPOSE AT ALL TIMES UNTIL MINIMUM 80% SITE COVER AND REHABILITATION HAS BEEN ACHIEVED.

CONTRACTOR TO INSTALL SEDIMENT PROTECTION TO ALL DOWNSTREAM GULLIES AND FIELD INLETS WITHIN 100m OF THE DEVELOPMENT SITE.

REFER TO DRAWING "CK101 - EROSION & SEDIMENT CONTROL NOTES" FOR CONTROL DEVICE DETAILS & SCHEMATICS

No.	Description	Date	By	No.	Description	Date	By	Images, Cadastrial and Survey Data Disclaimer: While every care is taken by bg group qld pty ltd to ensure the accuracy of the data supplied by local authorities, dial before you dig (dbvd) records, as constructed information and detailed survey, we make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaim all responsibility and all liability (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate or incomplete in any way and for any reason. Surveyor: RP Description: Plan Ref: Level Datum AHD				BG Group ENGINEERS CIVIL ENGINEERING BG Group QLD ABN. 73 108 808 699 L9/316 Adelaide Street Brisbane QLD 4000 GPO Box 3073 Brisbane QLD 4001 t. +61 7 3839 3366 f. +61 7 3839 3377 w. www.bggroup.com.au	North: Size of Land: 3,500m²
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A	FOR REVIEW	13/05/21	EH									Client:				APPROVAL	
B	FOR APPROVAL	14/05/21	JM									FLAG LAND PTY LTD					
												Project:					
												PROPOSED CHILDCARE CENTRE AT LOT 25008 ALLIS STREET, FLAGSTONE QLD					
												Title:					
												EROSION & SEDIMENT CONTROL LAYOUT PLAN					
Associated Consultant:		Drawn:	Design:	Checked:	Supervisor:	Approved:		RPEQ.	Date:			Scale:	Orig. Drg. Size	Job No.	Drawing No.	Revision:	
-		JM	EH	GG	GG							1:200 (m)	A1	Q21-181	CK102	B	

1. TOPSOIL STRIPPED FROM SITE TO BE USED FOR FINAL TOPSOIL PRIOR TO IMPORT OF ADDITIONAL TOPSOIL.
2. EXCESS CUT MATERIAL TO BE SPREAD ON-SITE AS PER THE SUPERINTENDENTS INSTRUCTIONS
3. SOLID EARTHWORKS VOLUMES SHOWN. (NO BULKING FACTOR USED)
4. BULK EARTHWORKS ASSUMED ONLY. NO DETAILED DESIGN HAS BEEN UNDERTAKEN.
5. BULK EARTHWORKS LEVELS HAS NOT ALLOWED FOR STRUCTURAL DESIGN OF FOOTINGS, DEPRESSIONS, FALLS AND HYDRAULICS U.N.O. THESE ARE ADDITIONAL EXCAVATIONS AND SHALL BE DETERMINED ON SITE BY THE CONTRACTOR. ANY EXCESS MATERIAL REMOVED FROM SITE WILL REQUIRE TO BE REPLACED AS PER THE MINIMUM COMPACTION REQUIREMENTS
6. ALL EXCESS MATERIAL REMOVED AS DIRECTED BY CIVIL, STRUCTURAL OR GEOTECHNICAL ENGINEER HAS NOT BEEN INCLUDED IN THESE CALCULATIONS.
7. ALL ARCHITECTURAL FINISHED SURFACE LEVELS SUPERSEDE THOSE INDICATED ON THE BULK EARTHWORKS PLAN. THE CONTRACTOR SHALL CONFIRM THE FINAL PAD LEVEL REQUIRED TO SUIT THE STRUCTURAL DESIGN WITH THE STRUCTURAL DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
8. REFER GEOTECHNICAL REPORT / ENGINEER FOR SUITABILITY OF MATERIAL WON FROM EXCAVATION AS BACKFILL
9. MOST OF THE MATERIAL WON FROM EXCAVATION WOULD BE SUITABLE FOR REUSE AS COMPACTED FILLING APART FROM ANY MATERIAL LISTED AS UNSUITABLE MATERIAL, OR ANY OVERSIZED MATERIAL (GENERALLY > 150mm IS NOT RECOMMENDED)
10. WHERE NATURAL LEVELS ARE CUT - DEEP TYPE EXPOSED SURFACE SOILS TO AN ADDITIONAL DEPTH OF 300mm, WITH THE ADDITION OF WATER, AS NECESSARY, TO ADJUST THE MOISTURE CONTENT TO $\pm 1 - 2\%$ OF THE STANDARD OPTIMUM MOISTURE CONTENT. REFER TO GEOTECHNICAL REPORT FOR FURTHER TREATMENT OF SUB-GRADE MATERIALS
11. PROVIDE TRAFFICABLE BASE TO BOTTOM OF EXCAVATION ANY SURPLUS WATER TO BE PUMPED OUT AND DISPOSED OF THROUGH SAND FILTER AND PUMPED INTO STORM WATER. REFER EROSION AND SEDIMENT CONTROL PLAN FOR LOCATION OF SUMP (IF REQUIRED)
12. CONTRACTOR IS RESPONSIBLE TO VERIFY AND ESTABLISH THE QUANTITIES AS THE VOLUMES PROVIDED ARE ESTIMATES ONLY

1. APPROVAL IS REQUIRED BY ALL RELEVANT AUTHORITIES PRIOR TO THE COMMENCEMENT OF WORKS ON SITE.
2. THE BULK EARTHWORKS PLANS AND ALL SUPPORTING INFORMATION, INCLUDING ALL EROSION AND SEDIMENT CONTROL PLANS, SHALL REMAIN ON SITE AT ALL TIMES.

1. EXACT LOCATION OF ALL SERVICES, SHALL BE LOCATED PRIOR TO THE COMMENCEMENT OF WORK. IT IS THE BUILDERS RESPONSIBILITY TO CONFIRM THE DEPTH AND LOCATION OF SERVICES, AND BG GROUP QLD PTY LTD ACCEPTS NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE SERVICES SHOWN.

1. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THE EFFECTS OF THE EARTHWORKS DO NOT HAVE AN IMPACT TO THE NEIGHBOURING PROPERTIES. SHOULD AN ISSUE ARISE ON SITE THE CONTRACTOR SHALL INFORM THE SUPERINTENDENT IMMEDIATELY.
2. THE CONTRACTOR IS TO RECEIVE WRITTEN PERMISSION PRIOR TO ENTERING OR COMMENCING WORK OUTSIDE THE DEVELOPMENT SITE, AND SHALL RECEIVE PERMISSION FROM EASEMENT HOLDERS AND LOCAL AUTHORITY PRIOR TO WORK COMMENCING.

1. WORK HOURS ARE TO BE AS FOLLOWS;
MON - SAT 6:30AM - 6:30PM
2. HAUL ROUTES FROM SITE IS TO BE AS FOLLOWS;
SITE > ALLIS STREET > WILD MINT DRIVE > STAY ON MAIN ROADS
3. ALL EROSION AND SEDIMENT CONTROL MEASURES, FENCES, SITE SIGNAGE AND TEMPORARY DRAINAGE MEASURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL VEGETATION PROTECTION AND PRESERVATION MEASURES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK

1. ANY SUSPECTED GROUND OR GROUND WATER CONTAMINATION SHALL BE INVESTIGATED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER.
2. IF CONTAMINATED SOILS ARE ENCOUNTERED ON SITE, A CONTAMINATED SOILS REPORT IS TO BE UNDERTAKEN BY A GEOTECHNICAL ENGINEER OUTLINING APPROVED TREATMENT, OR ACCEPTABLE DISPOSAL LOCATIONS FOR ALL MATERIAL REMOVED FROM SITE.
3. FINAL APPROVAL FROM REGULATORY AUTHORITY MAY BE REQUIRED PRIOR TO DISTURBING IN-SITU MATERIAL.

1. ADEQUATE RECORDS SHALL BE KEPT THROUGHOUT CONSTRUCTION INCLUDING BUT NOT LIMITED TO;
 - LOCATION AND QUANTITY OF EXCESS CUT (DUMP SITE)
 - THE AREAS ON SITE OF ALL FILL
 - LEVELS OF STRIPPED SURFACE
 - LOCATION OF ANY VEGETATION REMOVED
 - LOCATION OF SITE CONTAMINATION / UNSUITABLE MATERIAL
 - LEVELS AT COMPLETION OF BULK EARTHWORKS WORK
 - DETAILS OF SUB-GRADE TEST ROLLING (PROOF ROLLING)
 - TYPES / SOURCE OF FILL MATERIAL
 - LOCATION, LEVEL AND RESULT OF EACH COMPACTION TEST
 - RECORD OF ALL ACTIONS TAKEN ON SITE

1. REFER TO GEOTECHNICAL ENGINEER, AS REQUIRED, FOR DETERMINATION OF SUITABILITY OF MATERIAL WON ON SITE, OR BORROW PIT TO BE USED AS FILL MATERIAL.
2. ALL UNSUITABLE FILL SHALL BE EITHER REMOVED OR USED AS PER THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT.
3. PRIOR TO ANY EARTHWORKS STRIP TOPSOIL CONTAINING ORGANIC MATTER FROM BUILDING + PAVEMENT AREAS TO AN APPROX. DEPTH OF 0.10m. SPOIL MATERIAL AS DIRECTED BY THE MANAGER, REMOVE RUBBLE, OVER SATURATED MATERIALS AND ALL ORGANIC MATTER.

1. ALL TESTING OF EARTHWORKS SHALL BE DONE AT THE CONTRACTORS EXPENSE, UNLESS NOTED OTHERWISE.
2. SHALL A SUB-GRADE OR PROOF ROLL INSPECTION FAIL, OR ADDITIONAL INSPECTIONS BE REQUIRED FOR ANY REASON OUTSIDE, THE CONTRACTOR WILL WEAR THE COSTS OF ANY SUBSEQUENT RE-INSPECTIONS, UNLESS NOTED OTHERWISE.

1. INSTALL ALL VEGETATION PROTECTION, EROSION AND SEDIMENT CONTROL, AND SITE SPECIFIC MEASURES PRIOR TO THE COMMENCEMENT OF ANY WORK
2. STRIP ALL TOPSOIL / ORGANIC MATERIAL FROM CONSTRUCTION AREA AND REMOVE FROM SITE OR STOCKPILE AS DIRECTED BY SUPERINTENDENT.
3. EXCAVATE MATERIAL AS INDICATED ON THE BULK EARTHWORKS PLAN
4. PRIOR TO PLACING FILL, PROOF ROLL EXPOSED SUB-GRADE WITH AN 8 TONNE (MIN) ROLLER OR WATER TRUCK TO DETECT THEN REMOVE SOFT SPOTS, REPLACE UNSUITABLE MATERIAL WITH SUITABLE GRANULAR MATERIAL AND COMPACT TO THE MINIMUM COMPACTION REQUIREMENTS LISTED.
(TO BE UNDERTAKEN IN THE PRESENCE OF A CIVIL / GEOTECHNICAL ENGINEER)
GEOTECHNICAL ENGINEER TO UNDERTAKE SUB-GRADE COMPACTION TESTING TO LEVEL 1 AS PER AS 3798 (2007) AND PROVIDE CBR VALUES FOR ADJUSTMENT TO PAVEMENT DESIGN
5. FILLING IS TO BE PLACED AND COMPACTED IN MAXIMUM 150mm LAYERS AND TO THE MINIMUM COMPACTION REQUIREMENTS LISTED.
7. AFTER ALL BULK EARTHWORKS HAS OCCURED, PROOF ROLL THE FINISHED PAD LEVEL WITH AN 8 TONNE (MIN) ROLLER OR WATER TRUCK TO DETECT THEN REMOVE SOFT SPOTS, REPLACE UNSUITABLE MATERIAL WITH SUITABLE GRANULAR MATERIAL AND COMPACT TO THE MINIMUM COMPACTION REQUIREMENTS LISTED.

1. IT IS THE BUILDERS RESPONSIBILITY TO ENSURE THAT THE SITE WORKS DO NOT COMPROMISE / UNDERMINE OR PLACE ADDITIONAL SURCHARGE ON ANY EXISTING STRUCTURES.
2. BATTER ANGLES MUST COMPLY WITH LOCAL AUTHORITY REQUIREMENTS AND ARE TO CONFORM TO THE ABOVE DIAGRAM.
3. ALL BATTERS SHALL BE PROTECTED FROM EROSION, AND ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES IN PLACE PRIOR TO THE COMMENCEMENT OF WORK.
4. SHOULD THE ABOVE CONDITIONS NOT BE ACHIEVED BG GROUP QLD PTY LTD MUST BE CONTACTED PRIOR TO ANY SITE WORKS BEING UNDERTAKEN

1. ACTUAL FINISHED LEVELS SHOWN ON THIS PLAN ARE FOR THE CONTRACTOR'S GUIDANCE ONLY. ACTUAL FINISHED LEVELS SHALL BE SET-OUT IN ACCORDANCE WITH ARCHITECTURAL PLANS (REPORT ANY DISCREPANCIES TO BG GROUP QLD PTY LTD IMMEDIATELY)
2. THE PAD LEVEL SHOWN WAS CALCULATED USING THE FOLLOWING PAVEMENT DESIGN, REFER STRUCTURAL DRAWINGS FOR CONFIRMATION OF LEVELS.

		MINIMUM RELATIVE COMPACTION %	
	APPLICATION	COHESIVE SOILS	COHESIONLESS SOILS
1	RESIDENTIAL - ALLOTMENT FILL, BUILDING PADS (MAX20kPa SLAB, Max 100kPa FOOTINGS	95	70
2	COMMERCIAL - ALLOTMENT FILL, BUILDING PADS (and Residential > Max Bearing from above)	98	75
3	FILL TO SUPPORT PAVEMENTS GENERAL FILL SUBGRADE (depth to 0.3m below box)	95 98	70 75

1. REFER TABLE 5.1 AS 3798-2007 FOR NOTES RELATING TO MINIMUM COMPACTION TABLE
2. REFER TO GEOTECHNICAL REPORT FOR THE REQUIRED TREATMENT SPECIFIC TO THIS SITE



SLOPE = H : L H ≤ 2.0M	MATERIAL TYPE (REFER GEOTECHNICAL REPORT)					
	STABLE ROCK	SAND	SILT	FIRM CLAY	SOFT CLAY	SOFT SOILS
COMPACTED FILL	1 : 1	1 : 3	1 : 4	1 : 2	N/A	N/A
CUTTING	N/A	1 : 3	1 : 4	1 : 2	1 : 3	N/A

LEVEL 1 COMPACTION
ALL FILLING ON SITE TO BE LEVEL 1 COMPACTED FILL AS PER AS1289
UNLESS NOTED OTHERWISE

EROSION AND SEDIMENT CONTROL (ESC) MEASURES TO BE INSTALLED PRIOR TO COMMENCEMENT OF WORK AND MAINTAINED FOR ENTIRE DURATION OF WORKS. EROSION PLANS AND BUILDING REPRESENTATIVE FAMILIAR WITH THE PLAN MUST BE ON SITE AT ALL TIMES DURING CONSTRUCTION

ANY DAMAGE TO EXISTING ROADWAYS WILL BE RECTIFIED BY THE CONTRACTOR AT HIS EXPENSE.

ALL ENVIRONMENTAL MEASURES INCLUDING VEGETATION PROTECTION AND EROSION AND SEDIMENT CONTROL SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY WORK

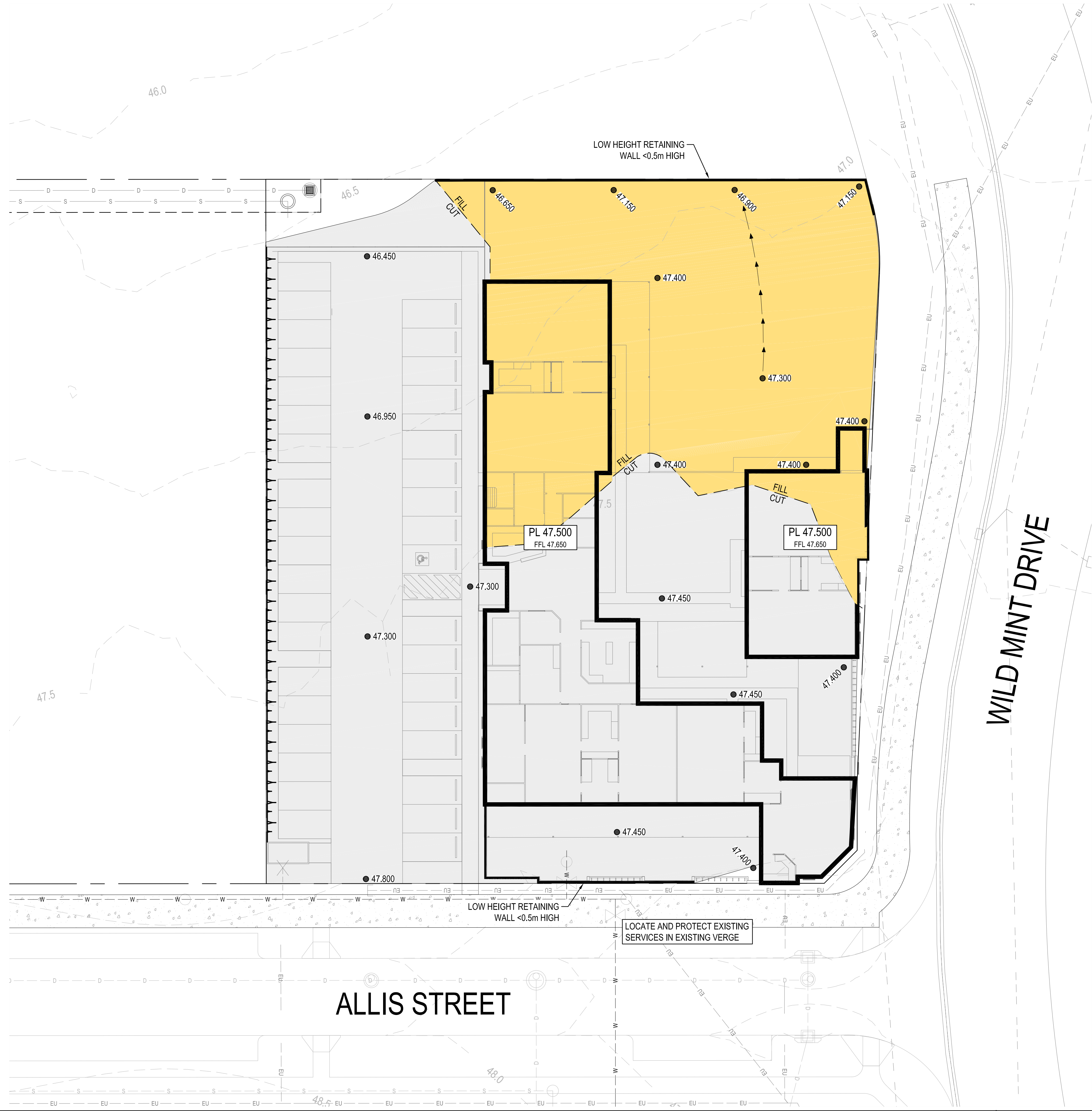
THE CONTRACTOR IS TO PRODUCE A MANAGEMENT PLAN FOR CONTROL OF DUST AND AIR EMISSIONS DURING WORKS. NO DUST IS TO EXTEND BEYOND THE SITE BOUNDARY INCLUDING VEHICLES ENTERING AND LEAVING THE SITE.

CONTRACTOR TO CONFIRM SOIL TYPE AND ACCEPTABLE TEMPORARY
BATTER ANGLE WITH GEOTECHNICAL ENGINEER PRIOR TO
UNDERTAKING EARTHWORKS

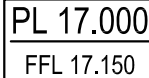
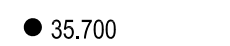
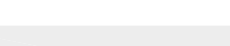
CONTRACTOR TO CONFIRM LOCATION OF ALL SERVICES TRAVERSING
OR ADJACENT TO THE DEVELOPMENT SITE PRIOR TO UNDERTAKING
WORKS.

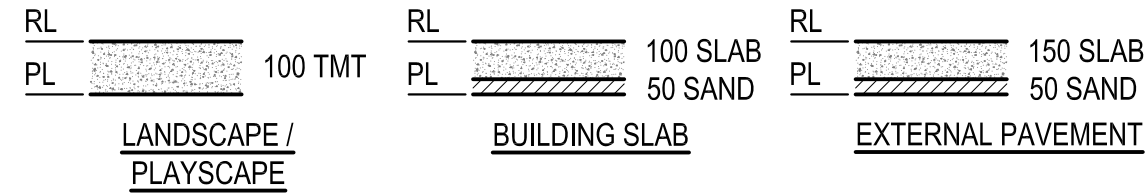
CONTRACTOR TO PROTECT ALL SERVICES TRAVERSING OR ADJACENT
TO THE DEVELOPMENT SITE AT ALL TIMES

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A	FOR REVIEW	13/05/21	EH							Project:	PROPOSED LANDCARE CENTRE AT LOT 25008 ALLIS STREET, FLAGSTONE QLD				
B	FOR APPROVAL	14/05/21	JM							Title:	FILLING & EXCAVATION NOTES				
Associated Consultant:		Drawn:	Design:	Checked:	Supervisor:	Approved:	RPEQ.	Date:	Size of Land:	Scale:	Orig. Dwg. Size	Job No.	Drawing No.	Revision:	APPROVAL
-		JM	EH	GG	GG				3,500m²		A1	Q21-181	CK201	B	



LEGEND

	PLATFORM LEVEL
	PAD OUTLINE
 35,700	BULK EARTHWORKS LEVEL
	DENOTES AREA OF CUT
	DENOTES AREA OF FILL
	TOP OF BATTER
	EXISTING SURFACE CONTOUR



REFER TO STRUCTURAL ENGINEER FOR CONFIRMATION OF
PAVEMENT DESIGN / ALLOWANCE

EARTHWORKS VOLUMES	CUT (m³)	FILL (m³)
STRIPPING (50mm CLEARING + 50mm STRIP)	350	NA
BULK EARTHWORKS	245	227

VOLUMES NOTES

- SOLID VOLUMES ONLY, NO BULKING OR COMPACTION ALLOWANCES MADE.
- BULK EARTHWORKS VOLUMES HAVE BEEN CALCULATED FROM SITE LEVELS PROVIDED TO BG GROUP QLD PTY LTD BY WAY OF DETAILED SITE SURVEY.
- BULK EARTHWORKS VOLUMES ALLOW FOR THE RELEVANT SLAB PAVEMENT AND TOPSOIL RE-SPREAD DEPTHS AS NOMINATED.

<table border="1"> <tr> <th>No.</th> <th>Description</th> <th>Date</th> <th>By</th> </tr> <tr> <td>A</td> <td>FOR REVIEW</td> <td>13/05/21</td> <td>EH</td> </tr> <tr> <td>B</td> <td>FOR APPROVAL</td> <td>14/05/21</td> <td>JM</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>				No.	Description	Date	By	A	FOR REVIEW	13/05/21	EH	B	FOR APPROVAL	14/05/21	JM																																	<table border="1"> <tr> <th>No.</th> <th>Description</th> <th>Date</th> <th>By</th> </tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>				No.	Description	Date	By																																									Imagery, Cadastral and Survey Data Disclaimer While every care is taken by bg group old Pty Ltd to ensure the accuracy of the data supplied by local authorities, and before you dig (bvd) records, as constructed information and detailed survey, we make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate or incomplete in any way and for any reason. Surveyor: _____ RP Description: _____ Plan Ref.: _____ Level Datum AHD _____				 CIVIL ENGINEERING BG Group OLD ABN: 73 108 808 699 L9/16 Adelaide Street Brisbane QLD 4000 GPO Box 3073 Brisbane QLD 4001 t. +61 7 3839 3366 f. +61 7 3839 3377 w. www.bggroup.com.au				<table border="1"> <tr> <td colspan="2">North:</td> <td colspan="4">Client:</td> </tr> <tr> <td colspan="2" rowspan="3">  </td> <td colspan="4">FLAG LAND PTY LTD</td> </tr> <tr> <td colspan="4">Project:</td> </tr> <tr> <td colspan="4">PROPOSED CHILDCARE CENTRE AT LOT 25008 ALLIS STREET, FLAGSTONE QLD</td> </tr> <tr> <td colspan="2">Title:</td> <td colspan="4">FILLING & EXCAVATION LAYOUT PLAN</td> </tr> <tr> <td colspan="2">Size of Land:</td> <td colspan="2">Scale:</td> <td colspan="2">Orig. Brg. Size</td> <td colspan="2">Job No.</td> <td colspan="2">Drawing No.</td> <td colspan="2">Revision:</td> </tr> <tr> <td colspan="2">3,500m²</td> <td colspan="2">1:200 (m)</td> <td colspan="2">A1</td> <td colspan="2">Q21-181</td> <td colspan="2">CK202</td> <td colspan="2">B</td> </tr> </table>						North:		Client:						FLAG LAND PTY LTD				Project:				PROPOSED CHILDCARE CENTRE AT LOT 25008 ALLIS STREET, FLAGSTONE QLD				Title:		FILLING & EXCAVATION LAYOUT PLAN				Size of Land:		Scale:		Orig. Brg. Size		Job No.		Drawing No.		Revision:		3,500m ²		1:200 (m)		A1		Q21-181		CK202		B	
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1. REFER PIPE INVERT LEVELS FOR TRENCH DEPTH
2. BEDDING COMPACTION (COMPACTED FILL / SAND BEDDING)
 - COHESIVE MATERIAL - 95% COMPACTION
 - NON-COHESIVE MATERIAL - DENSITY OF 70 MIN, REFER AS1289.E.1
 - SAND - COMPACT BY FLOODING AND USE OF VIBRATORS
3. BACKFILL COMPACTION
 - COMPACTED GRAVEL LAYER UNDER ROAD 95% COMPACTION
 - COMPACTED CBR15 GRAVEL 90% - BELOW 300mm
 - COMPACTED BACKFILL - FOOTPATH / PRIVATE PROPERTY 90% COMPACTION
 - MAX DENSITIES DETERMINED BY STANDARD COMPACTION TESTS TO AS1289.5.1.1
4. TYPE U AND TYPE H SUPPORT BEDDING NOT SUITABLE FOR USE WITH FIBRE REINFORCED PIPES. FOR FIBRE REINFORCED PIPES TYPE H BEDDING IS REQUIRED. ALL BEDDING TO CONFORM TO AS 3725
5. PIPES ARE TO BE LAID USING CORRECT STRENGTH CLASS UNDER ALL CONSTRUCTION LOADS.

1. ALL STORMWATER PIPES 0225 AND GREATER SHALL BE PRECAST STEEL REINFORCED CONCRETE SPUN PIPES WITH RUBBER RING JOINTS CLASS 2, UNLESS NOTED OTHERWISE ON THE DRAWINGS. GRADES ABOVE 0600 MAY BE FLOW JOINED.
2. PIPE STORMWATER PIPES OBLIG TO OVERTURN UNLESS NOTED OTHERWISE. MAINTAIN 30mm DROP THROUGH STRUCTURES BETWEEN OVERTURNS OF THE SAME SIZE PIPES.
3. ALL MANHOLE LIDS SHALL FINISH FLOW WITH ADJACENT FINISHED SURFACE LEVELS
4. PROVIDE A Ø100 SUBSOIL DRAIN WITH SOCK DISCHARGING INTO DRAINAGE STRUCTURES FROM UPSTREAM PIPE BEDDING. EXTEND 300mm INTO PIPE BEDDING.

TOP OF PIPE TO +250mm
HAND COMPACTION (WACKER PACKER) SHALL BE USED TO ACHIEVE 90% COMPACTION
TOP OF PIPE + 250mm
MAXIMUM 2 TONNE VIBRATORY TRENCH ROLLER TO ACHIEVE 90% COMPACTION
TOP OF PIPE + 450mm
MAXIMUM 7 TONNE VIBRATORY SMOOTH DRUM ROLLER TO ACHIEVE 90% COMPACTION
TOP OF PIPE +600mm
MAXIMUM 10 TONNE VIBRATORY SMOOTH DRUM ROLLER OR 15 TONNE EXCAVATOR AND COMPACTION
WHEEL TO ACHIEVE 90% COMPACTION
TOP OF PIPE +700mm (AND ABOVE)
ACCEPTABLE ALL CONSTRUCTION LOADS AND MACHINERY UP TO (25.0T)

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT LOCAL AUTHORITY SPECIFICATIONS AND STANDARDS.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING SERVICES WITH RELEVANT AUTHORITIES BEFORE COMMENCING WORKS. BENCH MARK AND LEVELS TO AHD.
4. NOTWITHSTANDING THAT THE PRESENT AND/OR PROPOSED POSITIONS OF PUBLIC UTILITIES, FITTINGS, PIPES, POLES, MANHOLES, ETC. MAY BE INDICATED ON THE DRAWINGS, NO RESPONSIBILITY WILL BE ACCEPTED BY THE PRINCIPAL FOR THE ACCURACY OF THE PRESENTATION OR THE OMISSION THEREOF.
5. CONTACT 1100 (DIAL BEFORE YOU DIG), ENERGEX, AGILITY (GAS), SANTOS (OIL), ETC. FOR THE EXACT LOCATION OF UNDERGROUND CABLES.
6. WHERE OVERHEAD PUBLIC UTILITY LINES AND SURFACE DRAINAGE WORKS AND/OR UNDERGROUND PIPES, CONDUITS, OR CABLES, EXIST IN THE VICINITY OF THE WORKS, THE CONTRACTOR SHALL TAKE CARE TO PROTECT SUCH FACILITIES FROM DAMAGE, AND IN THE CASE OF ANY DAMAGE OCCURRING TO SUCH FACILITIES, THE MATTER SHALL BE IMMEDIATELY REPORTED TO THE RELEVANT AUTHORITY AND TO THE SUPERINTENDENT. THE COST OF THE NECESSARY REPAIRS OR RENEWALS SHALL BE BORNE ENTIRELY BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL NOT ENTER EXISTING PROPERTIES WITHOUT PRIOR WRITTEN APPROVAL FROM THE PROPERTY OWNER.

DETAILS OF EXISTING SERVICES, LEVELS AND TOPOGRAPHY INCLUDING EXISTING SURFACE CONTOURS HAVE BEEN PLOTTED BY RECORD, AS CONSTRUCTED DATA AND/OR FROM CIVIL DESIGN DRAWINGS PREPARED FOR THE INDUSTRIAL SUBDIVISION OF WHICH THE SUBJECT SITE WAS CREATED. THE CONTRACTOR MUST CONFIRM LOCATION AND LEVEL OF EXISTING SERVICES AND EXISTING SURFACE LEVELS PRIOR TO CONSTRUCTION.

CONTRACTOR TO PROTECT ALL SERVICES TRAVERSING OR ADJACENT
TO THE DEVELOPMENT SITE AT ALL TIMES

The diagram illustrates the embedment zone for single and multiple pipes. It is divided into two sections: SINGLE PIPE and MULTIPLE PIPES.

SINGLE PIPE: A cross-section of a single pipe is shown. The top layer is labeled "FILL". Below it is the "EMBEDMENT ZONE", which is shaded with diagonal lines. The pipe is labeled "100mm SUBSOIL DRAINAGE". The dimensions are indicated as C, OD (Outside Diameter), and C.

MULTIPLE PIPES: A cross-section of multiple pipes is shown. The top layer is labeled "FILL". Below it is the "EMBEDMENT ZONE", which is shaded with diagonal lines. The pipes are labeled "100mm SUBSOIL DRAINAGE". The dimensions are indicated as C, OD (Outside Diameter), and C.

PIPE SIZE 'D' (mm)	PIPE TYPE	BEDDING ZONE A (mm)	EMBEDMENT ZONE B (mm)	SIDE WIDTH C (mm)	SUBSOIL DRAIN REQUIRED
Ø90 - Ø225	RIGID	75	D + 150	150	NO
	FLEXIBLE	100	D + 150	150	NO
Ø225 - Ø900	RIGID	75	D + 150	150	YES
	FLEXIBLE	100	D + 150	150	YES
Ø900 - Ø1500	RIGID	75	D + 150	D/6	YES
	FLEXIBLE	100	D + 150	D/6	YES
> Ø1500	RIGID	75	D + 150	D/6	YES
	FLEXIBLE	100	D + 150	D/6	YES

BACKFILL LEGEND		PIPE LOCATION	MINIMUM PIPE COVER
	COMPACTED BACKFILL	WHERE NOT SUBJECT TO VEHICULAR LOADING	400mm
	EMBEDMENT ZONE	WHERE SUBJECT TO VEHICULAR LOADING	UNDERSIDE OF SLAB +50mm
	BEDDING MATERIAL	- UNDER DRIVEWAY	600mm
		- IN SEALED ROADWAY	750mm
		- IN UNSEALED ROADWAY	

1. 5mm OR 10mm SCREENINGS, OR
2. WASHED SCREENED BEDDING SAND TO THE GRADING SPECIFIED BELOW

SIEVE SIZE (mm)	PASSING % PER WEIGHT
9.5	100
4.75	95 - 100
2.36	75 - 90
1.18	15 - 25
0.60	10 - 20
0.30	5 - 10
0.15	0 - 5

ALL EMBEDMENT MATERIAL SHALL BE 5mm OR 10mm SCREENINGS AND SHALL BE COMPACTED TO ACHIEVE MINIMUM 90% COMPACTION

COMPACTED BACKFILL UNDER ROADS

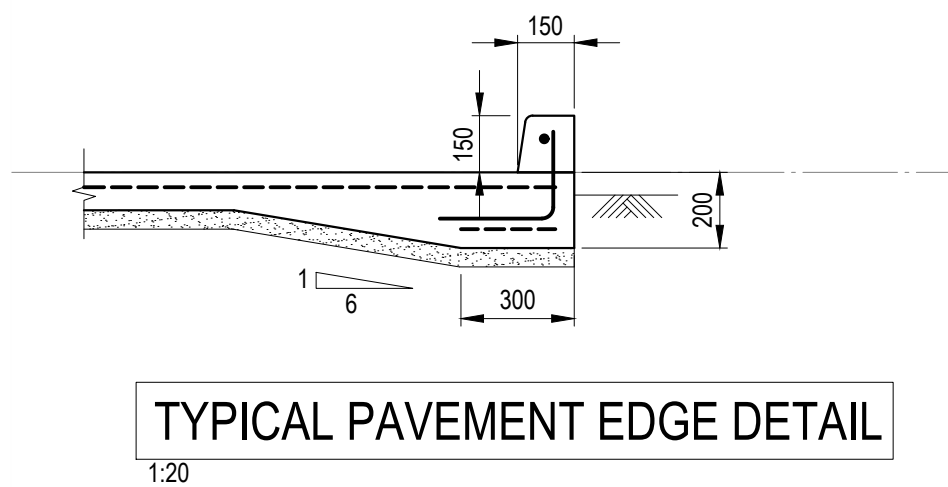
- GRANULAR FILL COMPRISING OF CRUSHED ROCK (75mm MAX. SIZE, NOT PLASTIC OPEN GRADED MATERIAL), OR
- CRUSHER RUN RECYCLED CONCRETE, OR
- SUBJECT TO APPROVAL, STABILIZED SAND (1 PART CEMENT TO 12 PARTS SAND BY VOLUME), OR
- SUBJECT TO APPROVAL, CONTROLLED LOW STRENGTH MATERIAL OR LEAN MIX CONCRETE

COMPACTED BACKFILL UNDER FOOTPATHS

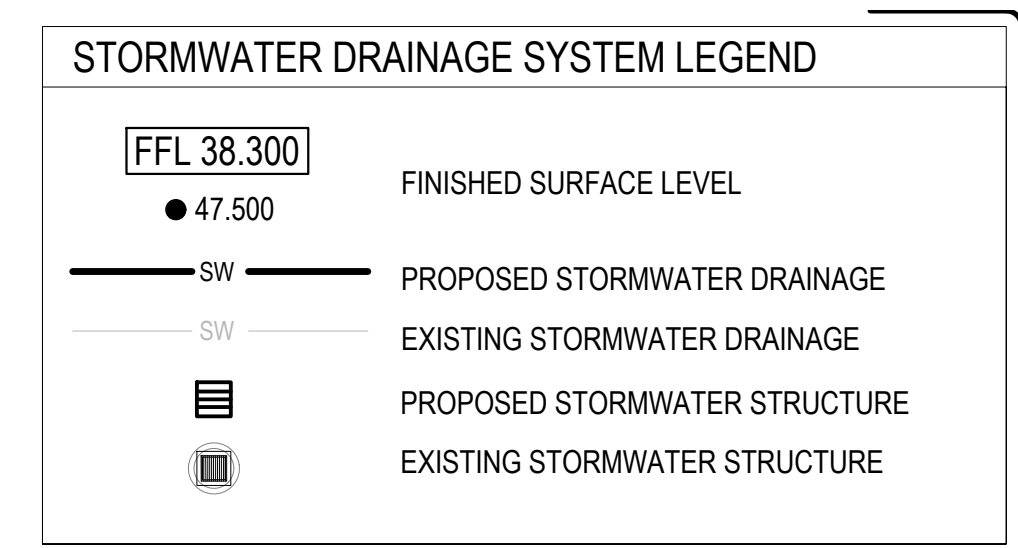
- EXCAVATED MATERIALS PROVIDED ADEQUATE COMPACTION CAN BE OBTAINED, OR
- SIMILAR MATERIAL AS UNDER ROAD BACKFILL

COMPACTED BACKFILL WITHIN BUILDING PADS

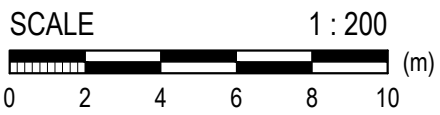
- EXCAVATED MATERIALS PROVIDED ADEQUATE COMPACTION CAN BE OBTAINED
- LEVEL 1 CERTIFICATION MAY BE REQUIRED



No.		Description		Date	By	No.	Description		Date	By
A	FOR REVIEW			13/05/21	EH					
B	FOR APPROVAL			14/05/21	JM					
Associated Consultant:				Drawn:	Design:	Checked:	Supervisor:	Approved:	RPEQ.	Date:
-				JM	EH	GG	GG			



ALL FIELD INLETS TO BE FITTED WITH ENVIROPOD FILTER BASKETS OR APPROVED EQUIVALENT



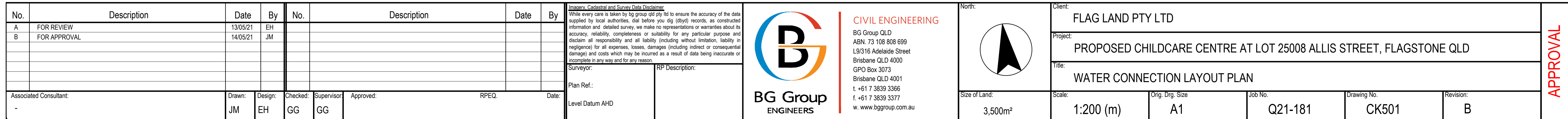
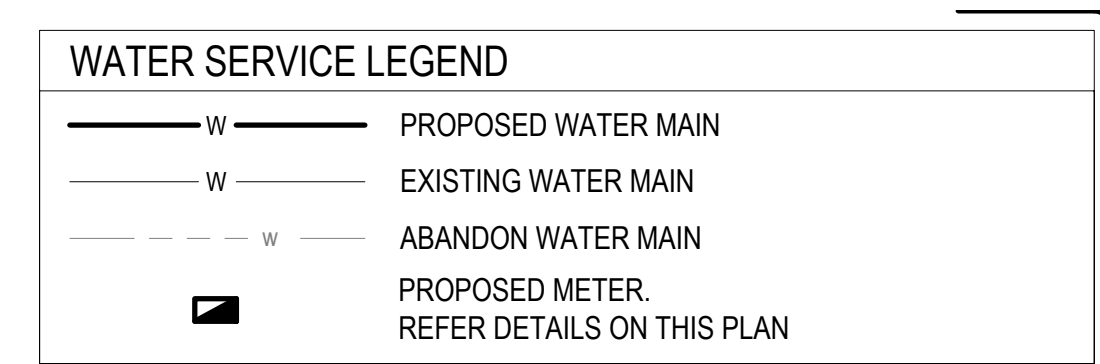
No.		Description		Date	By	No.		Description		Date	By	Imagery, Cadastral and Survey Data Disclaimer		North:		Client:					APPROVAL
A		FOR REVIEW		13/05/21	EH							While every care is taken by bg group qld pty ltd to ensure the accuracy of the data supplied by local authorities, dial before you dig (dbdd) records, as constructed information and detailed survey, we make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of data being inaccurate or incomplete in any way and for any reason. Surveyor: _____ RP Description: _____ Plan Ref.: _____ Level Datum AHD _____			FLAG LAND PTY LTD						
B		FOR APPROVAL		14/05/21	JM										Project: PROPOSED CHILDCARE CENTRE AT LOT 25008 ALLIS STREET, FLAGSTONE QLD						
															Title: PAVEMENT & STORMWATER DRAINAGE LAYOUT PLAN						
Associated Consultant:				Drawn:	Design:	Checked:	Supervisor:	Approved:		RPEQ.		Date:	Size of Land:		Scale:	Orig. Dwg. Size	Job No.	Drawing No.	Revision:		
-				JM	EH	GG	GG						3,500m²		1:200 (m)	A1	Q21-181	CK302	B		

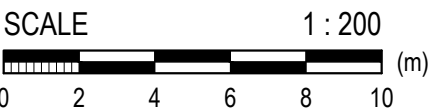


CIVIL ENGINEERING

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ENGINEERS

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f. +61 7 3839 3377
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APPROVAL

APPENDIX B – ARCHITECTURAL DOCUMENTATION



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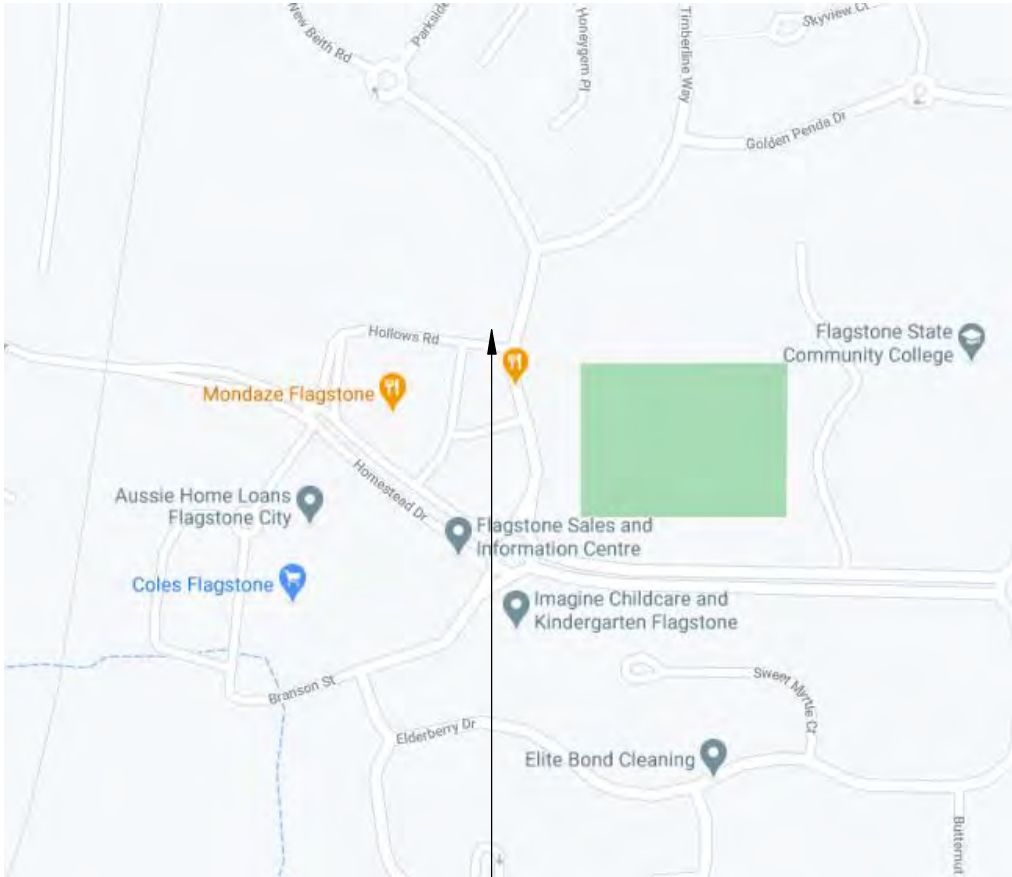
Quality
ISO 9001
SAI GLOBAL

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proposed 135 place childcare centre , allis street, flagstone, qld

site data / analysis

proposal - 135 place childcare centre r.p.d. lot 25008, allis street, flagstone, qld	car parking childcare centre car bays provided - 36 bays inc. disabled bay cars required - 34.5 bays (1/employee + 1/10 children)
local authority Logan City Council	operating hours monday - friday 6:30am - 6:30pm tbc
site area 3500 sqm site cover 1287 sqm (36.7 %) gross floor area - 865 sqm	index to sheets 01. face sheet/ site data 02. overall site plan 03. site/floor layout 04. elevations 05. 3D views
building area ground floor area - 865 sqm veranda area - 403 sqm safety zone area - 10.9 sqm playstore - 8.1 sqm	
childcare centre no. of children - 135 no. of activity rooms - 8 staff - 21 contact playscape provided -- 1081 sq.m.	
development statement built environment the development will comply with the requirements of the Logan City Council, the NCC 2019 Vol 1 and the National Quality Framework and standards. car parking all car parking and access shall accord with AS2890.1	area calculations all area calculations are based on design and are subject to final design development. final figures shall accord with minimums or maximums allowed by council and shall not vary by more than 5% of that stated garbage collection garbage is to be collected on site, bins to be stored in screened service area



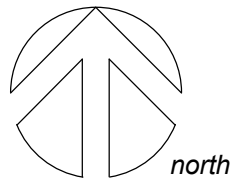
locality plan

site location

01.

face sheet/ site data

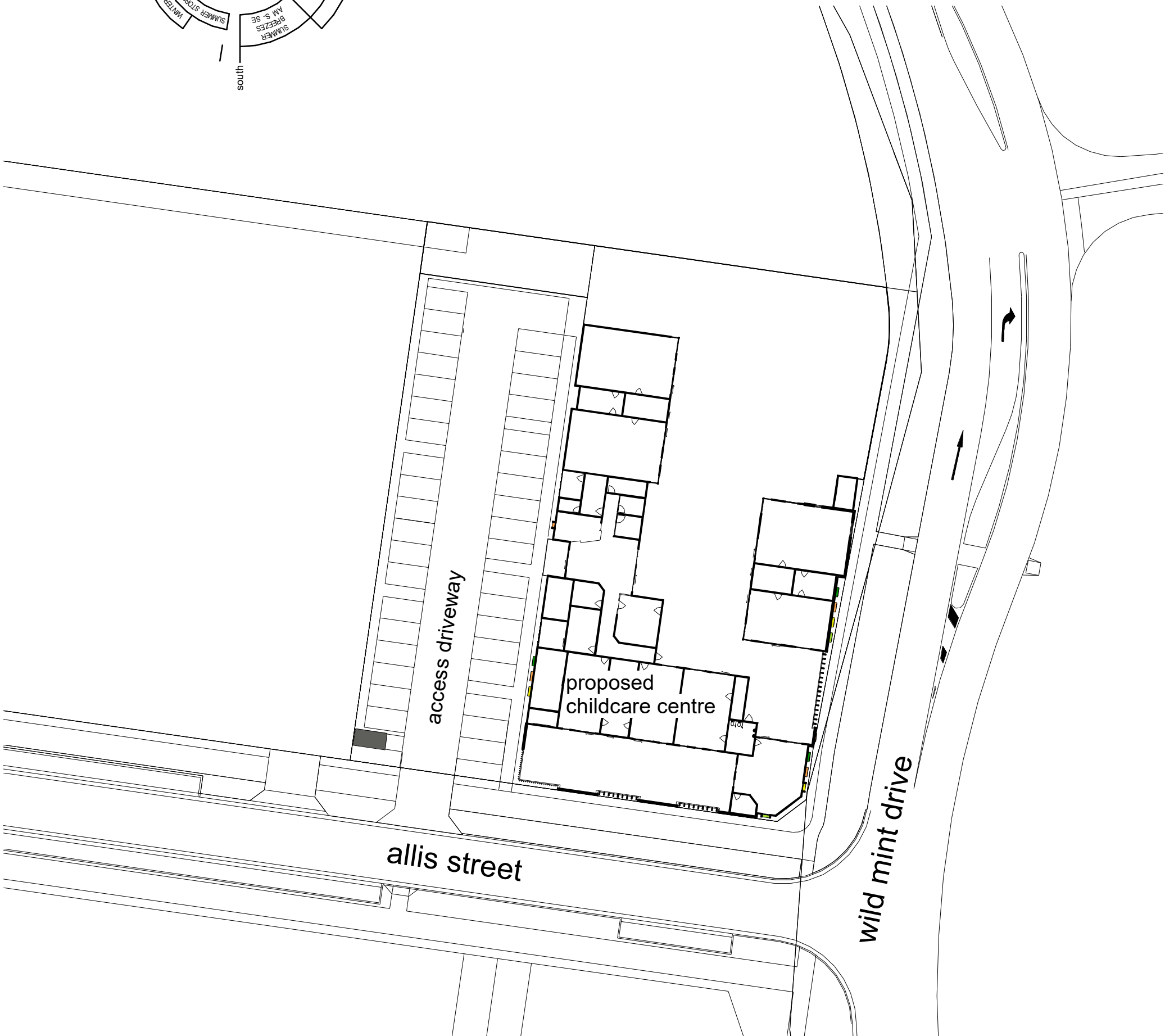
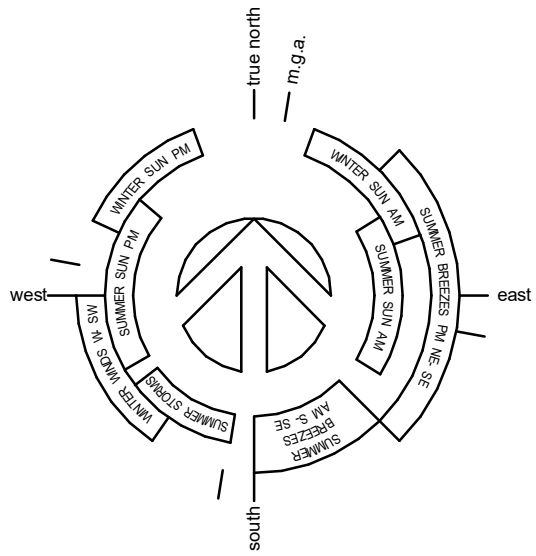
proposed chidcare centre, allis st, flagstone, qld.



c.c. raymond QBCC lic. no. 1178466

raymond design

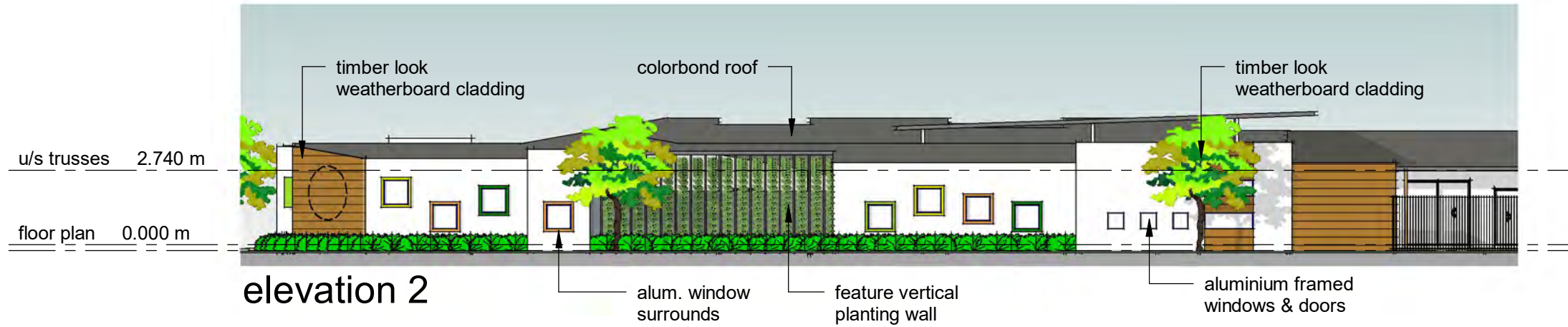
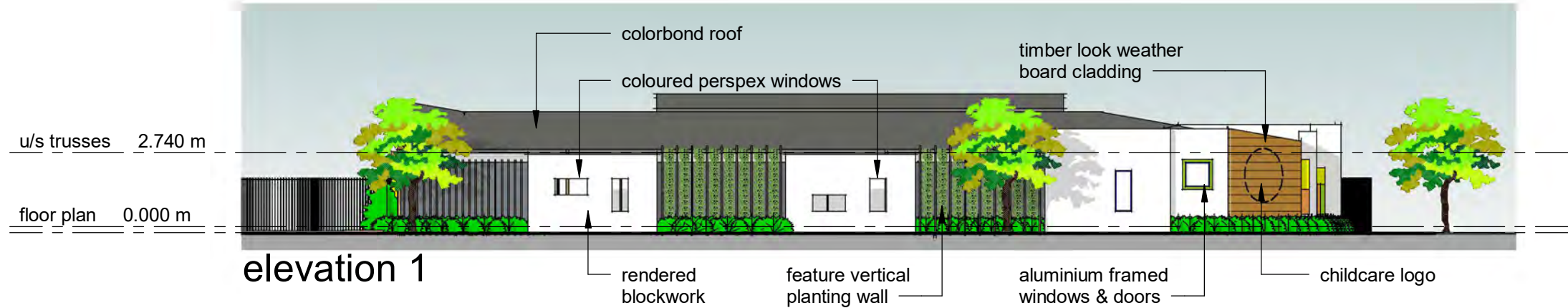
p. (07) 5538 4394
m. 0418 666 922

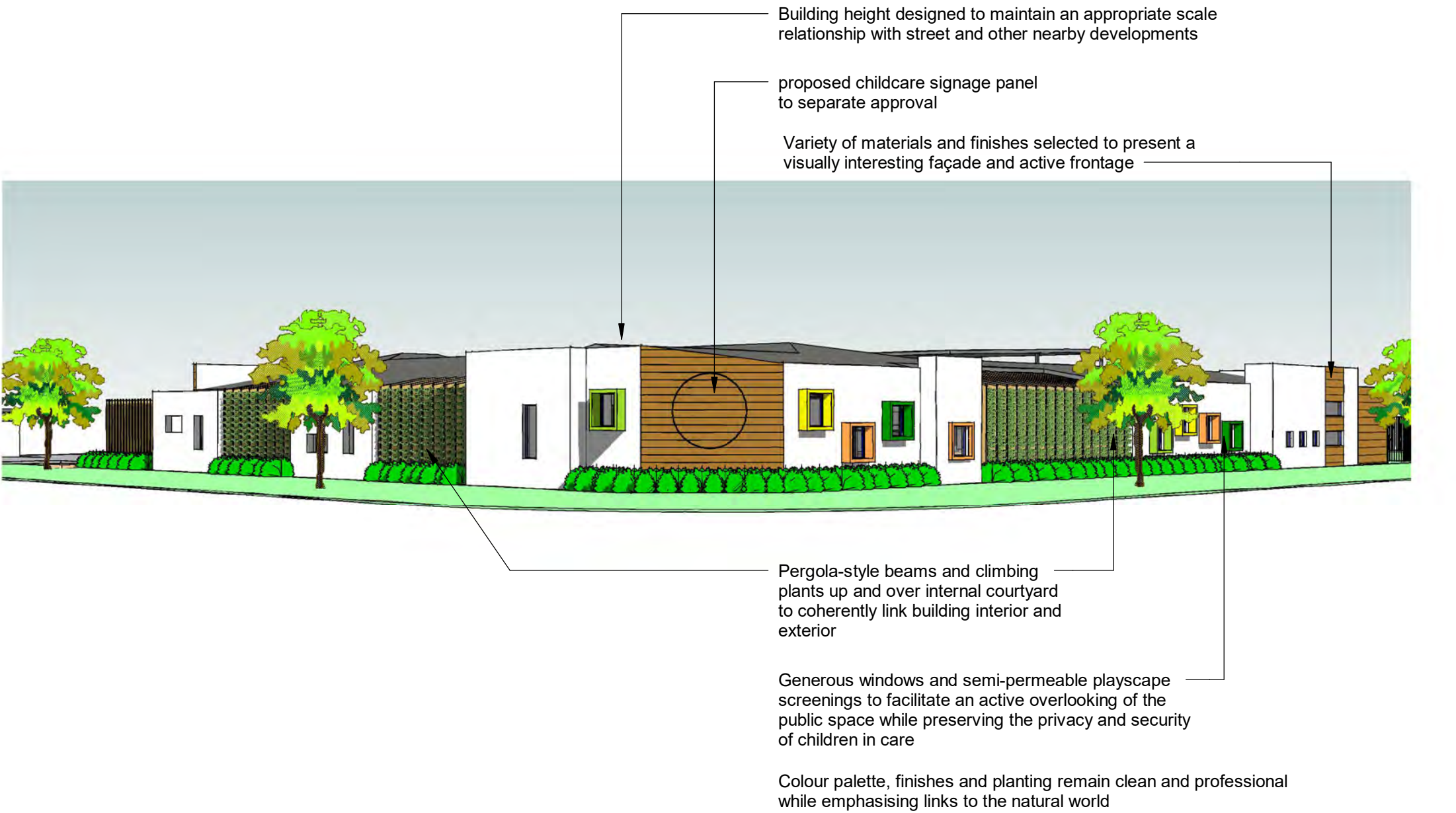


c.c. raymond QBCC lisc. no. 1178466



RD20029 : november_2020
issue DA3 -21/04/21
drawn - c. c. r.





APPENDIX C – SUBDIVISION PLANS



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FLAGSTONE CITY - STAGE 7C

FLAGSTONIAN DRIVE, FLAGSTONE

FOR 'PEET FLAGSTONE CITY PTY. LTD.'

DRAWING LIST

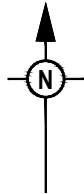
20-0178-100 COVER PLAN

EARTHWORKS, ROADWORKS AND DRAINAGE

20-0178-101 GENERAL NOTES
20-0178-102 ROADWORKS AND DRAINAGE LAYOUT PLAN
20-0178-103 STORMWATER DRAINAGE LONGITUDINAL SECTIONS
20-0178-104 STORMWATER DRAINAGE CALCULATIONS TABLE

SEWERAGE AND WATER RETICULATION

20-0178-300 SEWERAGE RETICULATION COVER PLAN
20-0178-301 SEWERAGE RETICULATION LAYOUT AND LONGITUDINAL SECTION
20-0178-302 WATER RETICULATION COVER PLAN
20-0178-303 WATER RETICULATION LAYOUT PLAN



PROJECT INFORMATION SUMMARY:	
No. OF LOTS =	2
AREA OF SITE =	0.800 ha
RP DESCRIPTION	LOT 906 ON SP 290276
DATUM LEVEL AND LOCATION	P.M. 107142 RL 39.078 AHD
LOCAL AUTHORITY:	LCC
COUNCIL REFERENCE NUMBER:	DEV2014/637/23

NOTE:	
THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH:	
-	VEGETATION MANAGEMENT PLAN
-	LANDSCAPE ARCHITECT'S PLANS
-	ELECTRICAL, COMMUNICATIONS AND GAS CONSULTANT'S PLANS
-	SEDIMENT AND EROSION HAZARD ASSESSMENT
-	SAFETY IN DESIGN REPORT

LOCALITY PLAN
SCALE 1:2000 (A1)
SCALE 1:4000 (A3)

REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS			CLIENT	PROJECT NAME	DRAWING TITLE		
1	14.01.21	CL	CL	ORIGINAL ISSUE	KH	NOT FOR CONSTRUCTION	PEET FLAGSTONE CITY PTY. LTD.					FLAGSTONE CITY - STAGE 7C	COVER PLAN	
2	29.03.21	KH	KH	REVISED ISSUE				DESIGN	APPROVED DAN COLLINS  RPEQ 18631 FOR AND ON BEHALF OF PEAKURBAN PTY LTD	ASSOCIATED CONSULTANT VERIS (07) 3666 4700	FLAGSTONIAN DRIVE, FLAGSTONE			PROJECT No. 20-0178

GENERAL NOTES:

1. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, PLANT AND EQUIPMENT TO CONSTRUCT THE WORKS AS DOCUMENTED AND STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
2. THE EXISTING SERVICES THAT ARE SHOWN ON THE DRAWINGS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. NO RESPONSIBILITY IS TAKEN BY THE SUPERINTENDENT OR THE PRINCIPAL FOR INFORMATION THAT HAS BEEN SUPPLIED BY OTHERS, OR ANY EXISTING SERVICES THAT MAY BE PRESENT NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY THE POSITION OF ANY UNDERGROUND SERVICES WITHIN THE AREAS OF WORKS AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT ONLY BY THE SERVICE OWNER AUTHORITY UNLESS APPROVED OTHERWISE.
3. ALL CONSTRUCTION ACTIVITIES UNDERTAKEN SHALL COMPLY WITH CURRENT WORKPLACE HEALTH AND SAFETY REQUIREMENTS AND LEGISLATION.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL RELEVANT LOCAL AUTHORITY PERMITS.
5. THE CONTRACTOR SHALL NOT COMMENCE THE DEMOLITION OF ANY EXISTING BUILDINGS AND/OR STRUCTURES WITHOUT APPROVAL FROM THE SUPERINTENDENT.
6. THE CONTRACTOR SHALL APPLY INDUSTRY BEST PRACTICE SO WORKS SHALL NOT DISTURB OR AFFECT NEARBY RESIDENTS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES. CONTRACTOR TO ENSURE THAT ACCESS AND SERVICES TO EXISTING PROPERTIES ARE AVAILABLE AT ALL TIMES.
7. THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING SERVICE CROSSINGS AND CONNECTION POINTS PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT OF ANY DISCREPANCIES BETWEEN ACTUAL AND PROPOSED DESIGN LEVELS.
8. THESE ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE APPROVED VEGETATION MANAGEMENT PLAN, WHERE APPLICABLE. WHEN IN DOUBT, ALL EXISTING TREES ARE TO REMAIN UNLESS DIRECTED OTHERWISE.
9. HOLD POINT: ONCE THE BASE OF MANHOLES, INSPECTION PITS, GULLIES AND FIELD INLETS FOR STORMWATER DRAINAGE AND SEWER RETICULATION HAVE BEEN POURED, CONSTRUCTION SHALL ONLY RE-COMMENCE ONCE THE SUPERINTENDENT AND/OR ENGINEER HAVE INSPECTED THE WORKS.
10. THE CONTRACTOR SHALL NOTE DURING THE COURSE OF THE WORKS WHEN JOINT INSPECTIONS WITH THE AUTHORITY AND THE SUPERINTENDENT ARE REQUIRED. THESE INCLUDE PRE-STARTS, SUBGRADES, PRE-SEALS, CLEARING, AND OTHER SUCH INSPECTIONS AS NOMINATED IN THE APPROVAL AND THE SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE NO WORKS PROCEED PAST THE INSPECTION POINT UNTIL THE JOINT INSPECTION HAS BEEN SUCCESSFULLY COMPLETED.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SAFE MOVEMENT OF TRAFFIC AND THE PROTECTION OF PERSON AND PROPERTY THROUGH AND AROUND THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC MANAGEMENT INCLUDING THE DESIGN, CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ROADWAYS, DETOURS, SIGNS, LIGHTS AND BARRIER AS REQUIRED STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

[illegible]

**STORMWATER
STRUCTURE NOTE:**

STANDARD ROUND MANHOLES LESS
THAN 3.0m DEEP:

CONSTRUCT IN ACCORDANCE WITH THE
LOCAL AUTHORITY STANDARDS.

STANDARD ROUND MANHOLES 3.0m >
5.3m DEEP:

CONSTRUCT IN ACCORDANCE WITH TMR
STD DRAWINGS 1307 AND 1308.

STANDARD ROUND MANHOLES GREATER
THAN 5.3m DEEP:

SHALL BE STRUCTURALLY DESIGNED
(CERTIFIED) AND CONSTRUCTED BY
CONTRACTOR ON A CASE BY CASE BASIS.

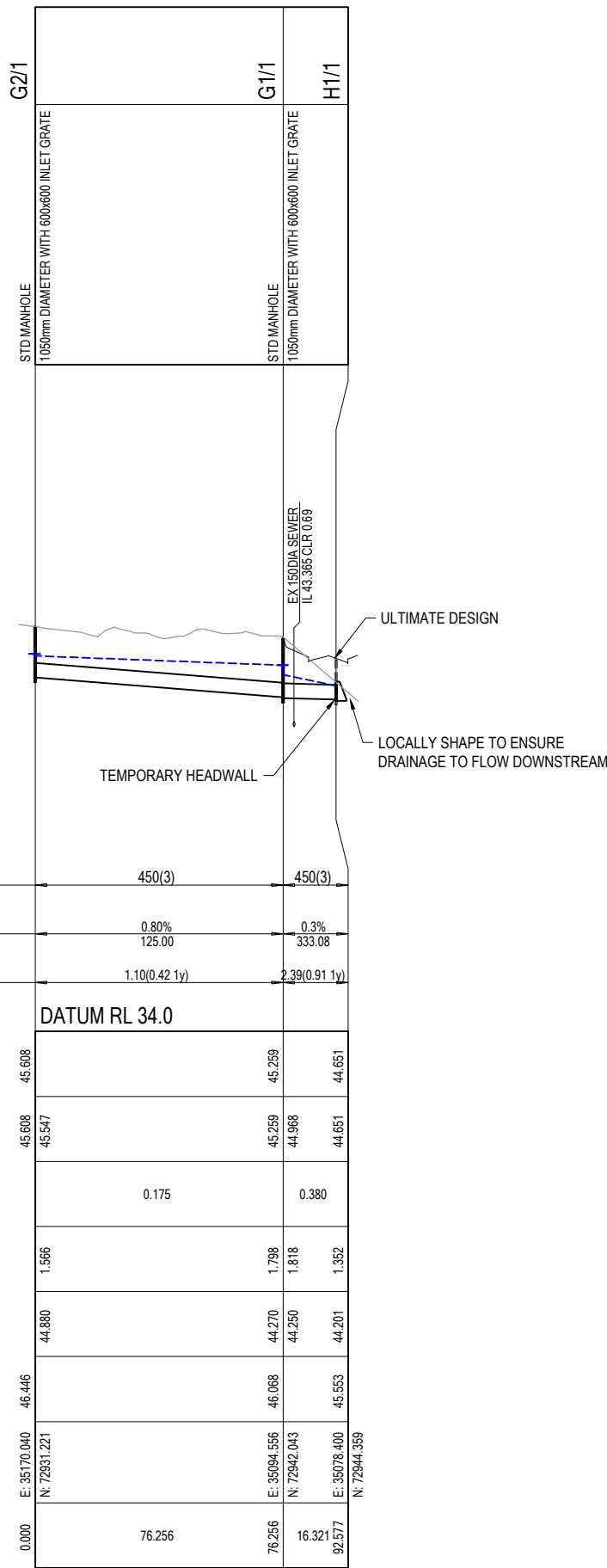
ROUND EXTENDED (900mm MAX)
MANHOLES:

CONSTRUCT IN ACCORDANCE WITH PEAK
URBAN STD DRAWINGS S-101 & S-102.

RECTANGULAR STRUCTURE (SPECIAL):

SHALL BE STRUCTURALLY DESIGNED
(CERTIFIED) AND CONSTRUCTED BY
CONTRACTOR ON A CASE BY CASE BASIS.

WATER LEVEL IN STRUCTURE
HYDRAULIC GRADE LEVEL
PIPE FLOW (Cumecs)
DEPTH TO INVERT
INVERT LEVEL OF DRAIN
DESIGN SURFACE LEVEL
SETOUT
RUNNING CHAINAGE

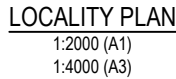


LINE	1
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REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS	PEAKURBAN Achieve more. FOR AND ON BEHALF OF PEAKURBAN PTY LTD ENQUIRIES@PEAKURBAN.COM.AU	SCALE	1:1000 10 0 10 20 30 40 50 A1 1:2000 A3 HORIZONTAL	CLIENT	PROJECT NAME	DRAWING TITLE			
1	14.01.21	CL	CL	ORIGINAL ISSUE		KH	NOT FOR CONSTRUCTION		1:100 2 1 0 2 4 A1 1:200 A3 VERTICAL		PEET FLAGSTONE CITY PTY. LTD.					FLAGSTONE CITY - STAGE 7C
2	29.03.21	KH	KH	HEADWALL RELOCATED												
									KH	APPROVED DAN COLLINS RPEQ 18631	FOR AND ON BEHALF OF PEAKURBAN PTY LTD	ASSOCIATED CONSULTANT VERIS (07) 3666 4700	FLAGSTONIAN DRIVE, FLAGSTONE	PROJECT No. 20-0178	DRAWING No. 103	REVISION 2

LOCATION					TIME		SUB-CATCHMENT RUNOFF							INLET DESIGN							DRAIN DESIGN										HEADLOSSES										PART FULL				DESIGN LEVELS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
DESIGN ARI	STRUCTURE No.	DRAIN SECTION	SUB-CATCHMENTS CONTRIBUTING	LAND USE	SLOPE OF CATCHMENT	t _c	I	C10	C	A	C×A	+CA	Q					Qg	Qb		t _c	I	+CA	Qt	Qm	Qs	Qp	L	S		V	T				V2/2g	Ku	hu	Kl	hl	Kw	hw	Sf	hf			Vp																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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REV	DATE	DESIGN	DRAWN	REVISION DETAILS				DRAWN	STATUS		NOT FOR CONSTRUCTION  ENQUIRIES@PEAKURBAN.COM.AU	SCALE	CLIENT	PROJECT NAME		DRAWING TITLE			
1	14.01.21	CL	CL	ORIGINAL ISSUE				KH					PEET FLAGSTONE CITY PTY. LTD.		FLAGSTONE CITY - STAGE 7C		STORMWATER DRAINAGE CALCULATIONS TABLE		
2	29.03.21	KH	KH	HEADWALL RELOCATED															
								DESIGN	APPROVED DAN COLLINS RPEQ 18631				ASSOCIATED CONSULTANT VERIS (07) 3666 4700		FLAGSTONIAN DRIVE, FLAGSTONE		PROJECT No. 20-0178		
								KH	 FOR AND ON BEHALF OF PEAKURBAN PTY LTD								DRAWING No. 104		
																	REVISION 2		



NAME OF ESTATE		FLAGSTONE CITY - STAGE 7C
SUBDIVIDER		PEET FLAGSTONE CITY PTY. LTD.
SP APPLICATION No.		-
SP APPROVAL DATE		-
DRAWING/PLAN No.		20-0178-300-301
No. OF ALLOTMENTS		2
AREA		0.800ha
LENGTH OF SEWERS	100Ø uPVC	3m
	150Ø uPVC	78m

1. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, PLANT AND EQUIPMENT TO CONSTRUCT THE WORKS AS DOCUMENTED AND STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
2. EXISTING SERVICES RELEVANT TO THE PROJECT HAVE BEEN CONSIDERED THROUGHOUT DESIGN AND IS BASED ON SURVEY INFORMATION PROVIDED BY THE SURVEYOR AND THE CONTRACTOR. THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION RPEQ HAVE RELIED UPON THIS INFORMATION TO INFORM THE DESIGN. THE CONTRACTOR SHALL VERIFY THE POSITION OF ANY UNDERGROUND SERVICES WITHIN THE AREAS OF WORKS AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT ONLY BY THE SERVICE OWNER AUTHORITY UNLESS APPROVED OTHERWISE.
3. ALL DESIGN AND CONSTRUCTION ACTIVITIES UNDERTAKEN SHALL COMPLY WITH CURRENT WORKPLACE HEALTH AND SAFETY REQUIREMENTS AND LEGISLATION.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL RELEVANT LOCAL AUTHORITY PERMITS.
5. THE CONTRACTOR SHALL NOT COMMENCE THE DEMOLITION OF ANY EXISTING BUILDINGS AND/OR STRUCTURES WITHOUT APPROVAL FROM THE SUPERINTENDENT.
6. THE CONTRACTOR SHALL APPLY INDUSTRY BEST PRACTICE SO WORKS SHALL NOT DISTURB OR AFFECT NEARBY RESIDENTS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES. CONTRACTOR TO ENSURE THAT ACCESS AND SERVICES TO EXISTING PROPERTIES ARE AVAILABLE AT ALL TIMES.
7. THE CERTIFICATION OF THIS DESIGN IS BASED ON SURVEY AND POTHOLE INFORMATION PROVIDED BY THE SURVEYOR AND/OR CONTRACTOR AT THE TIME OF DESIGN. PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING SERVICE CROSSINGS AND CONNECTION POINTS AND NOTIFY THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION RPEQ OF ANY DISCREPANCIES BETWEEN ACTUAL AND PROPOSED DESIGN LEVELS. THE CERTIFICATION OF THIS DESIGN IS BASED ON SURVEY AND POTHOLE INFORMATION PROVIDED BY THE SURVEYOR AND CONTRACTOR AT THE TIME OF DESIGN.
8. THESE ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE APPROVED VEGETATION MANAGEMENT PLAN, WHERE APPLICABLE. WHEN IN DOUBT, ALL EXISTING TREES ARE TO REMAIN UNLESS DIRECTED OTHERWISE.
9. HOLD POINT: ONCE THE BASE OF MANHOLES HAVE BEEN POURED, CONSTRUCTION SHALL ONLY RE-COMMENCE ONCE THE SUPERINTENDENT AND/OR ENGINEER HAVE INSPECTED THE WORKS.
10. THE CONTRACTOR SHALL NOTE DURING THE COURSE OF THE WORKS WHEN JOINT INSPECTIONS WITH THE AUTHORITY AND THE SUPERINTENDENT ARE REQUIRED. THESE INCLUDE PRE-STARTS, SUBGRADES, PRE-SEALS, CLEARING, AND OTHER SUCH INSPECTIONS AS NOMINATED DURING THE PRE-START, IN THE APPROVAL AND THE SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE NO WORKS PROCEED PAST THE INSPECTION POINT UNTIL THE JOINT INSPECTION HAS BEEN SUCCESSFULLY COMPLETED.

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT WSAA GRAVITY SEWERAGE CODE OF AUSTRALIA SPECIFICATIONS AND STANDARD - SOUTH EAST QUEENSLAND SERVICE PROVIDERS EDITION.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. THE CONSTRUCTION OF THE SEWERAGE WORK SHOWN ON THIS DRAWING SHALL BE SUPERVISED BY AN ENGINEER WHO HAS RPQ REGISTRATION. SEWERAGE WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT INTO THE SEQ SERVICE PROVIDER SEWERAGE SYSTEM.
4. ALL WORKS ON EXISTING SEWER MAINS ARE TO BE CARRIED OUT BY LOGAN CITY COUNCIL AT THE DEVELOPER'S EXPENSE OR AS DIRECTED BY LOGAN CITY COUNCIL.
5. ALL PIPES AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE "ACCEPTED PRODUCTS AND MATERIALS" LIST, UNLESS APPROVED BY THE WATER AUTHORITY.
6. BENCH MARK AND LEVELS TO AHD.
7. WHERE PIPES ARE LAID IN FILL, THE FILLING SHALL BE CARRIED OUT IN LAYERS NOT EXCEEDING 300mm (LOOSE) IN DEPTH AND SHALL BE COMPACTED UNTIL THE COMPACTION IS NOT LESS THAN 95% OF THE MATERIALS MAXIMUM COMPACTION WHEN TESTED IN ACCORDANCE WITH A.S.1289 (MODIFIED COMPACTION). TESTING SHALL BE CARRIED OUT AFTER EACH ALTERNATE LAYER. IN ALL SUCH CASES APPROVAL OF CONSTRUCTED SEWERS WILL NOT BE ISSUED BY THE SEQ SERVICE PROVIDER UNLESS CERTIFICATES ARE PRODUCED CERTIFYING THAT THE REQUIRED COMPACTION HAS BEEN ACHIEVED.
8. WHERE SEWERS HAVE A GRADE OF 1 IN 20 OR STEEPER, BULKHEADS, TRENCH STOPS AND TRENCH DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CLAUSE 9.10 OF THE SEQ SEWER CODE AND DRG'S SEQ-SEW-1206-1 AND 1207-1.
9. SEWERS SHALL BE DISUSED/ABANDONED IN ACCORDANCE WITH PROCEDURE SET OUT IN THE GRAVITY SEWER CODE.
10. EACH ALLOTMENT SHALL BE SERVED BY A 100Ø PVC PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A 150Ø PVC PE PROPERTY CONNECTION SHALL BE PROVIDED. PROPERTY CONNECTIONS SHALL BE LOCATED WITHIN THE PROPERTY AS SHOWN IN THE DRAWINGS AND SHALL EXTEND INTO THE PROPERTY A MINIMUM OF 300mm (500mm FOR UNITY WATER) AND A MAXIMUM OF 750mm.
11. EXISTING ALLOTMENTS REQUIRING A PROPERTY CONNECTIONS FROM EXISTING SEWERS SHALL BE PROVIDED BY THE SEQ SERVICE PROVIDER AT THE DEVELOPERS COST.

- A. TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED
- B. WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.
- C. TREE ROOTS SHALL BE TUNNELED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL ARBORIST FOR FURTHER ADVICE.
- D. ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN APPROVED ARBORIST.

A. TOPSOIL AND SUBSOIL SHALL BE STOCKPILED SEPARATELY.

B. CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.

- A. SILTATION CONTROL MEASURES SHALL BE PLACED DOWNSTREAM OF ANY EXCAVATION WORK.
- B. APPROPRIATE SEDIMENT CONTROLS SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK.
- C. NO SOIL SHALL BE STOCKPILED WITHIN 5m OF THE CREEK.

A. PREDISTURBANCE SOIL PROFILES AND COMPACTION LEVELS SHALL BE REINSTATED.

B. PREDISTURBANCE VEGETATION PATTERNS SHALL BE RESTORED.

[illegible]

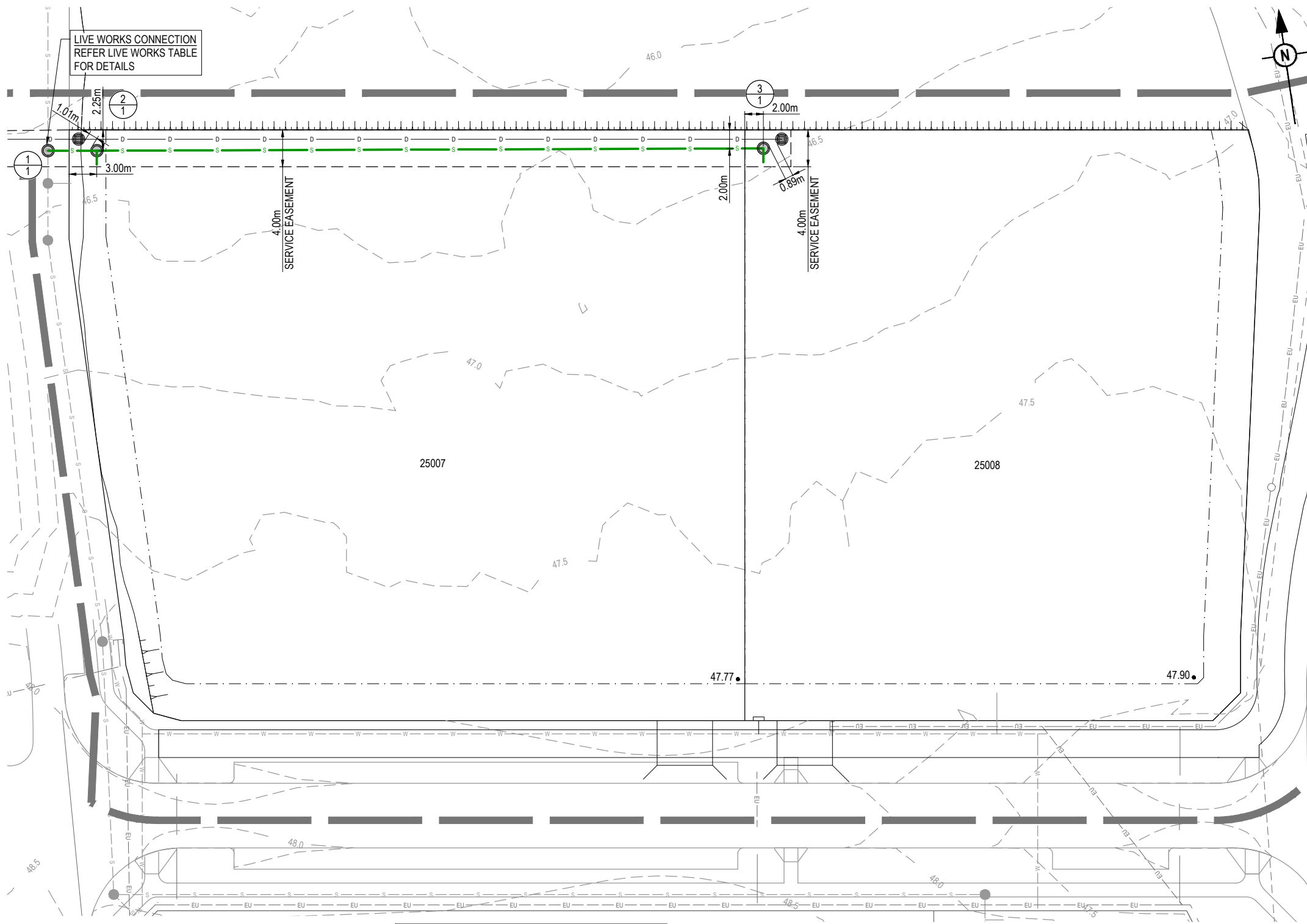
1. ALL WORK ON EXISTING SEWERS TO BE CARRIED OUT BY THE CONTRACTOR (IN ACCORDANCE WITH AN APPROVED NETWORKS ACCESS PERMIT) UNDER LOGAN WATER SUPERVISION, AT THE DEVELOPERS EXPENSE.
2. LIVE WORKS CANNOT COMMENCE UNTIL ALL RELEVANT TEST CERTIFICATES HAVE BEEN PROVIDED AND ACCEPTED BY LOGAN WATER.

ALL ENVIRONMENTAL PROTECTION MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK COMMENCING, INCLUDING CLEARING

ALL WATER AND SEWERAGE CONSTRUCTION SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 AND A MAXIMUM DEPTH OF PROPERTY CONNECTION AT 1.5m UNLESS OTHERWISE STATED. FOR JUNCTION DETAILS REFER SEQ-SEW-1104-1 AND SEQ-SEW-1105-1.

REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS		SCALE	CLIENT	PROJECT NAME	DRAWING TITLE		
1	14.01.21	CL	CL	ORIGINAL ISSUE		KH	NOT FOR CONSTRUCTION		1:2000	PEET FLAGSTONE CITY PTY. LTD.	FLAGSTONE CITY - STAGE 7C	SEWER RETICULATION COVER PLAN		
2	05.02.21	CL	CL	NOTES TO REFER TO L.C.C					1:4000					
3	29.03.21	KH	KH	REVISED ISSUE										
						DESIGN	APPROVED							
						KH	DAN COLLINS	RPEQ 18631		VERIS	FLAGSTONIAN DRIVE, FLAGSTONE	PROJECT No.	DRAWING No.	REVISION
							FOR AND ON BEHALF OF PEAKURBAN PTY LTD	ENQUIRIES@PEAKURBAN.COM.AU				20-0178	300	3



LEGEND			
		PROPOSED STAGE BOUNDARY	
		PROPOSED SEWER MAIN	
		EXISTING SEWER MAIN	
		EXISTING SURFACE CONTOUR	
		PROPOSED STORMWATER DRAINAGE PIPE	
		EXISTING WATER MAIN	
		PROPOSED WATER SERVICE POINT	
		EXISTING ELECTRICAL CABLE U/G	
		SEWER CONTROL LEVEL	

WARNING! - EXISTING SERVICES

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

NOTE - SETOUT:
REFER TO THE LONGITUDINAL SECTIONS FOR EASTING AND NORTHING SETOUT OF SEWER STRUCTURES, ENDS AND BENDS.

STRUCTURE / BEND / END NAME
STRUCTURE TYPE
STRUCTURE LID TYPE
STRUCTURE DROP TYPE
JUNCTION LINE
DEPTH TO HC
HC INVERT LEVEL
HC TYPE
HC LOT No
CH. FROM D/S STRUC / BEND

STRUCTURE TYPES
C2 = CAST-IN-SITU 1.500Ø
P2 = PRE-CAST CONCRETE 1.050Ø
MS = PRE-CAST CONCRETE 0.600Ø
or PE 0.600Ø
MH DROP TYPES:
AS PER SEQ STD DRG SEQ-SEW-1303-1
PE MS DROP TYPES:
MS-A = 20mm DROP THROUGH BULB
MS-B = >750mm DROP INTO RISER
LID TYPES
B = NON-TRAFFICABLE
D = TRAFFICABLE
D(BD) = TRAFFICABLE WITH BOLT DOWN

NOTE: PE LINING OF MANHOLES:
MAINTENANCE HOLES ≥ 1500Ø IN DIA OR ≥ 4.0m IN DEPTH,
REQUIRE PE LINED PROTECTIVE COATING

EMBEDMENT NOTE:
PIPE EMBEDMENT & TRENCHFILL SHALL BE IN ACCORDANCE WITH SEQ-SEW-1200-2, 1201-1 TO 1201-5. TYPE 3 SUPPORT IS PROPOSED UNTIL FINAL GEOTECHNICAL INVESTIGATIONS ARE COMPLETED PRIOR TO CONSTRUCTION.

* STORMWATER BRIDGING NOTE:
WHERE A STORMWATER PIPE ≥ 600mm DIA CROSSES OVER A SEWER, THE STORMWATER PIPE SHALL BE SUPPORTED BY A BRIDGE STRUCTURE THAT SPANS THE SEWER TRENCH. REFER PEAK URBAN STD DRG S-100.

LAND USE
DIAMETER
GRADE
EMBEDMENT
JUNCTION INVERT LEVEL
DEPTH TO INVERT
SEWER INVERT LEVEL
DESIGN SURFACE LEVEL
SETOUT
RUNNING CHAINAGE

LINE

STRUCTURE / BEND / END NAME	STRUCTURE TYPE	STRUCTURE LID TYPE	STRUCTURE DROP TYPE	JUNCTION LINE	DEPTH TO HC	HC INVERT LEVEL	HC TYPE	HC LOT No	CH. FROM D/S STRUC / BEND
1	P2	B	V		1.089	45.150	X	1	5.250
2	P2	B	V						
3	P2	B			0.939	45.500	X	2	72.250

DATUM RL 36.0

ROAD RES.	ALLOTMENT
150 SN8 PVC	
100.00	100.00
TYPE 3	
2.079	2.467
2.447	1.943
43.700	43.753
43.753	44.095
46.220	46.429
46.429	77.555

REV	DATE	DESIGN	DRAWN	ORIGINAL ISSUE	REVISION DETAILS
1	14.01.21	CL	CL	ORIGINAL ISSUE	
2	05.02.21	CL	CL	LONGITUDINAL SECTION AMENDED	
3	29.03.21	KH	KH	REVISED ISSUE	
4	07.05.21	KH	KH	EASEMENT UPDATED	
5	11.05.21	KH	KH	EASEMENT REVISED	

DRAWN	STATUS
KH	NOT FOR CONSTRUCTION

DESIGN	APPROVED	RPEQ 18631
KH	DAN COLLINS	

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

ACHIEVE more.

ENQUIRIES@PEAKURBAN.COM.AU

SCALE

1:250 5 0 5 10 A1

1:500 10 0 10 20 30 40 50 A3

1:1000 20 0 20 40 60 80 A1

1:2000 40 0 40 80 120 A3

1:100 2 1 0 2 4 A1

1:200 4 2 0 4 8 A3

CLIENT

PEET FLAGSTONE CITY PTY. LTD.

ASSOCIATED CONSULTANT

VERIS (07) 3666 4700

PROJECT NAME

FLAGSTONE CITY - STAGE 7C

FLAGSTONIAN DRIVE, FLAGSTONE

DRAWING TITLE

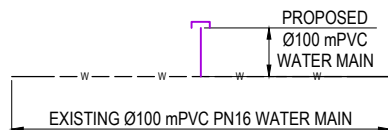
SEWER RETICULATION LAYOUT PLAN AND LONGITUDINAL SECTION

PROJECT No.	DRAWING No.	REVISION
20-0178	301	5

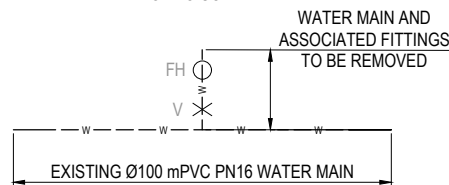
LOCALITY PLAN
1:2000 (A1)
1:4000 (A3)

LIVE CONNECTIONS

CONNECTION 1			
STREET	HOLLOWS ROAD		
LOCATION	FLAGSTONE		
LENGTH	1.425m	TYPE OF MAIN	Ø100 mPVC
DATE COMMENCED	DATE	COMPLETED	
SIGNATURE			



LIVE CONNECTION 1 DETAIL
NOT TO SCALE



LIVE DISCONNECTION 1 DETAIL
NOT TO SCALE

GENERAL NOTES:

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5. THE CONTRACTOR SHALL NOT COMMENCE THE DEMOLITION OF ANY EXISTING BUILDINGS AND/OR STRUCTURES WITHOUT APPROVAL FROM THE SUPERINTENDENT.
6. THE CONTRACTOR SHALL APPLY INDUSTRY BEST PRACTICE SO WORKS SHALL NOT DISTURB OR AFFECT NEARBY RESIDENTS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES. CONTRACTOR TO ENSURE THAT ACCESS AND SERVICES TO EXISTING PROPERTIES ARE AVAILABLE AT ALL TIMES.
7. THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING SERVICE CROSSINGS AND CONNECTION POINTS PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION RPEQ OF ANY DISCREPANCIES BETWEEN ACTUAL AND PROPOSED DESIGN LEVELS. THE CERTIFICATION OF THIS DESIGN IS BASED ON SURVEY AND POT HOLE INFORMATION PROVIDED BY THE SURVEYOR AND CONTRACTOR AT THE TIME OF DESIGN.
8. THESE ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE APPROVED VEGETATION MANAGEMENT PLAN, WHERE APPLICABLE. WHEN IN DOUBT, ALL EXISTING TREES ARE TO REMAIN UNLESS DIRECTED OTHERWISE.
9. THE CONTRACTOR SHALL NOTE DURING THE COURSE OF THE WORKS WHEN JOINT INSPECTIONS WITH THE AUTHORITY AND THE SUPERINTENDENT ARE REQUIRED. THESE INCLUDE PRE-STARTS, SUBGRADES, PRE-SEALS, CLEARING, AND OTHER SUCH INSPECTIONS AS NOMINATED DURING THE PRE-START, IN THE APPROVAL AND THE SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE NO WORKS PROCEED PAST THE INSPECTION POINT UNTIL THE JOINT INSPECTION HAS BEEN SUCCESSFULLY COMPLETED.

ALL ENVIRONMENTAL PROTECTION
MEASURES SHALL BE IMPLEMENTED
PRIOR TO ANY CONSTRUCTION WORK
COMMENCING, INCLUDING CLEARING

ALL WATER AND SEWERAGE CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE QUEENSLAND WORK HEALTH AND SAFETY ACT 2011. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION. PHONE 1300 362 128

LIVE WORKS NOTES:

1. ALL WORK ON EXISTING WATER TO BE CARRIED OUT BY THE CONTRACTOR (IN ACCORDANCE WITH AN APPROVED NETWORKS ACCESS PERMIT) UNDER THE SUPERVISION OF LOGAN WATER, AT THE DEVELOPERS EXPENSE.
2. PRE-CHLORINATED FITTINGS SHALL BE USED FOR ALL DRINKING WATER LIVE WORKS CONNECTIONS.

WATER RETICULATION NOTES

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT WSAW WATER SUPPLY CODE OF AUSTRALIA SPECIFICATIONS AND STANDARD - SOUTH EAST QUEENSLAND SERVICE PROVIDERS EDITION.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. THE CONSTRUCTION OF THE WATER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT TO THE RETICULATION SYSTEM.
4. ALL MATERIALS USED IN THE WORKS SHALL COMPLY WITH THE SEQ-SP'S ACCEPTED PRODUCTS AND MATERIALS LIST OR BE APPROPRIATELY SHOWN, LISTED AND DEFINED IN THE ENGINEERING SUBMISSION SO THAT THE ALTERNATIVE PRODUCT OR MATERIAL CAN BE ASSESSED AND IF APPROPRIATE, APPROVED BY THE SEQ-SP.
5. ADOPT LIP OF KERB OR SHOULDER OF ROAD AS PERMANENT LEVEL.
6. COVER ON MAINS FROM PERMANENT LEVEL TO BE AS SHOWN IN SEQ-WAT-1200-2.
7. CONDUITS TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD DRAWINGS.
8. A WATER METER SUPPLIED AT THE DEVELOPER'S COST, IS TO BE INSTALLED AT THE SERVICE POINT OF EACH LOT IN ACCORDANCE WITH THE STANDARD DRAWING FOR THE SEQ-SP.
9. HYDRANTS TO BE INSTALLED AT THE END OF ALL NEW MAINS WHERE REQUIRED FOR TESTING AND COMMISSIONING PURPOSES.

ENVIRONMENTAL CONDITIONS

VEGETATION PROTECTION

- A. TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
- B. WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.
- C. TREE ROOTS SHALL BE TUNNELED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL ARBORIST FOR FURTHER ADVICE.
- D. ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN APPROVED ARBORIST.

SOIL

- A. TOPSOIL AND SUBSOIL SHALL BE STOCKPILED SEPARATELY.
- B. CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.

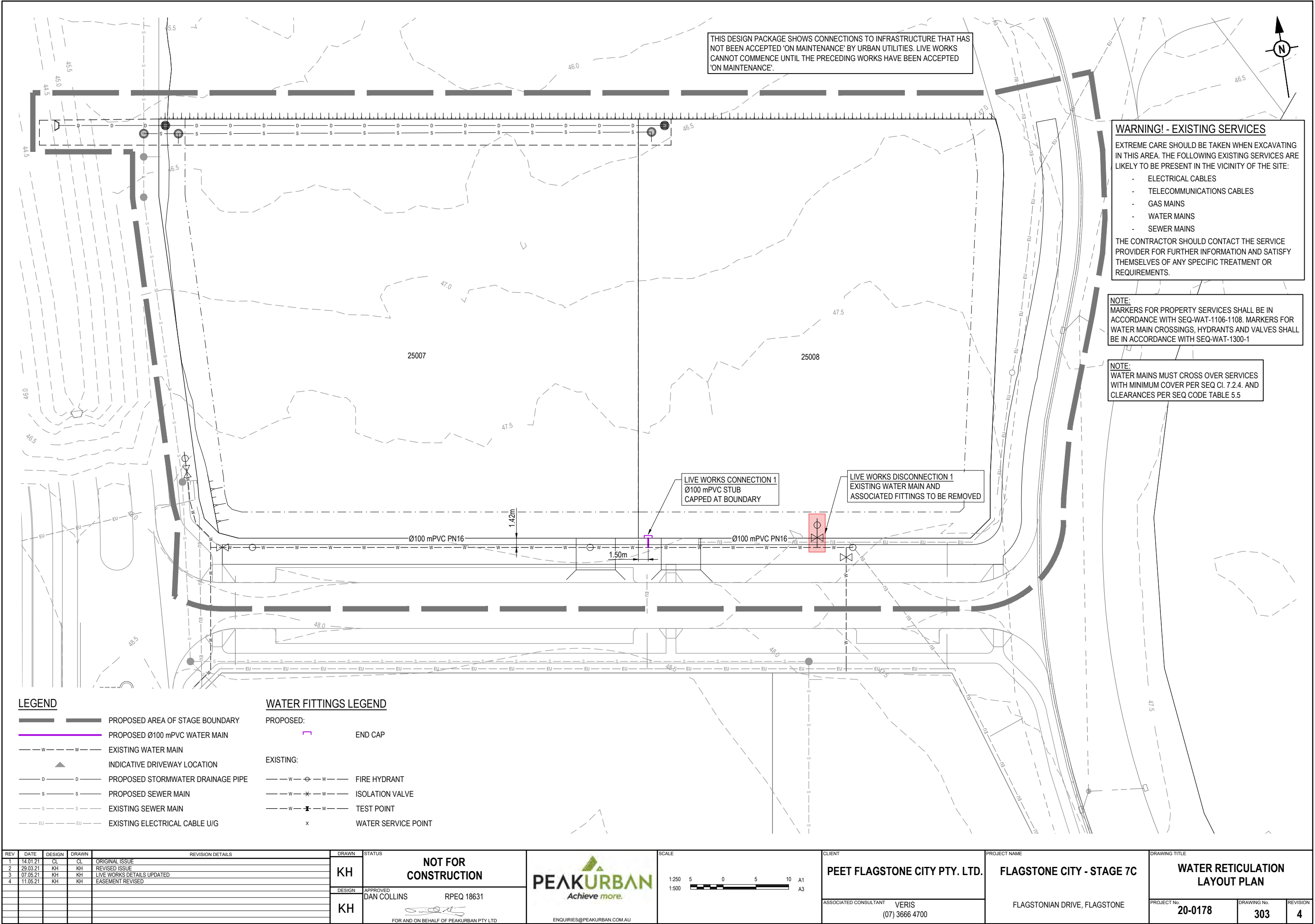
CREEK CROSSINGS

- A. SILTATION CONTROL MEASURES SHALL BE PLACED DOWNSTREAM OF ANY EXCAVATION WORK.
- B. APPROPRIATE SEDIMENT CONTROLS SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK.
- C. NO SOIL SHALL BE STOCKPILED WITHIN 5m OF THE CREEK.

REHABILITATION

- A. PREDISTURBANCE SOIL PROFILES AND COMPACTION LEVELS SHALL BE REINSTATED.
- B. PREDISTURBANCE VEGETATION PATTERNS SHALL BE RESTORED.

REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS	SCALE		CLIENT	PROJECT NAME	DRAWING TITLE		
1	14.01.21	CL	CL	ORIGINAL ISSUE		KH	NOT FOR CONSTRUCTION	 PEAKURBAN <i>Achieve more.</i>	1:2000 20 0 20 40 60 80 100 A1 1:4000  A3	PEET FLAGSTONE CITY PTY. LTD.	FLAGSTONE CITY - STAGE 7C	WATER RETICULATION COVER PLAN		
2	29.03.21	KH	KH	REVISED ISSUE										
3	07.05.21	KH	KH	LIVE WORKS DETAILS UPDATED										
						DESIGN	APPROVED DAN COLLINS RPEQ 18631	 FOR AND ON BEHALF OF PEAKURBAN PTY LTD ENQUIRIES@PEAKURBAN.COM.AU		ASSOCIATED CONSULTANT VERIS (07) 3666 4700	FLAGSTONIAN DRIVE, FLAGSTONE	PROJECT No.	DRAWING No.	REVISION
						KH						20-0178	302	3



APPENDIX D – PLAN OF DEVELOPMENT (POD)

NOT PART OF THIS
APPROVAL



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ENGINEERS

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Lot 25008 Notes

Use & Function:

The development site is intended to function as a village scale child care centre within the Flagstone Town Centre. The Plan of Development proposes a scale and intensity of development that is commensurate with a small business node that compliments the long term objectives and demand in the Town Centre. Any future change to the Use & Function and associated details set out in this plan will require approval from Peet.

Architecture and built form in the Town Centre is intended to contribute to an urban character including; activated edges, diverse built form solutions addressing key subtropical design considerations, and varied uses integrated with adjoining streets and public realm. All development will incorporate built form, urban design and social considerations to facilitate a safe and security conscious environment which prioritises pedestrians, cyclists and vehicles in that order. All buildings and outdoor areas are to be designed to comply with CPTED Principles and provide for equitable access throughout.

Approved Uses:

Lot 25008: Child Care Centre.

Built Form Outcomes:

Building Height & Site Cover:

Maximum building height is 2 storeys (15m).

Buildings may cover up to 75% of the site, providing that:

- All other planning and development requirements of the Plan of Development (POD) are complied with.
- Development is in context with, and visually compatible with the appearance of any neighbouring and/or surrounding buildings.

Building Orientation:

Buildings address the street frontage or frontages by:

- Being aligned generally parallel to the street;
- Providing clear, legible entry points for both pedestrians and vehicles; and
- Maximising opportunities for overlooking and casual surveillance of streets, public spaces, parking areas and pedestrian/cycling paths.

Signage:

Signage / advertising device location and size to be in accordance with the Approved Planning Scheme and may require OPW approval.

Lighting:

All car parking and public areas will be provided with lighting for public safety and must comply with AS1158 Lighting for Roads and Public Spaces Set.

Lighting should be located and directed to limit light spill beyond the site boundary and comply with AS4282 Control of the Obtrusive Effects of Outdoor Lighting.

Setbacks:

Primary and Secondary Street Frontage: Minimum 3.0m to built form, unless dimensioned otherwise on the plan. Planting to be provided to 80% of the car park frontage within the setback.

Side and Rear: Minimum 3.0m to built form, unless dimensioned otherwise on the plan.

Building Articulation:

Maximum length of any one building plane is 20.0m. Buildings that extend beyond this must demonstrate visually significant variation using horizontal and vertical articulation. Buildings on corners should address both street frontages, and express a strong visual appearance.

Service Screening:

All refuse and plant areas will be suitably screened to all boundaries.

All air conditioning, lift rooms, ventilation plant and other equipment located on the roof or externally around the building will be treated as an integral part of the building and either screened from view or painted to match the surrounding building.

Landscaping:

Minimum landscape area to be 5% of the site.

Landscape to be designed with CPTED principles in mind to reduce area of possible concealment close to footpaths, parking areas and other publicly accessible spaces.

Landscaping must be provided between Street frontages and carparking areas.

Fencing:

Street frontages should generally be unfenced. Fencing that is adopted to ensure the privacy of children within play spaces is acceptable.

Fence locations to be consistent with building form and located behind building setbacks.

Car Parking & Traffic:

Vehicle access to and from the site is limited to the nominated locations as shown in the Plan of Development.

Landscaping must be provided between Street frontages and carparking areas.

Alternative shading solutions, such as shade sails, are also permitted.

Car parking will be provided in accordance with the Approved Uses and Table 1 - Car Parking Rate Requirements.

Off-street car parking, loading and service must comply with AS 2890.

Table 1 - Car Parking Rate Requirements:

Approved Use	Car Parking Rates
Child Care Centre	1 space per 10 approved spaces for children; plus 1 space per full time employee based on the maximum number of employees on the premises at any one time.

Legend

Lot 25008 Boundary

Easement

POD Controls

Vehicle Access Point

Frontage Type

Primary Street Frontage

Secondary Street Frontage

Side and Rear Frontage

Note:

All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.

Dimensions have been rounded to the nearest 0.1 metres.

Areas have been rounded down to the nearest 5m².

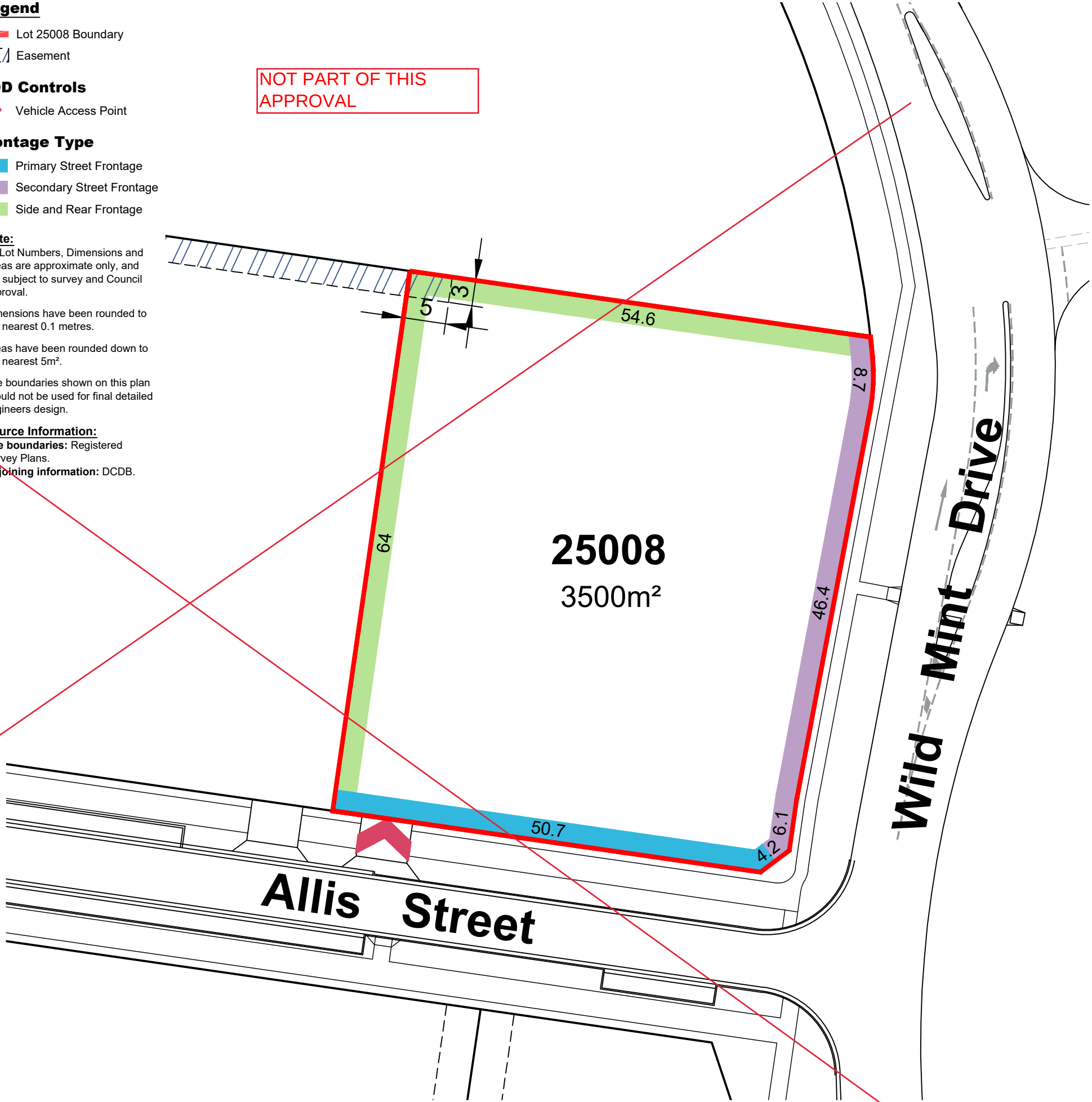
The boundaries shown on this plan should not be used for final detailed engineers design.

Source Information:

Site boundaries: Registered Survey Plans.

Adjoining information: DCDB.

NOT PART OF THIS APPROVAL



Flagstone Precinct 1
Plan of Development
Stage 7C - Lot 25008

PLAN REF: 110056 – 503
DATE: 20 NOVEMBER 2020
CLIENT: PEET
DRAWN BY: MD
CHECKED BY: MD



0 5 10 15 20 25 1 : 500 @ A3

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APPENDIX E – FLAGSTONE STAGE 7 – TOWN CENTRE EAST – PLAN OF SUBDIVISION



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Land Budget Stage 7

Land Use	Stage 7A	Stage 7B	Stage 7C	Stage 7D	Stage 7E	Stage 7F	Stage 7G	Stage 7I	Overall
Area of Subject Site	3,280 ha	1,770 ha	0,815 ha	1,316 ha	0,298 ha	0,357 ha	4,871 ha	3,161 ha	15,868 ha
Saleable Area									
Town Centre Frame Allotments	2,253 ha	1,265 ha	0,800 ha	0,997 ha	0,192 ha	0,357 ha	4,681 ha	2,206 ha	12,751 ha
Service Allotments	—	—	—	—	—	—	—	0,016 ha	0,016 ha
Balance Super Allotments	—	—	—	—	—	—	0,030 ha	0,415 ha	0,445 ha
Total Area of Allotments	2,253 ha	1,265 ha	0,800 ha	0,997 ha	0,192 ha	0,357 ha	4,711 ha	2,637 ha	13,212 ha
Road									
Collector Road	—	0,223 ha	—	0,307 ha	—	—	0,160 ha	—	0,690 ha
Local Road	0,953 ha	0,262 ha	—	—	0,106 ha	—	0,524 ha	1,845 ha	11,6%
Road Widening	0,074 ha	0,020 ha	0,015 ha	0,012 ha	—	—	—	0,121 ha	0,8%
Total Area of New Road	1,027 ha	0,505 ha	0,015 ha	0,319 ha	0,106 ha	—	0,160 ha	0,524 ha	2,656 ha
									16,7%

Notes:
Stage 7I approved under separate EDQ application (DEV2018/917).
Stage 7H approved under separate Logan City Council application (COM/3/2020).

Yield Breakdown Stage 7

Allotments	Stage 7A	Stage 7B	Stage 7C	Stage 7D	Stage 7E	Stage 7F	Stage 7G	Stage 7I	Overall
Super Lots									
Town Centre Frame	2	3	2	1	1	1	2	11	23
Service Allotments	—	—	—	—	—	—	—	1	1
Balance Super Allotments	—	—	—	—	—	—	1	1	2
Total Allotments	2	3	2	1	1	1	3	13	26

Notes:
Stage 7I approved under separate EDQ application (DEV2018/917).
Stage 7H approved under separate Logan City Council application (COM/3/2020).

Legend

- Site Boundary
- Stage Boundary
- Q5 Flood Line
- Q100 Flood Line
- Category B area (Remnant Vegetation)
- Access Easement
- Sewer Easement
- Road Widening
- Area Subject to Separate Development Approval
- Mixed Business, Service and Light Industry Allotments
- Environmental Management and Conservation
- Drainage

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2014/637/23

Date: 4 November 2020



Queensland
Government

Note:
All dimensions and areas are approximate
only, and are subject to survey and Council
approval.

Dimensions have been rounded to the
nearest 0.1 metres.

Areas have been rounded down to the
nearest 5m².

The boundaries shown on this plan should
not be used for final detailed engineers
design.

Source Information:
Site boundaries: Registered Survey Plans
Adjoining information: DCDB

REVISION

A:	06/05/2015 RFI Response
B:	19/05/15 Amend Staging
C:	18/09/15 Amend Layout
D:	13/05/16 Amend Lots Stage 7A
E:	21/02/17 Amend Staging
F:	22/02/17 Amend Staging and Lots
G:	28/02/18 Amend Layout
H:	12/03/18 Amend Layout
I:	08/05/18 Amend Footpath
J:	27/07/18 Amend Stage 7C
K:	08/10/20 Amend Staging and Layout

PLAN REF: 110056 - 270

Rev No: K

DATE: 08 OCT 2020

CHECKED BY: MD

0 20 40 60 80 100 1:1,500 @ A1

FLAGSTONE PLAN OF SUBDIVISION STAGE 7 - TOWN CENTRE EAST

URBAN DESIGN
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Land Budget Stage 7

Land Use	Stage 7A	Stage 7B	Stage 7C	Stage 7D	Stage 7E	Stage 7F	Stage 7G	Stage 7I	Overall
Area of Subject Site	3,280 ha	1,770 ha	0,815 ha	1,316 ha	0,298 ha	0,357 ha	4,871 ha	3,161 ha	15,868 ha
Area	3,280 ha	1,770 ha	0,815 ha	1,316 ha	0,298 ha	0,357 ha	4,871 ha	3,161 ha	15,868 ha
Percentage	20.7%	11.1%	5.2%	8.3%	1.9%	2.3%	30.7%	20.0%	100.0%
Saleable Area									
Town Centre Frame Allotments	2,253 ha	1,265 ha	0,800 ha	0,997 ha	0,192 ha	0,357 ha	4,681 ha	2,206 ha	12,751 ha
Service Allotments	—	—	—	—	—	—	—	0,016 ha	0,016 ha
Balance Super Allotments	—	—	—	—	—	—	0,030 ha	0,415 ha	0,445 ha
Total Area of Allotments	2,253 ha	1,265 ha	0,800 ha	0,997 ha	0,192 ha	0,357 ha	4,711 ha	2,637 ha	13,212 ha
Road									
Collector Road	—	0,223 ha	—	0,307 ha	—	—	0,160 ha	—	0,690 ha
Local Road	0,953 ha	0,262 ha	—	—	0,106 ha	—	—	0,524 ha	1,845 ha
Road Widening	0,074 ha	0,020 ha	0,015 ha	0,012 ha	—	—	—	—	0,121 ha
Total Area of New Road	1,027 ha	0,505 ha	0,015 ha	0,319 ha	0,106 ha	—	0,160 ha	0,524 ha	2,656 ha
Notes:	Stage 7I approved under separate EDQ application (DEV2018/917).								
Stage 7H approved under separate Logan City Council application (COM/3/2020).									

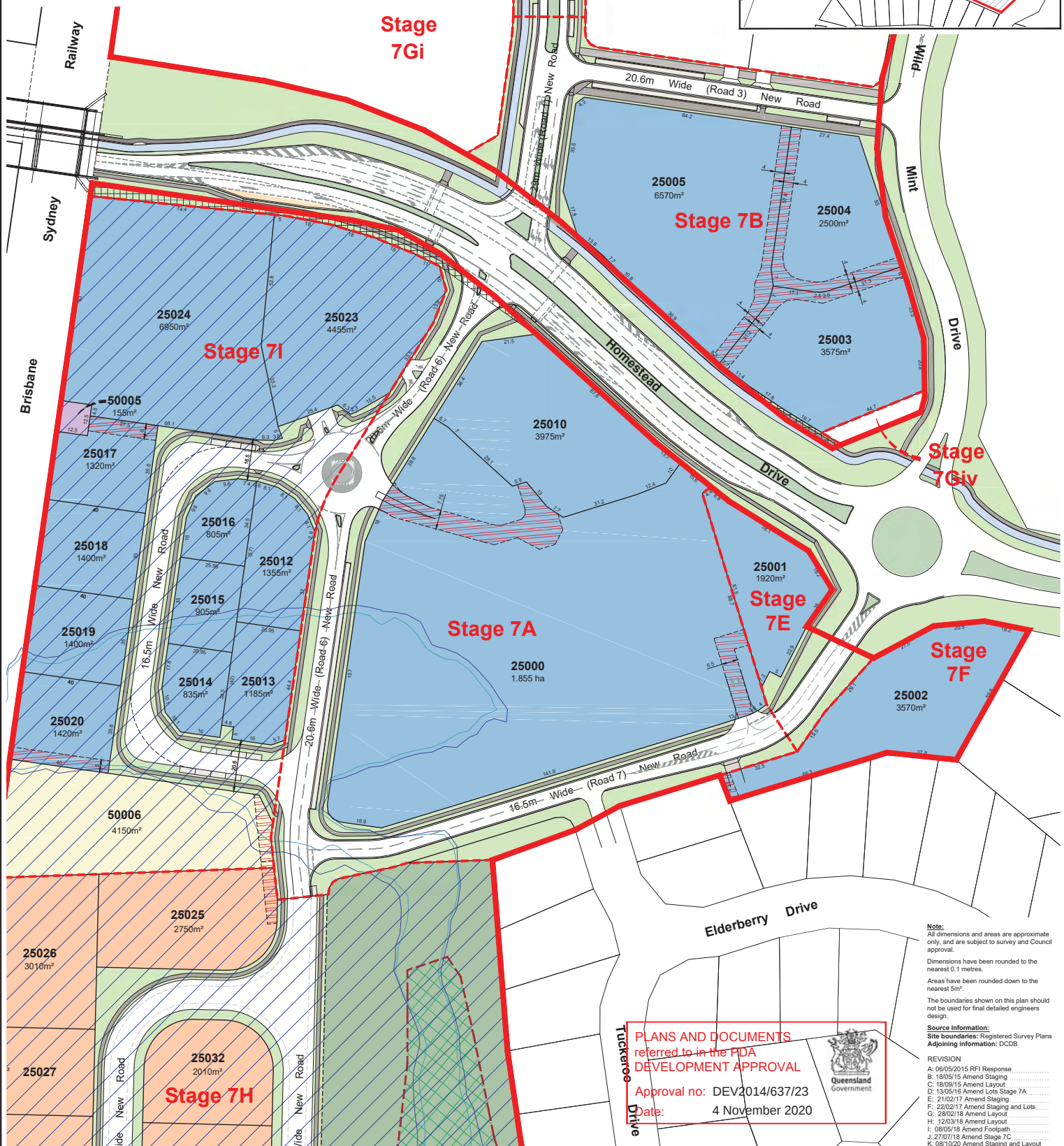
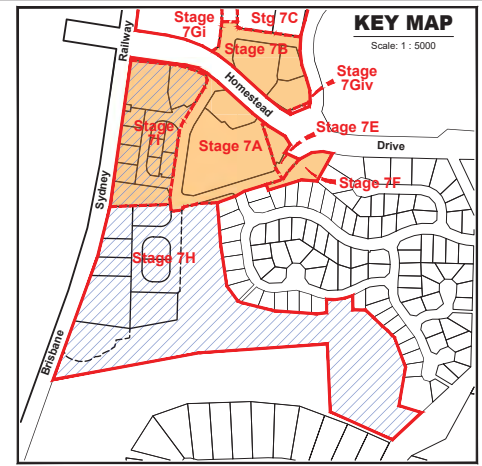
Yield Breakdown Stage 7

Allotments	Stage 7A	Stage 7B	Stage 7C	Stage 7D	Stage 7E	Stage 7F	Stage 7G	Stage 7I	Overall
Super Lots	2	3	2	1	1	1	2	11	23
Town Centre Frame	—	—	—	—	—	—	—	—	—
Service Allotments	—	—	—	—	—	—	—	—	—
Balance Super Allotments	—	—	—	—	—	—	—	—	—
Total Allotments	2	3	2	1	1	1	3	13	26

Notes:
Stage 7I approved under separate EDQ application (DEV2018/917).
Stage 7H approved under separate Logan City Council application (COM/3/2020).

Legend

- Site Boundary
- Stage Boundary
- Q5 Flood Line
- Q100 Flood Line
- Category B area (Remnant Vegetation)
- Access Easement
- Sewer Easement
- Road Widening
- Area Subject to Separate Development Approval
- Mixed Business, Service and Light Industry Allotments
- Environmental Management and Conservation
- Drainage



Note:
All dimensions and areas are approximate only, and are subject to survey and Council approval.
Dimensions have been rounded to the nearest 0.1 metres.
Areas have been rounded down to the nearest 5m².
The boundaries shown on this plan should not be used for final detailed engineers design.

Source Information:
Site boundaries: Registered Survey Plans
Adjoining Information: DCDB

REVISION
A: 06/05/2015 RFI Response
B: 18/05/15 Amend Staging
C: 18/09/15 Amend Layout
D: 13/05/16 Amend Lots Stage 7A
E: 21/02/17 Amend Staging
F: 22/02/17 Amend Staging and Lots
G: 28/02/18 Amend Layout
H: 12/03/18 Amend Layout
I: 08/05/18 Amend Footpath
J: 27/07/18 Amend Stage 7C
K: 09/10/20 Amend Staging and Layout

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL
Approval no: DEV2014/637/23
Date: 4 November 2020



PLAN REF: 110056 - 271

Rev No: K

DATE: 08 OCT 2020

CLIENT: UNW / MD

DRAWN BY: MD

CHECKED BY: MD



0 10 20 30 40 50 1:750 @ A1

FLAGSTONE
PLAN OF SUBDIVISION
STAGE 7A, 7B, 7E, 7F & 7I - TOWN CENTRE EAST

URBAN DESIGN

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- Site Boundary
- Stage Boundary
- Q5 Flood Line
- Q100 Flood Line
- Category B area (Remnant Vegetation)
- Access Easement
- Sewer Easement
- Road Widening
- Area Subject to Separate Development Approval
- Mixed Business, Service and Light Industry Allotments
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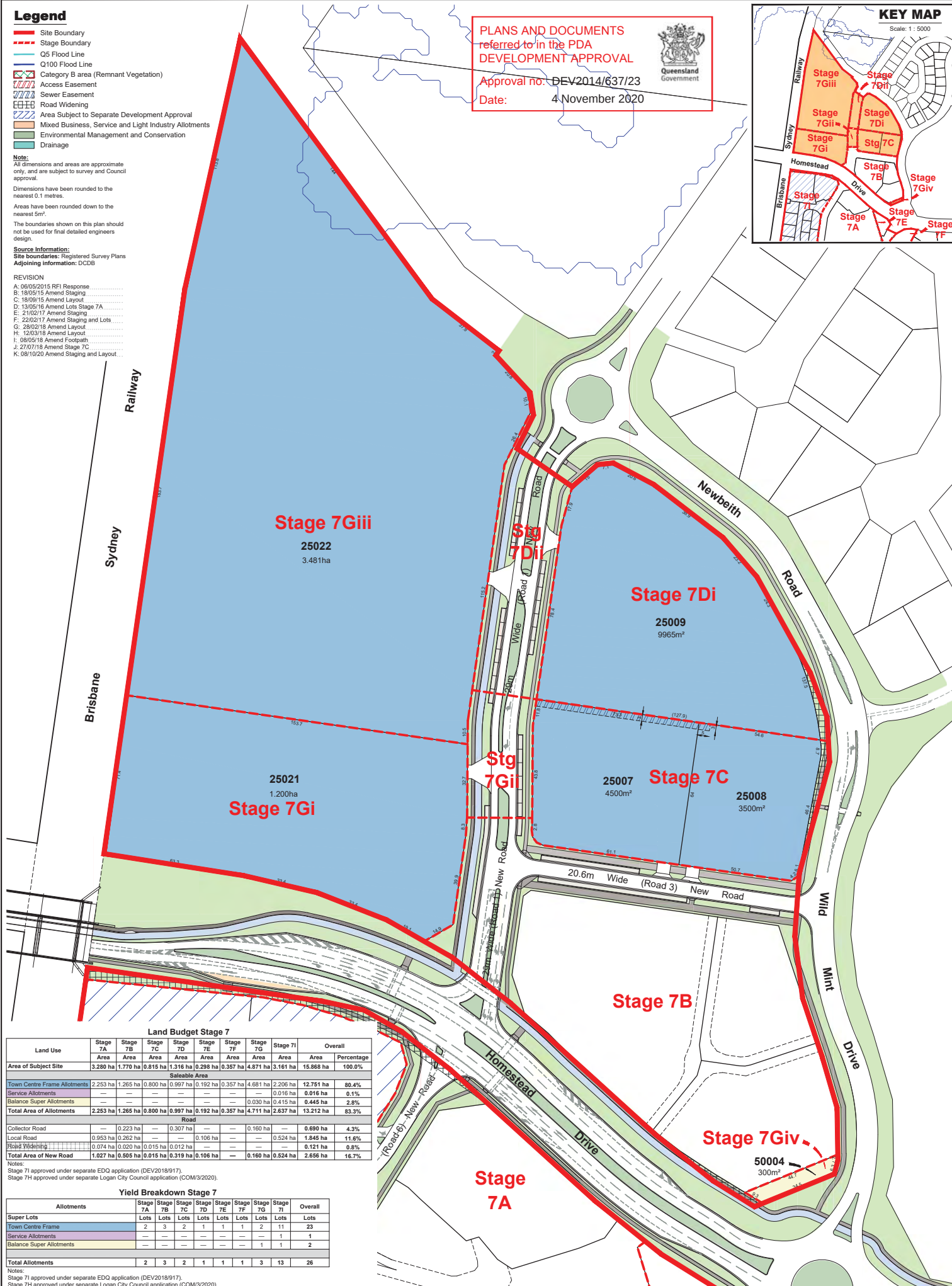
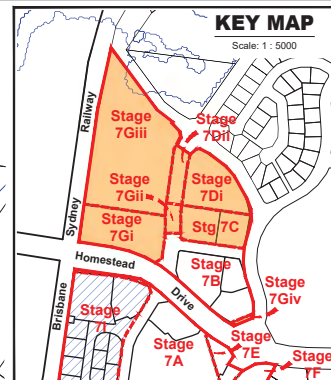
Source Information:
Site boundaries: Registered Survey Plans
Adjoining information: DCDB

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J: 27/07/18 Amend Stage 7C
K: 08/10/20 Amend Staging and Layout

~~Approval no: DEV2014/637/23~~
~~Date: 4 November 2020~~



Scale: 1 : 5000



Land Budget Stage 7

Land Use	Stage 7A	Stage 7B	Stage 7C	Stage 7D	Stage 7E	Stage 7F	Stage 7G	Stage 7I	Overall	
	Area	Area	Area	Area	Area	Area	Area	Area	Area	Percentage
Area of Subject Site	3,280 ha	1,770 ha	8,815 ha	1,516 ha	0,298 ha	0,357 ha	4,871 ha	3,161 ha	15,868 ha	100.0%
Town Centre Frame Allotments	2,253 ha	1,265 ha	0,800 ha	0,997 ha	0,192 ha	0,357 ha	1,468 ha	2,016 ha	12,751 ha	80.4%
Service Allotments	—	—	—	—	—	—	—	1,206 ha	0,016 ha	0.1%
Balance Super Allotments	—	—	0,800 ha	—	—	—	0,030 ha	0,415 ha	0,445 ha	2.8%
Total Area of Allotments	2,253 ha	1,265 ha	0,800 ha	0,997 ha	0,192 ha	0,357 ha	1,711 ha	2,637 ha	13,212 ha	83.3%
	Road									
Collector Road	—	0,223 ha	—	0,307 ha	—	—	0,160 ha	—	0,690 ha	4.3%
Local Road	0,953 ha	0,252 ha	—	0,106 ha	—	—	—	0,524 ha	1,645 ha	11.8%
Footpath	0,074 ha	0,020 ha	0,015 ha	0,012 ha	—	—	—	—	0,121 ha	0.8%
Total Area of New Road	1,027 ha	0,505 ha	0,015 ha	0,319 ha	0,106 ha	—	0,160 ha	0,524 ha	2,655 ha	16.7%

Notes:
Stage 7I approved under separate EDQ application (DEV2018/917).
Stage 7H approved under separate Logan City Council application (COM/3/2020).

Yield Breakdown Stage 7

Allotments	Stage 7A	Stage 7C	Stage 7D	Stage 7E	Stage 7F	Stage 7G	Stage 7H	Stage 7I	Overall
Super Lots	Lots	Lots	Lots	Lots	Lots	Lots	Lots	Lots	Lots
Town Centre Frame	2	3	2	1	1	1	2	11	23
Service Allotments	—	—	—	—	—	—	—	1	1
Balance Super Allotments	—	—	—	—	—	—	1	1	2
Total Allotments	2	3	2	1	1	1	3	13	26

Notes:
 Stage 7I approved under separate EDQ application (DEV2018/917).
 Stage 7H approved under separate Logan City Council application (COM/3/2020)

PLAN REF: 110056-272

Rev No: K
DATE: 08 OCT 2020
CLIENT: PEET
DRAWN BY: WNW / MD
CHECKED BY: MD



0 10 20 30 40 50 1 : 750 @ A1

FLAGSTONE
PLAN OF SUBDIVISION
STAGE 7C, 7D & 7G - TOWN CENTRE EAST

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APPENDIX F – AS CONSTRUCTED SURVEY INFORMATION



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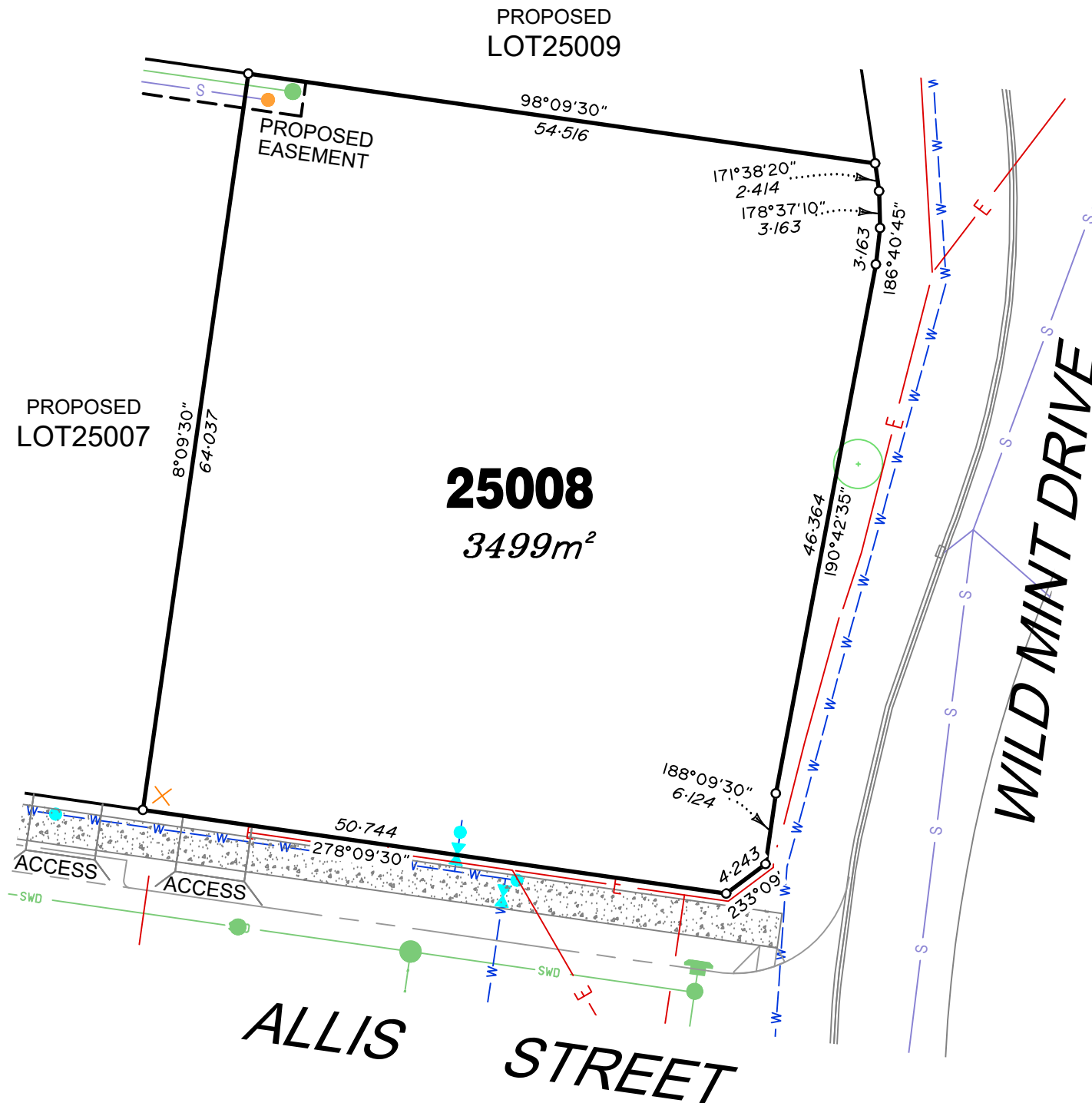
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LEGEND

Sewer line	
Sewer Manhole	
Roofwater Drainage line and Catch Pit	
Stormwater Drainage Line	
Stormwater Manhole	
Stormwater Pit	
Water Main	
Water Conduit	
Water Service Point of Entry	
Underground Electricity, Street Light, Electricity Pillar & NBN	
Developer Fencing	
Concrete Pathway	
Proposed Services Easement	
Landscape Street Tree	

ADDITIONAL NOTES:

Allotments used as Multiple Residential Allotments in accordance with the approved Plan of Development may have a reduced primary road setback to 3.0metres as noted on the Plan of Development Table.

Compaction of any fill material placed on this site shall be completed to level one inspection and testing services in accordance with AS3798-2007.

Location of sewer, roofwater, stormwater, water reticulation and electricity lines, manholes and pits are those shown on engineering design drawings, supplied by Peak Urban, and may differ from the as-constructed location.

Plan of Development information Supplied by RPS Group PLC.

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