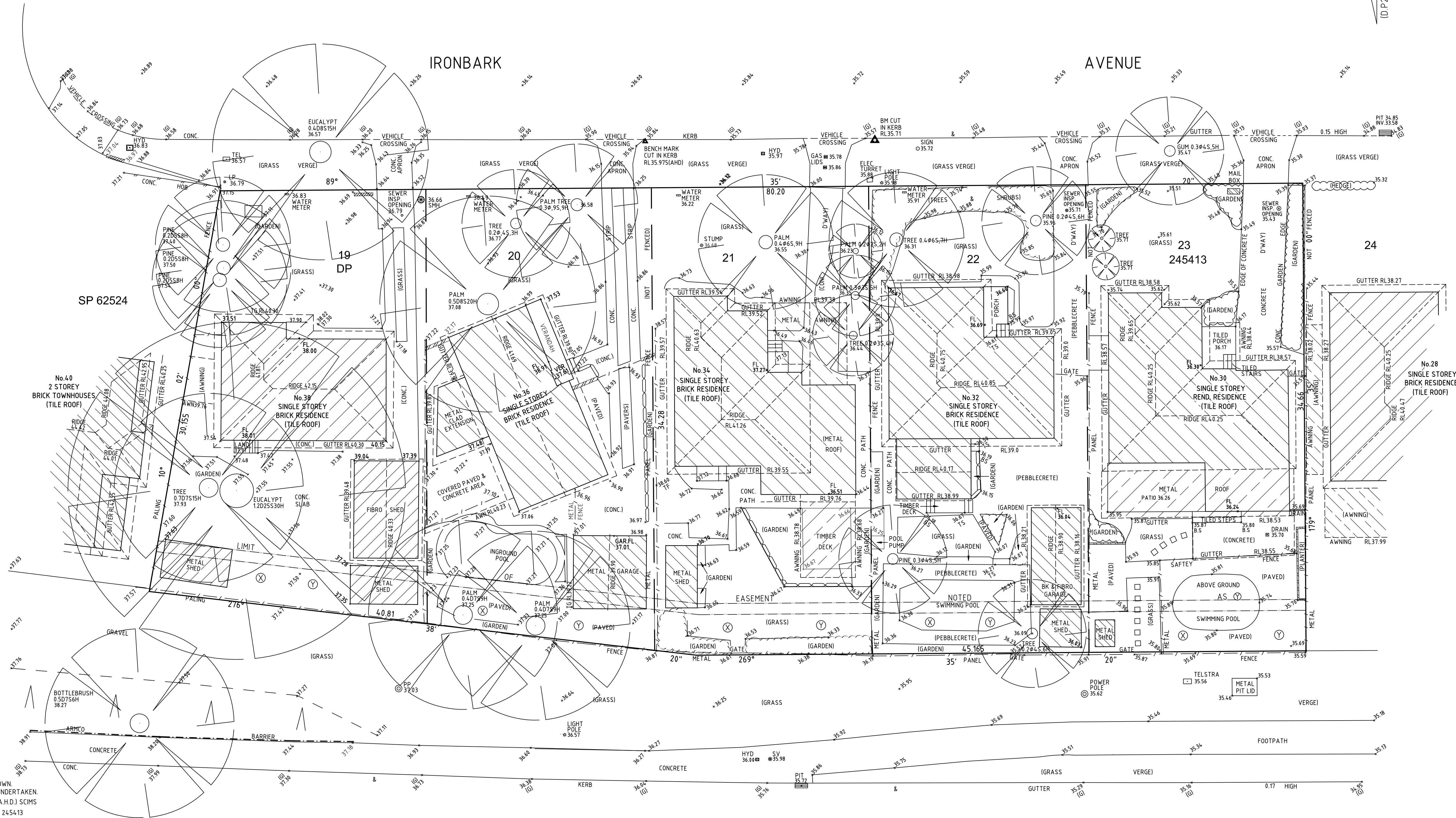
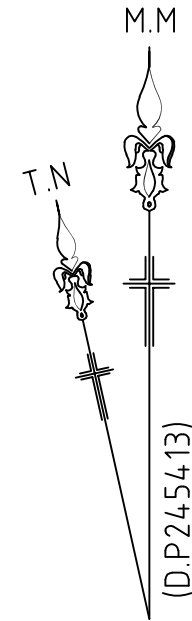
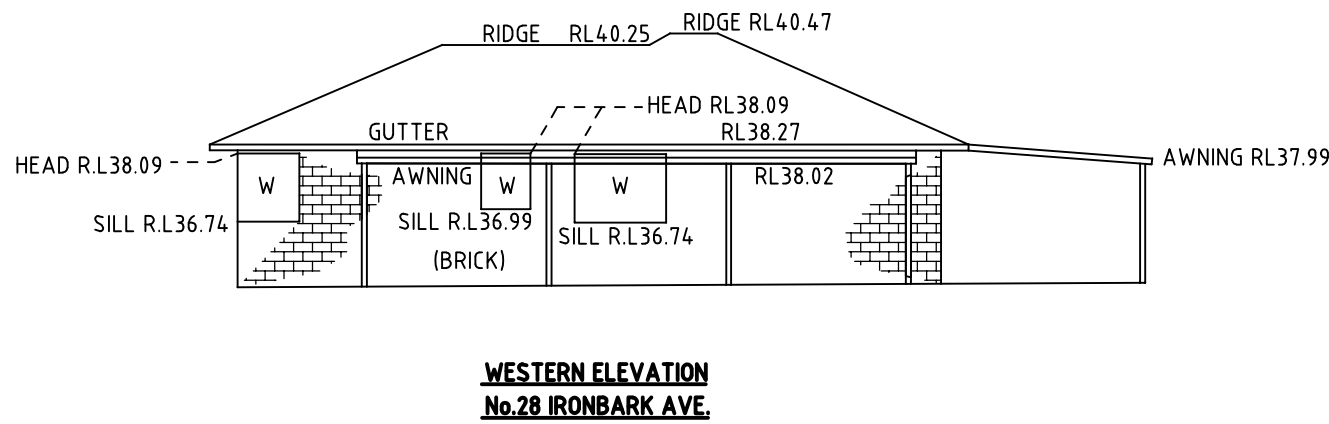
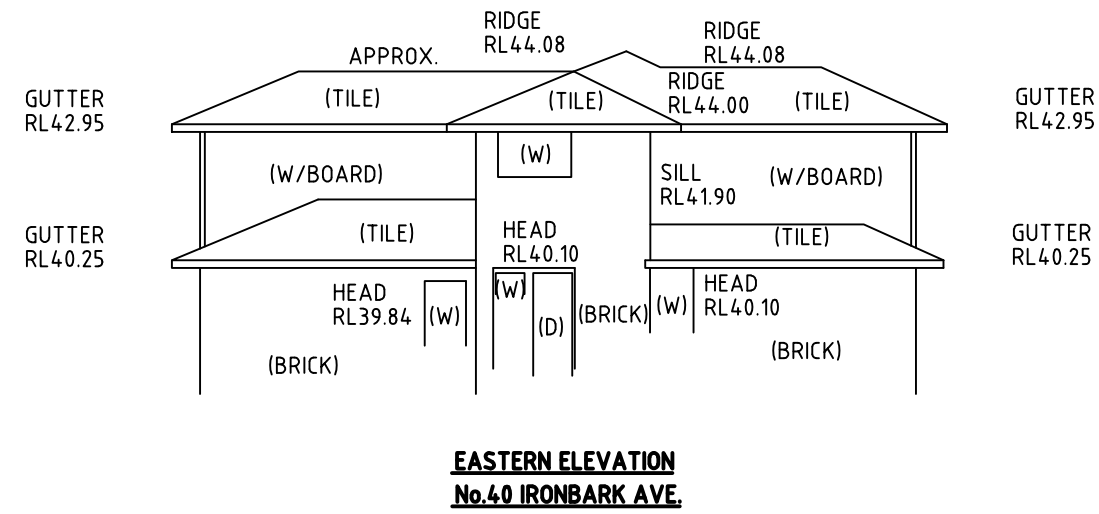




- NOTES:**
- TITLE BEARINGS AND DIMENSIONS ARE SHOWN. BOUNDARY REDEFINITION HAS NOT BEEN UNDERTAKEN.
 - ORIGIN OF LEVELS: SSM7044.0 RL45.053 (A.H.D.) SCIMS
 - SITE COMPRISES LOTS 19, 20, 21, 22 & 23 DP 245413
 - LOTS 19 & 20 SURVEYED ON THE 13.12.17
 - LOTS 21 & 22 SURVEYED ON THE 05.10.17
 - LOT 23 SURVEYED ON THE 22.03.18
 - SITE AREA 2786.8m² BY TITLE DIMENSIONS
 - UNDERGROUND SERVICES HAVE NOT BEEN INVESTIGATED.
 - (G) DENOTES GUTTER LEVEL.
 - TF DENOTES TOP OF FENCE
 - TS DENOTES TOP OF STEP
 - BS DENOTES BOTTOM OF STEP
 - 0.3Ø105.8H DENOTES TREE SIZE 0.3 TRUNK DIAMETER, 10' SPREAD, 8' HIGH.
 - TREE NAMES SHOWN CONSTITUTE OUR OPINION ONLY. IF TREE SPECIES IDENTIFICATION IS IMPORTANT FOR DESIGN OR HERITAGE REASONS THEY SHOULD BE DETERMINED BY A QUALIFIED ARBORIST.
 - ⊗ DENOTES EASEMENT FOR BATTER 3.0m WIDE (DP 245413)
 - ⊙ DENOTES RESTRICTION ON THE USE OF LAND NOTED No.5 IN DP 245413

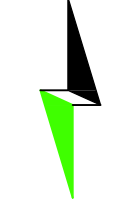


ISSUE	DATE	AMENDMENT	TITLE:	PLAN SHOWING SELECTED DETAIL & LEVELS OVER No. 30-38 IRONBARK AVENUE, CASULA		
			LGA:	LIVERPOOL	REFERENCE:	24491
			CLIENT :	ST. GEORGE COMMUNITY HOUSING	DATE:	22.03.18
			SCALE (AT A1)	1:150	DATUM :	AHD
					SHEET	1
					SURVEYOR:	MM

Norton Survey Partners
SURVEYORS & LAND TITLE CONSULTANTS

A.C.N. 618 980 475
SUITE 1
670 DARLING STREET
ROZELLE N.S.W. 2039

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office@nspartners.com.au



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PRE-DEVELOPMENT

TOTAL SITE AREA AREA = 2787m²
TOTAL IMPERVIOUS AREA = 1615m²

FRACTION IMPERVIOUS = 57.9%
Tc PERVIOUS = 5min
Tc IMPERVIOUS = 5min

SCALE 1:200



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P3	PRELIMINARY ISSUE FOR INFORMATION	06.07.18	SK	-
P2	PRELIMINARY ISSUE FOR INFORMATION	04.06.18	CS	-
P1	PRELIMINARY ISSUE FOR INFORMATION	01.06.18	CS	-

Rev	Description	Date	By	App
P6	ISSUED FOR DA	19.07.19	PA	-

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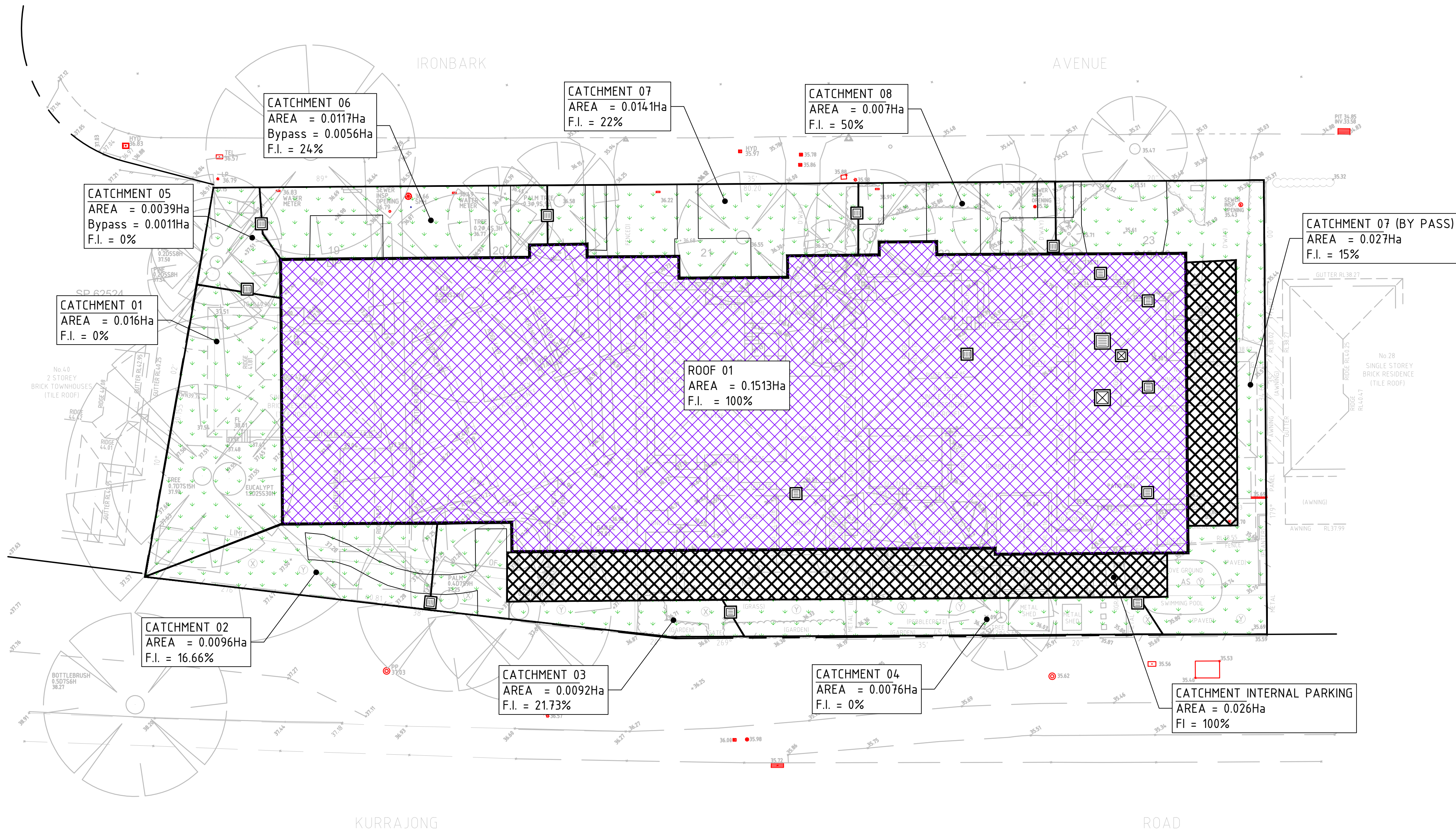
Project Name
**ST GEORGE COMMUNITY HOUSING
30-38 IRONBARK AVENUE
CASULA NSW**

Drawing Title
**EXISTING STORMWATER
DRAINAGE CATCHMENT PLAN**

DEVELOPMENT APPLICATION

Designed	SK	Project Director Approved	Date	North
Drawn	SK			
Scale	1:200	Project Ref	Drawing No	Rev
Date	JULY 2018	20 10539 01	C021	P6
Sheet	A1			

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SCALE 1:200



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Rev	Description	Date	By	App	Rev	Description	Date	By	App
					P8	ISSUED FOR DA	19.07.19	PA	-
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					P6	PRELIMINARY ISSUE FOR INFORMATION	25.01.19	PA	-

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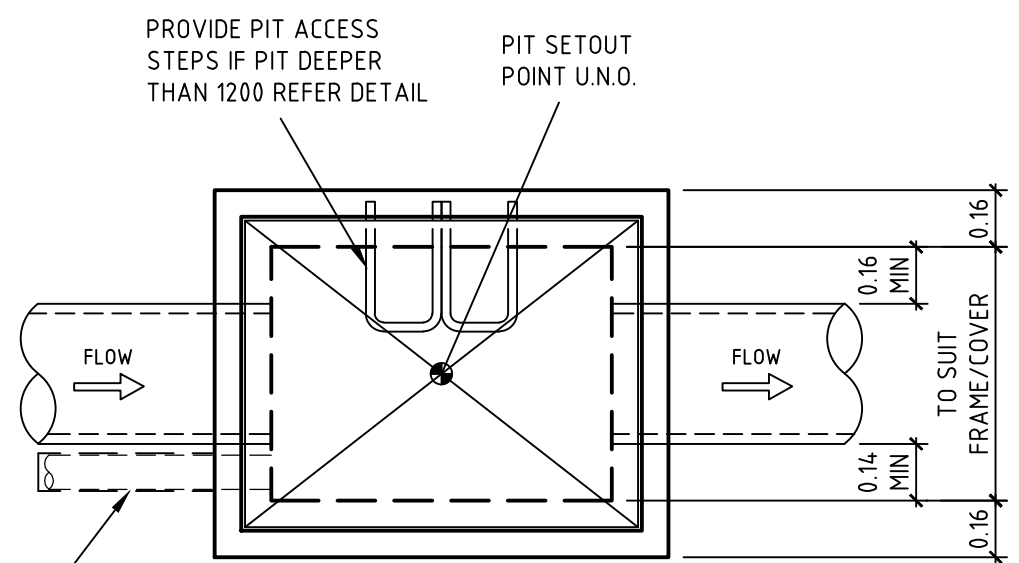
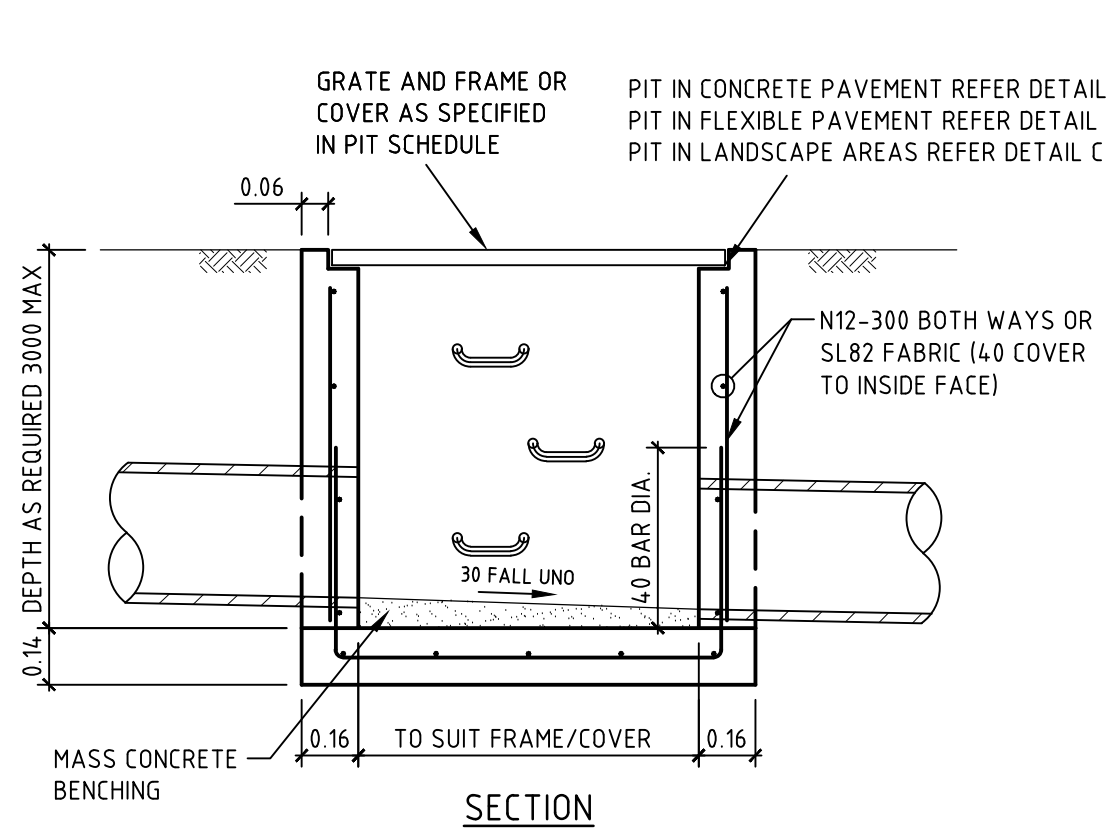
BONACCI GROUP Pty Ltd
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Project Name
**ST GEORGE COMMUNITY HOUSING
30-38 IRONBARK AVENUE
CASULA NSW**

Drawing Title
**PROPOSED STORMWATER
WATER QUALITY / WATER QUANTITY
CATCHMENT PLAN**

DEVELOPMENT APPLICATION

Designed	SK	Project Director / Approved	Date	North
Drawn	SK			
Scale	1:200	Project Ref	Drawing No	Rev
Date	JULY 2018	20 10539 01	C025	P8
Sheet	A1			

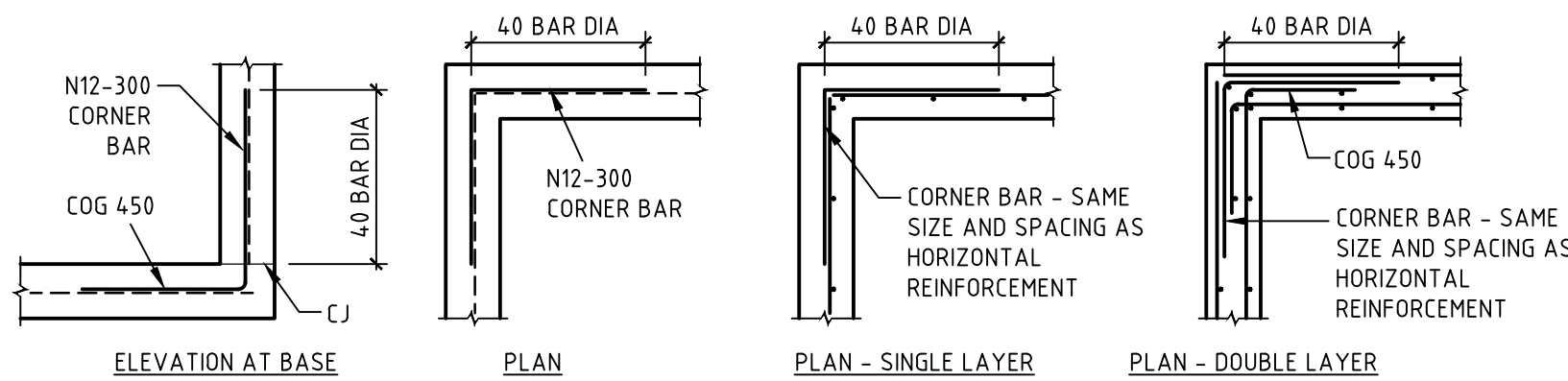


SURFACE INLET/JUNCTION PIT DETAIL

SCALE 1:20

STORMWATER PIT NOTES

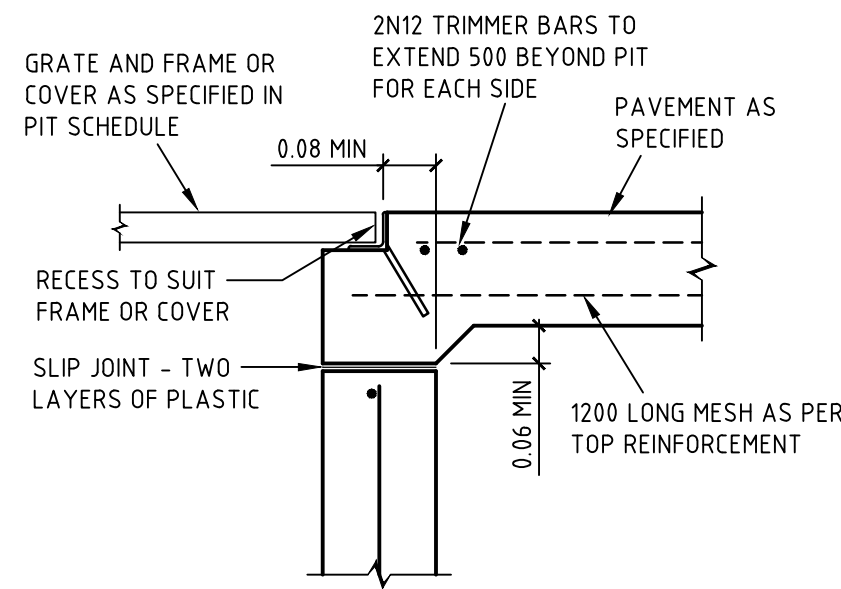
1. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH (F'c) OF 25 MPa AT 28 DAYS.
2. REINFORCEMENT NOT REQUIRED IF DEPTH OF PIT IS LESS THAN 1000mm. PITS GREATER THAN 3000mm DEEP TO HAVE WALL AND BASE 200mm THICK REINFORCED WITH N12-250 EACH WAY EACH FACE WITH CONCRETE STRENGTH F'c = 40 MPa.
3. PROVIDE STEP IRONS AT MAX 350mm CTRS IF DEPTH OF PIT EXCEEDS 1200mm.
4. IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS.
5. PRECAST PITS ARE TO GENERALLY COMPLY WITH THESE DETAILS.
6. PRECAST PIT MAY BE USED SUBJECT TO ENGINEERS APPROVAL.
7. ALL PITS TO BE LOCKABLE.
8. FINAL INTERNAL PIT DIMENSIONS ARE TO COMPLY WITH AS 3500.



PIT CORNER DETAILS

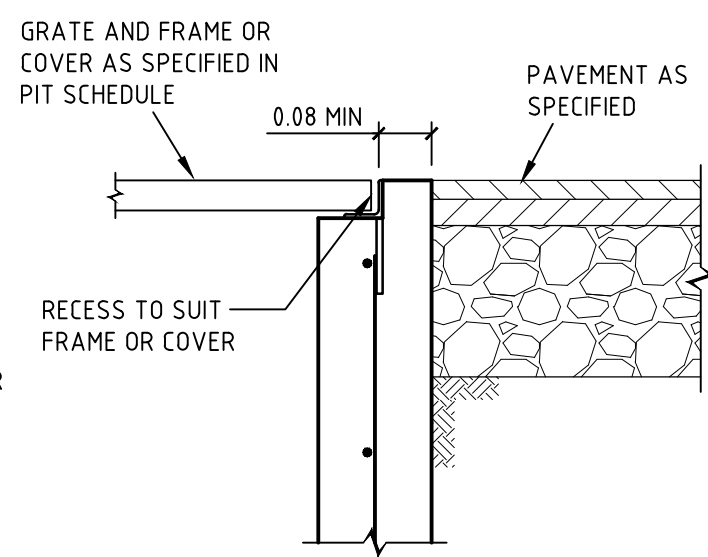
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NOTE: DESIGNER TO VERIFY EXTENT OF DETAILING



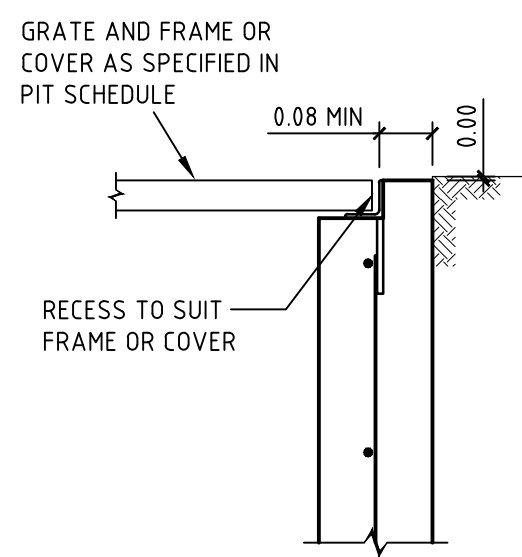
DETAIL A

SCALE 1:10



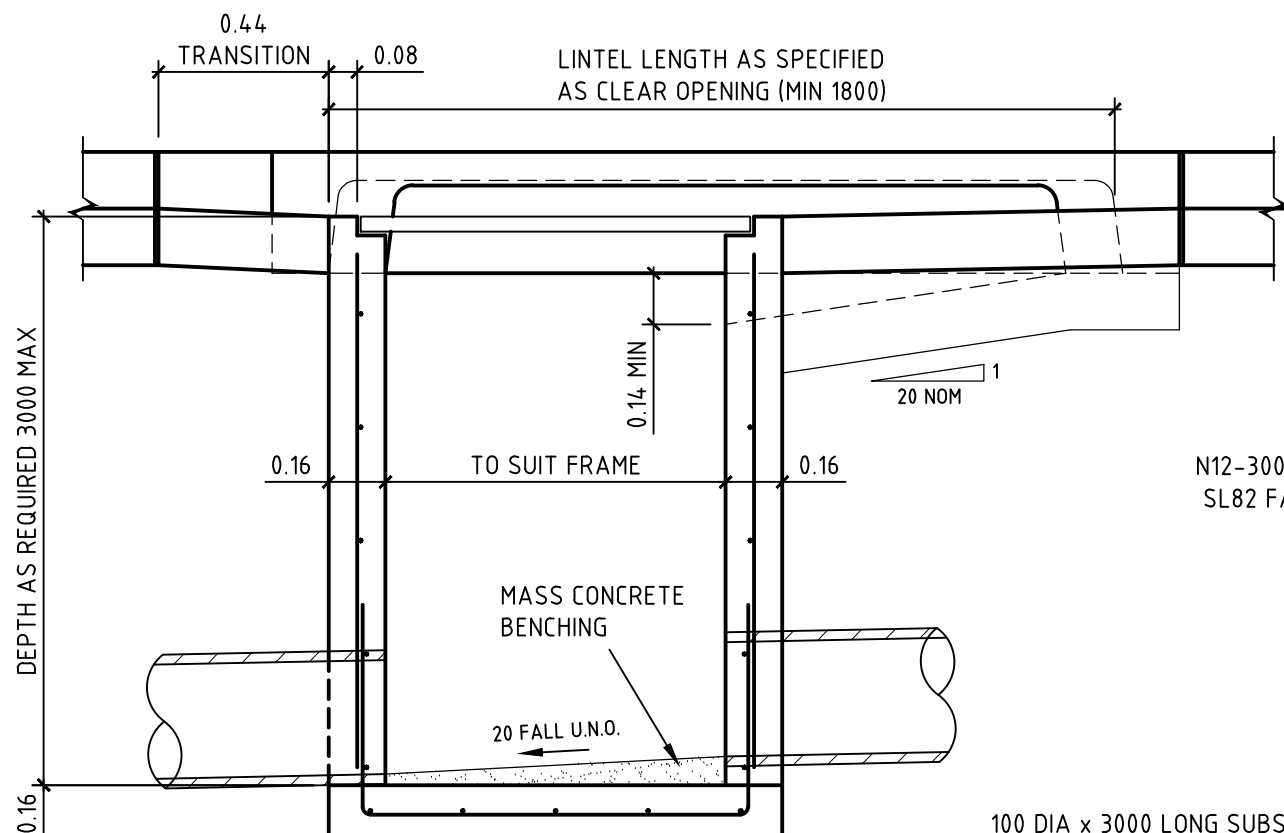
DETAIL B

SCALE 1:10

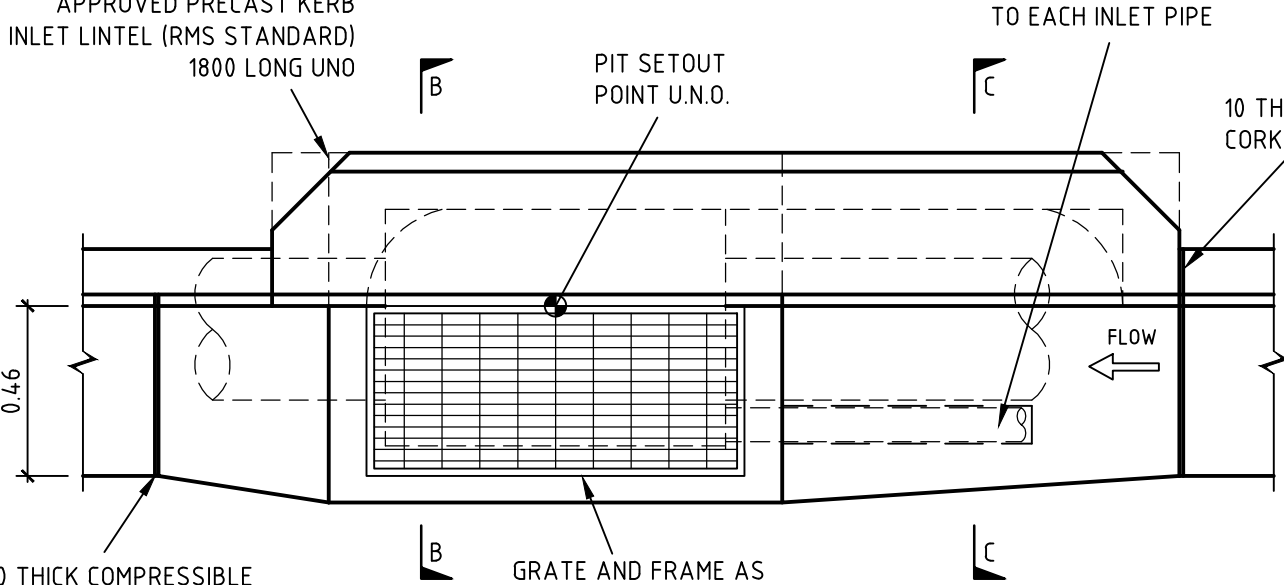


DETAIL C

SCALE 1:10



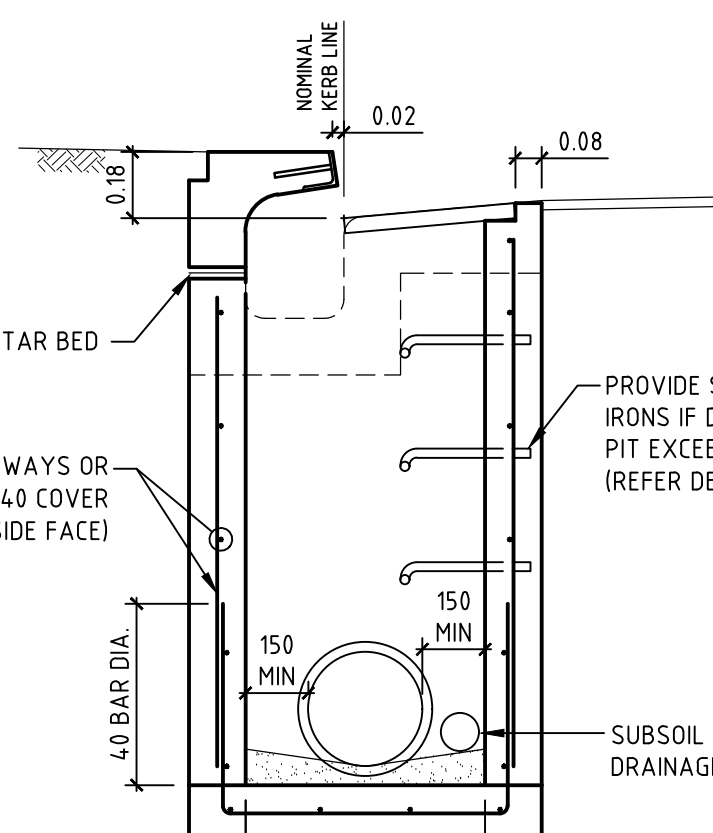
SECTION A-A



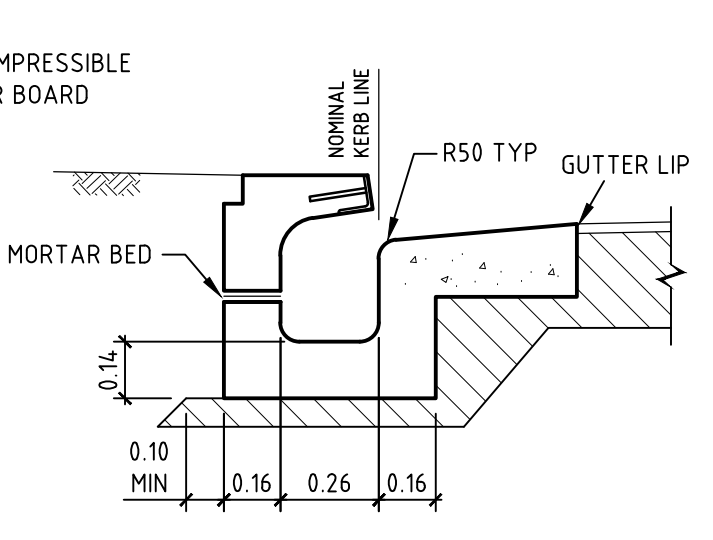
PLAN

KERB INLET PIT DETAIL

SCALE 1:20

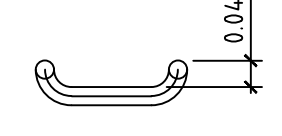


SECTION B-B

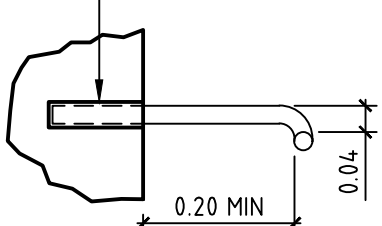


SECTION C-C

DRILL 30mm DIA HOLE x 120mm DEEP AND EPOXY INTO WALL WITH EPOXY MORTAR EQUAL TO EPIREZ 633 (NON SAGE) - IN PRECAST PITS, DEPTH OF EMBEDMENT IS TO BE IN ACCORDANCE WITH PIT MANUFACTURER'S DETAILS

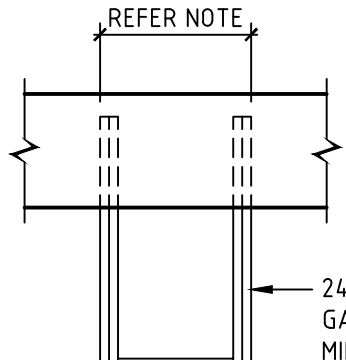


FRONT ELEVATION



SIDE ELEVATION

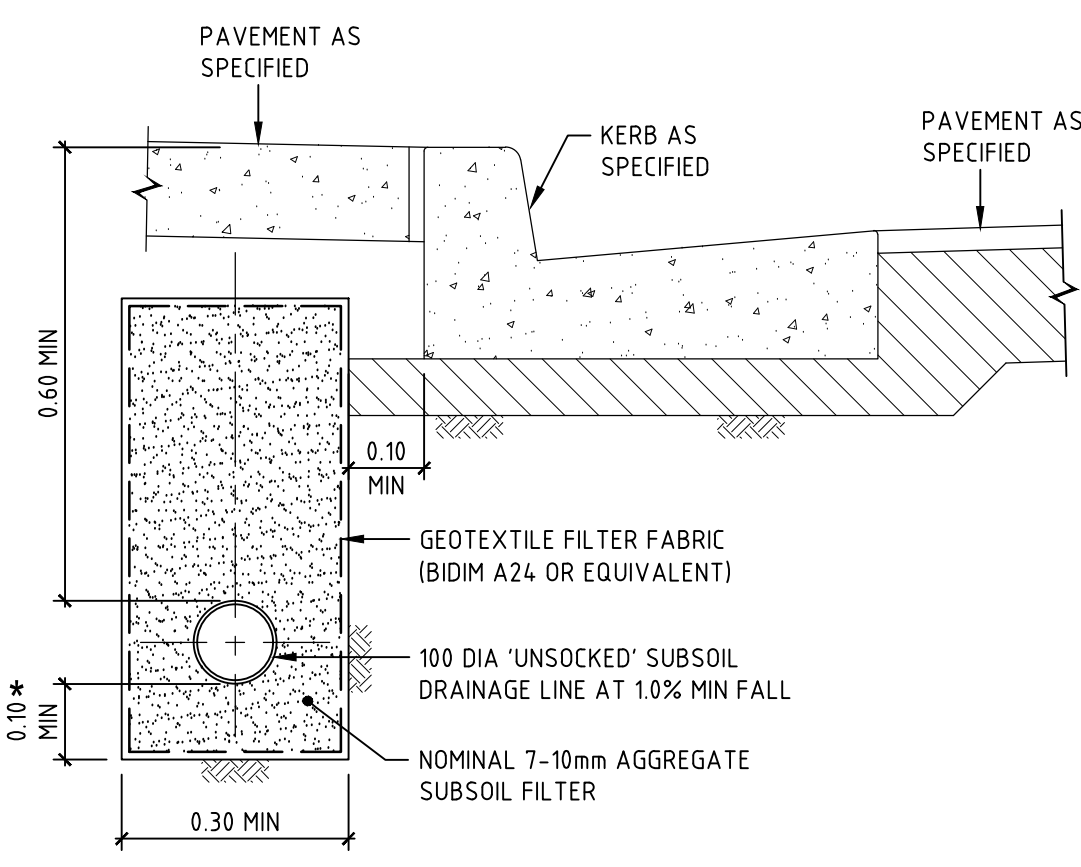
- NOTES
1. WHEN POSITIONED IN STRAIGHT ALIGNMENT, STEP TO BE 400 WIDE.
 2. STAGGERED STEPS TO BE 200 WIDE, STEPS TO BE STAGGERED 200 CENTRE TO CENTRE FOR ALTERNATIVE STEPS.
 3. SPACING OF STEPS TO BE UNIFORM TO WITHIN ±8mm IN EACH PIT.



PLAN

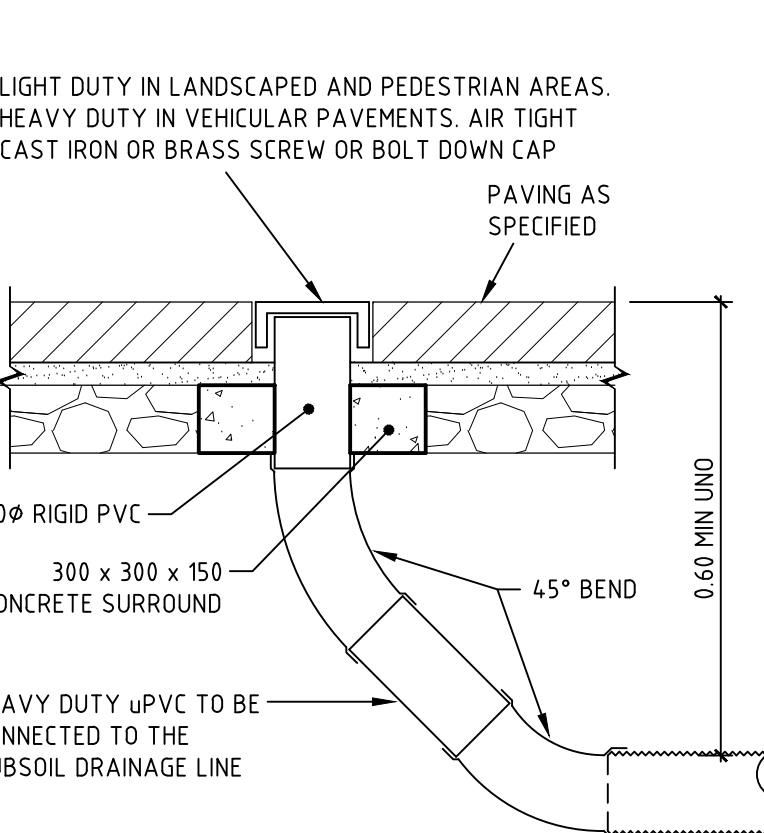
PIT ACCESS STEP DETAIL

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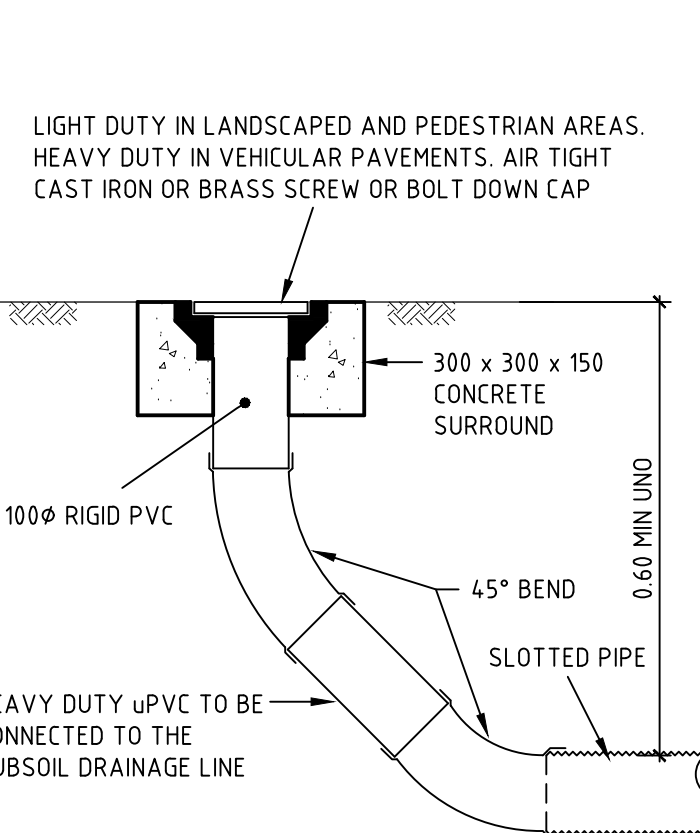
SUBSOIL BEHIND KERB

SCALE 1:10



FLUSHOUT RISER (FOR) IN PAVING BRICKS

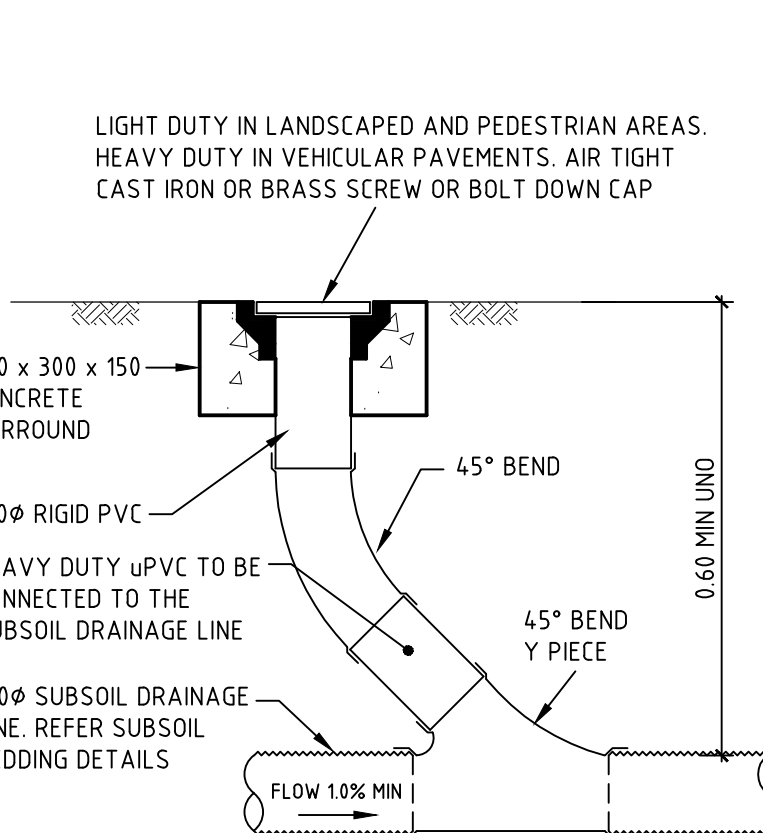
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FLUSHOUT RISER (FOR) IN PAVING BRICKS

SCALE 1:10

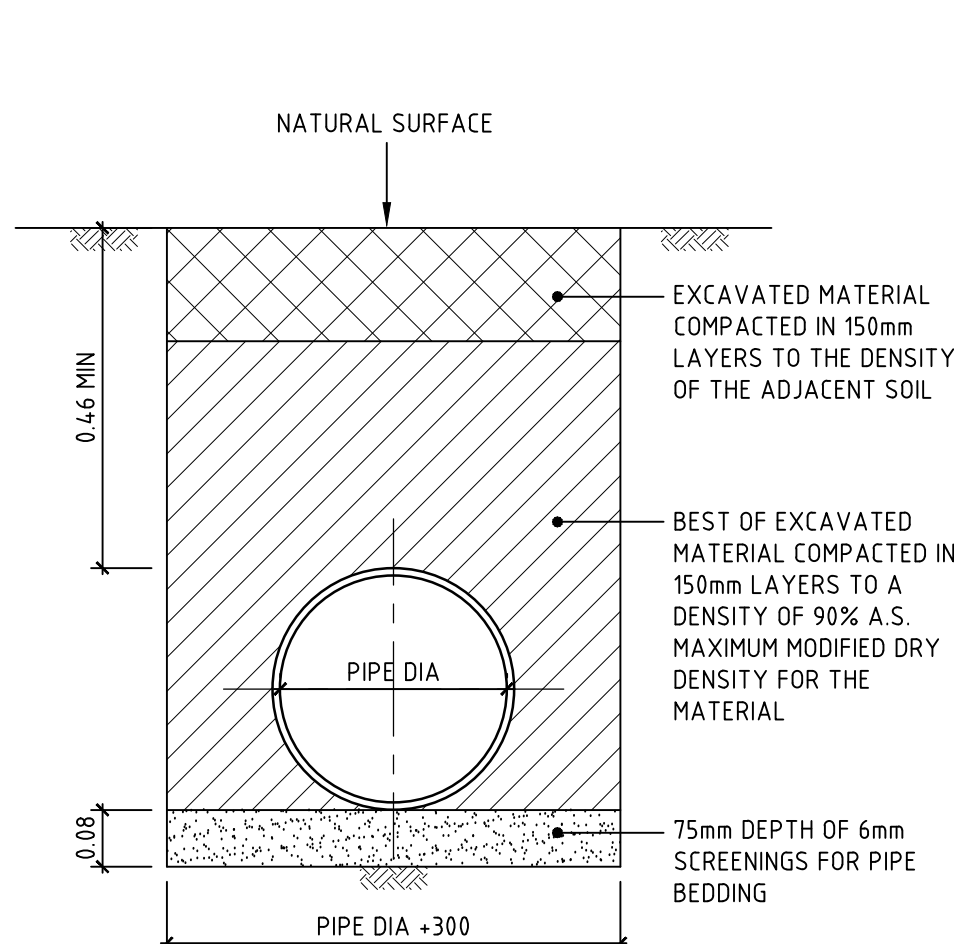
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS WITHIN DRAINAGE LAYER ONLY



INTERMEDIATE RISER

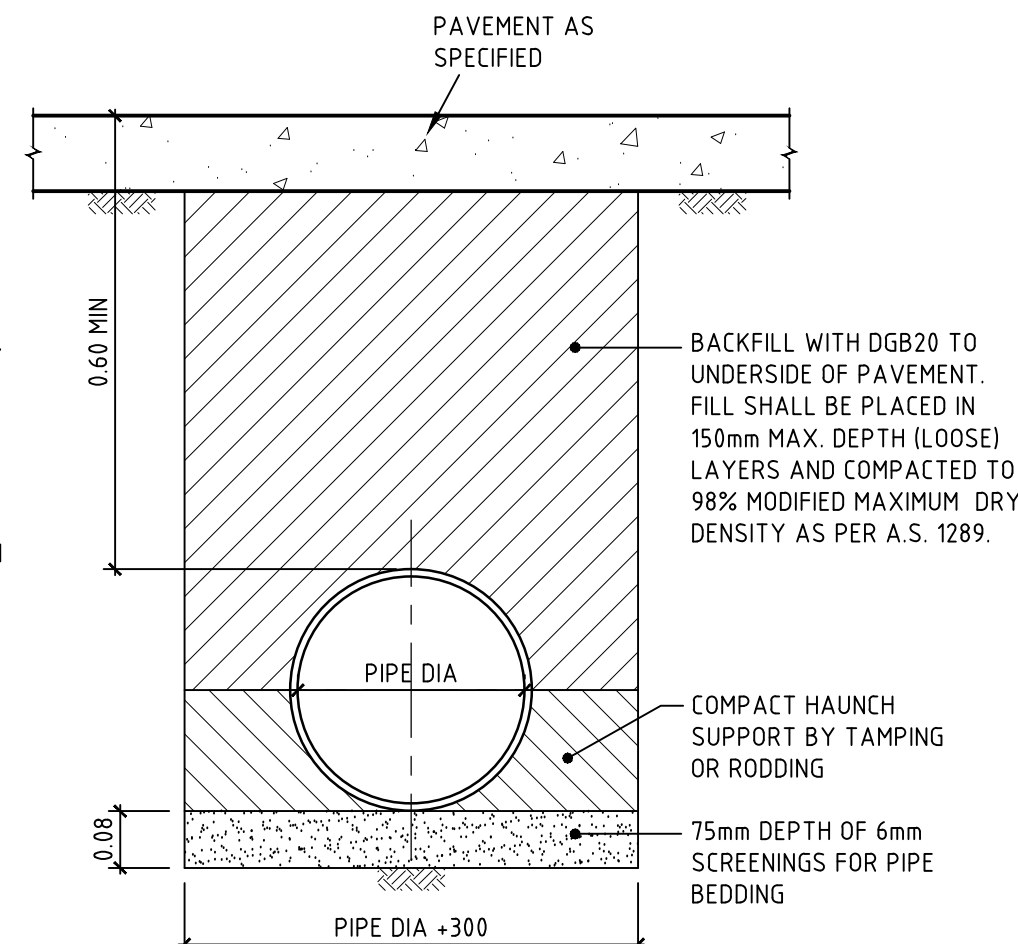
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NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



PIPE LAYING DETAIL (ALL PIPES) UNDER LANDSCAPED AREAS

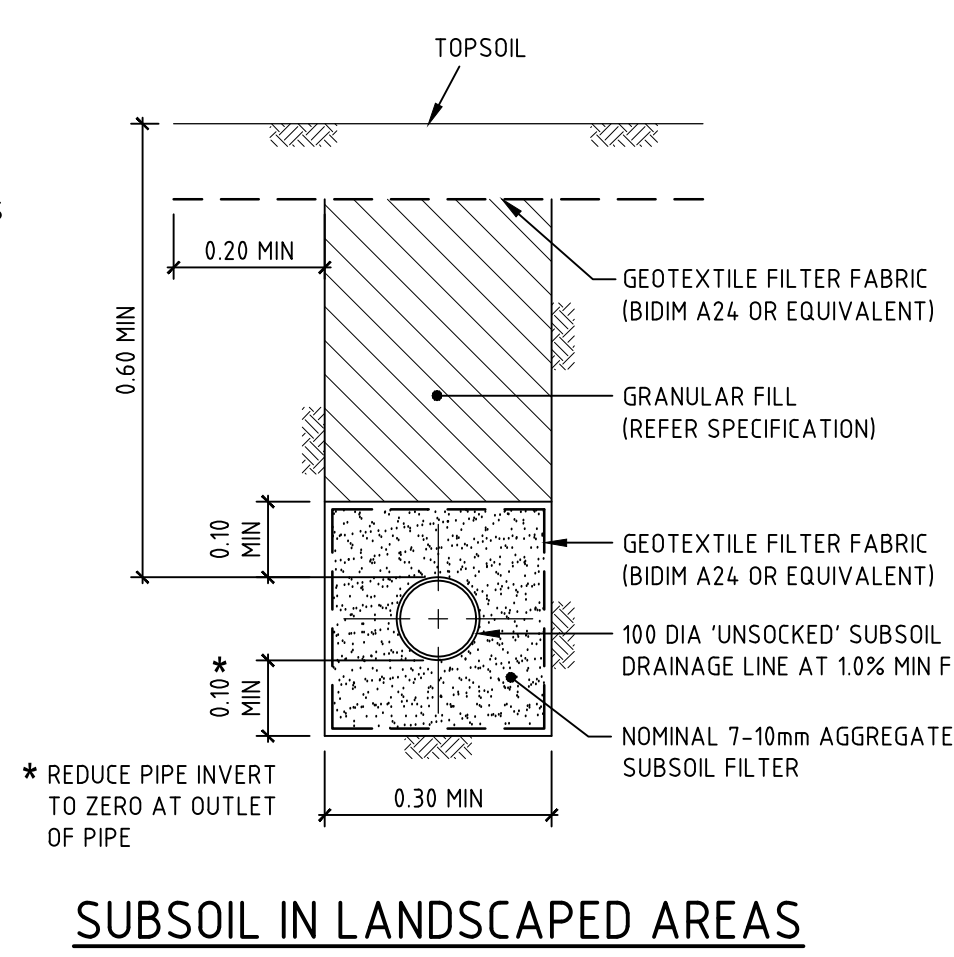
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PIPE LAYING DETAILS UNDER ALL PAVEMENTS

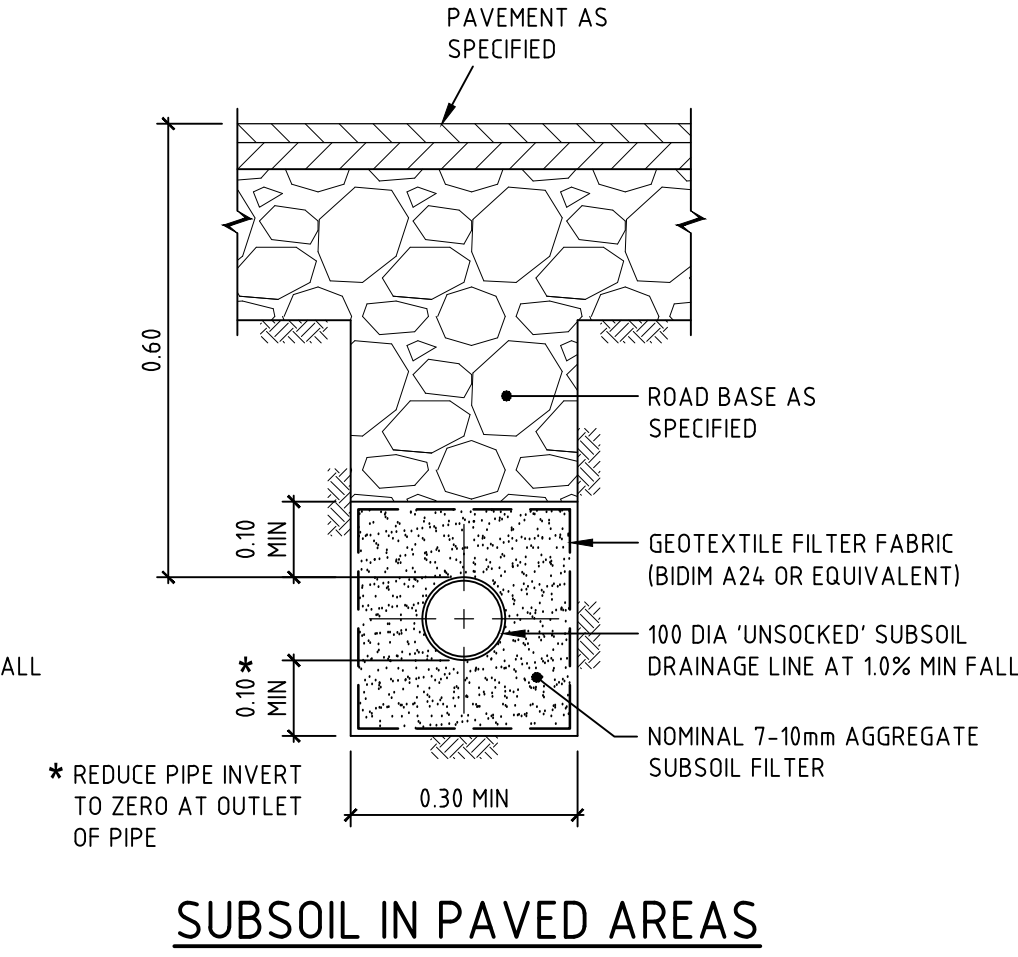
SCALE 1:10

NOTE: AVOID RUNNING CONSTRUCTION EQUIPMENT OVER THE PIPES UNTIL BACKFILL MATERIAL IS 300mm MIN. ABOVE CROWN OF PIPE.



SUBSOIL IN LANDSCAPED AREAS

SCALE 1:10



SUBSOIL IN PAVED AREAS

SCALE 1:10

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PI ISSUED FOR DA 010219 PA

Rev Description Date By App

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Project Name
ST GEORGE COMMUNITY HOUSING
30-38 IRONBARK AVENUE
CASULA NSW

Drawing Title
STORMWATER DRAINAGE DETAILS

DEVELOPMENT APPLICATION

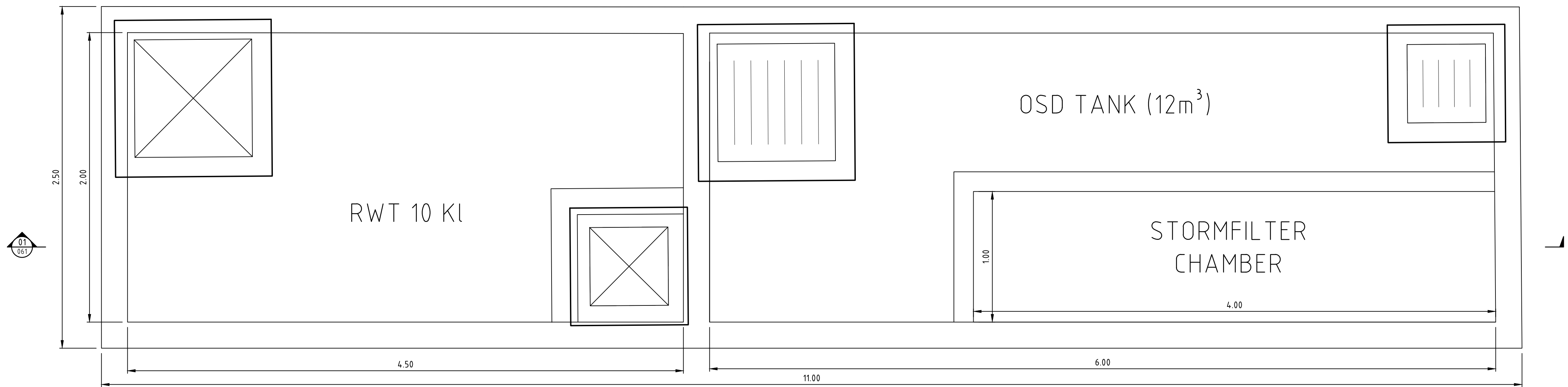
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Drawn PA
Scale NOTED
Date JUL Y 2018
Sheet A1

Project Director Approved
Date
North

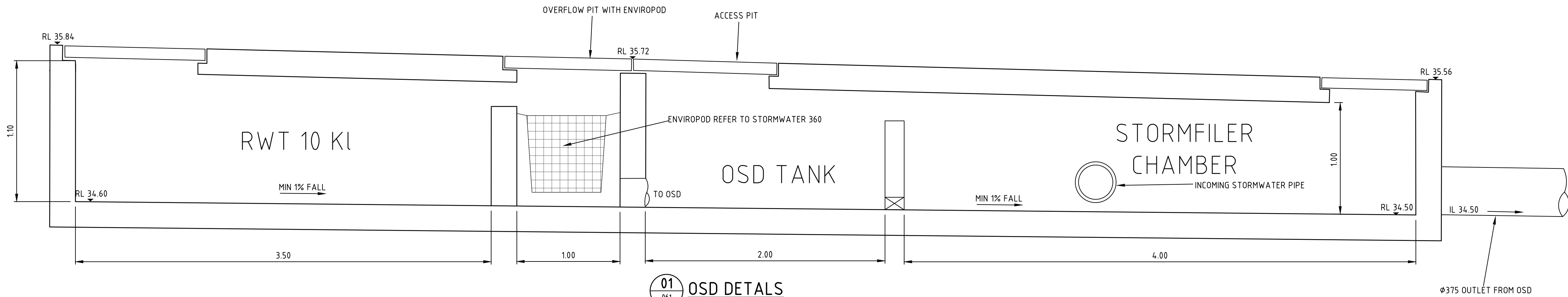
Project Ref
20 10539 01

Drawing No
C060

Rev
P1



OSD PLAN



OSD DETAILS

SCALE 1:20

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P5	ISSUED FOR DA	10.05.19	PA	-
P4	ISSUED FOR DA	06.02.19	PA	-
P3	ISSUED FOR DA	01.02.19	PA	-
P2	PRELIMINARY ISSUE FOR INFORMATION	04.12.18	PA	-
P1	PRELIMINARY ISSUE FOR INFORMATION	03.12.18	PA	-

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P7	OUTLET PIPE DIAMETER UPDATED	19.07.19	PA	-
P6	INVERT LEVEL ADJUSTED	27.05.19	PA	-



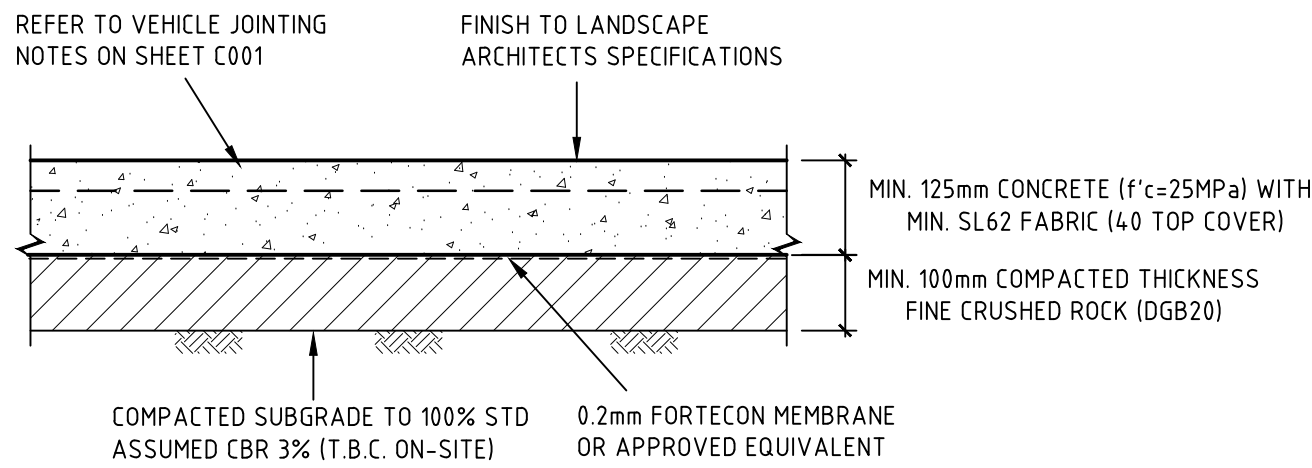
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Project Name
**ST GEORGE COMMUNITY HOUSING
30-38 IRONBARK AVENUE
CASULA NSW**

Drawing Title
ON-SITE DETENTION DETAILS

DEVELOPMENT APPLICATION

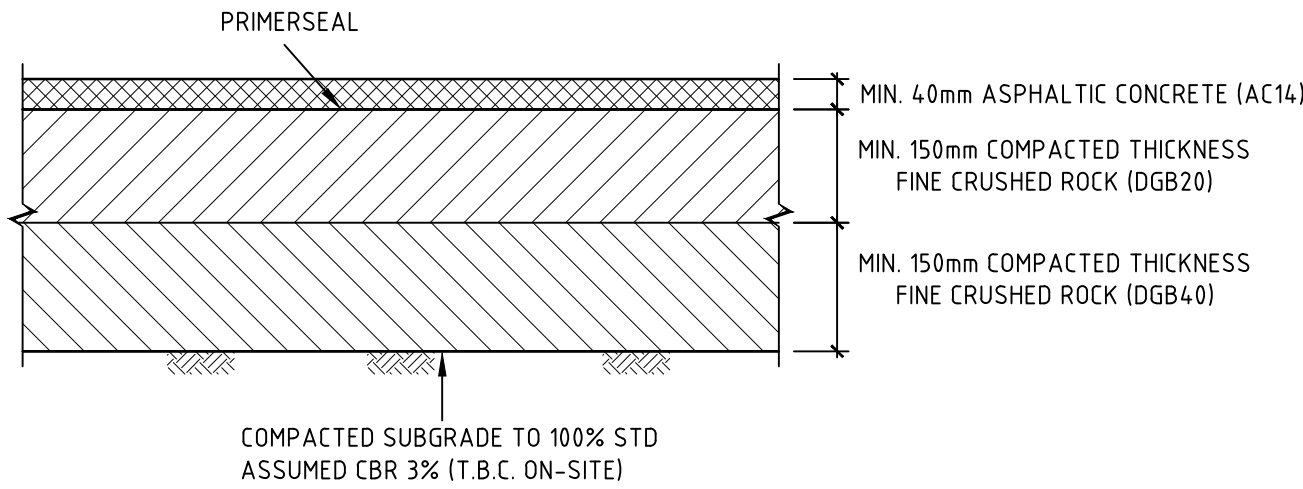
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Drawn	PA			
Scale	NOTED	Project Ref	Drawing No	Rev
Date	JUL Y 2018	20 10539 01	C061	P7
Sheet	A1			



COURTYARD PAVEMENT



DENOTED ON PLAN



CARPARK PAVEMENT



DENOTED ON PLAN

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Rev	Description	Date	By App
P2	ISSUED FOR DA	10.05.19	PA -
P1	ISSUED FOR DA	02.05.19	SK -

Rev	Description	Date	By App

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Project Name	ST GEORGE COMMUNITY HOUSING 30-38 IRONBARK AVENUE CASULA NSW		
Drawing Title	PAVEMENT DETAILS		

DEVELOPMENT APPLICATION			
Designed	SK	Project Director Approved	Date
Drawn	SK		
Scale	NOTED	Project Ref	Drawing No
Date	MAY 2019		Rev
Sheet	A1	20 10539 01	C070 P2

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