

1 Introduction

Northrop Consulting Engineers have prepared a Preliminary Construction Management Plan (CMP) for the 0.73Ha development site located at 50 Honeysuckle Dr, Newcastle (Lot 2000 DP 1145678). The development area is located on the north-western side of the intersection of Honeysuckle Dr and Worth Place, and is herein known as 'the site'.

This preliminary CMP has been designed as a document that sets out the broad and preliminary parameters for the management of the construction site, including traffic, noise and vibration, waste, dust, soil and water and the overall impact to adjacent sites. This document is not meant to be a comprehensive Management Plan, but rather is intended to fill the void of providing sufficient management information for the purposes of approval (to satisfy clauses 6 and 7 of the Secretary's Environmental Assessment Requirements SSD 8019) prior to the engagement of a suitably qualified contractor. It will be the responsibility of the successful contractor to prepare, disseminate and implement an appropriate and comprehensive Management Plan during construction.

This plan is specific to the work detailed by the Civil Engineering Drawings (Northrop Job Number: NL167162).

2 Overall Site Management

2.1 General Site Management

The successful Contractor shall be responsible for the day to day site management, operation and protection of all aspects during the construction of the works. The Contractor shall ensure the following are adequately achieved and implemented:

- The Site Manager (Contractor) will be contactable at all times work is being carried out. The Site Manager will also be contactable via a messaging system outside of approved work hours. A sign will be placed on the site enclosure fence in a prominent position clearly indicating the name and contact numbers of the Site Manager and indicating that the Site Manager will receive calls in relation to handling of complaints.
- During construction, a copy of the approved and certified plans, specifications and documents incorporating conditions of approval and certification are to be kept on the site for each stage of work and made available for review by authorised personnel.
- A complaints handling log will be kept and shall record all complainants. At a minimum, the register shall record the name and phone number, the nature of the complaint and any / all action taken to resolve each complaint. This register shall be made available upon request, to any authorised personnel.
- The proposed work shall be managed as efficiently as possible to ensure completion occurs as quickly as possible (taking into consideration the availability of materials and the need to conduct work safely and having due regard to the environment), acknowledging that the shortest timetable will likely be appreciated by nearby residents and businesses.

2.2 Safety and Security

- The Contractor shall execute the works and ensure that the work of sub-contractors is executed in a thoroughly and safe manner and the Contractor shall be responsible for injury resulting from

of all site personnel. All traffic control personnel shall have relevant accreditations, skills and be equipped with adequate protective and operational equipment.

- The management of traffic to and from the site will be the responsibility of the Site Manager. Only vehicles contracted to or associated with the proposed work will be permitted access to the site. Site access will not be permitted to vehicles outside of the approved work hours.
- Access points and egress routes will need to be reinstated to existing condition on the commencement of maintenance works. Damage to all existing landscaping, stormwater devices, pathways etc. shall be reinstated and made good to existing conditions immediately after the completion of that section of works.
- Further to the TMP the following traffic management items will need to be maintained/implemented:
 - All vehicles must enter and leave the site in a forward direction.
 - All vehicles must observe the speed limit and be cautious of vehicles and pedestrians when driving along the local roads.
 - Council officers reserve the right to alter this approval at any time if required for the safety or amenity of exiting residents.
 - All construction traffic will enter the site before loading or unloading.
 - No construction works shall be undertaken between the times of 6:00pm and 7:00am.
 - Consideration will be made to the peak traffic times generally 8:00am to 9:00am and 4:30pm to 5:00pm.
 - Non-critical deliveries will be scheduled outside peak traffic periods.
 - All loading and unloading operations are to comply with Work Cover Requirements.
 - Relevant statutory signage shall be erected at the site entry and exit points to alert pedestrians and other drivers to the movement of construction traffic. Signage shall also be provided to define the vehicle entry and exit points during all stages of construction, as well as internal access routes and speed limits.
 - Traffic control personnel will be utilised, when necessary, to control the movement of significant vehicles to and from the site and they will ensure the safety of pedestrians.
 - Visitors to the site will be provided with a clearly defined entry path from the entry point to the site office.
 - Construction traffic will not be permitted to travel over 10km/h once within site boundaries.

4 Noise and Vibration Management

Noise emissions and vibration need to be managed during the course of the works in order to protect and maintain the health and wellbeing of people who are involved in the construction works and the amenity of those that work in areas adjacent to the site.

To ensure that noise and vibrations are reduced where possible and practical, all site operations shall be undertaken with consideration given to their potential to produce noise and vibrations. A management strategy of *avoid > minimise > control* shall be developed and implemented.

4.1 Noise Sources and Management

Earthmoving equipment has the potential to cause nuisance noise, especially if large numbers of machinery are used that are in poor operating condition (i.e., noisy mufflers). Therefore, the transport, filling and removal activities associated with the works have the potential to create a social disturbance as a result of generating nuisance noise. Noise will be generated from various sources including (but not limited to) vibrating machinery, movement of trucks, operation of excavators, cranes, piling rigs and other large machinery, vehicle reversing alarms and general construction noise.

Noise management will comply with Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites (AS 2436-2010), Protection of the Environment Operations Act (1997), SafeWork NSW and Environmental Protection Authority (Noise) Regulations. This includes:

- Adhering to the hours of normal operation, with work conducted between 7 am and 6 pm on Monday to Friday's, and 8am to 1pm on Saturday's, with no work on Sunday's or a public holiday's.
- All plant equipment and vehicles' being fitted with appropriate noise suppression equipment to reduce noise levels as far as is practicable.
- The Contractor will need to demonstrate and have procedures in place to ensure that all equipment is operating in good condition.
- A list of all proposed machinery is to be provided with the expected noise levels at the operator position and an estimate provided as to the noise hazard.
- All site workers to be trained in noise reduction (such as proper use of machinery and the use of hearing protection) and informed of locations requiring the use of such equipment (this training shall form part of the general or site induction).
- All outside workers must wear appropriate hearing protection if in close proximity to machinery for extended periods. Workers exposed to elevated noise levels above occupational limits to have hearing tests.
- Warning signs should be set up in active work areas, prohibiting entry to persons without hearing protection (where necessary).
- Prior warnings are to be provided to potentially effected premises where noise levels are expected to be in excess of the nominated levels in AS/NZS2107:2000 including how long the activity is expected to last.

- Provide water trucks or sprinkling devices during construction as required to suppress dust, specifically for site vehicular traffic or dumping and filling operations.

7 Soil and Water Management

In general, the Contractor shall be responsible for adequately managing/ controlling site stormwater runoff with the aim of preventing erosion and deposition, specifically within water ways or stormwater drains.

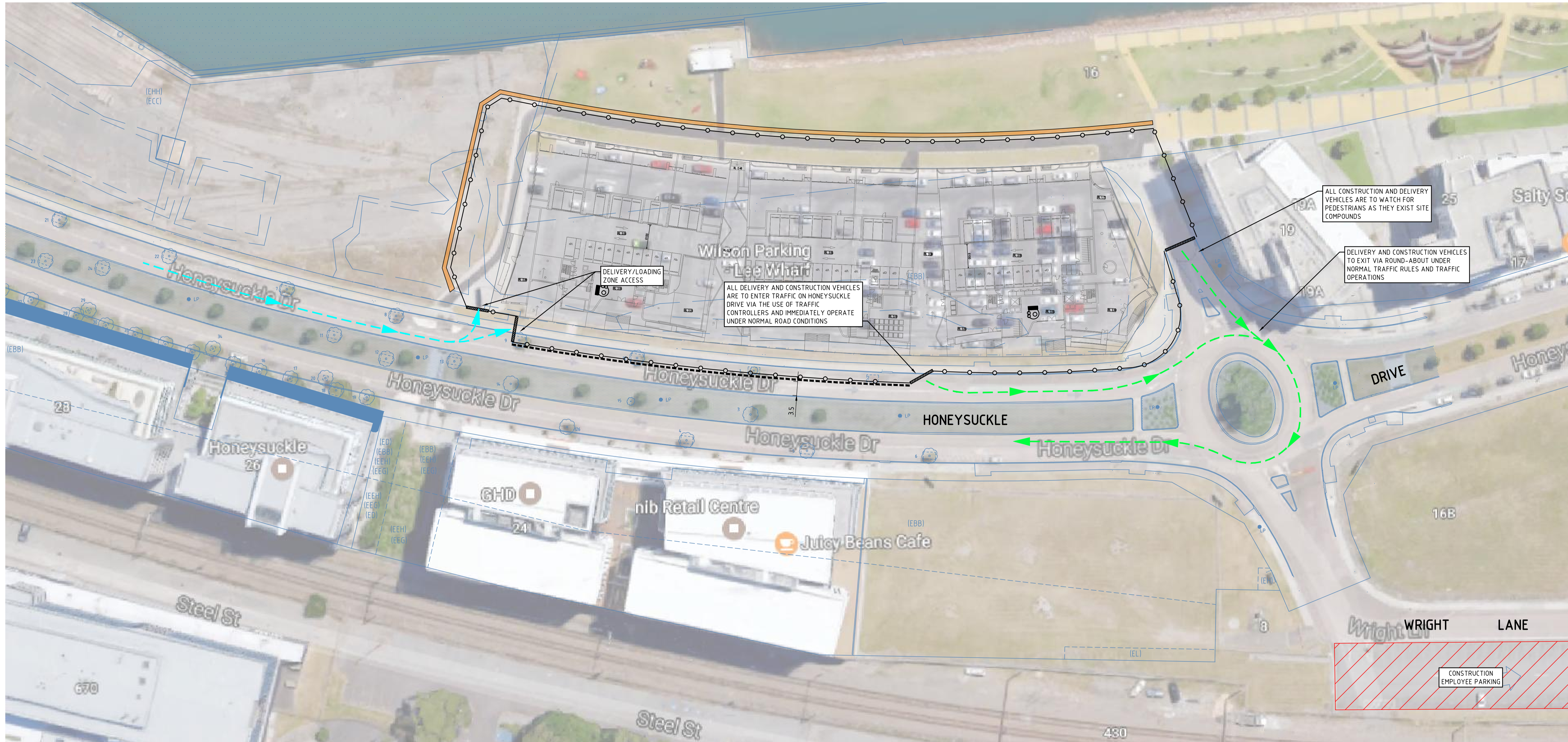
The general principles for management are to eliminate, isolate, minimise or control erosion, and therefore the potential for sediment deposition to have an effect on downstream environments.

The first step to ensure the sediment and erosion control strategy is successfully adopted, is awareness. It is therefore vital that all site personnel, including: engineers, foreman, leading hands, site managers, labours, machinery operators and administration personnel are aware of the sediment and erosion control plan. To achieve this site-wide awareness, the contractor shall undertake sediment and erosion control awareness and education as part of the site induction or general induction for all personnel.

All work is to be carried out in accordance with relevant ordinances and regulations; note in particular the requirements of Landcom's 'Managing Urban Stormwater, Soils and Construction' (the 'blue book'). The Contractor shall be responsible for adequately implementing the measures in these documents.

Specific requirements for implementation on this site include:

- Install sediment protection filters on all new and existing stormwater inlet pits in accordance with the typical detail of the 'blue book', including stormwater pits located within Honeysuckle Drive and Worth Place in the vicinity of works.
- All stormwater devices in the designated route of vehicular access shall be protected from damage. All damage to stormwater devices during the works shall be repaired or replaced immediately, otherwise an interim drainage system installed until the full repair or replacement can be undertaken. In any event, all repair and replacement shall be undertaken prior to the completion of works.
- Sediment and Erosion Control measures shall be installed prior to the commencement of construction and regularly maintained in accordance with the Engineering drawings and specifications.
- Install a 'rumble strip' or 'shakedown' at all vehicle exist points to reduce the likelihood of sediment being trafficked offsite. Manually remove (by means other than washing into stormwater drains) sediment tracked offsite on the adjacent roads. The Contractor will monitor, and maintain as necessary, a sweep clean process of the pavement surface adjacent to the ingress and egress to the site on a daily basis.
- Construct and maintain all material stockpiles in accordance with detail SD4-1 of the 'blue book'.



VERIFIER: C SMITH
 JOB MANAGER: C SMITH
 DESIGNED: J KIDD
 DRAWN: J KIDD

GENERAL VEHICLE MOVEMENT NOTES:

- DELIVERY VEHICLES TO GIVEWAY TO PEDESTRIANS AND CYCLISTS WHEN ENTERING OR LEAVING NOMINATED LOADING ZONES UNLESS UNDER THE CONTROL OF TRAFFIC CONTROLLERS.
- WORKMEN TO WEAR HIGH VISIBILITY VESTS WHEN WALKING AROUND DELIVERY VEHICLES AND THE SITE.
- PROHIBIT CONSTRUCTION WORKERS FROM PARKING ON SURROUNDING, ADJACENT AND OPPOSITE SHOULDERS INCLUDING MEDIAN STRIP ON HONEYSUCKLE DRIVE DURING CONSTRUCTION.
- ALL CONSTRUCTION EMPLOYEE VEHICLES TO USE EXISTING ESTABLISHED PARKING FACILITIES.
- CONSTRUCTION VEHICLES (FORK LIFTS, SCISSOR LIFTS ETC) ARE TO BE PARKED ON SITE AWAY FROM PEDESTRIAN TRAFFIC FLOW AT ALL TIMES.
- MINIMISE CONSTRUCTION VEHICLE AND DELIVERY ACTIVITY BETWEEN 8.00am TO 9.30am AND 4.00PM TO 5.30pm MONDAY TO FRIDAY TO AVOID CONFLICT WITH PEAK HOUR TRAFFIC VOLUMES.
- NOTIFICATION MUST BE GIVEN TO RESIDENCE AND BUSINESS WHICH REQUIRE ACCESS WITH IN TCP SIGNS OF WORKING TIMES AND ACTIVITIES.

LEGEND

- DENOTES 1.8m HIGH SECURED CONSTRUCTION FENCE
- DENOTES 'F' TYPE/JERRSEY CONCRETE BARRIER TO AUSTRALIAN AND RMS STANDARDS
- DENOTES ACCESS GATE
- DENOTES DELIVERY/CONSTRUCTION VEHICLE ACCESS (UNDER NORMAL ROAD CONDITIONS)
- DENOTES DELIVERY/CONSTRUCTION VEHICLE EGRESS (UNDER NORMAL ROAD CONDITIONS)
- DENOTES INDICATIVE EXTENT OF PROPOSED TEMPORARY PEDESTRIAN PATH.

ISSUED FOR DA

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	PRELIMINARY	JK		JK	17.03.17
A	ISSUED FOR DA	JP	CS	JK	21.03.17
B	RE-ISSUED FOR DA	WC	CS	JK	12.04.17

CLIENT

DOMAGROUP

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ARCHITECT

SJB Architects

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PROJECT

**PROPOSED DEVELOPMENT
50 Honeysuckle Drive,
Newcastle. NSW.**

DRAWING TITLE

**CONSTRUCTION VEHICLE
MOVEMENT PLAN**

JOB NUMBER

NL167162

DRAWING NUMBER

C110DA

REVISION

B

DRAWING SHEET SIZE = A1

PROPOSED DEVELOPMENT 50 Honeysuckle Drive, Newcastle. NSW.

- Civil Engineering Works -



DRAWING SCHEDULE

DRG No.	DRAWING TITLE
C01DA	COVER SHEET AND DRAWING SCHEDULE
C02DA	SITE LAYOUT PLAN
C10DA	CONCEPT EROSION AND SEDIMENT CONTROL PLAN
C11DA	CONCEPT EROSION AND SEDIMENT CONTROL DETAILS
C20DA	CONCEPT BULK EARTHWORKS PLAN - SHEET 1
C21DA	CONCEPT BULK EARTHWORKS PLAN - SHEET 2
C30DA	BASEMENT LEVEL CONCEPT CIVIL WORKS PLAN - SHEET 1
C31DA	BASEMENT LEVEL CONCEPT CIVIL WORKS PLAN - SHEET 2
C40DA	GROUND LEVEL CONCEPT CIVIL WORKS PLAN - SHEET 1
C41DA	GROUND LEVEL CONCEPT CIVIL WORKS PLAN - SHEET 2

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REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	PROJECT	DRAWING TITLE	JOB NUMBER	
A	ISSUED FOR DA	JP	CS	JK	21.03.17	 DOMAGROUP	 SJB Architects	 Newcastle Suite 4, 215 Pacific Hwy, Charlestown NSW 2290 P.O. Box 180, Charlestown NSW 2290 Ph (02) 4943 1777 Fax (02) 4943 1577 Email newcastle@northrop.com.au ABN 81 094 433 100	PROPOSED DEVELOPMENT 50 Honeysuckle Drive, Newcastle. NSW.	COVER SHEET AND DRAWING SCHEDULE	NL167162 DRAWING NUMBER C01DA REVISION B DRAWING SHEET SIZE ± A1
B	RE-ISSUED FOR DA	WC	CS	KS	12.04.17						

VERIFIER: C SMITH

JOB MANAGER: C SMITH

DESIGNED: K SINCLAIR

DRAWN: S FORBES

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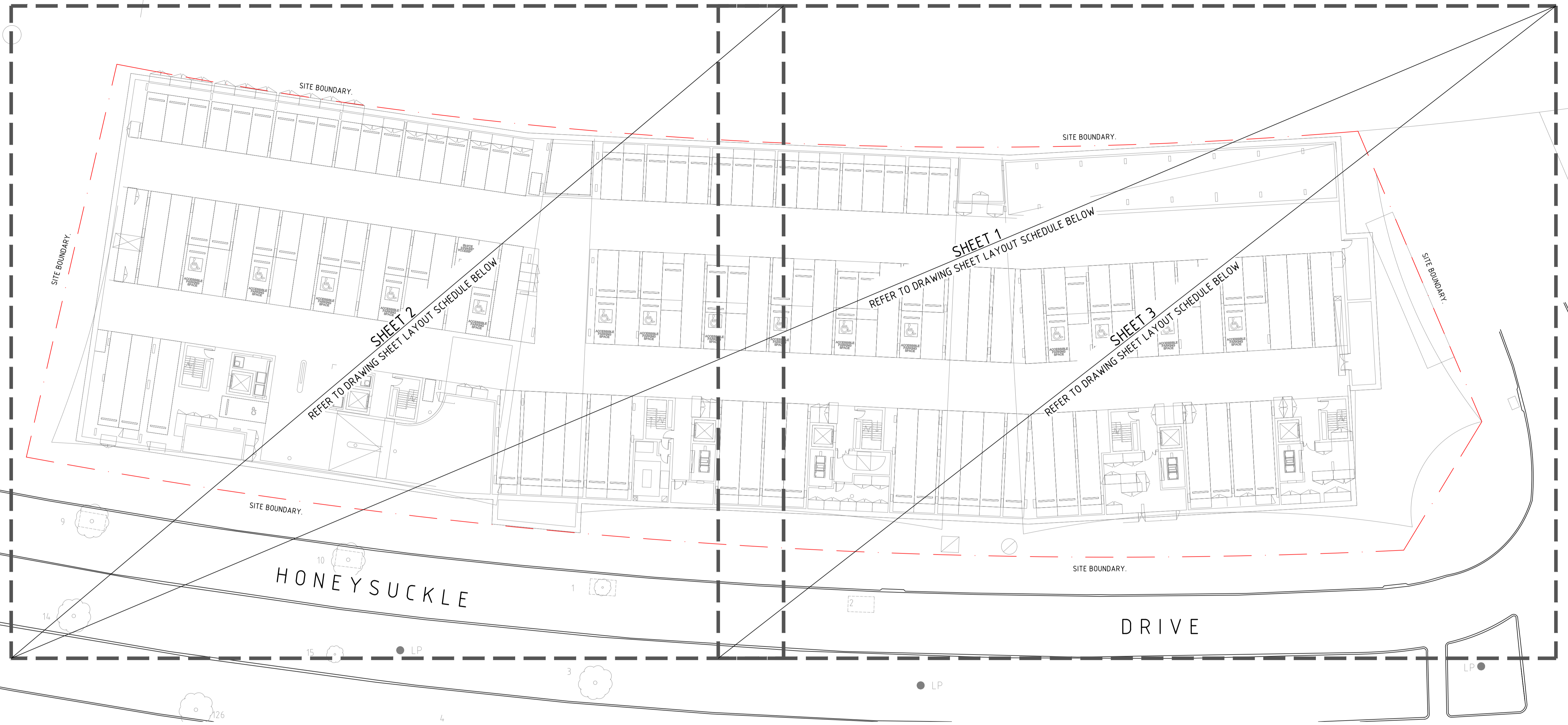
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PROPOSED DEVELOPMENT
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COVER SHEET AND
 DRAWING SCHEDULE

NL167162
 DRAWING NUMBER
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 REVISION
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 DRAWING SHEET SIZE ± A1



DRAWN: S FORBES
 DESIGNED: K SINCLAIR
 JOB MANAGER: C SMITH
 VERIFIER: C SMITH

DRAWING SHEET LAYOUT SCHEDULE			
DESIGN ELEMENT	LEVEL	SHEET	DRAWING NUMBER
CONCEPT EROSION AND SEDIMENT CONTROL PLAN			
	BASEMENT LEVEL	SHEET 1	C10DA AND C11DA
CONCEPT BULK EARTHWORKS PLAN			
	BASEMENT LEVEL	SHEET 2 AND 3	C20DA AND C21DA
CONCEPT CIVIL WORKS PLANS			
	BASEMENT LEVEL	SHEET 2 AND 3	C30DA AND C31DA
	GROUND LEVEL	SHEET 2 AND 3	C40DA AND C41DA

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CLIENT



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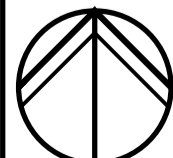
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ARCHITECT

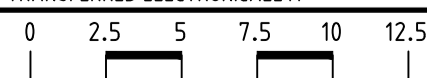


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DRAWING TITLE

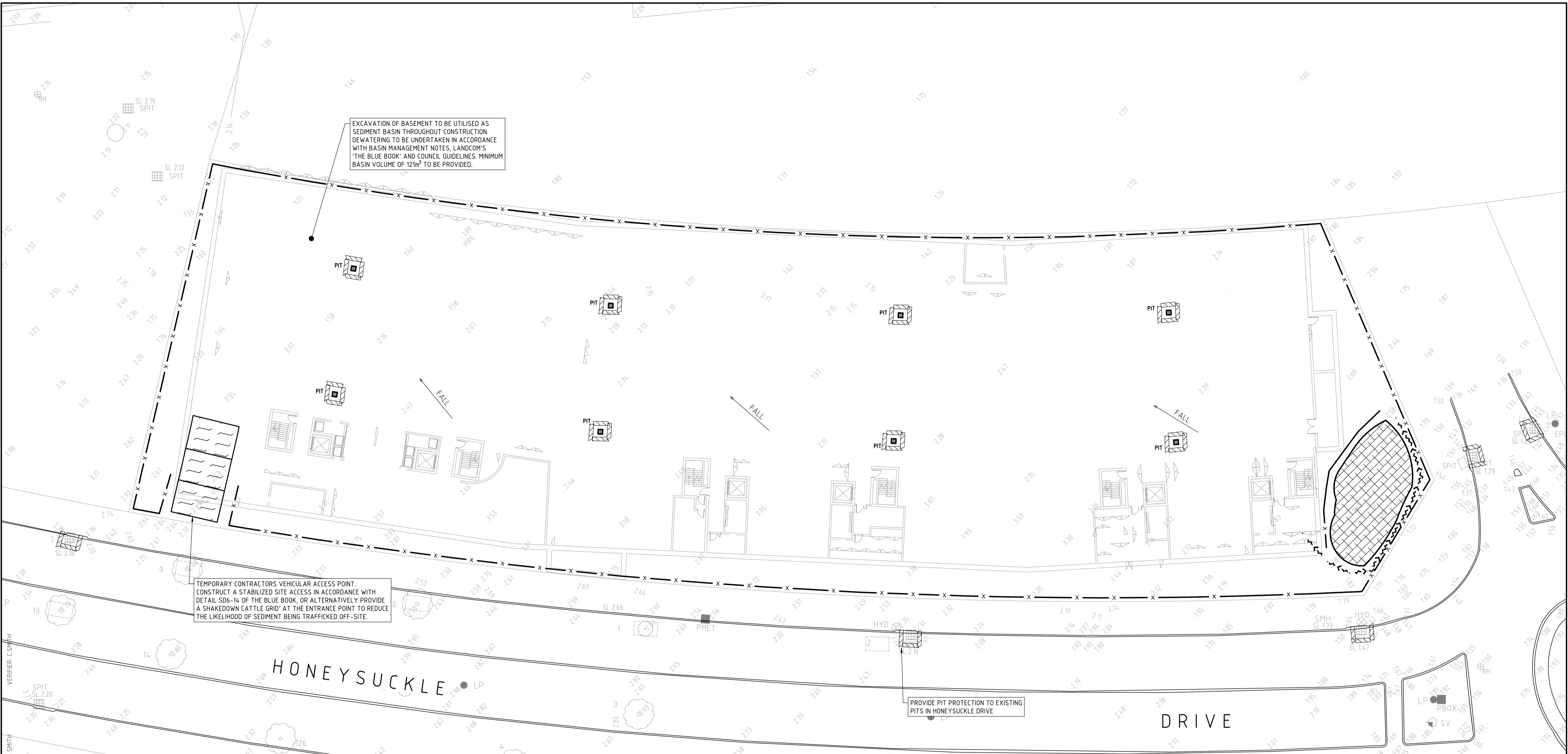
SITE LAYOUT PLAN

JOB NUMBER

NL167162

DRAWING NUMBER	REVISION
C02DA	B

DRAWING SHEET SIZE ± A1



VERIFIER: C SMITH
 JOB MANAGER: C SMITH
 DESIGNED: K SINCLAIR
 DRAWN: S FORBES

LEGEND

- DENOTES SITE BOUNDARY
- DENOTES SITE & SEDIMENT CONTROL FENCE.
- DENOTES STABILISED SITE ACCESS.
- DENOTES PROPOSED STORMWATER PIT.
- DENOTES PROPOSED STOCKPILE LOCATION.
- DENOTES SANDBAG OR GEOTEXTILE SOCK FILLED WITH NO FINES GRAVEL, PLACED IN INVERT OF GUTTER.
- DENOTES EXISTING SURFACE LEVEL.
- DENOTES CUT OFF SWALE.
- DENOTES PROPOSED DIRECTION OF FALL IN STRIPPED SURFACE.

EROSION AND SEDIMENTATION CONTROL NOTES

1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE APPROPRIATE FOR THE SEDIMENT TYPE(S) OF THE SOILS ON-SITE, IN ACCORDANCE WITH THE 'BLUE BOOK' (MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION, LANDCOM, 2004), OR OTHER CURRENT RECOGNISED INDUSTRY STANDARDS FOR EROSION AND SEDIMENT CONTROL FOR AUSTRALIAN CONDITIONS. THIS INCLUDES SEDIMENT TRAPS AND LINING OF CHANNELS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING A DETAILED WRITTEN RECORD OF ALL EROSION AND SEDIMENT CONTROLS ON-SITE DURING THE CONSTRUCTION PERIOD. THIS RECORD SHALL BE UPDATED ON A DAILY BASIS AND SHALL CONTAIN DETAILS ON THE CONDITION OF CONTROLS AND ANY/ALL MAINTENANCE, CLEANING AND BREACHES. THIS RECORD SHALL BE KEPT ON-SITE AT ALL TIMES AND SHALL BE MADE AVAILABLE FOR INSPECTION BY THE PRINCIPAL CERTIFYING AUTHORITY AND THE SUPERINTENDENT DURING NORMAL WORKING HOURS.
3. INSTALL SEDIMENT PROTECTION FILTERS ON ALL NEW AND EXISTING STORMWATER INLET PITS IN ACCORDANCE WITH EITHER THE MESH AND GRAVEL INLET FILTER DETAIL SD6-11 OR THE GEOTEXTILE INLET FILTER DETAIL SD6-12 OF THE 'BLUE BOOK'.
4. ESTABLISH ALL REQUIRED SEDIMENT FENCES IN ACCORDANCE WITH DETAIL SD6-8 OF THE 'BLUE BOOK'.
5. INSTALL SEDIMENT FENCING, OR OTHER SEDIMENT CONTROL DEVICES, AROUND INDIVIDUAL BUILDING ZONES/AREAS AS REQUIRED AND AS DIRECTED BY THE SUPERINTENDENT OR APPROPRIATE COUNCIL OFFICER.
6. ALL TRENCHES INCLUDING ALL SERVICE TRENCHES AND SWALE EXCAVATION SHALL BE SIDE-CAST TO THE HIGH SIDE AND CLOSED AT THE END OF EACH DAYS WORK.
7. THE CONTRACTOR SHALL ENSURE THAT ALL VEGETATION (TREE, SHRUB & GROUND COVER) WHICH IS TO BE RETAINED SHALL BE PROTECTED DURING THE DURATION OF CONSTRUCTION.
8. ALL VEGETATION TO BE REMOVED SHALL BE MULCHED ON-SITE AND SPREAD/STOCKPILED AS DIRECTED BY THE SUPERINTENDENT.
9. STRIP TOPSOIL IN AREAS DESIGNATED FOR STRIPPING AND STOCKPILE FOR RE-USE AS REQUIRED. ANY SURPLUS MATERIAL SHALL BE SPREAD ON-SITE AS DIRECTED BY THE SUPERINTENDENT OR REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH EPA GUIDELINES.
10. CONSTRUCT AND MAINTAIN ALL MATERIAL STOCKPILES IN ACCORDANCE WITH DETAIL SD4-1 OF THE 'BLUE BOOK' (INCLUDING CUT-OFF SWALES TO THE HIGH SIDE AND SEDIMENT FENCES TO THE LOW SIDE).
11. ENSURE STOCKPILES DO NOT EXCEED 2.0m HIGH. PROVIDE WIND AND RAIN EROSION PROTECTION AS REQUIRED IN ACCORDANCE WITH THE 'BLUE BOOK'.
12. PROVIDE WATER TRUCKS OR SPRINKLER DEVICES DURING CONSTRUCTION AS REQUIRED TO SUPPRESS DUST.
13. ONCE CUT/FILL OPERATIONS HAVE BEEN FINALIZED ALL DISTURBED AREAS THAT ARE NOT BEING WORKED ON SHALL BE RE-VEGETATED AS SOON AS IS PRACTICAL.

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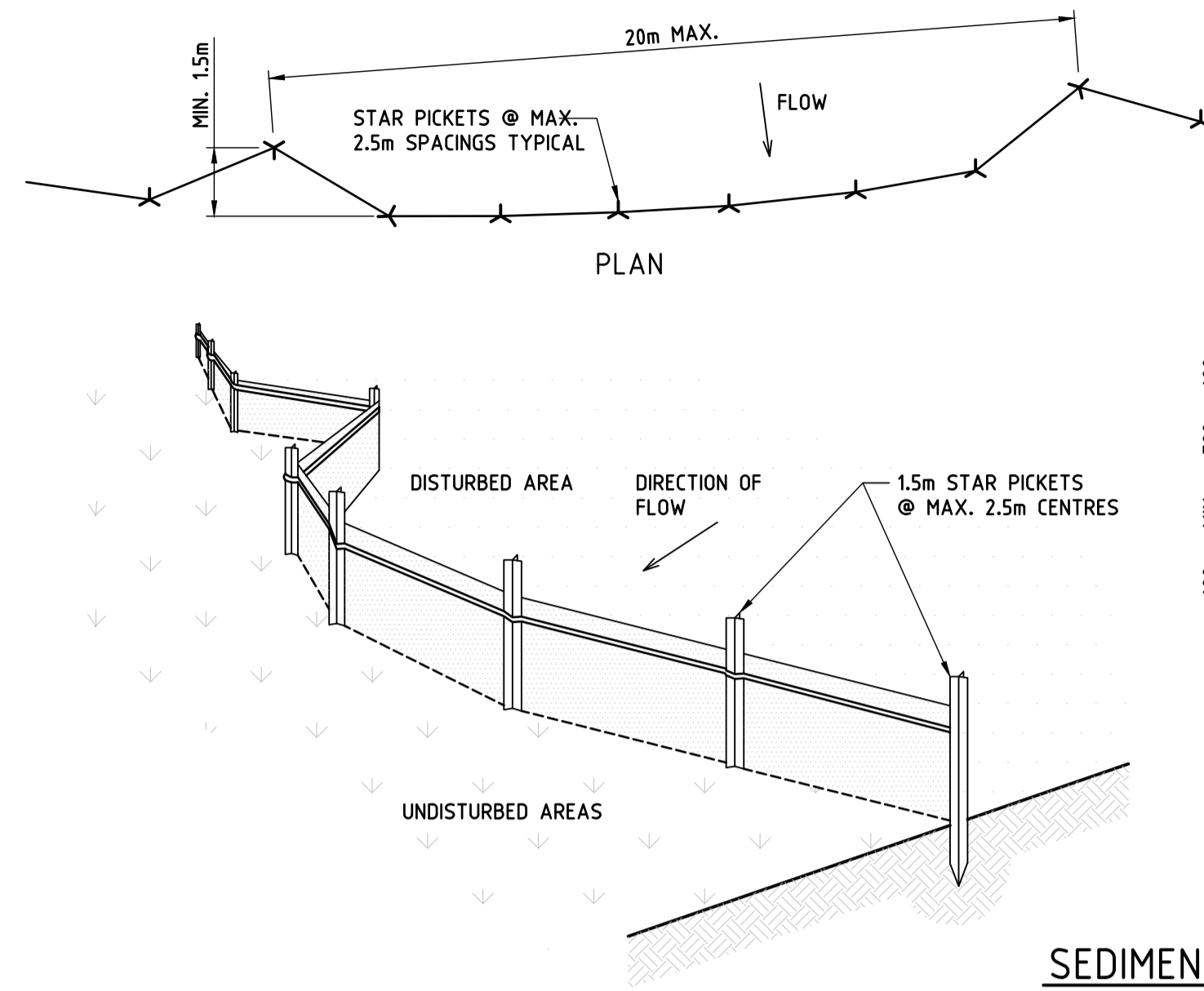
DRAWING TITLE
CONCEPT EROSION AND
SEDIMENT CONTROL PLAN

JOB NUMBER
NL167162
 DRAWING NUMBER
C10DA
 REVISION
B
 DRAWING SHEET SIZE ± A1

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BASIN MANAGEMENT NOTES

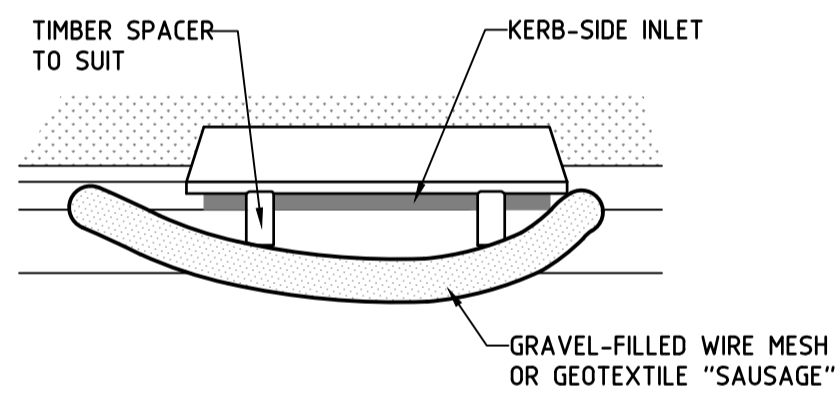
1. PRIOR TO ANY FORECAST WEATHER EVENT, LIKELY TO RESULT IN SEDIMENT LADEN RUNOFF ON THE SITE, ANY EXISTING DETENTION BASINS/TRAPS SHALL BE DEWATERED TO PROVIDE SUFFICIENT CAPACITY TO CAPTURE SEDIMENT LADEN WATER FROM THE SITE.
2. ANY SEDIMENT LADEN WATER CAPTURED ON-SITE MUST BE TREATED TO ENSURE IT WILL ACHIEVE COUNCIL'S WATER QUALITY OBJECTIVES PRIOR TO ITS RELEASE FROM SITE. A SAMPLE OF THE RELEASED TREATED WATER MUST BE KEPT ON-SITE IN A CLEAR CONTAINER WITH THE SAMPLE DATE RECORDED.
3. NO ALUMINIUM BASED PRODUCTS MAY BE USED TO TREAT TURBID WATER (FLOCCULATING/COAGULANTS) ON-SITE WITHOUT THE PRIOR WRITTEN PERMISSION FROM AN APPROPRIATE COUNCIL OFFICER. THE APPLICANT MUST HAVE DEMONSTRATED ABILITY TO USE SUCH PRODUCTS CORRECTLY AND WITHOUT ENVIRONMENTAL HARM PRIOR TO ANY APPROVAL.
4. THE CHEMICAL/AGENT (FLOCCULATING/COAGULANTS) USED IN TYPE D AND TYPE F BASINS TO TREAT TURBID WATER CAPTURED IN THE BASIN MUST BE APPLIED IN CONCENTRATIONS SUFFICIENT TO ACHIEVE COUNCIL'S WATER QUALITY OBJECTIVES (TSS < 50mg/L, TURBIDITY < 60 NTU, 6.5 < pH < 8.5) WITHIN THE 5-DAY RAINFALL DEPTH USED TO CALCULATE THE CAPACITY OF THE BASIN, AFTER A RAINFALL EVENT.
5. ALL MANUFACTURERS INSTRUCTIONS MUST BE FOLLOWED FOR THE USE OF ANY CHEMICALS/AGENTS USED ON-SITE, EXCEPT WHERE APPROVED BY THE RESPONSIBLE PERSON OR AN APPROPRIATE COUNCIL OFFICER.
6. SUFFICIENT QUANTITIES OF CHEMICALS/AGENTS TO TREAT TURBID WATER (FLOCCULATING/COAGULANTS) MUST BE PLACED SUCH THAT WATER ENTERING THE BASINS/SEDIMENT TRAP MIXES WITH THE CHEMICALS/AGENTS AND IS CARRIED INTO THE BASIN/TRAP.
7. ANY BASIN MUST BE DEWATERED AS SOON AS PRACTICAL, ONCE WATER CAPTURED IN THE BASIN ACHIEVES COUNCIL'S WATER QUALITY OBJECTIVES.
8. INSPECT THE SEDIMENT BASINS AFTER EACH RAINFALL EVENT AND/OR WEEKLY. ENSURE THAT ALL SEDIMENT IS REMOVED ONCE THE SEDIMENT STORAGE ZONE IS FULL. ENSURE THAT OUTLET AND EMERGENCY SPILLWAY WORKS ARE MAINTAINED IN A FULLY OPERATIONAL CONDITION AT ALL TIMES.



SEDIMENT FENCE
SCALE N.T.S.

SEDIMENT FENCE CONSTRUCTION NOTES:

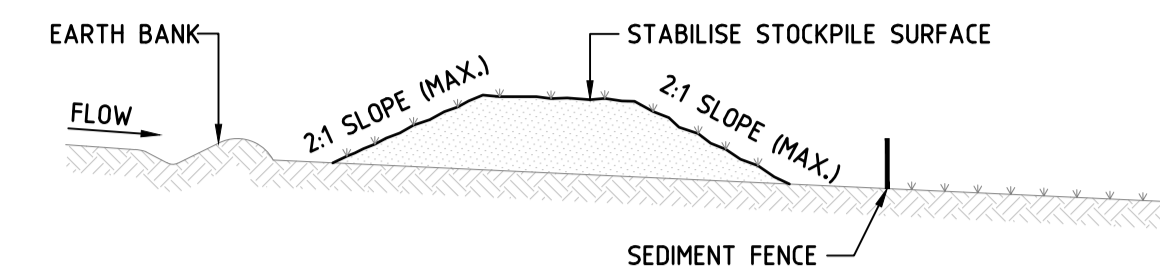
1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND @ 2.5m INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



MESH AND GRAVEL INLET FILTER CONSTRUCTION NOTES:

1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
2. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
3. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
4. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
5. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY CAN FIRMLY ABUT EACH OTHER AND SEDIMENT / LADEN WATERS CANNOT PASS BETWEEN.

MESH AND GRAVEL INLET FILTER
SCALE N.T.S.



STOCKPILE CONSTRUCTION NOTES:

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

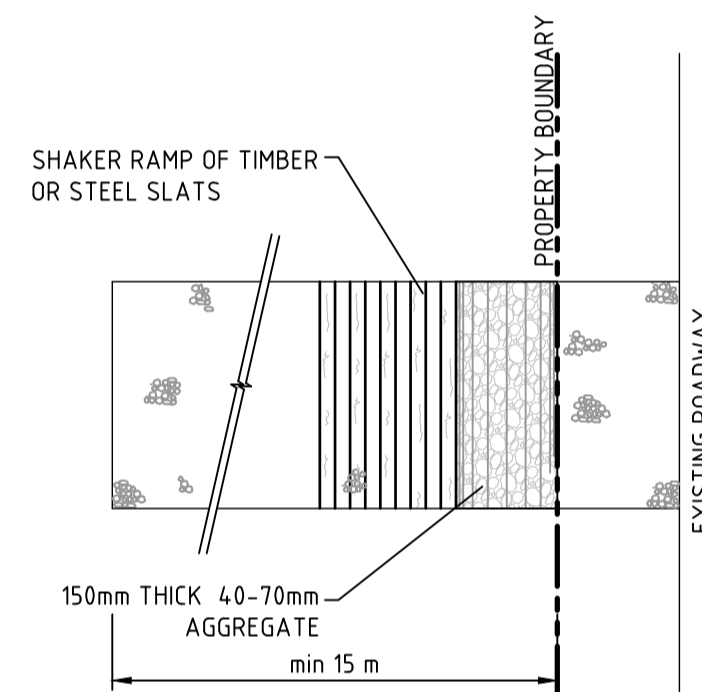
STOCKPILES
SCALE N.T.S.

SITE PARAMETERS	
CONSTRAINT	VALUE
SEDIMENT TYPE	F
SOIL HYDROLOGY GROUP	A
K = SOIL ERODIBILITY (K-FACTOR)	0.015
R = RAINFALL ERODIVITY (R-FACTOR)	2590
S = 2 YEAR, 6 HOUR STORM INTENSITY	10.9mm/hr
LS = SLOPE LENGTH/GRADIENT	0.52 (150m SLOPE @ 2% GRADE)
P = EROSION CONTROL PRACTICE (P-FACTOR)	1.3 (TYPICAL)
C = GROUND COVER (C-FACTOR)	1.0 (TYPICAL FOR STRIPPED SITE)
SOIL LOSS (RUSLE METHOD) (tonnes/ha/yr)	103
EROSION HAZARD (TABLE 4.2 BLUE BOOK)	VERY LOW

SEDIMENT BASIN SIZING CALCULATION

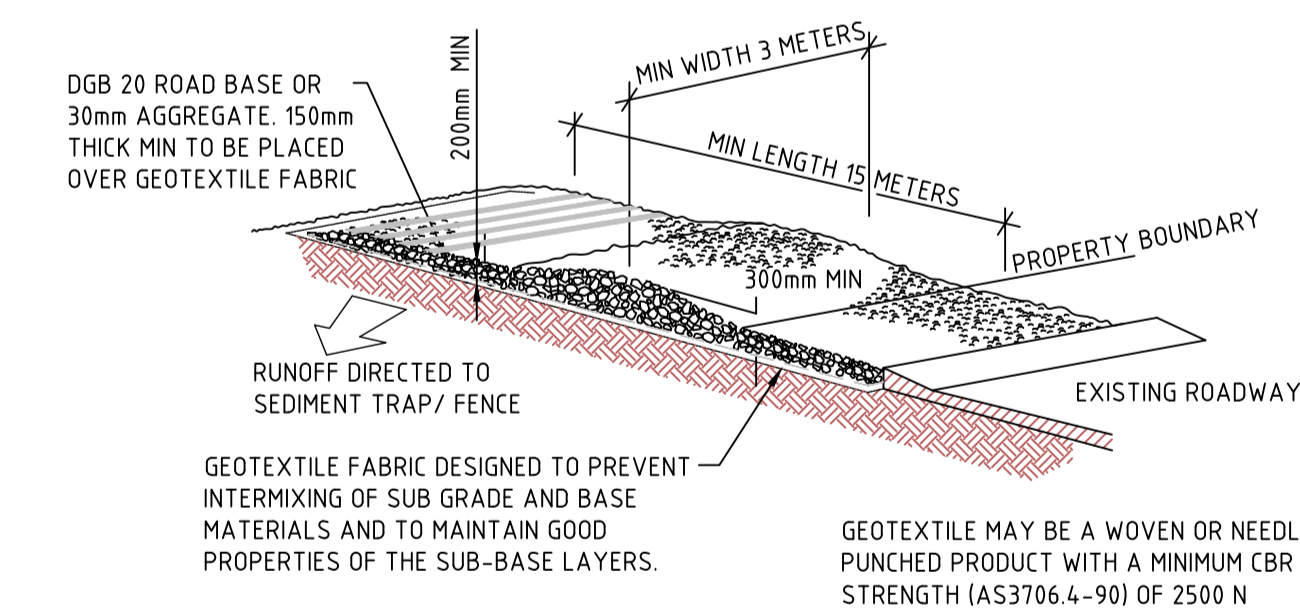
THE SITE IS LOCATED WITHIN THE HAMILTON SOIL LANDSCAPE AND PRIMARILY CONSISTS OF SAND MATERIAL (AS PER THE SITE SPECIFIC GEOTECHNICAL INVESTIGATION), WHICH HAS THE FOLLOWING PROPERTIES (IN ACCORDANCE WITH TABLE C17 OF THE "BLUE BOOK"):

SEDIMENT BASIN SIZING		
CONSTRAINT	VALUE	UNITS
CV = VOLUMETRIC RUNOFF COEFFICIENT	0.5	
R = 5 DAY, 80 th PERCENTILE RAINFALL	30.500	mm
A = CATCHMENT AREA	0.728	ha
SETTLING ZONE VOLUME (10xCVxRxA)	111	m ³
SOIL LOSS (CALC ABOVE)	103	m ³ /ha/yr
A2 = DISTURBED CATCHMENT AREA	0.728	ha
SEDIMENT STORAGE VOLUME (50% SETTLING ZONE CAPACITY)	10	m ³
TOTAL BASIN VOLUME REQUIRED	121	m ³



STABILISED SITE ACCESS WITH SHAKER RAMP
N.T.S.

CONSTRUCTION SITE



STABILISED SITE ACCESS WITH SHAKER RAMP
N.T.S.

STABILISED SITE ACCESS WITH SHAKER RAMP CONSTRUCTION NOTES:

1. THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM CONSTRUCTION SITE.
2. THIS DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS TO MAINTAIN A 50mm DEEP SPACE BETWEEN PLANKS.
3. ANY UNSEALED ROAD BETWEEN THIS DEVICE AND NEAREST ROADWAY IS TO BE TOPPED WITH 100mm THICK 40-70mm SIZE AGGREGATE.
4. ALTERNATIVELY, PRECAST CONCRETE CATTLE GRIDS MAY BE USED. 1, 2 & 3 ABOVE ALSO APPLY.

ISSUED FOR DA

VERIFIER: C SMITH
JOB MANAGER: C SMITH
DESIGNED: K SINCLAIR
DRAWN: S FORBES

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT
A	ISSUED FOR DA	JP	CS	KS	21.03.17	DOMAGROUP
B	RE-ISSUED FOR DA	WC	CS	KS	12.04.17	
						SJB Architects

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PROJECT
PROPOSED DEVELOPMENT
50 Honeysuckle Drive,
Newcastle, NSW.

DRAWING TITLE
CONCEPT EROSION AND SEDIMENT CONTROL DETAILS

JOB NUMBER
NL167162
DRAWING NUMBER
C11DA
REVISION
B
DRAWING SHEET SIZE ± A1



DRAWN: S.FORBES
DESIGNED: K.SINCLAIR
JOB MANAGER: C.SMITH
VERIFIER: C.SMITH

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
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PLANS 1:150

0 1.5 3 4.5 6.0 7.5m

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PROJECT

PROPOSED DEVELOPMENT
50 Honeysuckle Drive,
Newcastle, NSW.

DRAWING TITLE

CONCEPT BULK
EARTHWORKS PLAN
SHEET 1

JOB NUMBER

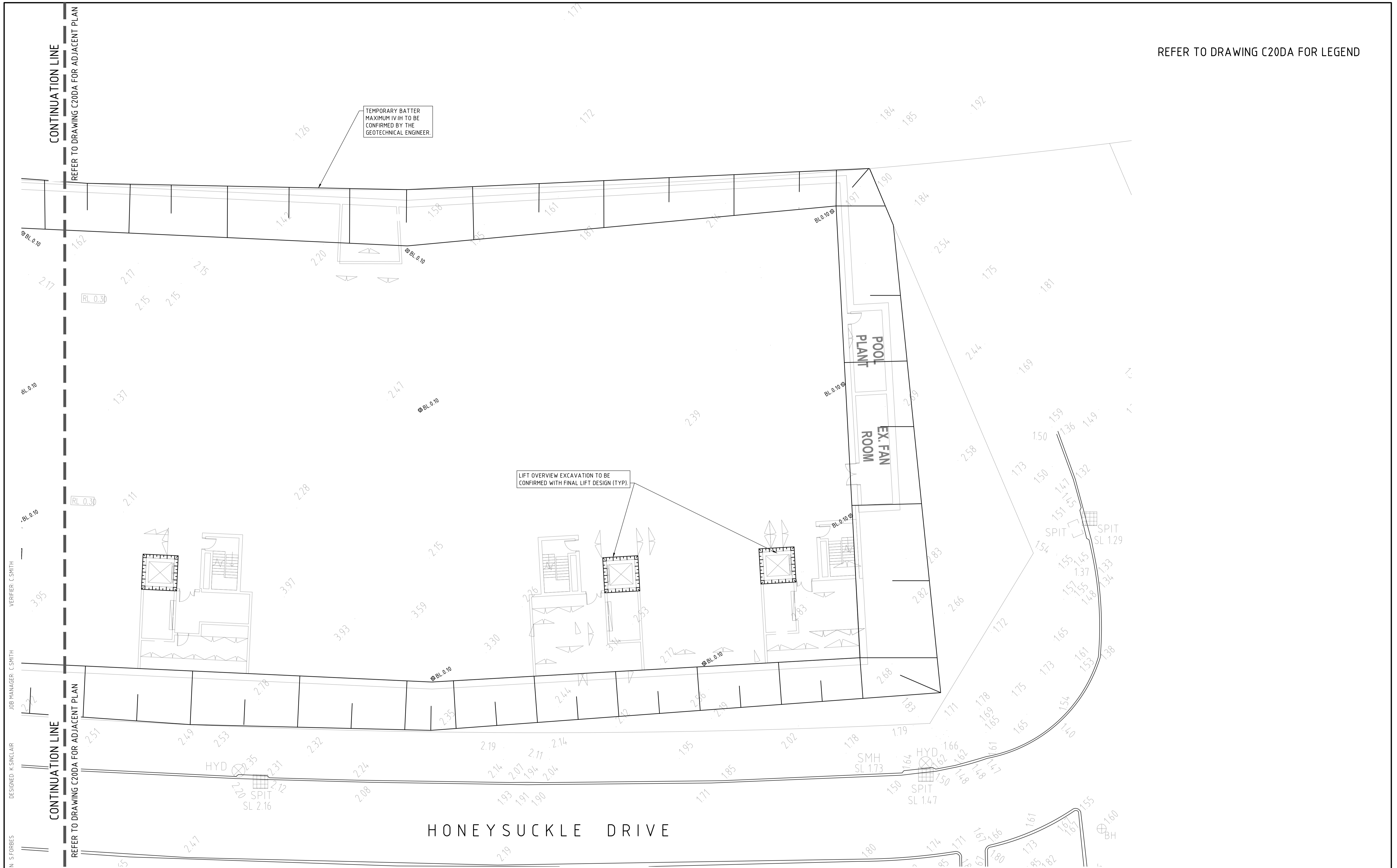
NL167162

DRAWING NUMBER	REVISION
C20DA	B

DRAWING SHEET SIZE ± A1

ISSUED FOR DA

REFER TO DRAWING C20DA FOR LEGEND



CONTINUATION LINE
 REFER TO DRAWING C20DA FOR ADJACENT PLAN
 DRAWN: S FORBES
 DESIGNED: K SINCLAIR
 JOB MANAGER: C SMITH
 VERIFIER: C SMITH

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REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
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0 1.5 3 4.5 6.0 7.5m

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PROJECT

**PROPOSED DEVELOPMENT
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 Newcastle, NSW.**

DRAWING TITLE

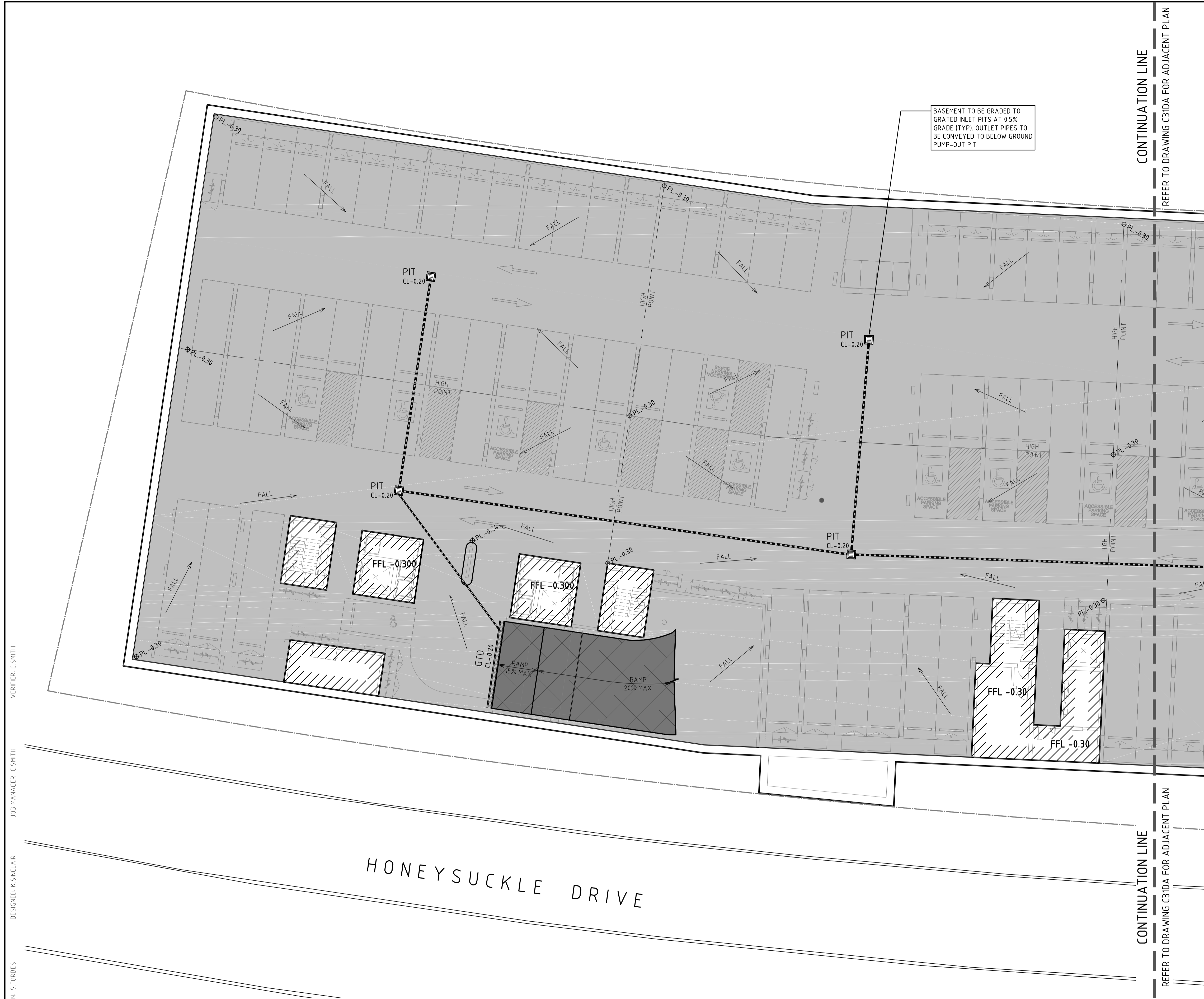
**CONCEPT BULK
 EARTHWORKS PLAN
 SHEET 2**

JOB NUMBER

NL167162

DRAWING NUMBER	REVISION
C21DA	B

DRAWING SHEET SIZE ± A1



LEGEND	
	DENOTES SITE BOUNDARY
	DENOTES PROPOSED STORMWATER PIT AND COVER LEVEL.
	DENOTES EXISTING STORMWATER PIT.
	DENOTES CAST INSITU OR PRECAST GRATED TRENCH DRAIN (ACO OR SIMILAR) WITH HEEL GUARD CLASS C GALVANISED STEEL GRATE AND FRAMES.
	DENOTES PROPOSED STORMWATER DRAINAGE PIPE.
	DENOTES EXISTING STORMWATER DRAINAGE PIPE.
	DENOTES PROPOSED FINISHED FLOOR LEVEL.
	DENOTES PROPOSED FINISHED SURFACE LEVEL.
	DENOTES PROPOSED DIRECTION OF FALL IN FINISHED SURFACE.
	DENOTES EXTENT OF PROPOSED CARPARK PAVEMENT. DETAILS TO BE PROVIDED AT CC.
	DENOTES EXTENT OF PROPOSED SUSPENDED RAMP PAVEMENT. DETAIL TO BE PROVIDED AT CC STAGE.
	DENOTES PROPOSED BUILDING. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
	DENOTES PROPOSED PUMP OUT LINE.
	DENOTES PROPOSED PUMP OUT PIT WITH MINIMUM 3m³ STORAGE VOLUME. DETAILS TO BE PROVIDED AT CC STAGE.

VERIFIER: C SMITH
 JOB MANAGER: C SMITH
 DESIGNED: K SINCLAIR
 DRAWN: S FORBES

HONEYSUCKLE DRIVE

CONTINUATION LINE
 REFER TO DRAWING C30DA FOR ADJACENT PLAN

ISSUED FOR DA

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
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D	RE-ISSUED FOR DA	JP	CS	KS	25.05.17
E	RE-ISSUED FOR DA	JP	CS	KS	05.06.17
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PROJECT

PROPOSED DEVELOPMENT
50 Honeysuckle Drive,
Newcastle. NSW.

DRAWING TITLE

BASEMENT LEVEL
CONCEPT CIVIL WORKS PLAN
SHEET 1

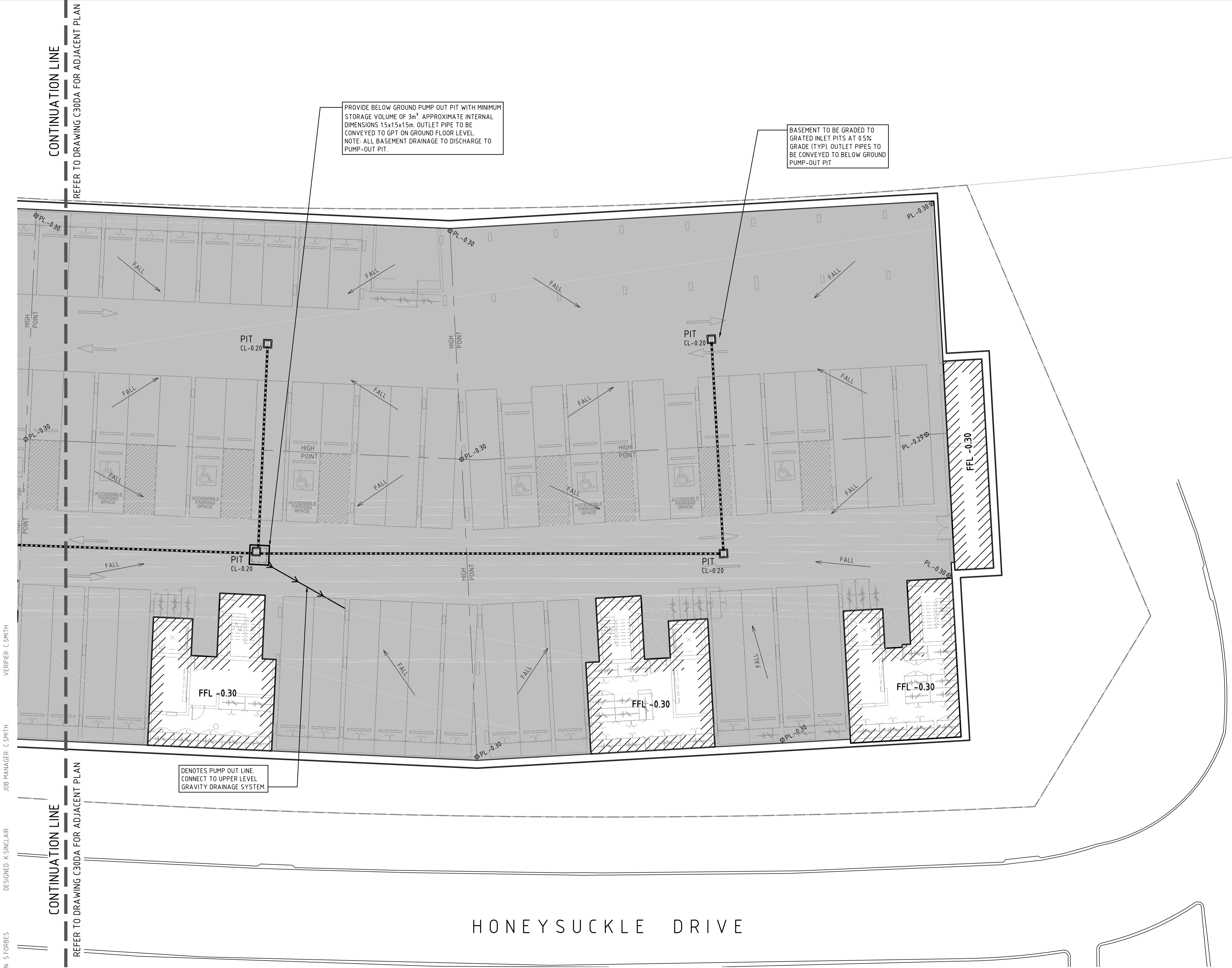
JOB NUMBER

NL167162

DRAWING NUMBER	REVISION
C30DA	F

DRAWING SHEET SIZE = A1

REFER TO DRAWING C30DA FOR LEGEND



HONEYSUCKLE DRIVE

CONTINUATION LINE
 REFER TO DRAWING C30DA FOR ADJACENT PLAN
 CONTINUATION LINE
 REFER TO DRAWING C30DA FOR ADJACENT PLAN
 DRAWN: S FORBES
 DESIGNED: K SINCLAIR
 JOB MANAGER: C SMITH
 VERIFIER: C SMITH

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DOMAGROUP

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PROJECT

PROPOSED DEVELOPMENT
50 Honeysuckle Drive,
Newcastle. NSW.

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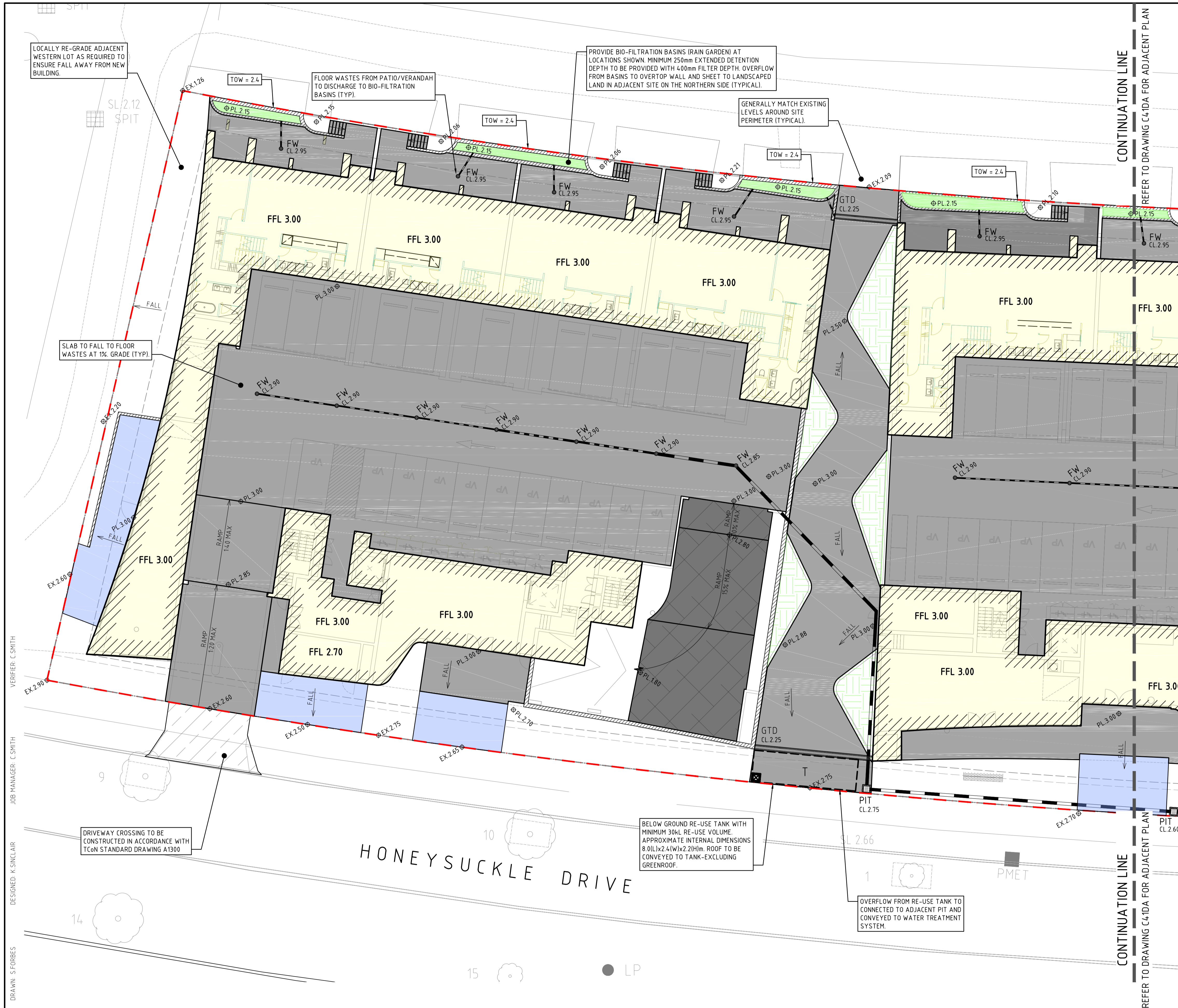
BASEMENT LEVEL
CONCEPT CIVIL WORKS PLAN
SHEET 2

JOB NUMBER

NL167162

DRAWING NUMBER	REVISION
C31DA	F

DRAWING SHEET SIZE = A1



- ### LEGEND
- DENOTES SITE BOUNDARY
 - DENOTES PROPOSED STORMWATER FLOOR WASTE AND COVER LEVEL. REFER TO FLOOR WASTE SCHEDULE FOR SIZE & TYPE.
 - DENOTES PROPOSED STORMWATER PIT AND COVER LEVEL. REFER TO PIT SCHEDULE FOR PIT SIZE & TYPE.
 - DENOTES PROPRIETARY GROSS POLLUTANT TRAP (HUMES HUMEGARD) OR APPROVED EQUIVALENT.
 - DENOTES PROPRIETARY WATER TREATMENT DEVICE (HUMES JELLYFISH) OR APPROVED EQUIVALENT.
 - DENOTES EXISTING STORMWATER PIT.
 - DENOTES CAST INSITU OR PRECAST GRATED TRENCH DRAIN (ACO OR SIMILAR). DETAILS TO BE PROVIDED AT CC STAGE.
 - DENOTES PROPOSED STORMWATER DRAINAGE PIPE.
 - DENOTES EXISTING STORMWATER DRAINAGE PIPE TO BE REMOVED.
 - DENOTES PROPOSED FINISHED FLOOR LEVEL.
 - DENOTES PROPOSED FINISHED SURFACE LEVEL.
 - DENOTES EXISTING FINISHED SURFACE LEVEL.
 - DENOTES PROPOSED DIRECTION OF FALL IN FINISHED SURFACE.
 - DENOTES PROPOSED BUILDING. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND EXACT LOCATION.
 - DENOTES EXTENT OF PROPOSED SUSPENDED CONCRETE SLAB. REFER TO STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS.
 - DENOTES EXTENT OF PROPOSED SUSPENDED RAMP PAVEMENT. REFER TO STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS.
 - DENOTES EXTENT OF PROPOSED SLAB ON GROUND. DETAILS TO BE PROVIDED AT CC STAGE.
 - DENOTES EXTENT OF PROPOSED BIO-FILTRATION GARDEN BEDS. DETAILS TO BE PROVIDED AT CC STAGE.
 - DENOTES EXTENT OF PROPOSED LANDSCAPING. REFER TO LANDSCAPE ARCHITECTS DRAWINGS FOR DETAILS.
 - DENOTES PROPOSED RETAINING WALL & TYPE. REFER TO STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS.
 - DENOTES PROPOSED TOP OF RETAINING WALL HEIGHT.
 - DENOTES UNDER GROUND RE-USE TANK WITH MINIMUM 30kL VOLUME. DETAILS ARE TO PROVIDED AT CC STAGE.
 - DENOTES PROPOSED PUMP OUT LINE.

DRAWN: S.FORBES
DESIGNED: K.SINCLAIR
JOB MANAGER: C.SMITH
VERIFIER: C.SMITH

HONEYSUCKLE DRIVE

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PLANS 1:150

PROJECT

PROPOSED DEVELOPMENT
50 Honeysuckle Drive,
Newcastle, NSW.

DRAWING TITLE

GROUND LEVEL
CONCEPT CIVIL WORKS PLAN
SHEET 1

JOB NUMBER

NL167162

DRAWING NUMBER

C40DA

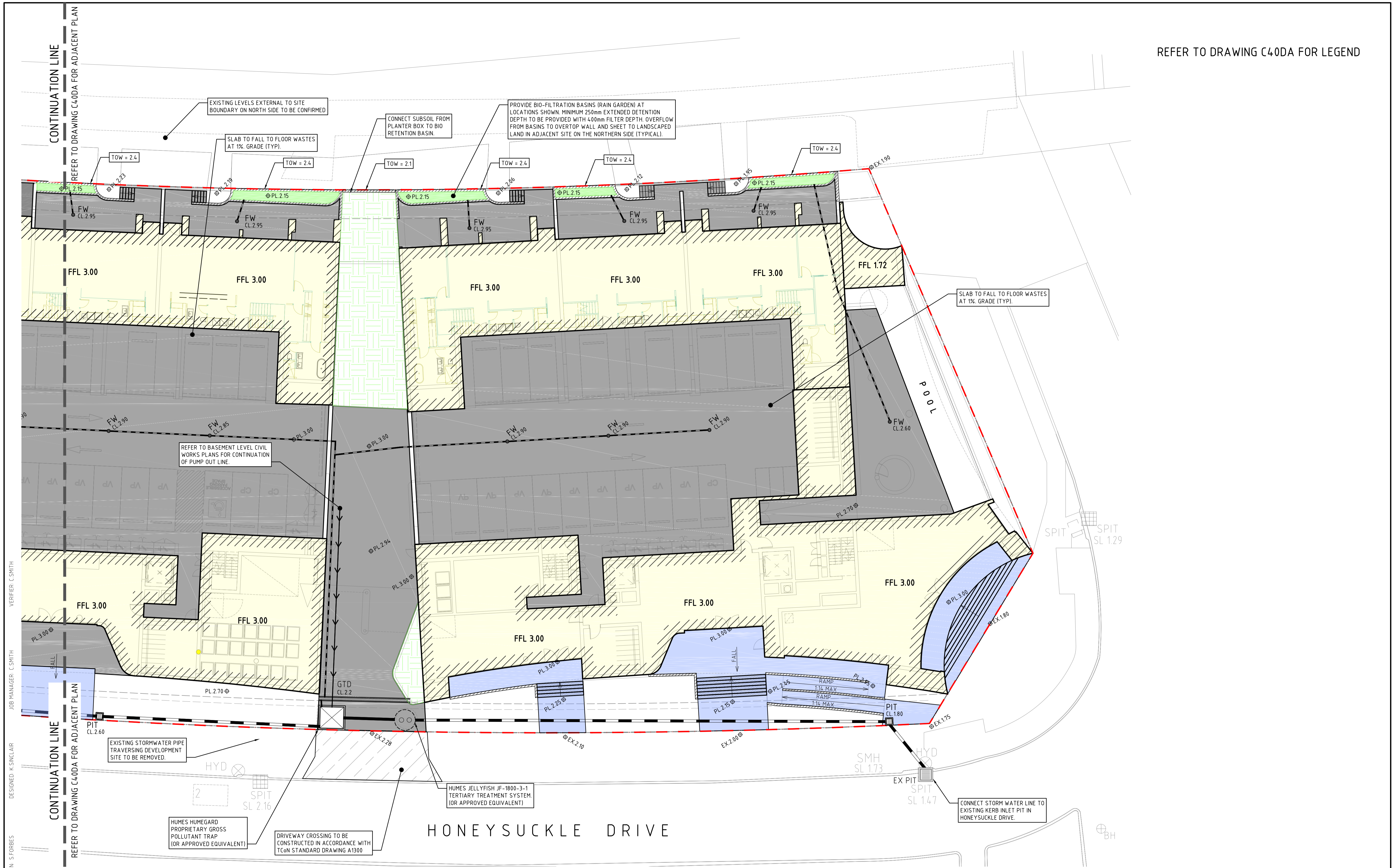
REVISION

E

DRAWING SHEET SIZE ± A1

ISSUED FOR DA

REFER TO DRAWING C40DA FOR LEGEND



DRAWN: S FORBES
 DESIGNED: K SINCLAIR
 JOB MANAGER: C SMITH
 VERIFIER: C SMITH

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REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT
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DOMAGROUP

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PLANS 1:150 0 1.5 3 4.5 6.0 7.5m

PROJECT
PROPOSED DEVELOPMENT
50 Honeysuckle Drive,
Newcastle, NSW.

DRAWING TITLE
GROUND LEVEL
CONCEPT CIVIL WORKS PLAN
SHEET 2

JOB NUMBER
NL167162

DRAWING NUMBER
C41DA

REVISION
E

DRAWING SHEET SIZE ± A1