
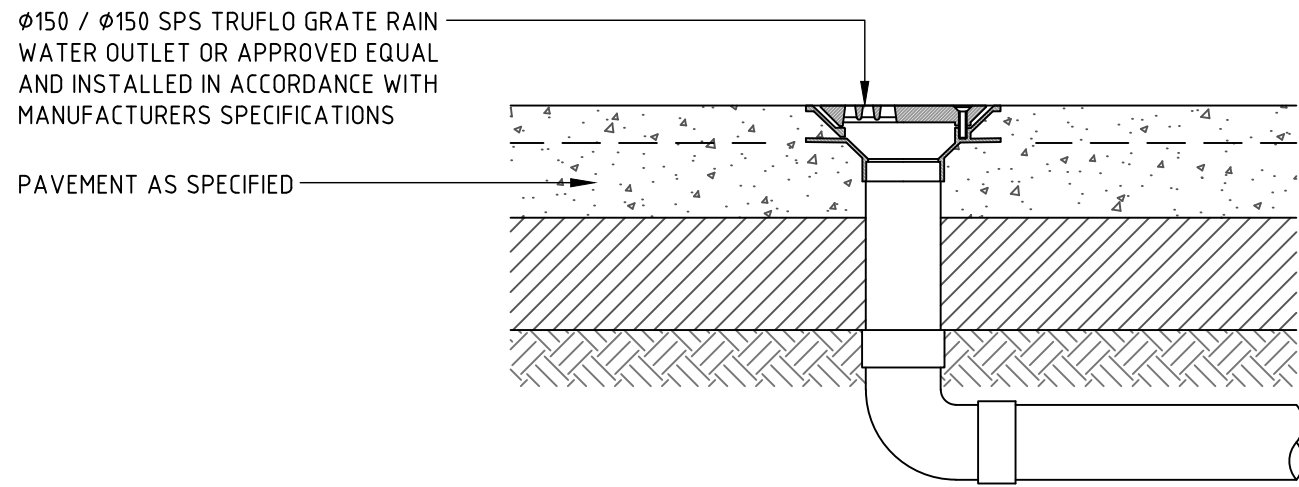


REVISION		DESCRIPTION		ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	PROJECT		DRAWING TITLE		JOB NUMBER	
A	50% ISSUE FOR REVIEW			LS	CP	JK	18.07.18	DOMAGROUP	BATESSMART™	 Newcastle Suite 4, 215 Pacific Hwy, Charlestown NSW 2290 P.O. Box 180, Charlestown NSW 2290 Ph (02) 4043 1777 Fax (02) 4043 1577 Email newcastle@northrop.com.au ABN 81 094 433 100	PROPOSED DEVELOPMENT 42 HONEYSUCKLE DRIVE, NEWCASTLE N.S.W. 2300	CIVIL WORKS PLAN GROUND LEVEL	NL171278		
A	ISSUED FOR CONSTRUCTION CERTIFICATE APPROVAL			LS	CS	RJ	17.08.18						DRAWING NUMBER		REVISION
B	FOR DESIGN COORDINATION			LS	CS	CP	16.01.19						CC-02-C4.0		D
C	FOR APPROVAL			WC	CS	CP	01.03.19						DRAWING SHEET SIZE = A1		
D	FOR APPROVAL			WC	CS	CP	05.03.19	DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED	THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD.						

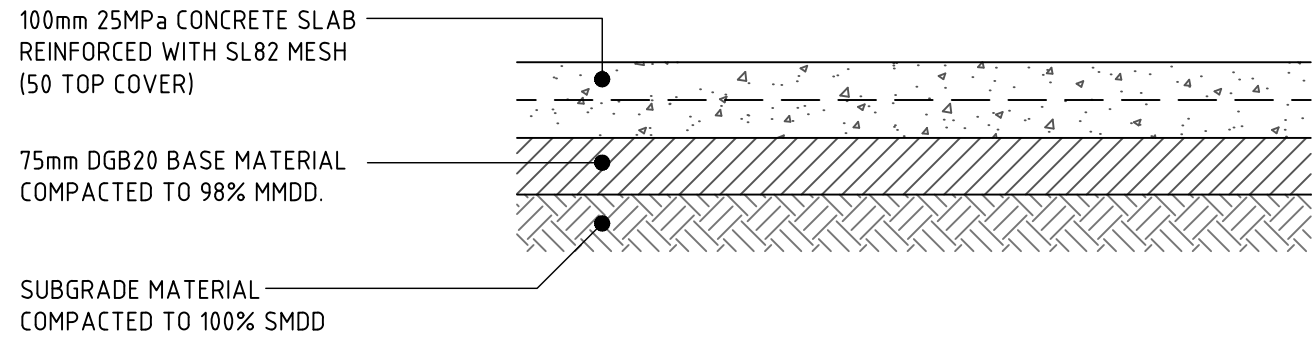


VERIFIER: CIPPER  
JOB MANAGER: CIPPER  
DESIGNED: JKEARNS  
DRAWN: L STEEL



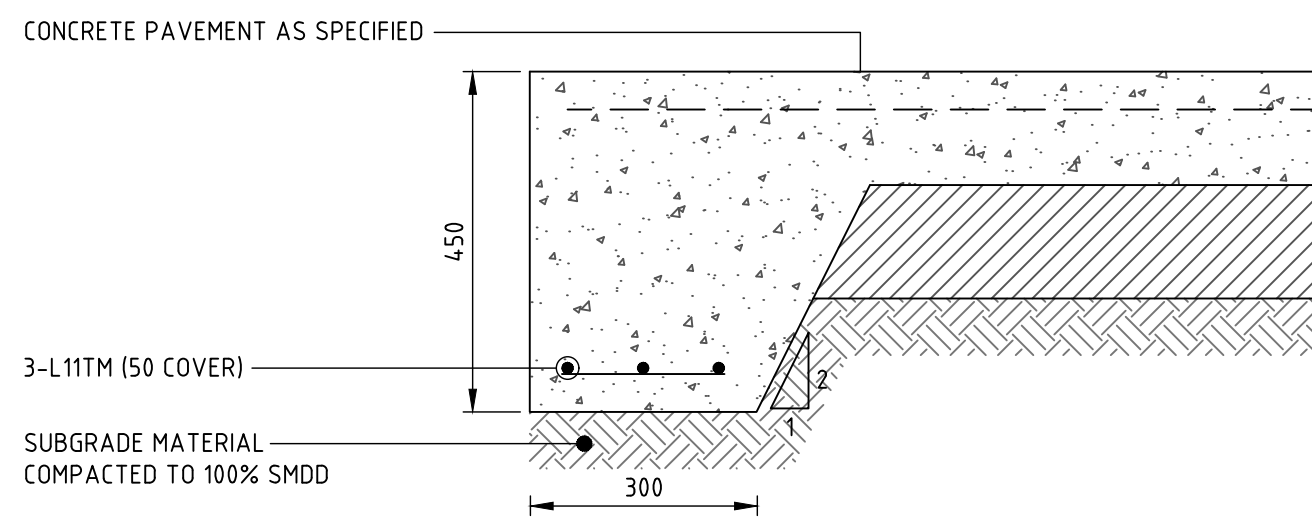
### FLOOR WASTE 'FW'

- TRIMMER BARS TO DOWNPIPE SLAB PENETRATIONS - REFER TRIMMER BAR DETAIL



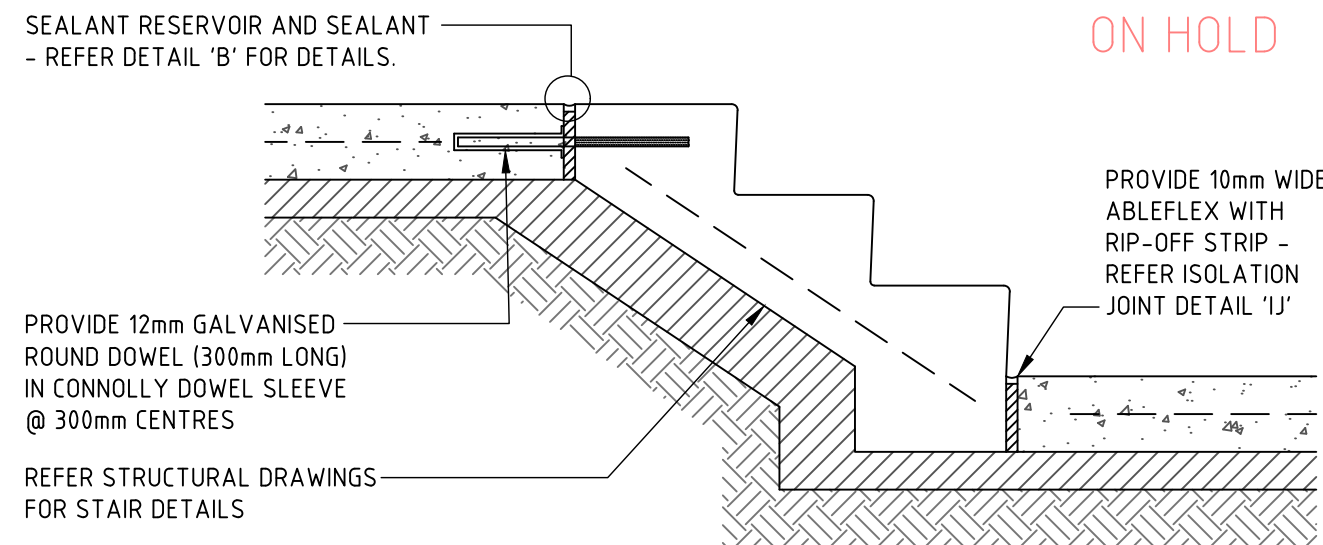
### EXTERNAL FOOTPATH PAVEMENT

CONTRACTOR TO ALLOW FOR JOINTS - DETAILS TO BE PROVIDED

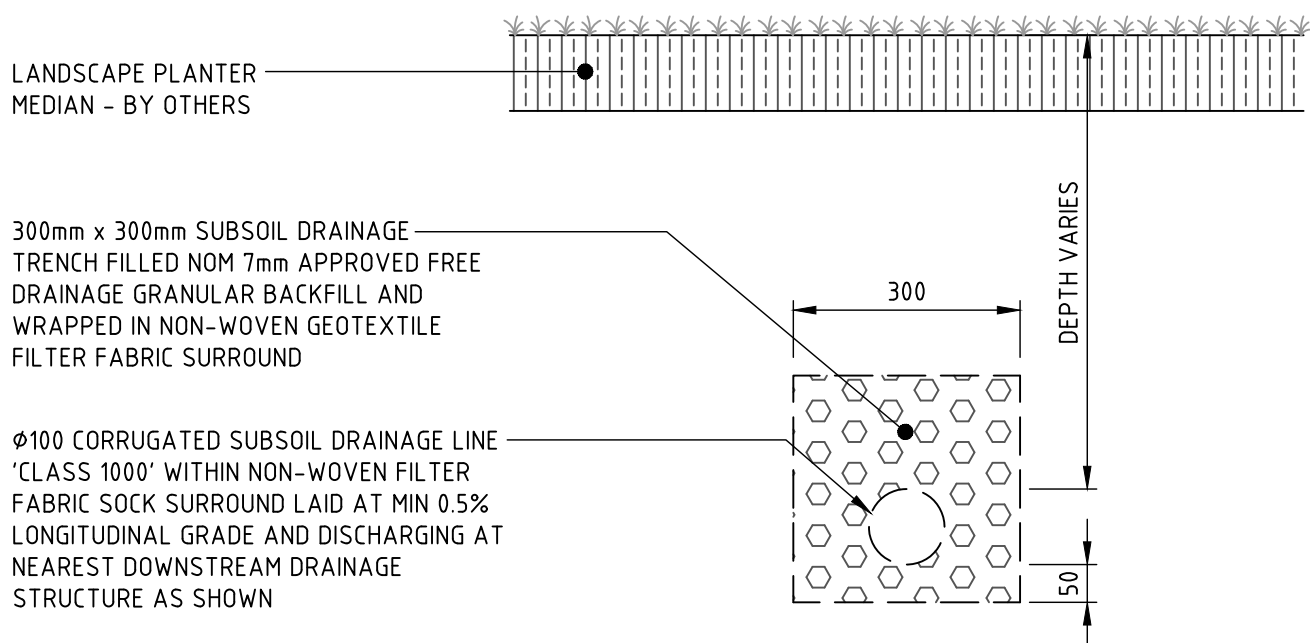


### THICKENED EDGE DETAIL 'TE'

SELECT FILL COMPACTED TO 98% MMDD WHERE FILL IN EXCESS OF PAVEMENT THICKNESS

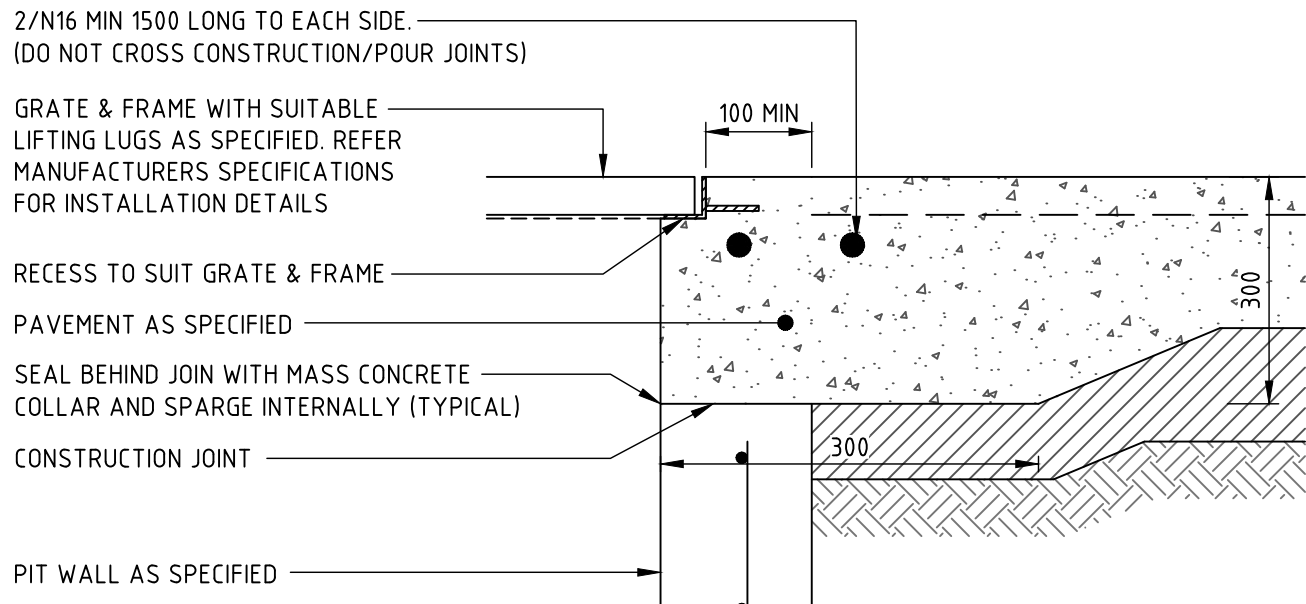


### STAIR JOINTING



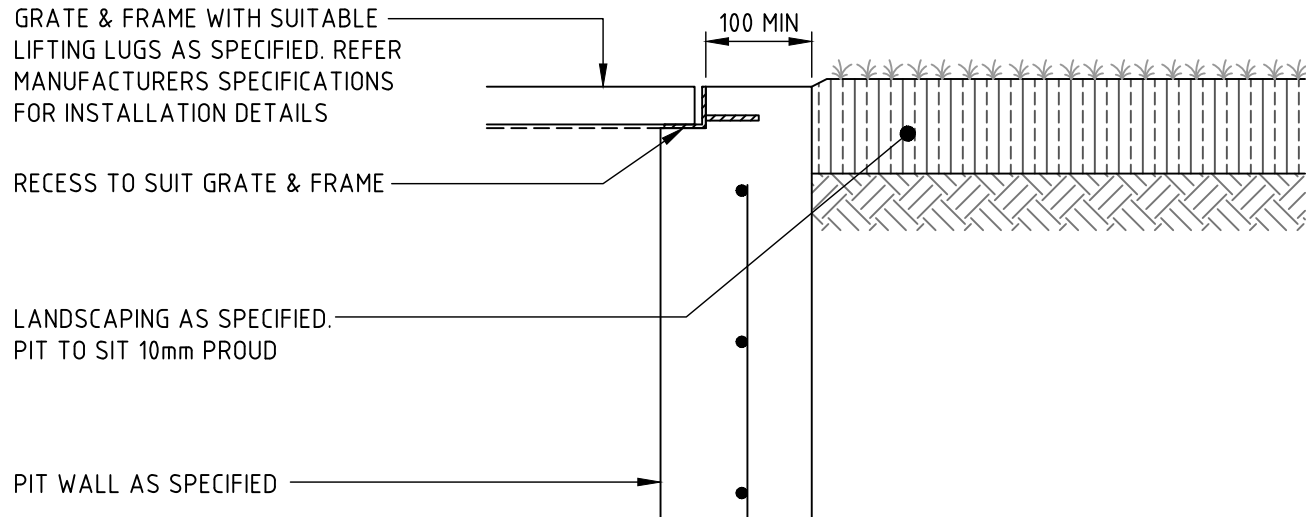
### SUBSOIL DRAINAGE TRENCH - PLANTER 'SSD'

CLEAROUT TO BE INSTALLED AT INTERMEDIATE POINTS ALONG SUBSOIL DRAINAGE LINES @ MAX 30m CENTRES AND DISCHARGING TO DRAINAGE STRUCTURES @ MAX 60m CENTRES.



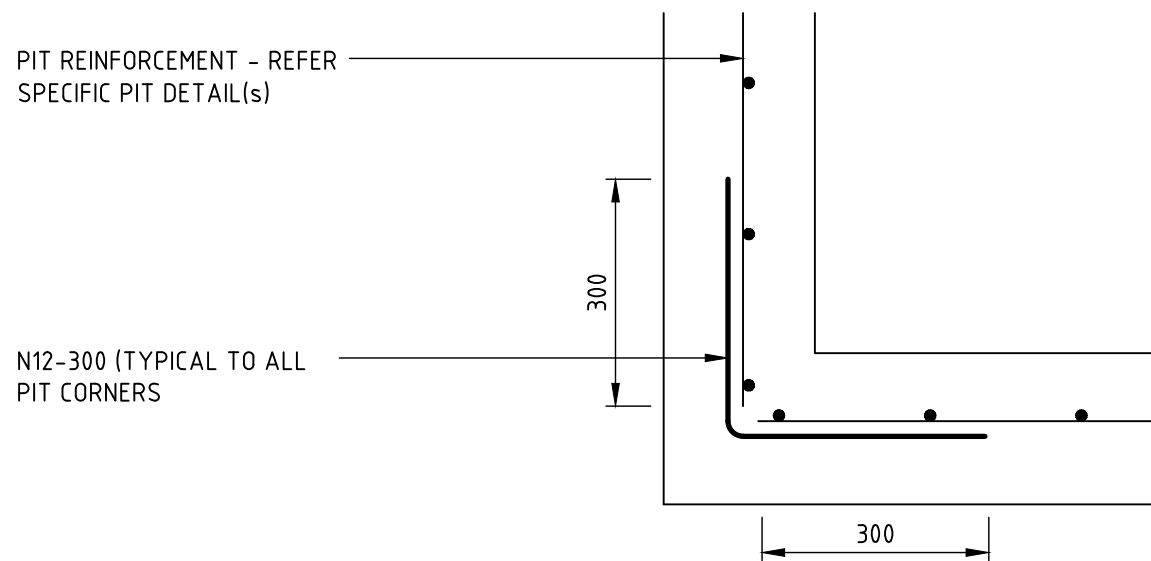
### PIT INTERFACE - DETAIL 'B'

REFER STORMWATER PLAN SCHEDULE FOR GRATE DETAILS



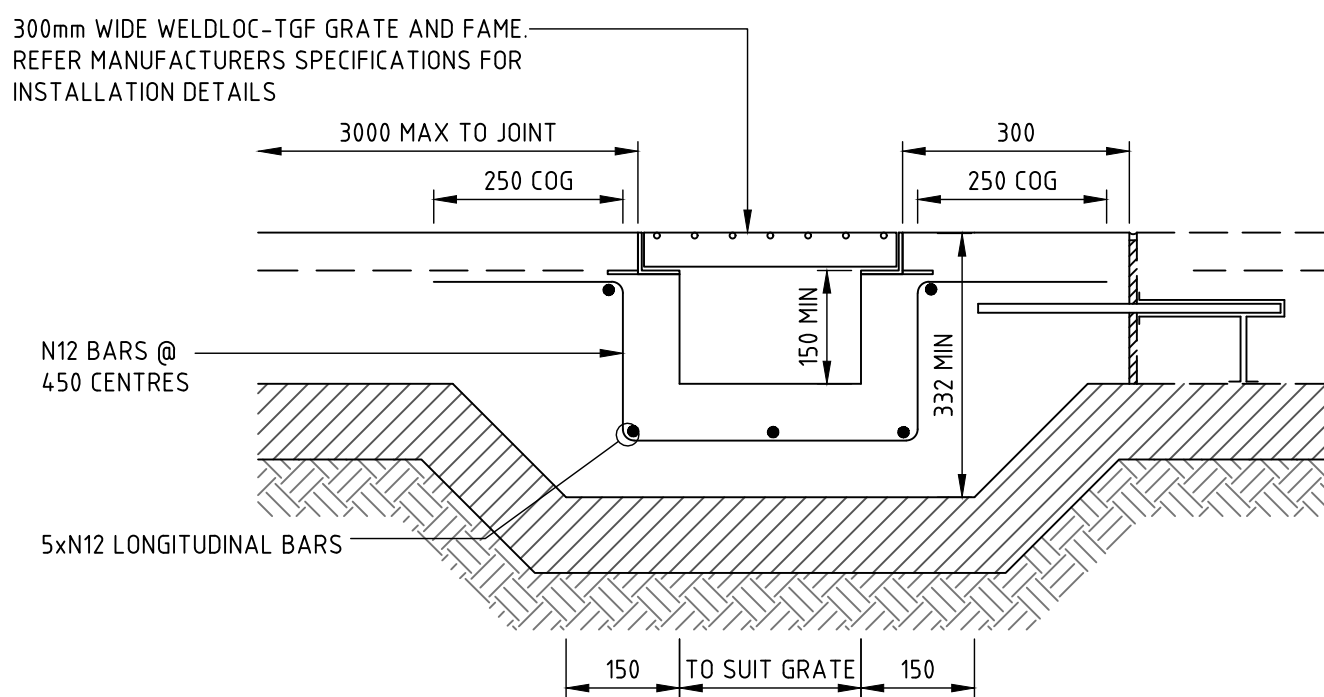
### PIT INTERFACE - DETAIL 'D'

REFER STORMWATER PLAN SCHEDULE FOR GRATE DETAILS



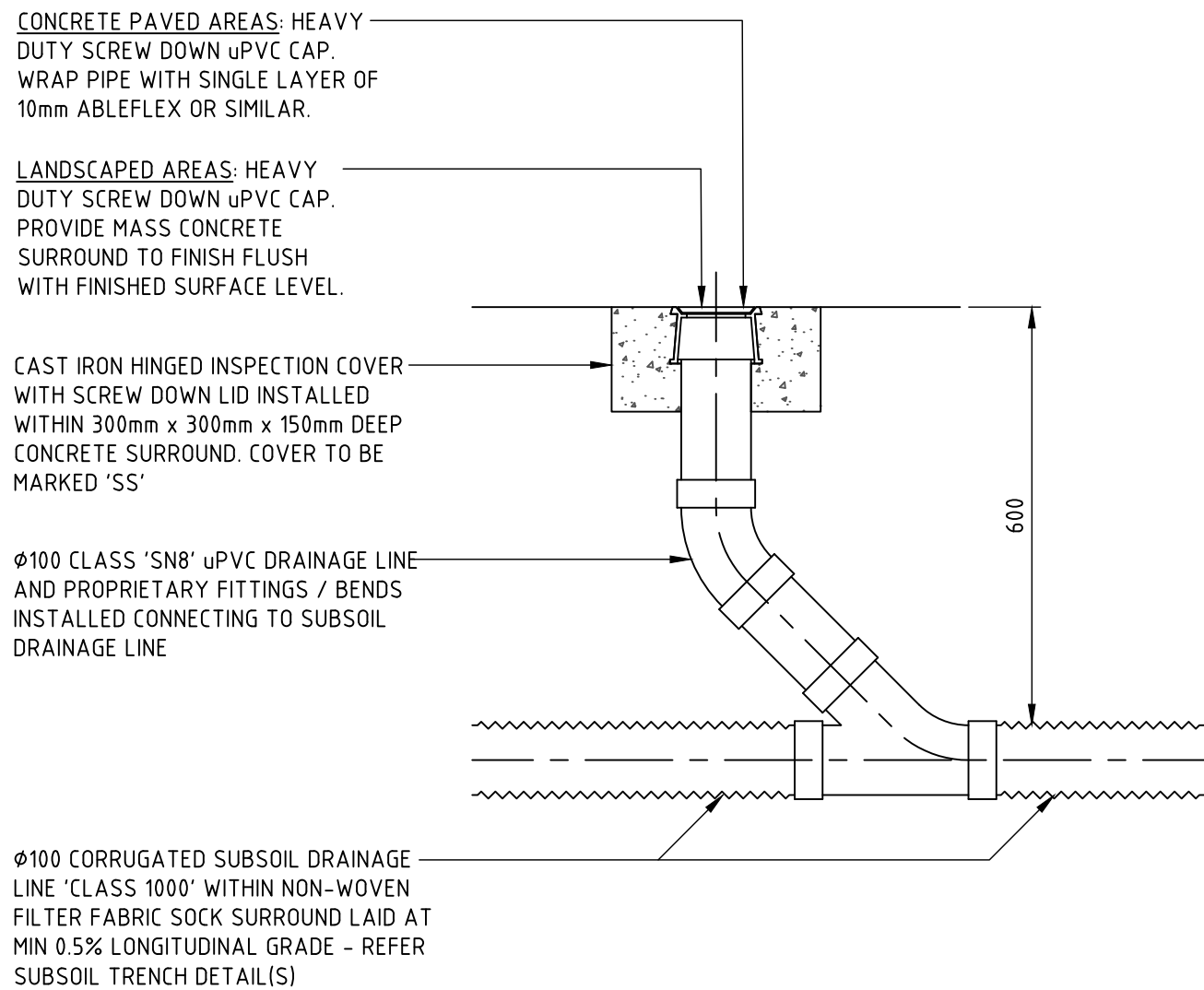
### PIT INTERFACE (PLAN VIEW)- DETAIL 'F'

APPLICABLE TO ALL STORMWATER DRAINAGE STRUCTURES



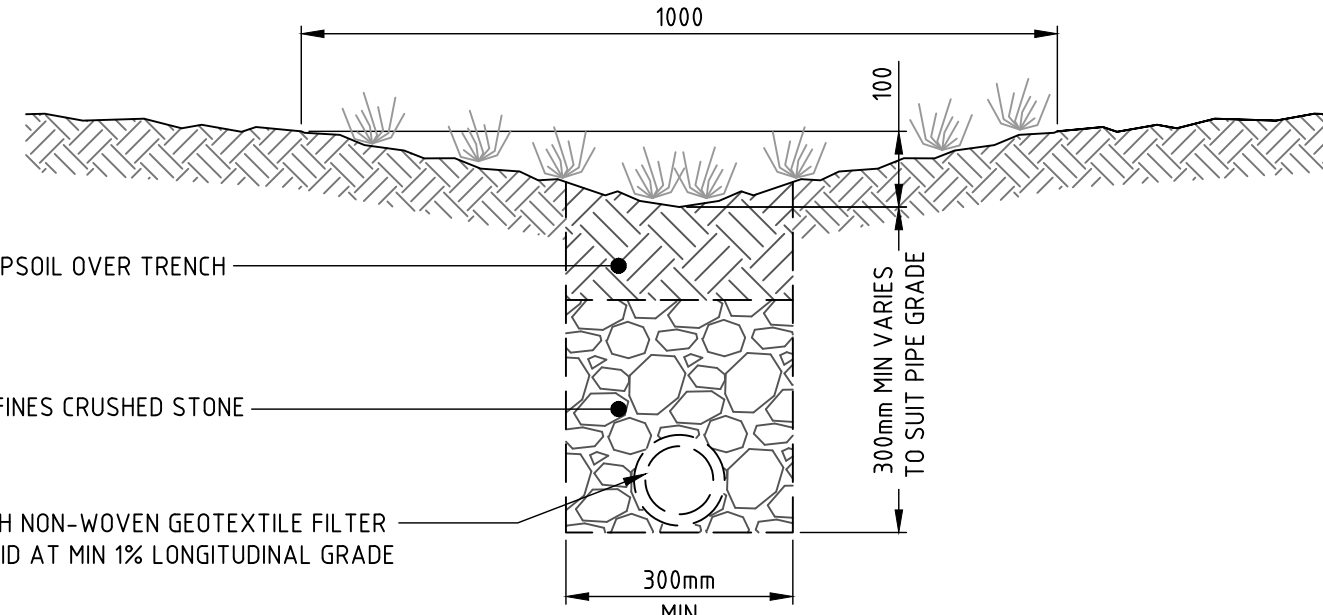
### GRATED TRENCH DRAIN 'GTD'

GRATED TRENCH DRAIN TO HAVE MINIMUM 150mm CLEARANCE AND 1% LONGITUDINAL FALL. GRATE CLASS TO BE CLASS 'C' HEEL SAFE.



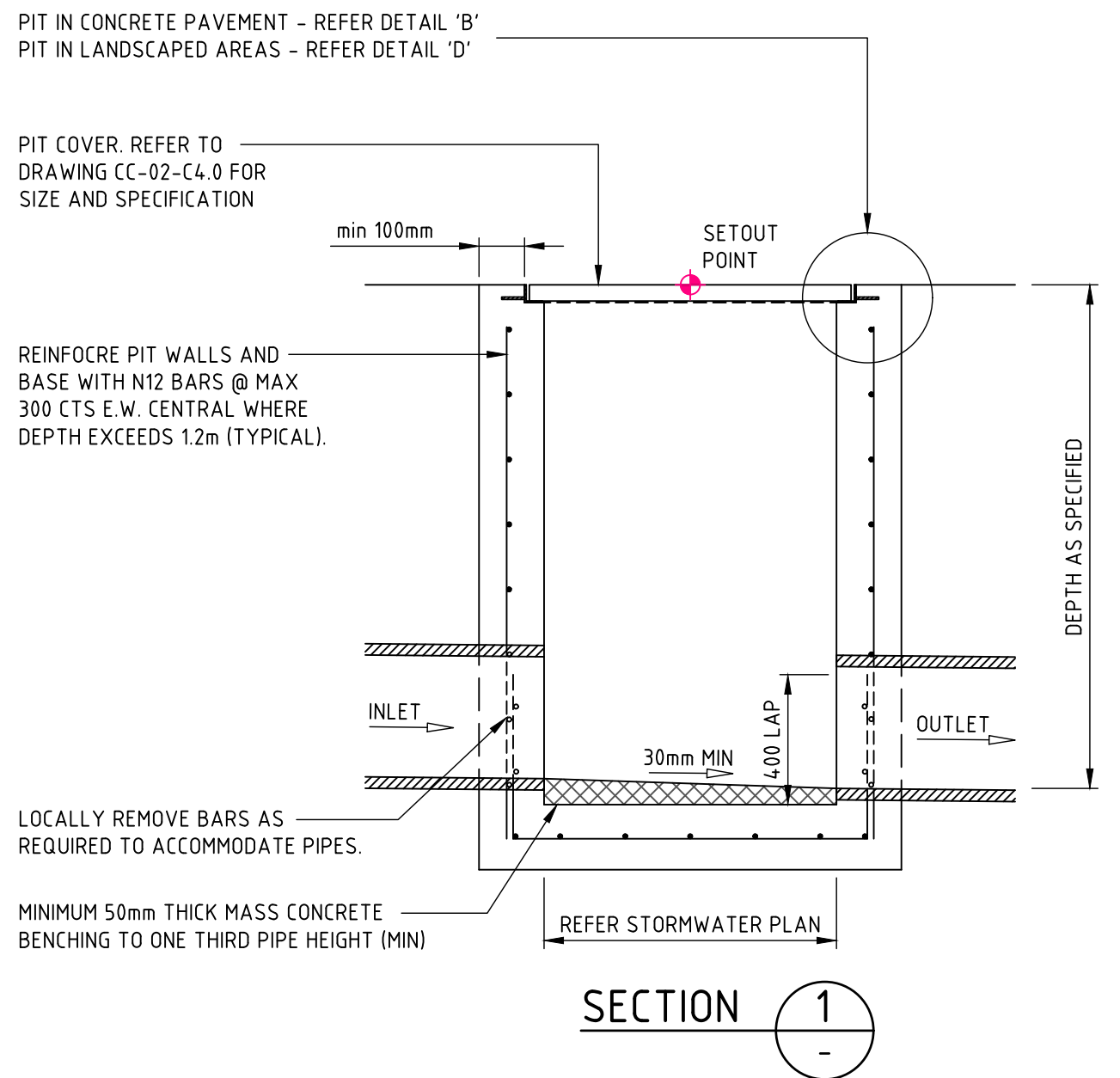
### SUBSOIL DRAINAGE CLEAROUT 'CO'

CLEAROUT TO BE INSTALLED AT INTERMEDIATE POINTS ALONG SUBSOIL DRAINAGE LINES @ MAX 30m CENTRES AND DISCHARGING TO DRAINAGE STRUCTURES @ MAX 60m CENTRES.

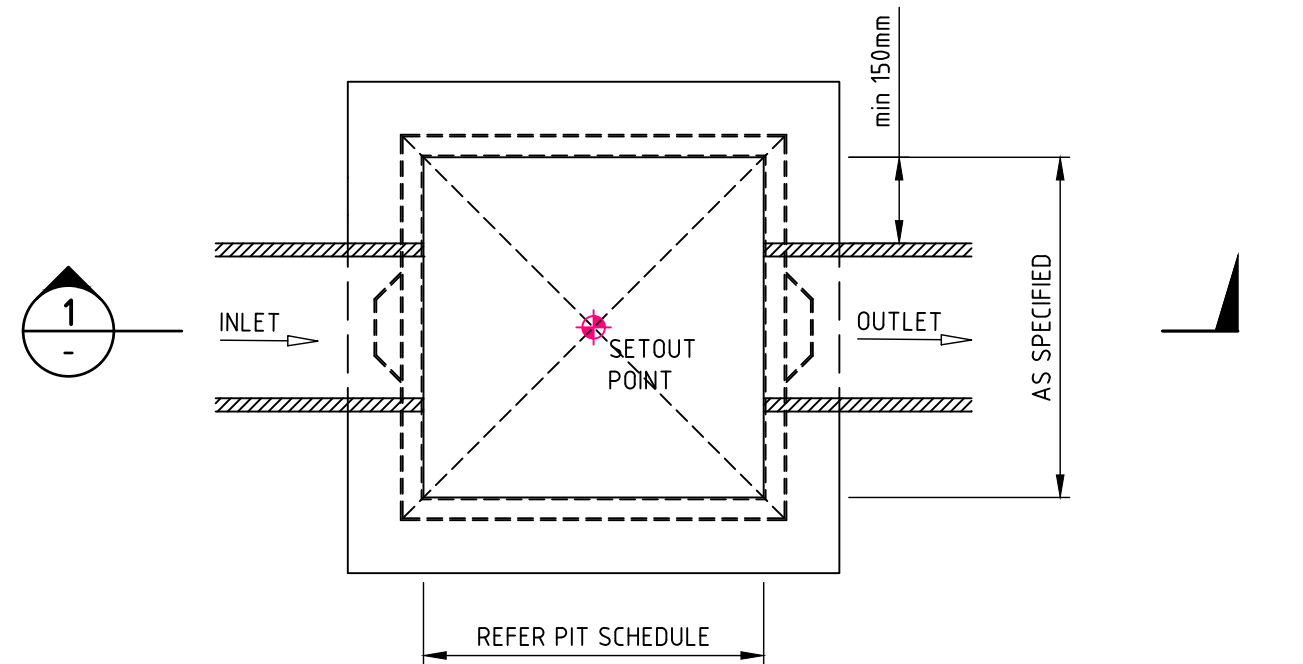


### TYPICAL SWALE DETAIL (1000 WIDE) WITH SUBSOIL DRAIN

NOTE: USED SEALED uPVC PIPE WHERE SUBSOIL DRAINAGE LINES CROSS BENEATH PAVEMENT AREAS

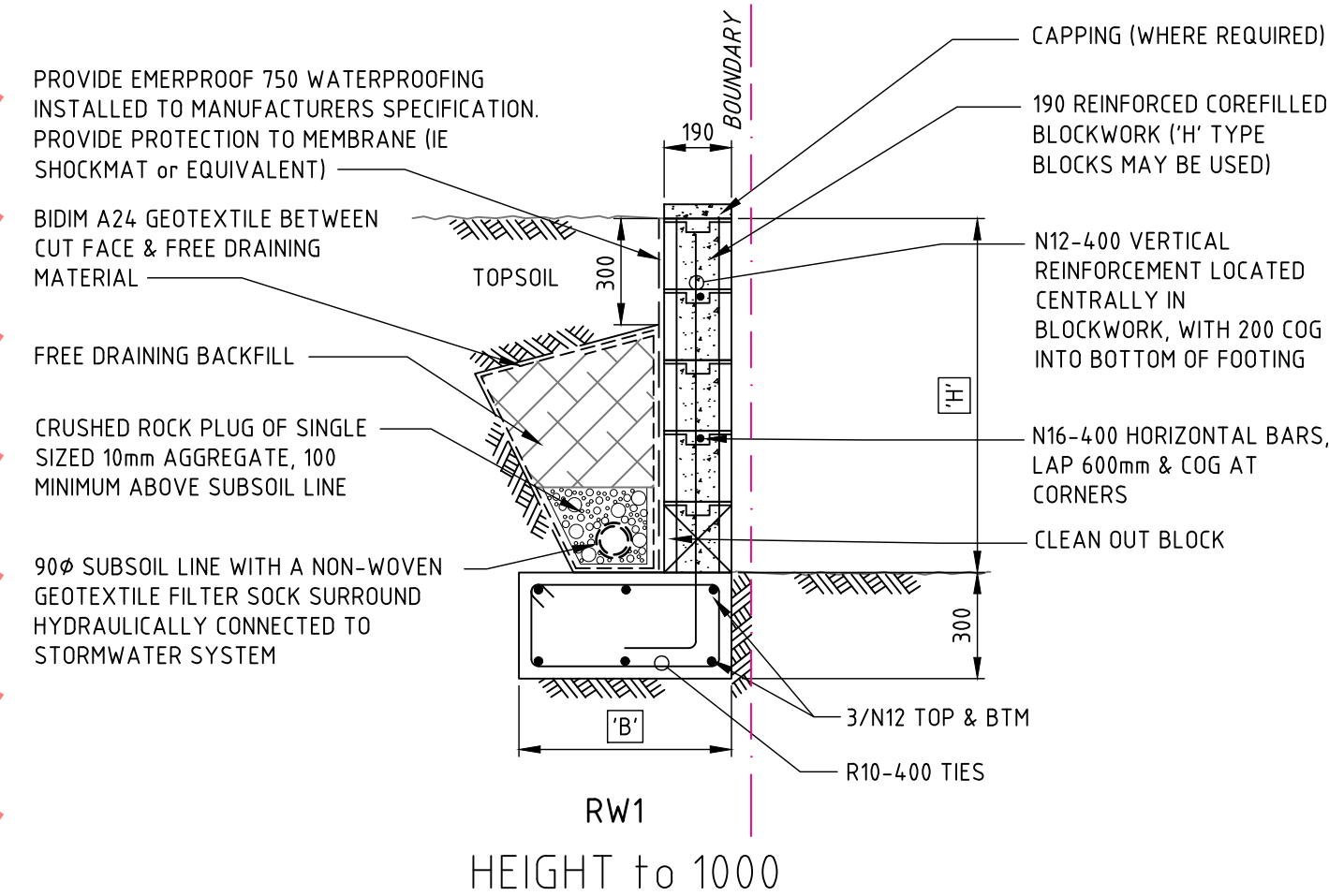


### SECTION 1



### PLAN STORMWATER INLET PIT

- PIT STRUCTURE TO BE 150mm THICK MINIMUM (UNLESS SHOWN OTHERWISE)
- REFER TO PIT INTERFACE DETAIL 'F' FOR CORNER REINFORCEMENT IF MESH IS USED IN LIEU OF N12-300 EACH WAY
- PROVIDE STEP IRONS IN ACCORDANCE WITH AS1657 WHEN PIT DEPTHS ARE GREATER THEN 1200mm
- SPARGE INTERNAL PIT FACE AT ALL PIPE CONNECTIONS AND PENETRATIONS.
- SHAPE BASE OF PIT TO DIRECT FLOWS TOWARDS OUTLET. PROVIDE A MINIMUM 30mm SMOOTH DROP FROM INLET TO OUTLET
- PROVIDE ADEQUATE LEVEL OF COMPACTION AROUND PIT. REFER TO SPECIFICATION FOR REQUIREMENTS.



### RETAINING WALL NOTES:

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

RETAINING WALL RW1 SCHEDULE	
HEIGHT 'H'	FOOTING WIDTH 'B'
600	450
800	550
1000	700

## ISSUED FOR APPROVAL

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	50% ISSUE FOR REVIEW	LS	CP	JK	18.07.18
A	ISSUED FOR CONSTRUCTION CERTIFICATE APPROVAL	LS	CS	RJ	17.08.18
B	FOR DESIGN COORDINATION	LS	CS	CP	16.01.19
C	FOR APPROVAL	WC	CS	CP	05.03.19

CLIENT
DOMAGROUP BATESSMART™

ARCHITECT
THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHPROP CONSULTING ENGINEERS PTY LTD.

ALL SETOUT TO ARCHITECT'S DRAWINGS. DIMENSIONS TO BE VERIFIED WITH THE ARCHITECT AND ON SITE BEFORE MAKING SHOP DRAWINGS OR COMMENCING WORK. NORTHPROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY.
DETAILS 1:20 0 200 400 600 800 1000
DETAILS 1:10 0 100 200 300 400 500

NORTHPROP
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 61 094 433 100





PROJECT
PROPOSED DEVELOPMENT
42 HONEYSUCKLE DRIVE,
NEWCASTLE N.S.W. 2300

DRAWING TITLE
CIVIL DETAILS
SHEET 1

JOB NUMBER
NL171278
DRAWING NUMBER
CC-02-C6.0
REVISION
C
DRAWING SHEET SIZE = A1



DRAWN: L.STEEL

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	<div> <div> ALL SETOUT TO ARCHITECT'S DRAWINGS. DIMENSIONS TO BE VERIFIED WITH THE ARCHITECT AND ON SITE BEFORE MAKING SHOP DRAWINGS OR COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. </div> <div>  <p><b>Northrop</b> Newcastle</p> <p>Suite 4, 215 Pacific Hwy, Charlestown NSW 2290 P.O. Box 180, Charlestown NSW 2290 Ph (02) 4943 1777 Fax (02) 4943 1077 Email <a href="mailto:newcastle@northrop.com.au">newcastle@northrop.com.au</a> ABN 81 094 433 100</p> </div> </div>	PROJECT	DRAWING TITLE	JOB NUMBER						
A	FOR DESIGN COORDINATION	LS	CS	CP	16.01.19	<div> DOMAGROUP </div>	<div> BATESSMART™ </div>	<div> ALL SETOUT TO ARCHITECT'S DRAWINGS. DIMENSIONS TO BE VERIFIED WITH THE ARCHITECT AND ON SITE BEFORE MAKING SHOP DRAWINGS OR COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. </div>	<div>  <p><b>Northrop</b> Newcastle</p> <p>Suite 4, 215 Pacific Hwy, Charlestown NSW 2290 P.O. Box 180, Charlestown NSW 2290 Ph (02) 4943 1777 Fax (02) 4943 1077 Email <a href="mailto:newcastle@northrop.com.au">newcastle@northrop.com.au</a> ABN 81 094 433 100</p> </div>	<div> PROPOSED DEVELOPMENT 42 HONEYSUCKLE DRIVE, NEWCASTLE N.S.W. 2300 </div>	<div> CIVIL DETAILS SHEET 2 </div>	<div> NL171278 </div>					
B	FOR APPROVAL	WC	CS	CP	01.03.19								<div> DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED </div>	<div> THE COPY/RIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS P'TY LTD. </div>	<div> DETAILS 1:20 </div> 	<div> DRAWING NUMBER CC-02-C6.1 </div>	<div> REVISION C </div>
C	FOR APPROVAL	WC	CS	CP	05.03.19								<div> DETAILS 1:10 </div> 	<div> DRAWING SHEET SIZE = A1 </div>			