

MIXED USE DEVELOPMENT 4 DELMAR PDE & 812 PITTWATER ROAD, DEE WHY STORMWATER CONCEPT DESIGN



LOCALITY PLAN
NOT TO SCALE
COPYRIGHT OF SIX MAPS

DRAWINGS LIST			
SHEET No.	DWG No.	TITLE	REV
1	SW100	COVER SHEET	D
2	SW200	STORMWATER CONCEPT DESIGN - BASEMENT 2 PLAN	D
3	SW201	STORMWATER CONCEPT DESIGN - BASEMENT 1 PLAN	D
4	SW202	STORMWATER CONCEPT DESIGN - GROUND FLOOR PLAN - SHEET 1 OF 2	D
5	SW203	STORMWATER CONCEPT DESIGN - GROUND FLOOR PLAN - SHEET 2 OF 2	D
6	SW300	STORMWATER CONCEPT DESIGN - DETAILS SHEET - SHEET 1 OF 2	D
7	SW301	STORMWATER CONCEPT DESIGN - DETAILS SHEET - SHEET 2 OF 2	D
8	SW400	EROSION AND SEDIMENT CONTROL - PLAN	D
9	SW401	EROSION AND SEDIMENT CONTROL - DETAILS	D
10	SW500	STORMWATER CONCEPT DESIGN - MUSIC CATCHMENT PLAN	D



PREPARED BY:
SGC Consulting Engineers
Suite 5.03, Level 5
156 Pacific Highway
St. Leonards, NSW 2065
T: +61 2 8883 4239
Email: office@sgce.com.au
Web: www.sgce.com.au

ARCHITECT:

rothelowman

Brisbane, Melbourne, Sydney
www.rothelowman.com.au

CLIENT:

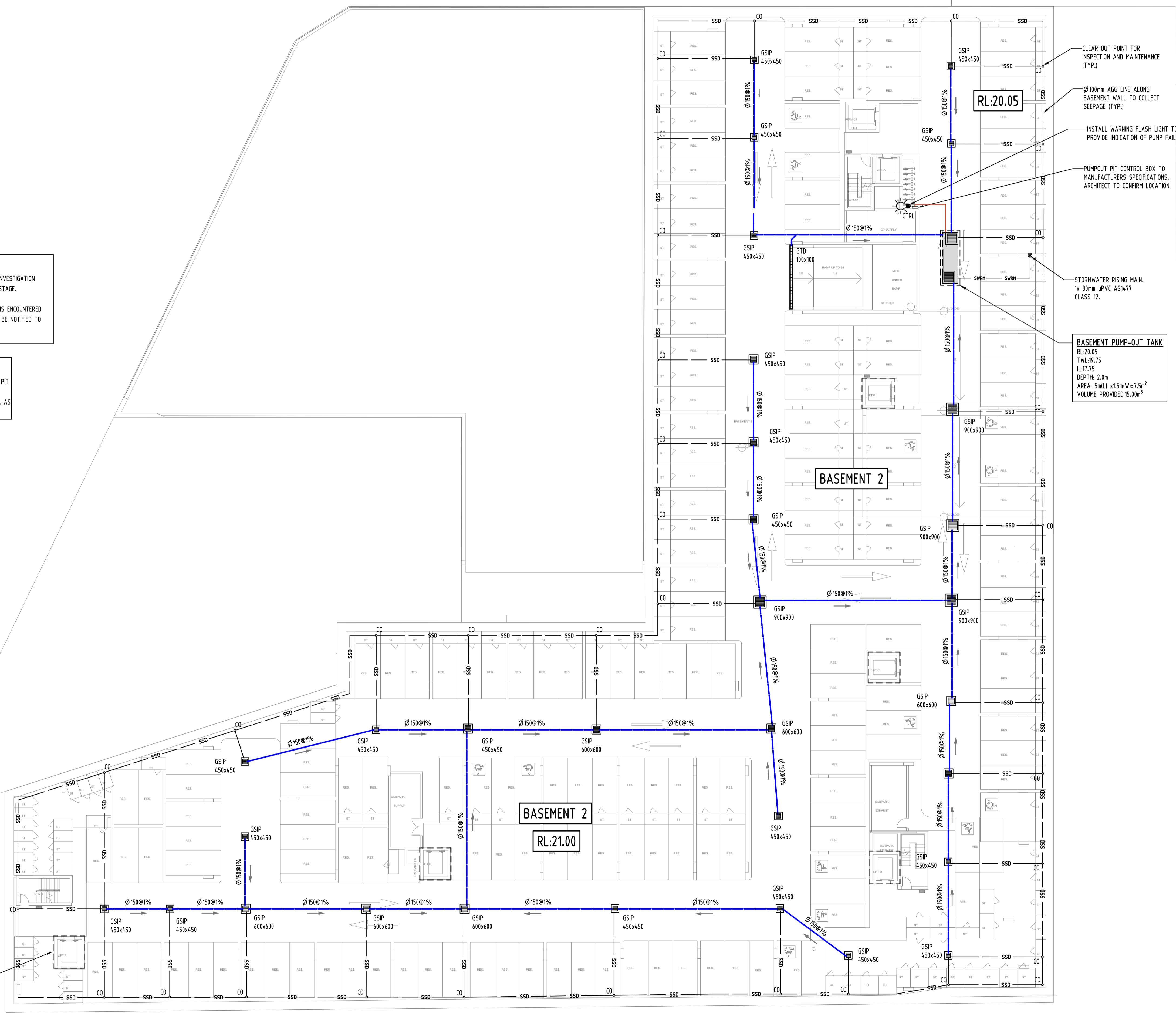
DEE WHY 3 PTY LTD &
DEE WHY 4 PTY LTD

PUMP-OUT PIT NOTE:
 INSTALL WITH THE FOLLOWING ITEMS:
 - 900SD HEAVY DUTY STEEL GRATED LID FOR ACCESS AND MAINTENANCE PURPOSES.
 - CONFINED SPACE SIGN ABOVE PUMP OUT PIT FOR PUBLIC AWARENESS AND WARNING.
 - STEP IRONS, REFER TO DETAILS.
 - PUMP-OUT PIT CONTROL BOX (CTRL) TO MANUFACTURER'S SPECIFICATIONS. LOCATIONS TO BE CONFIRMED WITH ARCHITECT.
 - PUMPS TO OPERATE IN ALTERNATE MODE TO INCREASE LIFESPAN.
 - INSTALL VISIBLE FLASHING LIGHT SYSTEM IN CASE OF PUMP FAILURE.
 - USE SABRE KS 75 OR EQUIVALENT DUAL PUMPS TO BE INSTALLED IN SUMP AND CONNECTED TO CONTROL.
 - INSTALL 2x SUBMERSIBLE PUMPS EACH WITH A PUMP CAPACITY OF 10L/s AT 5.0m HEAD, FLOAT SWITCH AND CONTROL PANEL TO MANUFACTURER'S SPECIFICATIONS.

SUBSOIL DESIGN CALCS:
 THE AREA OF DRIVEWAY RAMP IS COVERED THEREFORE IN ACCORDANCE WITH AS3500, THE MINIMUM PUMP-OUT PIT SIZE IS 3m³.

GEO-TECHNICAL NOTE:
 BASEMENT DRAINAGE DESIGN SUBJECT TO GEOTECHNICAL INVESTIGATION AND STRUCTURAL DESIGN OF WALLS AND SLABS IN C.C. STAGE.
 IF EXCESSIVE GROUNDWATER SEEPAGE OR WATER TABLE IS ENCOUNTERED DURING BULK EXCAVATION, STORMWATER ENGINEER IS TO BE NOTIFIED TO REASSESS BASEMENT PUMP-OUT DRAINAGE DESIGN.

SURFACE GRADING NOTE:
 SURFACES ARE TO BE GRADED TOWARDS SURFACE INLET PIT (GSIP) AND RAINWATER OUTLET (RWO) AT 1% MIN. FOR UNCOVERED AREA AND AT 0.5% MIN. FOR COVERED AREA AS PER AS2890.



- CLEAR OUT POINT FOR INSPECTION AND MAINTENANCE (TYP.)
- Ø100mm AGG LINE ALONG BASEMENT WALL TO COLLECT SEEPAGE (TYP.)
- INSTALL WARNING FLASH LIGHT TO PROVIDE INDICATION OF PUMP FAILURE.
- PUMP-OUT PIT CONTROL BOX TO MANUFACTURER'S SPECIFICATIONS. ARCHITECT TO CONFIRM LOCATION.
- STORMWATER RISING MAIN, 1x 80mm UPVC AS1477 CLASS 12.
- BASEMENT PUMP-OUT TANK**
 RL:20.05
 TWL:19.75
 IL:17.75
 DEPTH: 2.0m
 AREA: 5m(L) x 1.5m(W)=7.5m²
 VOLUME PROVIDED:15.00m³

LIFT TO BE TANKED TO STRUCTURAL ENGINEER'S DETAILS AT C.C.

Revision	Issue	Date	Status
D	ISSUE FOR DA	MS 30.11.22	2
C	ISSUE FOR DA	MS 18.12.21	2
B	ISSUE FOR DA	MS 01.12.21	2
A	ISSUE FOR DA	MS 26.11.21	2
P2	PRELIMINARY ISSUE	MN 01.11.21	1
P1	PRELIMINARY ISSUE	MS 17.08.21	1
No	Last revision title	By	Date

Issuer internal sequence and revision history
 1- preliminary 2- development application 3- construction certificate
 4- tender 5- construction 6- other (specify)

Reference Coordination Drawing

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUKT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

QUALITY CONTROL

Discipline	Checked By	Date
DRAWN	MS	10.12.21
CHECKED	SH	10.12.21
DESIGNED	MS	10.12.21
VERIFIED	SH	10.12.21
APPROVED	SH	10.12.21

DISCLAIMER: DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES' MANS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR RECORD/ELABORATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

SERVICES ON THIS DRAWING ARE SHOWN BELOW SLAB U.L.O.

CLIENT
DEE WHY 3 PTY LTD & DEE WHY 4 PTY LTD

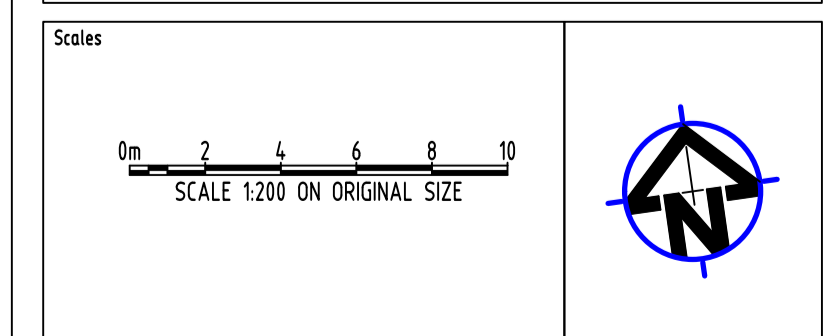
ARCHITECT
rothelowman
 Brisbane, Melbourne, Sydney
 www.rothelowman.com.au

SGC
 Suite 5.03, Level 5,
 156 PACIFIC HIGHWAY
 ST. LEONARDS, NSW 2065
 T: +61 2 8883 4239
 Email: office@sgce.com.au
 Web: www.sgce.com.au
 A.B.N. 21 118 222 530

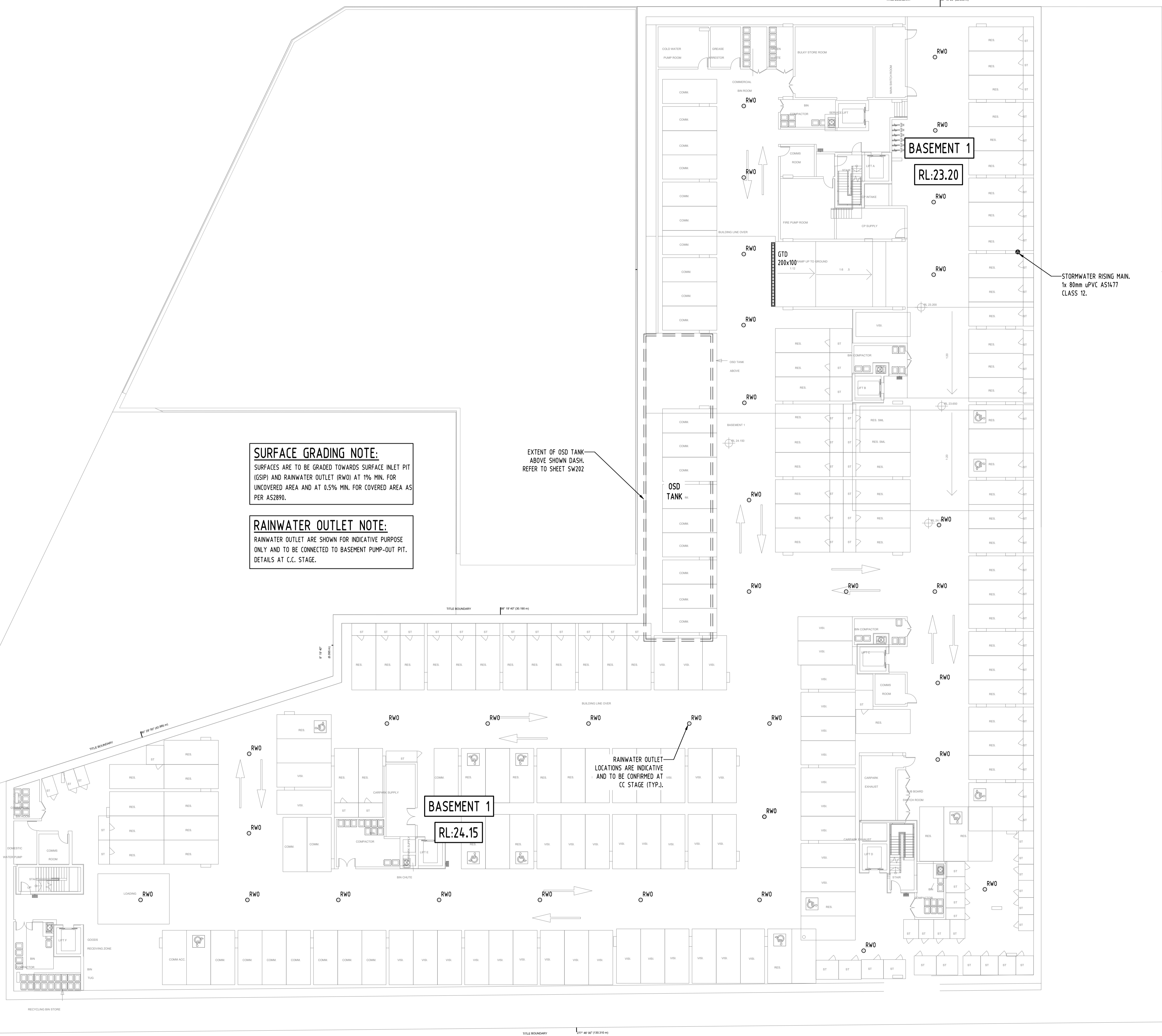
PROJECT
PROPOSED MIXED USE DEVELOPMENT
 4 DELMAR PARADE & 812 PITTWATER ROAD,
 DEE WHY
 Drawing Title
STORMWATER CONCEPT DESIGN
 BASEMENT 2 PLAN

Project No	Drawing No	Revision No
20210067	SW200	D
Sheet	Scale <td>Grid</td>	Grid
2/10	1:200 @ A1	MGA 56
Date	A.H.D.	

Drawing Status
FOR APPROVAL
 NOT TO BE USED FOR CONSTRUCTION PURPOSES



ENGINEERS AUSTRALIA
 MEMBERSHIP
 WARNING: THE DESIGNS, DRAWINGS, SPECIFICATIONS AND THE COPYRIGHT HEREIN REMAIN THE SOLE INTELLECTUAL PROPERTY OF S&G CONSULTANTS PTY LTD AND MUST NOT BE USED, COPIED, ALTERED OR REPRODUCED WHOLLY OR IN PART IN ANY FORM WITHOUT THE WRITTEN CONSENT OF S&G CONSULTANTS PTY LTD.



No	Last revision title	By	Date	Status
D	ISSUE FOR DA	MS	30.11.22	2
C	ISSUE FOR DA	MS	18.12.21	2
B	ISSUE FOR DA	MS	01.12.21	2
A	ISSUE FOR DA	MS	26.11.21	2
P2	PRELIMINARY ISSUE	MN	01.11.21	1
P1	PRELIMINARY ISSUE	MS	17.08.21	1

Issuer internal sequence and revision history
 1- preliminary 2- development application 3- construction certificate
 4- tender 5- construction 6- other (specify)

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
STRUC			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

QUALITY CONTROL			
DRAWN	MS	DATE	10.12.21
CHECKED	SH	DATE	10.12.21
DESIGNED	MS	DATE	10.12.21
VERIFIED	SH	DATE	10.12.21
APPROVED	SH	DATE	10.12.21

DISCLAIMER: DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES' MANS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR RECORD/LABELATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

SERVICES ON THIS DRAWING ARE SHOWN BELOW SLAB U.L.O.

CLIENT
DEE WHY 3 PTY LTD & DEE WHY 4 PTY LTD

ARCHITECT
rothelowman
 Brisbane, Melbourne, Sydney
 www.rothelowman.com.au

Suite 5.03, Level 5,
 156 PACIFIC HIGHWAY
 ST. LEONARDS, NSW 2065
 T: +61 2 8883 4239
 Email: office@sgce.com.au
 Web: www.sgce.com.au

A.B.N. 21 118 222 530

PROJECT
PROPOSED MIXED USE DEVELOPMENT
 4 DELMAR PARADE & 812 PITTWATER ROAD,
 DEE WHY

Drawing Title
STORMWATER CONCEPT DESIGN
 BASEMENT 1 PLAN

Project No	Drawing No	Revision No
20210067	SW201	D
Sheet	Scale	Grid
3/10	1:200 @ A1	MGA 56
		Datum
		A.H.D.

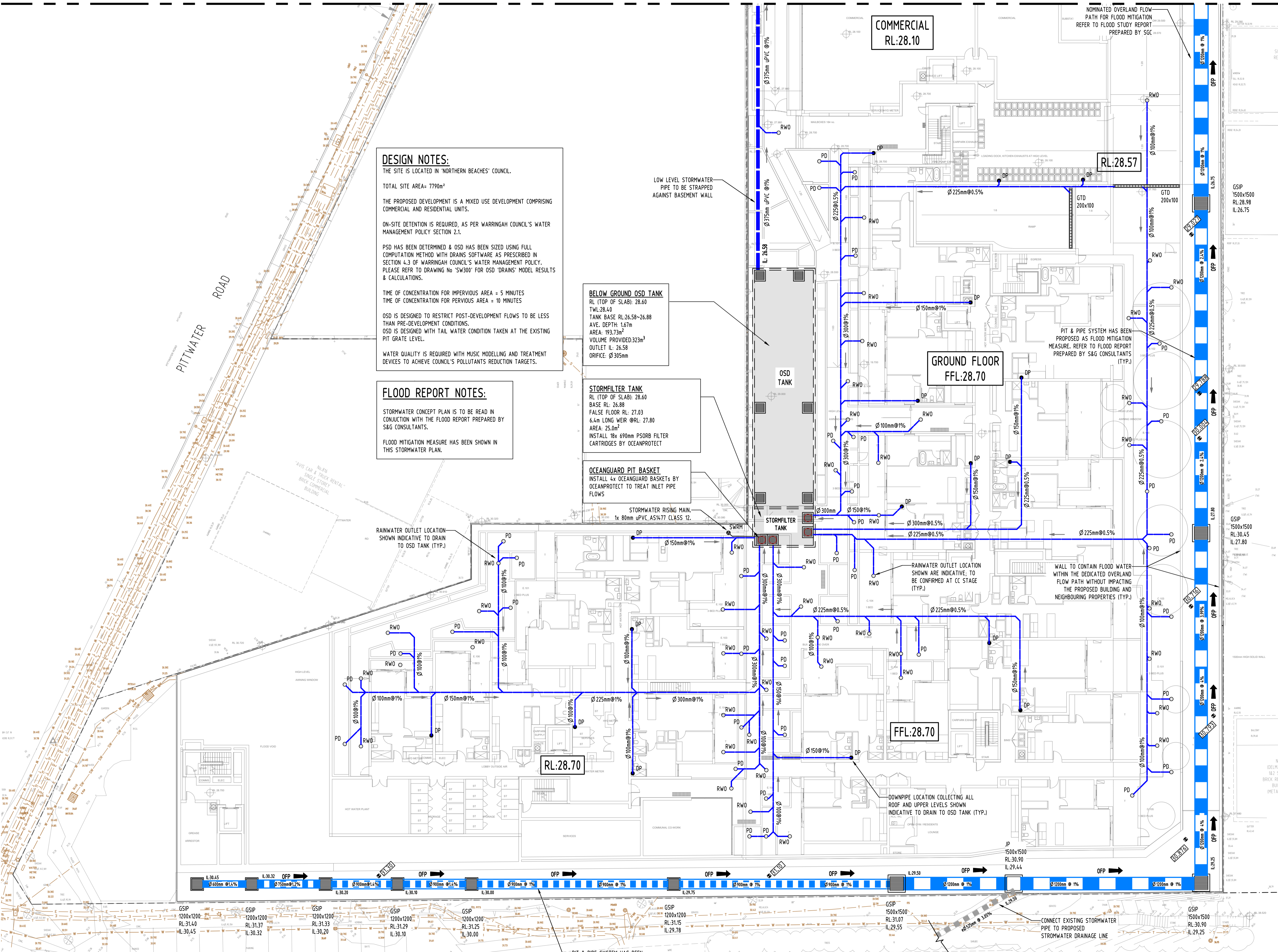
Drawing Status
FOR APPROVAL
 NOT TO BE USED FOR CONSTRUCTION PURPOSES

Scales

SCALE 1:200 ON ORIGINAL SIZE

DATE PLOTTED: 14 December 2022 1:04 PM BY: MREDSGSC

FOR CONTINUATION REFERRING TO SW 203



DESIGN NOTES:
 THE SITE IS LOCATED IN 'NORTHERN BEACHES' COUNCIL.
 TOTAL SITE AREA= 7790m²
 THE PROPOSED DEVELOPMENT IS A MIXED USE DEVELOPMENT COMPRISING COMMERCIAL AND RESIDENTIAL UNITS.
 ON-SITE DETENTION IS REQUIRED, AS PER WARRINGAH COUNCIL'S WATER MANAGEMENT POLICY SECTION 2.1.
 PSD HAS BEEN DETERMINED & OSD HAS BEEN SIZED USING FULL COMPUTATION METHOD WITH DRAINS SOFTWARE AS PRESCRIBED IN SECTION 4.3 OF WARRINGAH COUNCIL'S WATER MANAGEMENT POLICY. PLEASE REFER TO DRAWING No 'SW300' FOR OSD 'DRAINS' MODEL RESULTS & CALCULATIONS.
 TIME OF CONCENTRATION FOR IMPERVIOUS AREA = 5 MINUTES
 TIME OF CONCENTRATION FOR PERVIOUS AREA = 10 MINUTES
 OSD IS DESIGNED TO RESTRICT POST-DEVELOPMENT FLOWS TO BE LESS THAN PRE-DEVELOPMENT CONDITIONS.
 OSD IS DESIGNED WITH TAIL WATER CONDITION TAKEN AT THE EXISTING PIT GRATE LEVEL.
 WATER QUALITY IS REQUIRED WITH MUSIC MODELLING AND TREATMENT DEVICES TO ACHIEVE COUNCIL'S POLLUTANTS REDUCTION TARGETS.

FLOOD REPORT NOTES:
 STORMWATER CONCEPT PLAN IS TO BE READ IN CONJUNCTION WITH THE FLOOD REPORT PREPARED BY S&G CONSULTANTS.
 FLOOD MITIGATION MEASURE HAS BEEN SHOWN IN THIS STORMWATER PLAN.

BELOW GROUND OSD TANK
 RL (TOP OF SLAB): 28.60
 TANK BASE RL: 26.58-26.88
 AVE. DEPTH: 1.67m
 AREA: 193.73m²
 VOLUME PROVIDED: 323m³
 OUTLET IL: 26.58
 ORIFICE: Ø 305mm

STORMFILTER TANK
 RL (TOP OF SLAB): 28.60
 BASE RL: 26.88
 FALSE FLOOR RL: 27.03
 6.4m LONG WEIR @ RL: 27.80
 AREA: 25.0m²
 INSTALL 18x 690mm PSORB FILTER CARTRIDGES BY OCEANPROTECT

OCEANGUARD PIT BASKET
 INSTALL 4x OCEANGUARD BASKETS BY OCEANPROTECT TO TREAT INLET PIPE FLOWS

STORMWATER RISING MAIN
 1x 80mm uPVC ASI477 CLASS 12.

PIT & PIPE SYSTEM HAS BEEN PROPOSED AS FLOOD MITIGATION MEASURE. REFER TO FLOOD REPORT PREPARED BY S&G CONSULTANTS (TYP.)

COMMERCIAL RL:28.10

RL:28.57

GROUND FLOOR FFL:28.70

FFL:28.70

RL:28.70

No	Last revision title	By	Date	Status
D	ISSUE FOR DA	MS	30.11.21	2
C	ISSUE FOR DA	MS	18.12.21	2
B	ISSUE FOR DA	MS	01.12.21	2
A	ISSUE FOR DA	MS	26.11.21	2
P2	PRELIMINARY ISSUE	MN	01.11.21	1
P1	PRELIMINARY ISSUE	MS	17.08.21	1

Issuer internal sequence and revision history
 1- preliminary
 2- development application
 3- construction certificate
 4- tender
 5- construction
 6- other (specify)

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUKT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

QUALITY CONTROL			
DRAWN	MS	DATE	10.12.21
CHECKED	SH	DATE	10.12.21
DESIGNED	MS	DATE	10.12.21
VERIFIED	SH	DATE	10.12.21
APPROVED	SH	DATE	10.12.21

DISCLAIMER: DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES' MANS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR RECORD/ELABORATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

SERVICES ON THIS DRAWING ARE SHOWN BELOW SLAB U.L.O.

CLIENT
DEE WHY 3 PTY LTD & DEE WHY 4 PTY LTD

ARCHITECT
rothelowman
 Brisbane, Melbourne, Sydney
 www.rothelowman.com.au



Suite 5.03, Level 5,
 156 PACIFIC HIGHWAY
 ST. LEONARDS, NSW 2065
 T: +61 2 8883 4239
 Email: office@sgce.com.au
 Web: www.sgce.com.au

A.B.N. 21 118 222 530

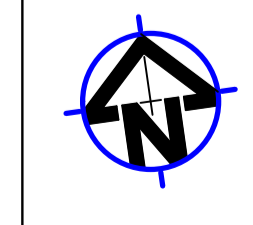
PROJECT
PROPOSED MIXED USE DEVELOPMENT
 4 DELMAR PARADE & 812 PITTWATER ROAD,
 DEE WHY

DRAWING TITLE
STORMWATER CONCEPT DESIGN
 GROUND FLOOR PLAN
 SHEET 1 OF 2

Project No	Drawing No	Revision No
20210067	SW202	D
Sheet	Scale	Grid
4/10	1:200 @ A1	MGA 56
Datum	A.H.D.	

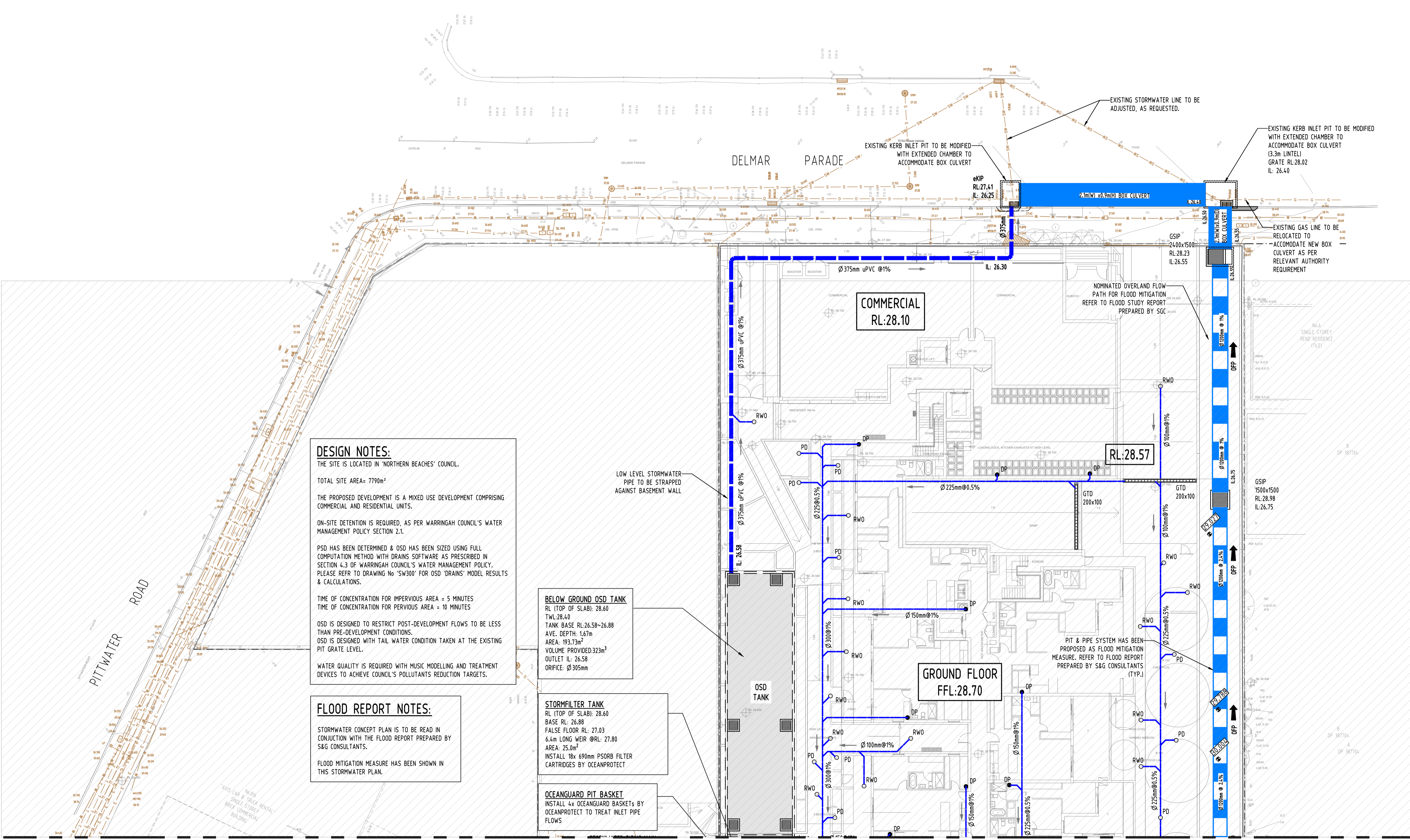
Drawing Status
 FOR APPROVAL
 NOT TO BE USED FOR CONSTRUCTION PURPOSES

Scales
 0m 2 4 6 8 10
 SCALE 1:200 ON ORIGINAL SIZE



ENGINEERS AUSTRALIA
 MEMBERSHIP NO. 123456789
 MEMBER

WARNING: THE DESIGNS, DRAWINGS, SPECIFICATIONS AND THE COPYRIGHT HEREIN REMAIN THE SOLE INTELLECTUAL PROPERTY OF S&G CONSULTANTS PTY LTD AND MUST NOT BE USED, COPIED, ALTERED OR REPRODUCED WHOLLY OR IN PART IN ANY FORM WITHOUT THE WRITTEN CONSENT OF S&G CONSULTANTS PTY LTD.



DESIGN NOTES:
 THE SITE IS LOCATED IN 'NORTHERN BEACHES' COUNCIL.
 TOTAL SITE AREA= 7790m²
 THE PROPOSED DEVELOPMENT IS A MIXED USE DEVELOPMENT COMPRISING COMMERCIAL AND RESIDENTIAL UNITS.
 ON-SITE DETENTION IS REQUIRED, AS PER WARRINGAH COUNCIL'S WATER MANAGEMENT POLICY SECTION 2.1.
 PSD HAS BEEN DETERMINED & OSD HAS BEEN SIZED USING FULL COMPUTATION METHOD WITH DRAINS SOFTWARE AS PRESCRIBED IN SECTION 4.3 OF WARRINGAH COUNCIL'S WATER MANAGEMENT POLICY. PLEASE REFER TO DRAWING No 'SW300' FOR OSD 'DRAINS' MODEL RESULTS & CALCULATIONS.
 TIME OF CONCENTRATION FOR IMPERVIOUS AREA = 5 MINUTES
 TIME OF CONCENTRATION FOR PERVIOUS AREA = 10 MINUTES
 OSD IS DESIGNED TO RESTRICT POST-DEVELOPMENT FLOWS TO BE LESS THAN PRE-DEVELOPMENT CONDITIONS.
 OSD IS DESIGNED WITH TAIL WATER CONDITION TAKEN AT THE EXISTING PIT GRATE LEVEL.
 WATER QUALITY IS REQUIRED WITH MUSIC MODELLING AND TREATMENT DEVICES TO ACHIEVE COUNCIL'S POLLUTANTS REDUCTION TARGETS.

FLOOD REPORT NOTES:
 STORMWATER CONCEPT PLAN IS TO BE READ IN CONJUNCTION WITH THE FLOOD REPORT PREPARED BY S&G CONSULTANTS.
 FLOOD MITIGATION MEASURE HAS BEEN SHOWN IN THIS STORMWATER PLAN.

BELOW GROUND OSD TANK
 RL (TOP OF SLAB): 28.40
 TANK BASE RL: 26.58-26.88
 AVE. DEPTH: 1.67m
 AREA: 193.73m²
 VOLUME PROVIDED: 323m³
 OUTLET L: 26.58
 ORIFICE: Ø 305mm

STORMFILTER TANK
 RL (TOP OF SLAB): 28.60
 BASE RL: 26.88
 FALSE FLOOR RL: 27.03
 6.4m LONG WEIR @RL: 27.80
 AREA: 25.0m²
 INSTALL 18x 690mm PSORB FILTER CARTRIDGES BY OCEANPROTECT

OCEANGUARD PIT BASKET
 INSTALL 4x OCEANGUARD BASKETS BY OCEANPROTECT TO TREAT INLET PIPE FLOWS

FOR CONTINUATION REFERRING TO SW 202

No	Last revision title	By	Date	Status
D	ISSUE FOR DA	MS	30.11.22	2
C	ISSUE FOR DA	MS	18.12.21	2
B	ISSUE FOR DA	MS	01.12.21	2
A	ISSUE FOR DA	MS	26.11.21	2
P2	PRELIMINARY ISSUE	MN	01.11.21	1
P1	PRELIMINARY ISSUE	MS	17.08.21	1

Issuer internal sequence and revision history
 1- preliminary 2- development application 3- construction certificate
 4- tender 5- construction 6- other (specify)

Reference Coordination Drawing

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUCT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

QUALITY CONTROL

Task	MS	DATE
DRAWN	MS	10.12.21
CHECKED	SH	10.12.21
DESIGNED	MS	10.12.21
VERIFIED	SH	10.12.21
APPROVED	SH	10.12.21

DISCLAIMER: DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES' MANS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR RECORD/CLARIFICATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

SERVICES ON THIS DRAWING ARE SHOWN BELOW SLAB U.L.O.

CLIENT
DEE WHY 3 PTY LTD & DEE WHY 4 PTY LTD

ARCHITECT
rothelowman
 Brisbane, Melbourne, Sydney
 www.rothelowman.com.au

Suite 5.03, Level 5,
 156 PACIFIC HIGHWAY
 ST. LEONARDS, NSW 2065
 T: +61 2 8883 4239
 Email: office@sgce.com.au
 Web: www.sgce.com.au
 A.B.N. 21 118 222 530

PROJECT
PROPOSED MIXED USE DEVELOPMENT
 4 DELMAR PARADE & 812 PITTWATER ROAD,
 DEE WHY

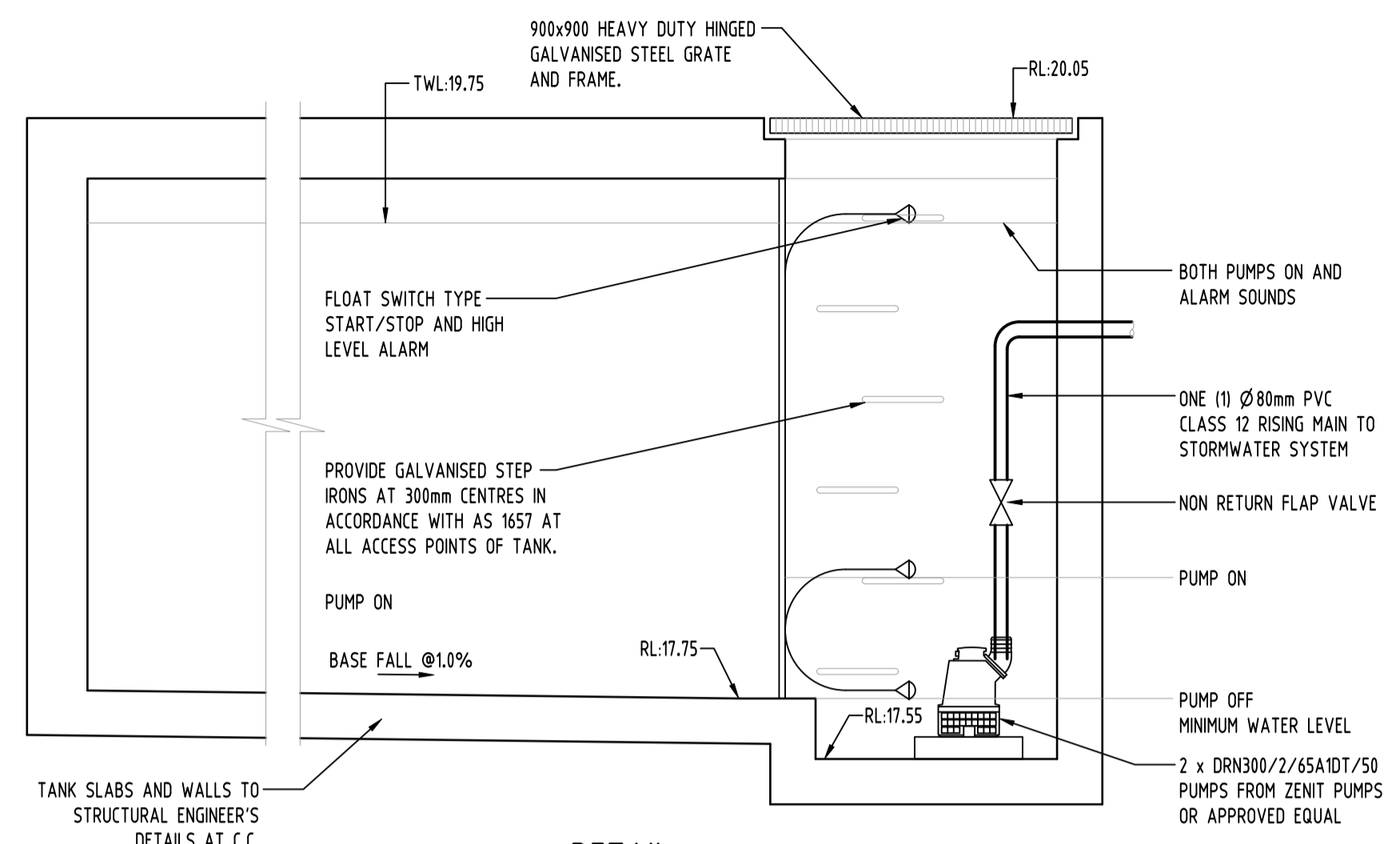
Drawing Title
STORMWATER CONCEPT DESIGN
 GROUND FLOOR PLAN
 SHEET 2 OF 2

Project No	Drawing No	Revision No	
20210067	SW203	D	
Sheet	Scale	Grid	Datum
5/10	1:200 @ A1	MGA 56	A.H.D.

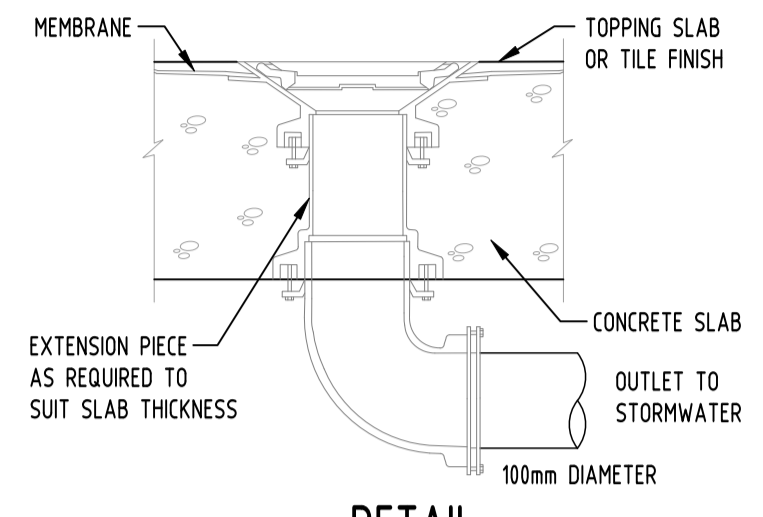
Drawing Status
FOR APPROVAL
 NOT TO BE USED FOR CONSTRUCTION PURPOSES

Scales

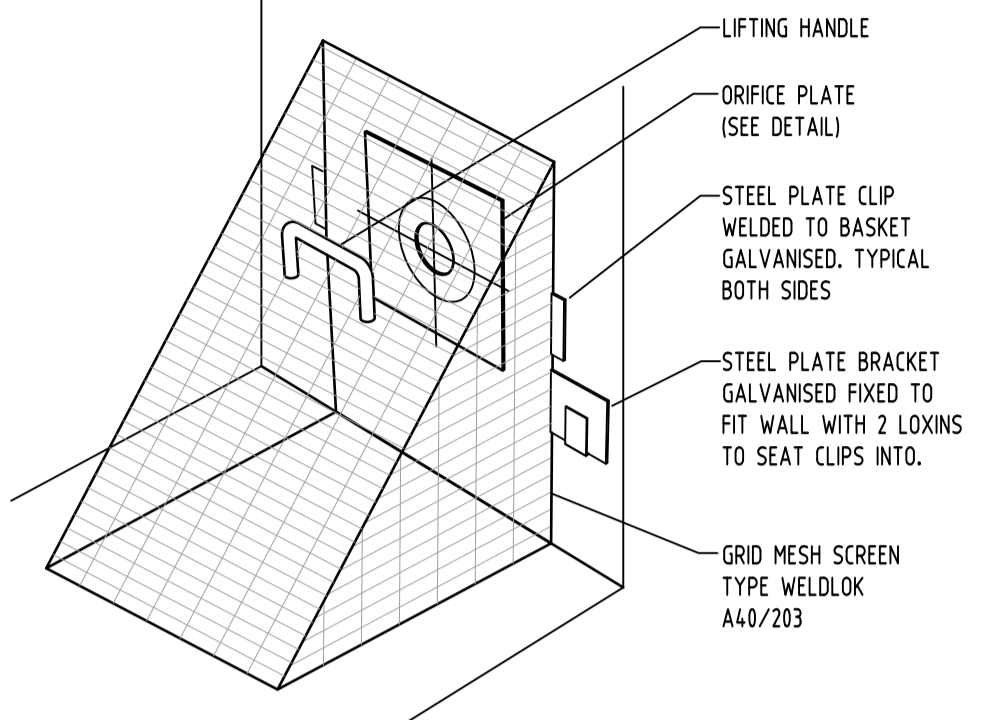
0m 2 4 6 8 10
 SCALE 1:200 ON ORIGINAL SIZE



DETAIL
SUBSOIL PUMP OUT PIT
NOT TO SCALE



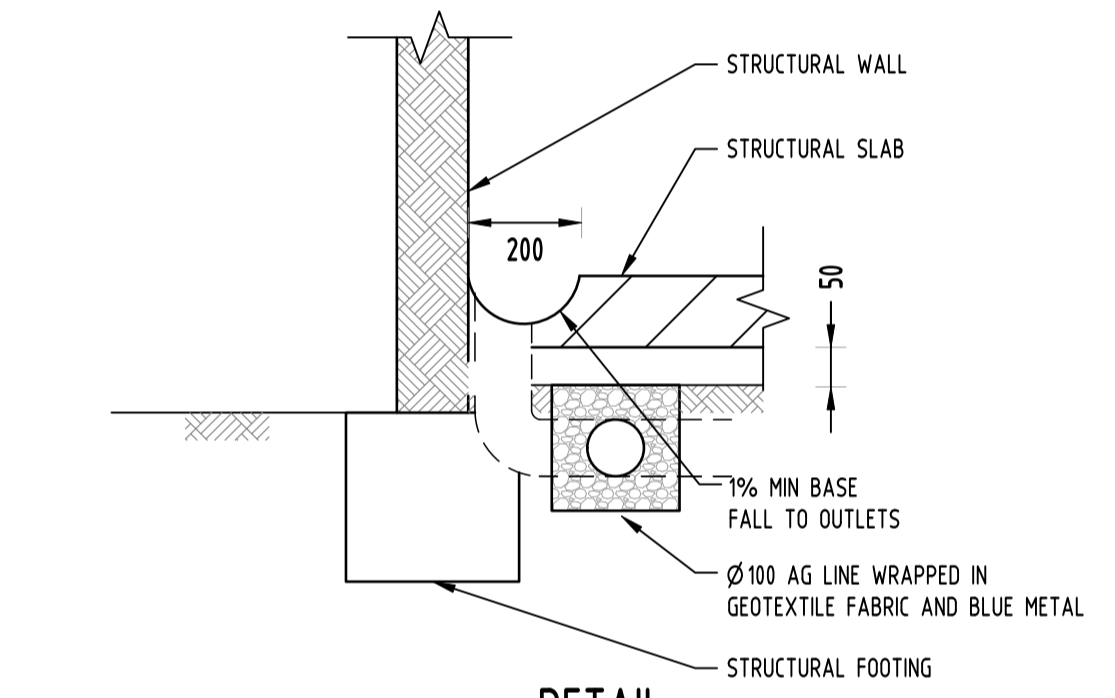
DETAIL
RAINWATER OUTLET
NOT TO SCALE



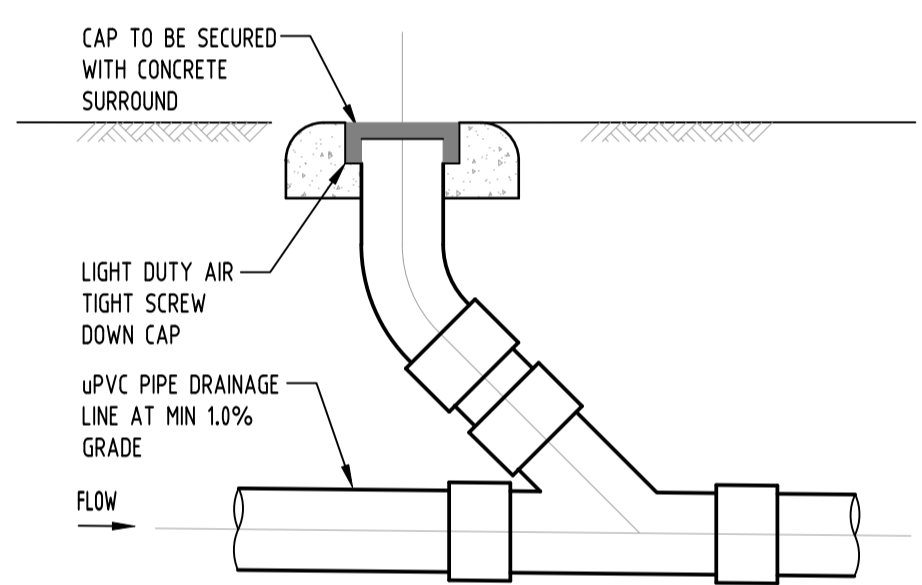
DETAIL
TRASH SCREEN

LEGEND

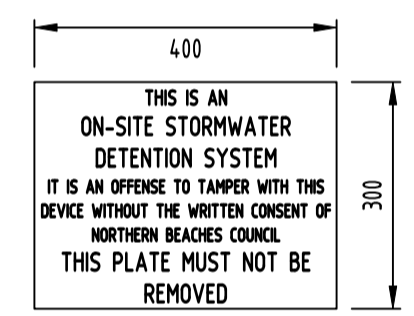
- EXISTING BOUNDARY
- STORMWATER LINE
- STORMWATER LINE TO RAINWATER TANK
- SSD
- SWRM
- SW
- S
- W
- G
- E
- FO
- TEL
- GRATED SURFACE INLET PIT
- JUNCTION PIT
- GRATED TRENCH DRAIN
- KERB INLET PIT (ON GRADE)
- KERB INLET PIT (SAG)
- EXISTING GRATED SURFACE INLET PIT
- EXISTING KERB INLET PIT
- eTEL
- eHYD
- eGAS
- ePP
- eSMH
- OPP
- RWO
- CO
- DDO
- PD
- CAP
- DOWNPIPE DROP
- WALL PENETRATION
- DOWNPIPE
- WARNING LIGHT
- SPOT LEVEL



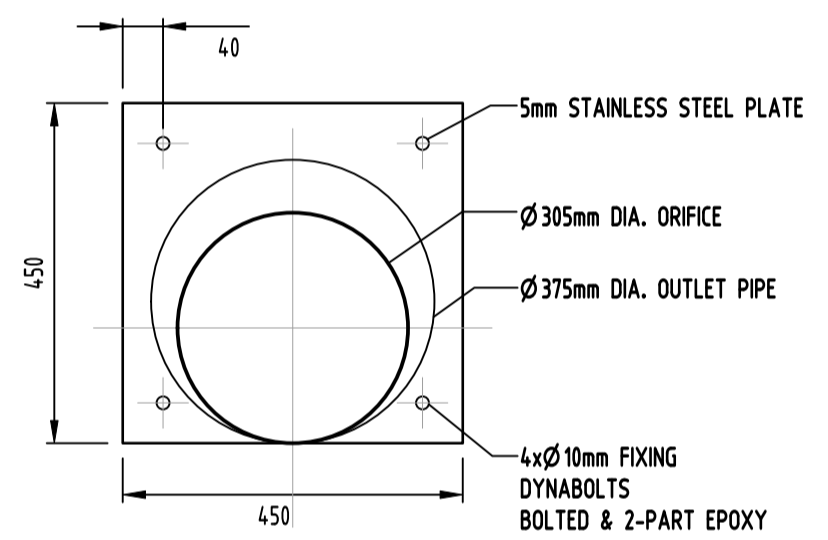
DETAIL
SUBSOIL DRAINAGE
NTS



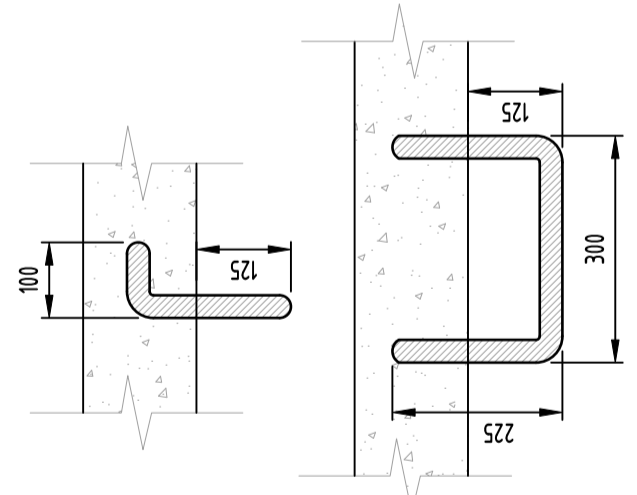
DETAIL
CLEANING EYE
NOT TO SCALE



DETAIL
OSD SIGN
NOT TO SCALE



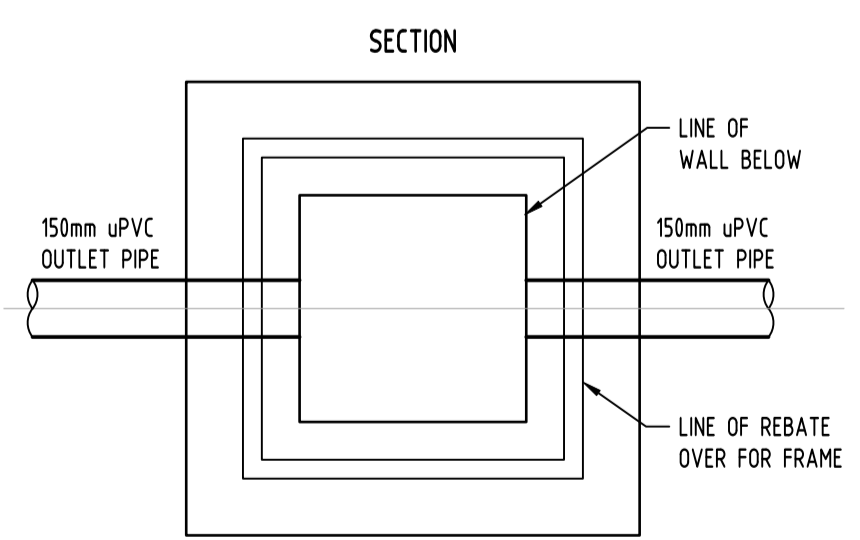
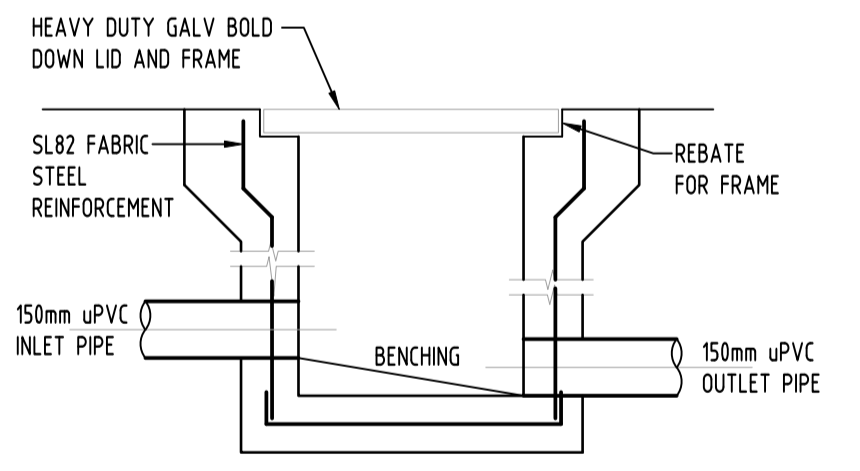
DETAIL
ORIFICE PLATE
SCALE 1:20



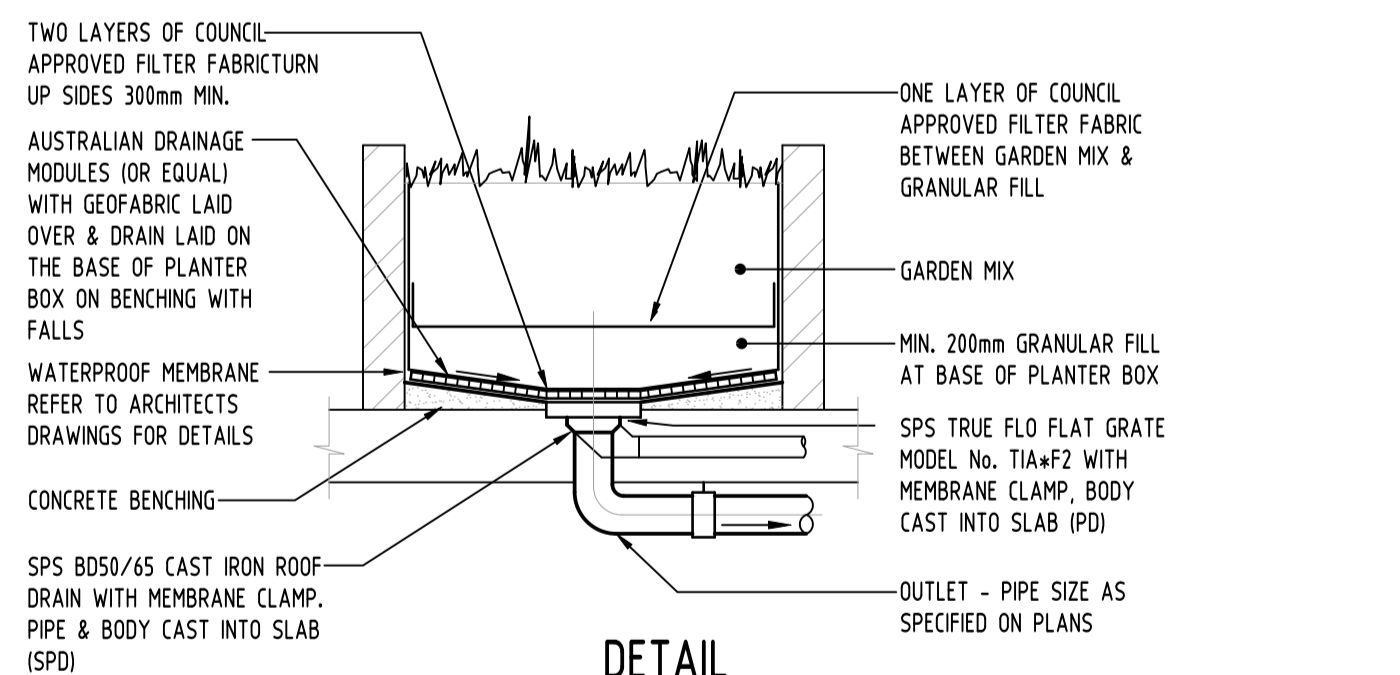
DETAIL
STEP IRONS
SCALE 1:10



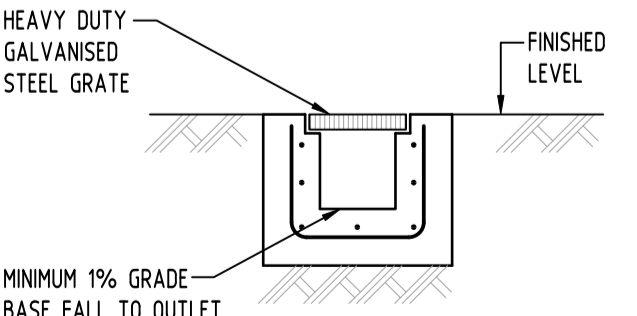
DETAIL
CONFINED SPACE SIGN
SCALE 1:10



DETAIL
STORMWATER PIT
NOT TO SCALE



DETAIL
PLANTER DRAIN
NOT TO SCALE



DETAIL
GRATED TRENCH DRAIN
NOT TO SCALE

No	Last revision title	By	Date	Status
D	ISSUE FOR DA	MS	30.11.22	2
C	ISSUE FOR DA	MS	18.12.21	2
B	ISSUE FOR DA	MS	01.12.21	2
A	ISSUE FOR DA	MS	26.11.21	2
P2	PRELIMINARY ISSUE	MN	01.11.21	1
P1	PRELIMINARY ISSUE	MS	17.08.21	1

Issuer internal sequence and revision history
 1- preliminary 2- development application 3- construction certificate
 4- tender 5- construction 6- other (specify)

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
STRUC			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

Reference Coordination Drawing			
Discipline	Drawing Title and Number	Date	Rev.
ARCH			
STRUC			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

QUALITY CONTROL			
Discipline	Checked By	Date	Rev.
DRAWN	MS	10.12.21	
CHECKED	SH	10.12.21	
DESIGNED	MS	10.12.21	
VERIFIED	SH	10.12.21	
APPROVED	SH	10.12.21	

DISCLAIMER: DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES MAINS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR RECORD/LABORATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

CLIENT
DEE WHY 3 PTY LTD & DEE WHY 4 PTY LTD

ARCHITECT
rothelowman
 Brisbane, Melbourne, Sydney
 www.rothelowman.com.au

Suite 5.03, Level 5,
 156 PACIFIC HIGHWAY
 ST. LEONARDS, NSW 2065
 T: +61 2 8883 4239
 Email: office@sgce.com.au
 Web: www.sgce.com.au

A.B.N. 21 118 222 530

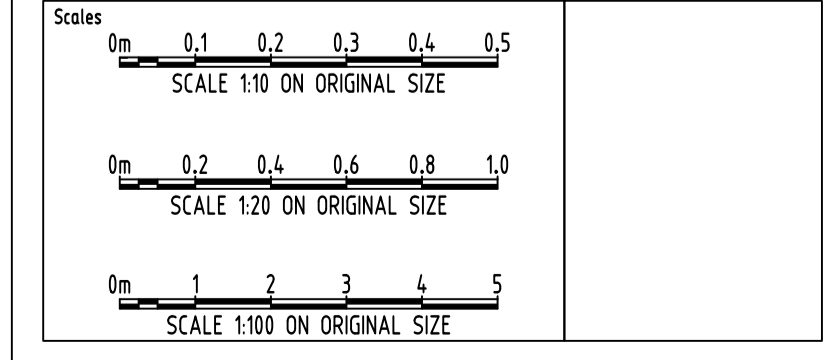
PROJECT
PROPOSED MIXED USE DEVELOPMENT
 4 DELMAR PARADE & 812 PITWATER ROAD,
 DEE WHY

Drawing Title
STORMWATER CONCEPT DESIGN
 DETAILS SHEET
 SHEET 1 OF 2

Project No	Drawing No	Revision No
20210067	SW300	D

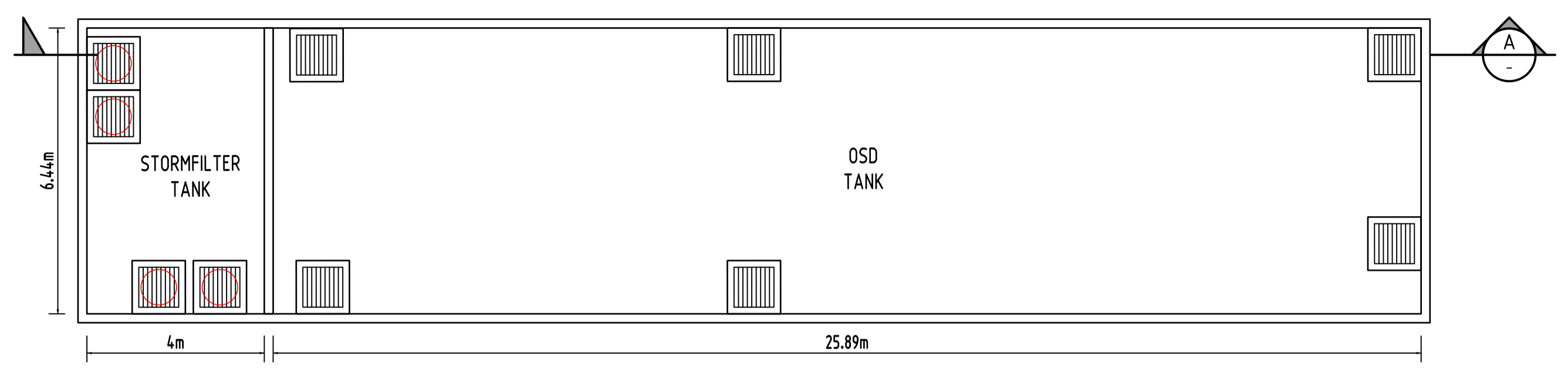
Sheet	Scale	Grid	Datum
6/10	AS SHOWN	MGA 56	A.H.D.

Drawing Status
FOR APPROVAL
 NOT TO BE USED FOR CONSTRUCTION PURPOSES

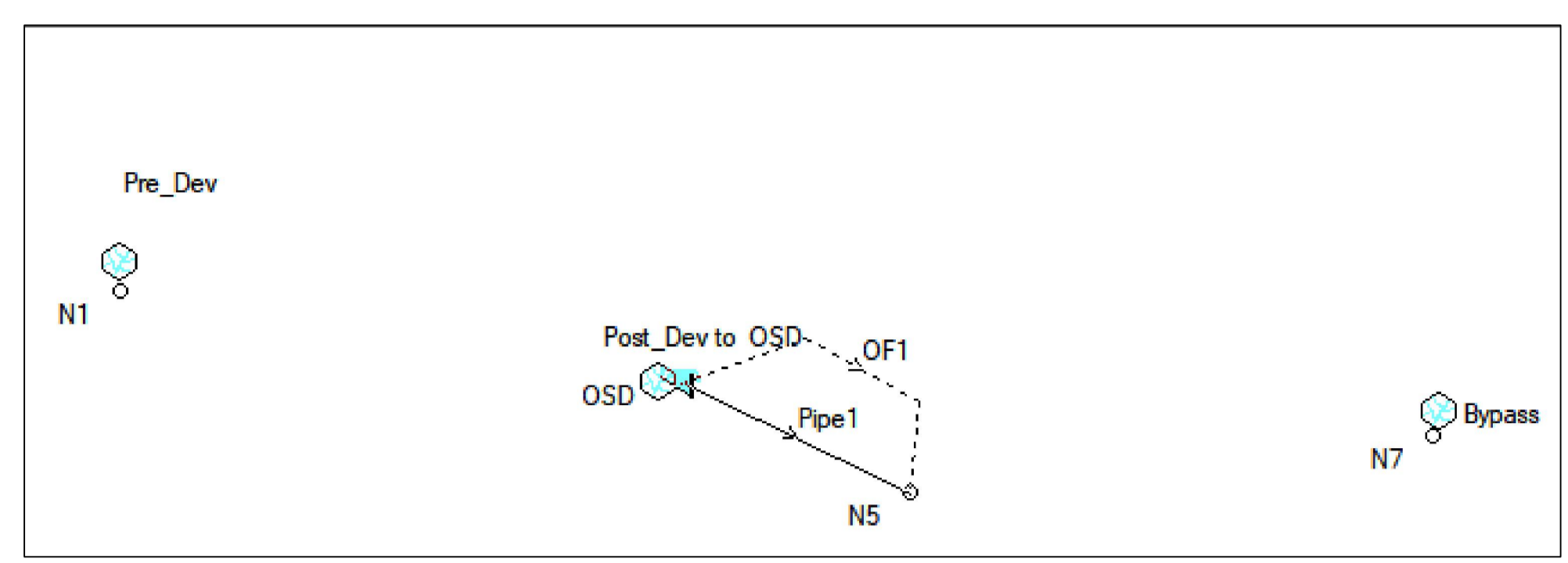
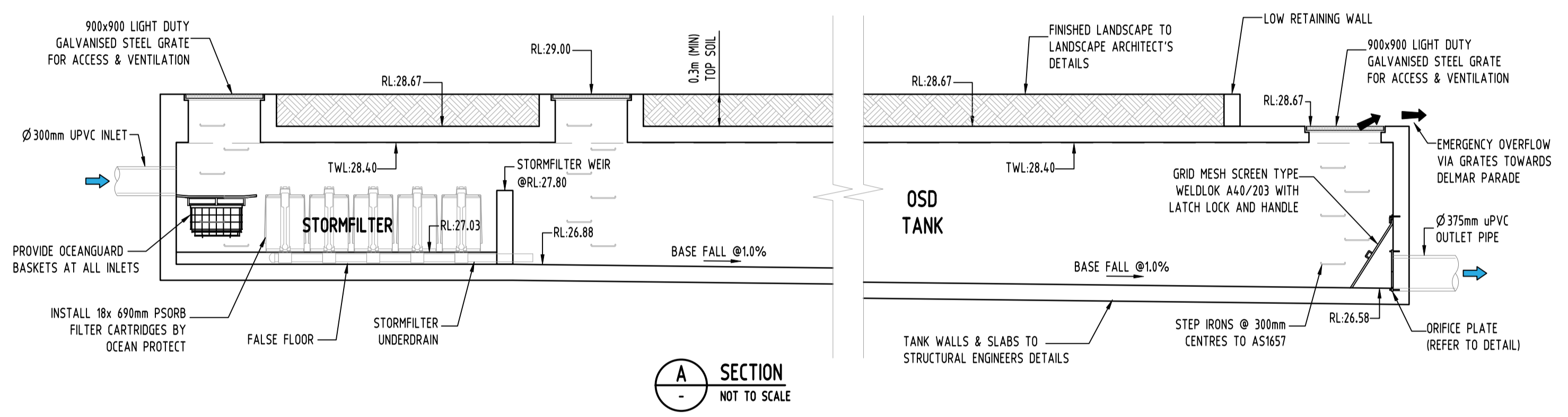


ENGINEERS AUSTRALIA
 MEMBERSHIP NO. 123456789
 MEMBERSHIP NO. 123456789

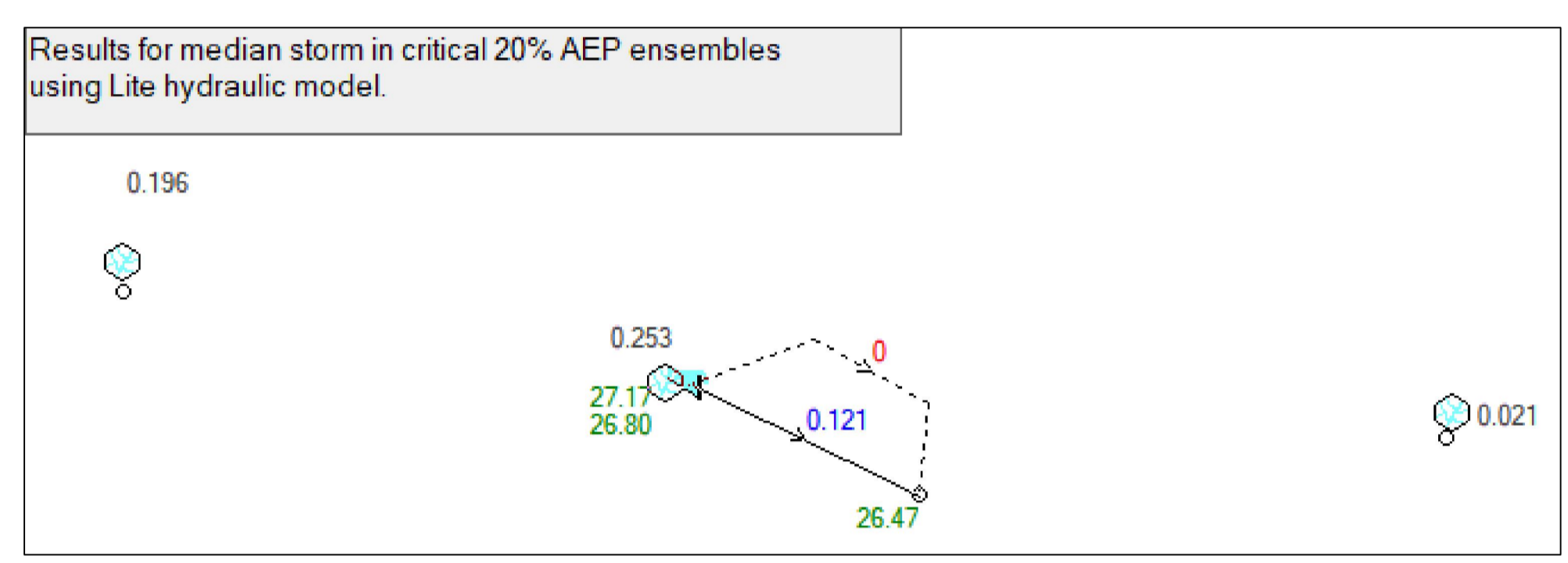
WARNING: THE DESIGNS, DRAWINGS, SPECIFICATIONS AND THE COPYRIGHT HEREIN REMAIN THE SOLE INTELLECTUAL PROPERTY OF S&G CONSULTANTS PTY LTD AND MUST NOT BE USED, COPIED, ALTERED OR REPRODUCED WHOLLY OR IN PART IN ANY FORM WITHOUT THE WRITTEN CONSENT OF S&G CONSULTANTS PTY LTD.



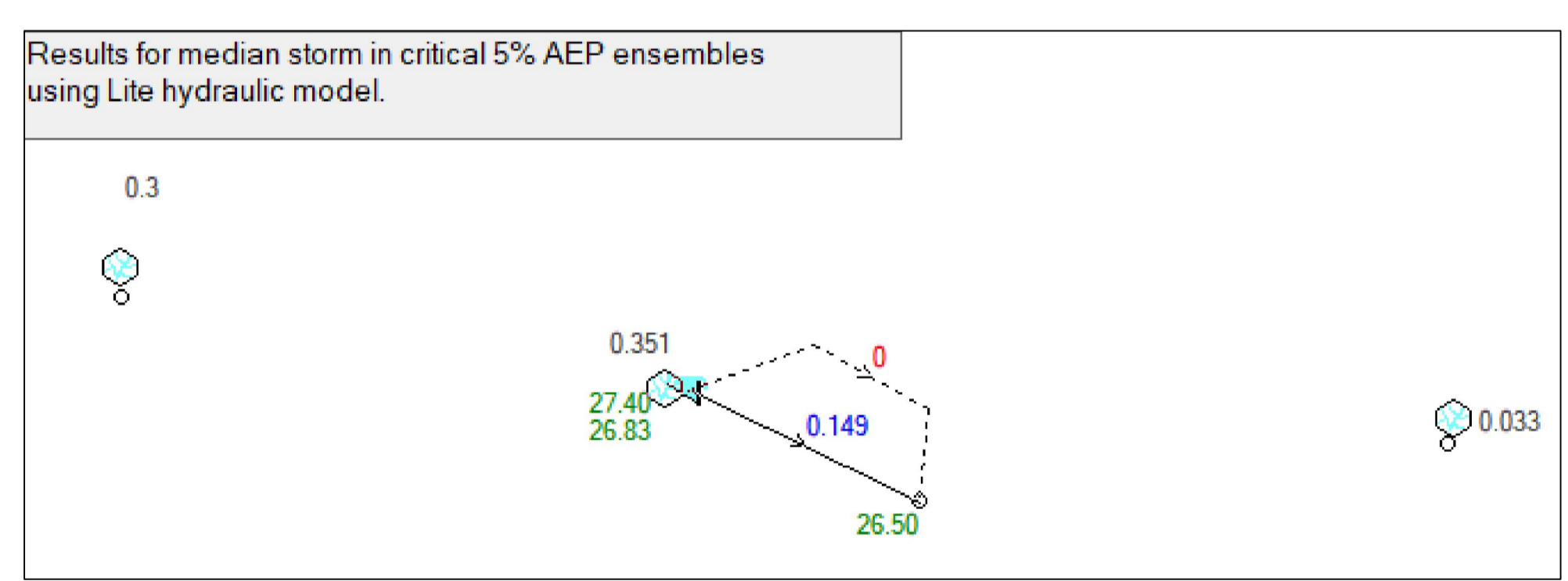
OSD TANK PLAN & DIMENSIONS (m)
SCALE 1:100



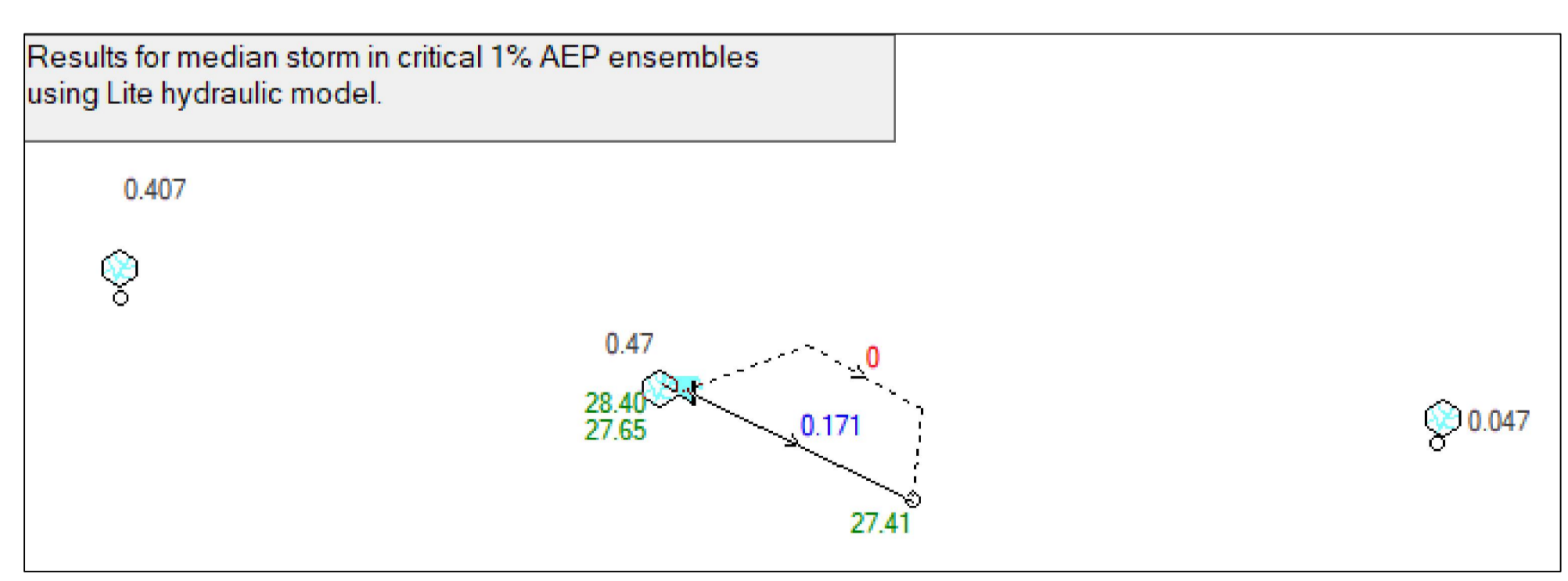
DRAINS MODEL SCHEMATIC



DRAINS RESULTS - 20% AEP



DRAINS RESULTS - 5% AEP



DRAINS RESULTS - 1% AEP

No	Last revision title	By	Date	Status
D	ISSUE FOR DA	MS	30.11.22	2
C	ISSUE FOR DA	MS	18.12.21	2
B	ISSUE FOR DA	MS	01.12.21	2
A	ISSUE FOR DA	MS	26.11.21	2
P2	PRELIMINARY ISSUE	MN	01.11.21	1
P1	PRELIMINARY ISSUE	MS	17.08.21	1

Issuer internal sequence and revision history

1- preliminary	2- development application	3- construction certificate
4- tender	5- construction	6- other (specify)

Reference Coordination Drawing

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
STRUC			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

QUALITY CONTROL

DISCIPLINE	NAME	DATE
DRAWN	MS	10.12.21
CHECKED	SH	10.12.21
DESIGNED	MS	10.12.21
VERIFIED	SH	10.12.21
APPROVED	SH	10.12.21

DISCLAIMER: DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES' MANS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR RECORD/ELABORATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

CLIENT
DEE WHY 3 PTY LTD &
DEE WHY 4 PTY LTD

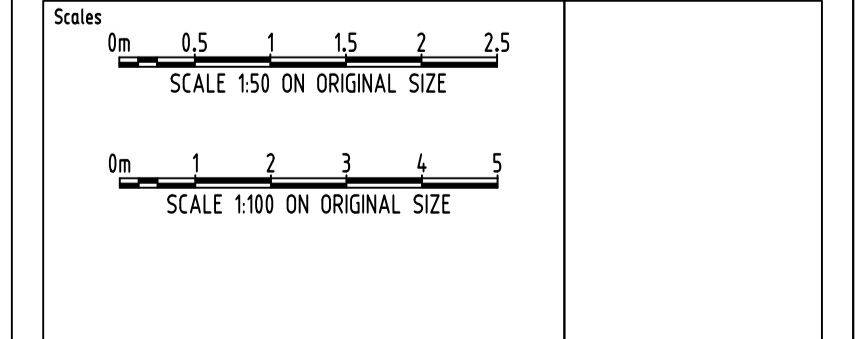
ARCHITECT
rothelowman
Brisbane, Melbourne, Sydney
www.rothelowman.com.au

SGC
Suite 5.03, Level 5,
156 PACIFIC HIGHWAY
ST. LEONARDS, NSW 2065
T: +61 2 8883 4239
Email: office@sgce.com.au
Web: www.sgce.com.au
A.B.N. 21 118 222 530

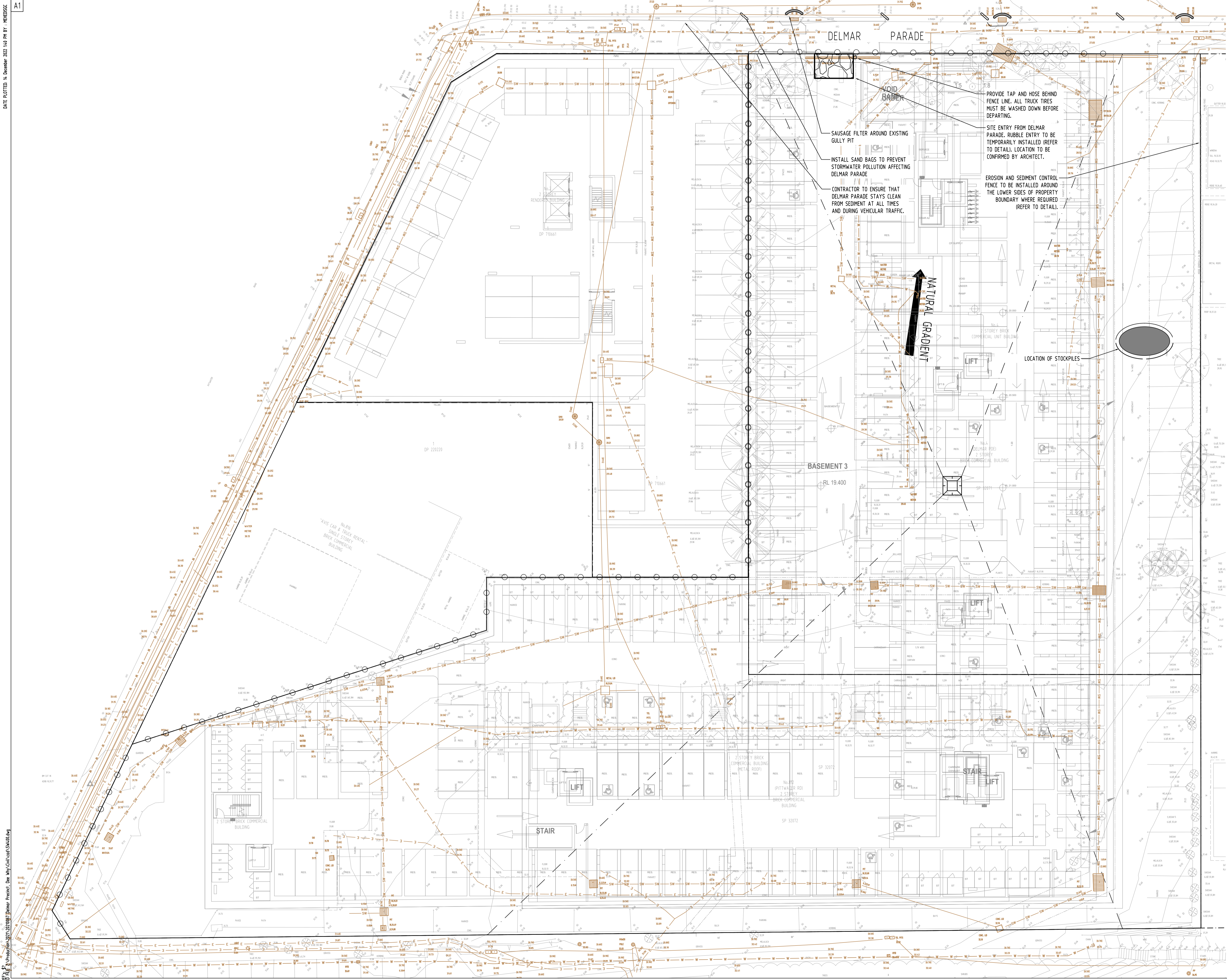
PROJECT
PROPOSED MIXED USE DEVELOPMENT
4 DELMAR PARADE & 812 PITTWATER ROAD,
DEE WHY
Drawing Title
STORMWATER CONCEPT DESIGN
DETAILS SHEET
SHEET 2 OF 2

Project No	Drawing No	Revision No
20210067	SW301	D
Sheet	Scale	Grid
7/10	AS SHOWN	MGA 56
		Datum
		A.H.D.

Drawing Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES



ENGINEERS AUSTRALIA
MEMBER
WARNING: THE DESIGNS, DRAWINGS, SPECIFICATIONS AND THE COPYRIGHT HEREIN REMAIN THE SOLE INTELLECTUAL PROPERTY OF S&G CONSULTANTS PTY LTD AND MUST NOT BE USED, COPIED, ALTERED OR REPRODUCED WHOLLY OR IN PART IN ANY FORM WITHOUT THE WRITTEN CONSENT OF S&G CONSULTANTS PTY LTD.



Issue No	Issue Title	By	Date	Status
D	ISSUE FOR DA	MS	30.11.22	2
C	ISSUE FOR DA	MS	18.12.21	2
B	ISSUE FOR DA	MS	01.12.21	2
A	ISSUE FOR DA	MS	26.11.21	2
P2	PRELIMINARY ISSUE	MN	01.11.21	1
P1	PRELIMINARY ISSUE	MS	17.08.21	1
No	Last revision title			

Issuer internal sequence and revision history
 1- preliminary 2- development application 3- construction certificate
 4- tender 5- construction 6- other (specify)

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
STRUC			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

QUALITY CONTROL			
DRAWN	MS	DATE	10.12.21
CHECKED	SH	DATE	10.12.21
DESIGNED	MS	DATE	10.12.21
VERIFIED	SH	DATE	10.12.21
APPROVED	SH	DATE	10.12.21

DISCLAIMER: DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES' MANS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR RECORD/ LABELATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

SERVICES ON THIS DRAWING ARE SHOWN BELOW SLAB U.L.O.

CLIENT
DEE WHY 3 PTY LTD & DEE WHY 4 PTY LTD

ARCHITECT
rothelowman
 Brisbane, Melbourne, Sydney
www.rothelowman.com.au



Suite 5.03, Level 5,
 156 PACIFIC HIGHWAY
 ST. LEONARDS, NSW 2065
 T: +61 2 8883 4239
 Email: office@sgce.com.au
 Web: www.sgce.com.au

A.B.N. 21 118 222 530

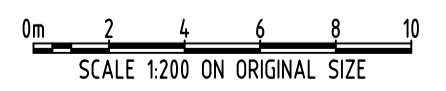
PROJECT
PROPOSED MIXED USE DEVELOPMENT
 4 DELMAR PARADE & 812 PITWATER ROAD,
 DEE WHY

Drawing Title
EROSION AND SEDIMENT CONTROL PLAN


Project No	Drawing No	Revision No
20210067	SW400	D
Sheet	Scale	Grid
8/10	AS SHOWN	MGA 56
		Datum
		A.H.D.

Drawing Status
FOR APPROVAL
 NOT TO BE USED FOR CONSTRUCTION PURPOSES

Scales



SCALE 1:200 ON ORIGINAL SIZE



ENGINEERS AUSTRALIA
 MEMBER

WARNING: THE DESIGN, DRAWINGS, SPECIFICATIONS AND THE COPYRIGHT HEREIN REMAIN THE SOLE INTELLECTUAL PROPERTY OF SGC CONSULTANTS PTY LTD AND MUST NOT BE USED, COPIED, ALTERED OR REPRODUCED WHOLLY OR IN PART IN ANY FORM WITHOUT THE WRITTEN CONSENT OF SGC CONSULTANTS PTY LTD.

EROSION & SEDIMENTATION CONTROL NOTES

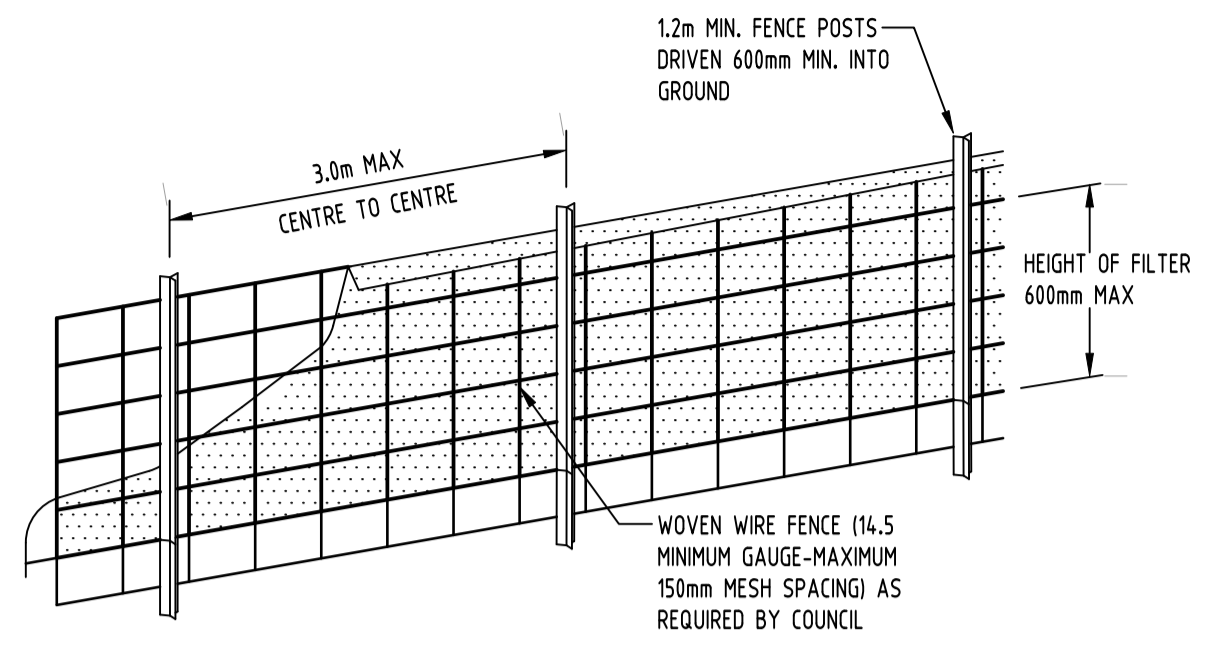
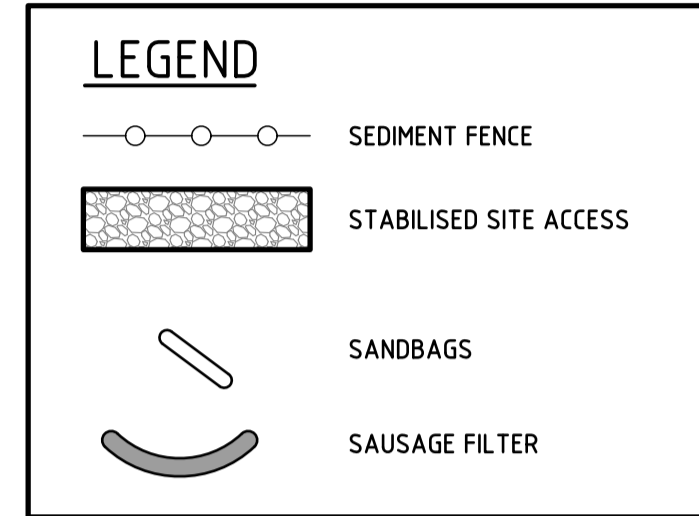
- CONTRACTOR SHALL PROVIDE SEDIMENT FENCING MATERIAL DURING CONSTRUCTION TO THE LOW SIDE OF THE WORKS. TIE SEDIMENT FENCING MATERIAL TO CYCLONE WIRE SECURITY FENCE. SEDIMENT CONTROL FABRIC SHALL BE AN APPROVED MATERIAL (EG. HUMES PROPEX SILT STOP) STANDING 300mm ABOVE GROUND & EXTENDING 150mm BELOW GROUND.
- EXISTING DRAINS LOCATED WITHIN THE SITE SHALL ALSO BE ISOLATED BY SEDIMENT FENCING MATERIAL.
- NO PARKING OR STOCKPILING OF MATERIALS IS PERMITTED ON THE LOWER SIDE OF THE SEDIMENT FENCE.
- GRASS VERGES SHALL BE MAINTAINED AS MUCH AS PRACTICAL TO PROVIDE A BUFFER ZONE TO THE CONSTRUCTION SITE.
- CONSTRUCTION ENTRY/EXIT SHALL BE VIA THE LOCATION NOTED ON THE DRAWING. CONTRACTOR SHALL ENSURE ALL DROPPABLE SOIL & SEDIMENT IS REMOVED PRIOR TO CONSTRUCTION TRAFFIC EXITING SITE. CONTRACTOR SHALL ENSURE ALL CONSTRUCTION TRAFFIC ENTERING & LEAVING THE SITE DO SO IN A FORWARD DIRECTION.

GENERAL NOTES

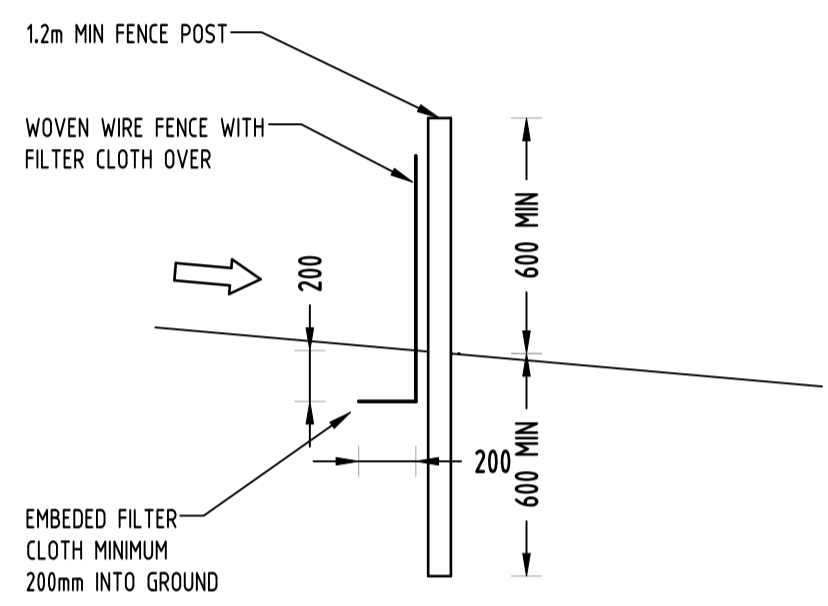
- THIS PLAN IS A CONCEPT PLAN ONLY FOR STORMWATER DISPOSAL & EROSION CONTROL. IT IS NOT SUITABLE FOR CONSTRUCTION. THIS PLAN SHOULD BE ADAPTED BY THE BUILDER DURING DEMOLITION, EXCAVATION & CONSTRUCTION PHASES TO ENSURE ADEQUATE PERFORMANCE.
- ALL DRAINAGE LAYOUT & DETAILS ARE DIAGMATIC & INDICATIVE ONLY. ACTUAL LOCATION, SIZES, LEVELS & GRADES MAY ALTER WHEN DETAIL DESIGN WORKS ARE DOCUMENTED.

CLAY SOILS

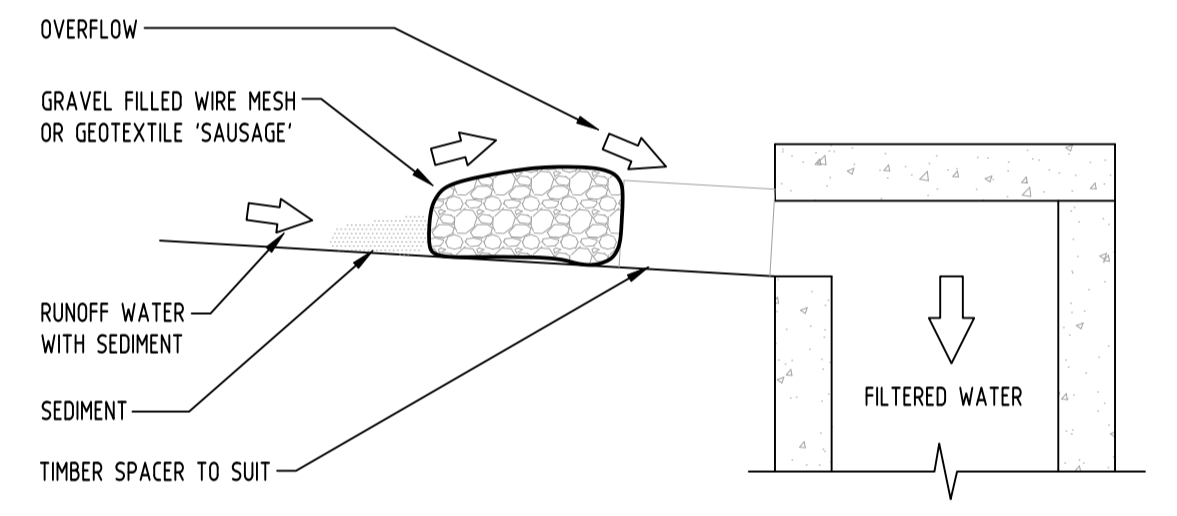
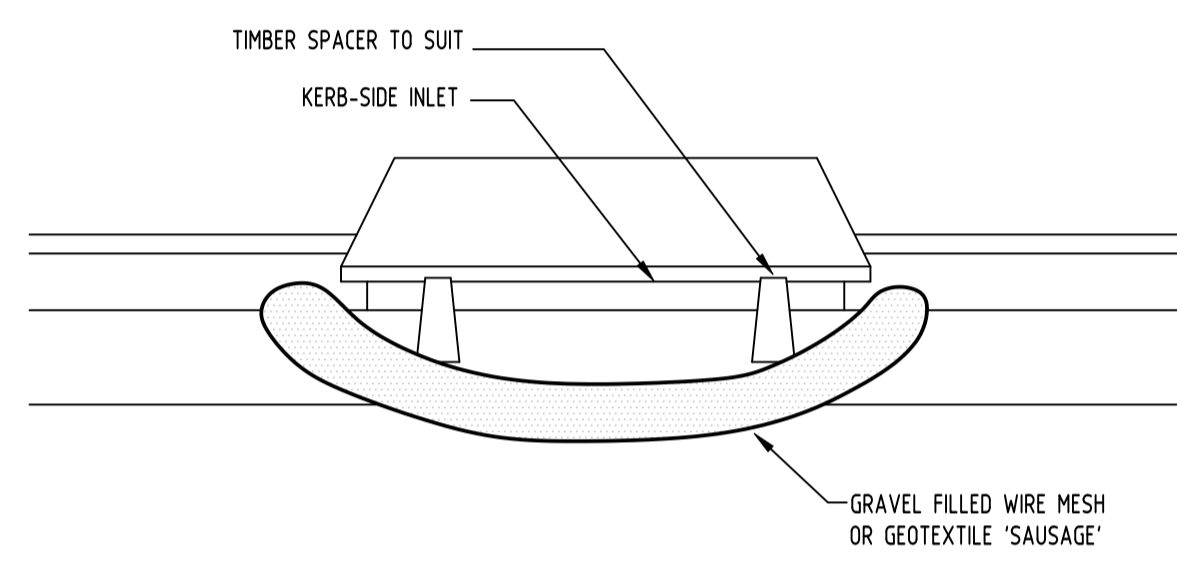
- A SYSTEM SHALL BE INSTALLED TO EITHER:
 - TRANSPORT STORMWATER RUNOFF WITH SUSPENDED SOLIDS FROM SITE VIA PUMP TRUCKS.
 - TREAT THE STORMWATER RUNOFF WITH SUSPENDED SOLIDS SO THE DISCHARGE WATER QUALITY TO COUNCIL STORMWATER DRAINAGE SYSTEM HAS A MAXIMUM CONCENTRATION OF SUSPENDED SOLIDS THAT DOES NOT EXCEED 50 MILLIGRAMS PER LITRE IN ACCORDANCE WITH THE PROTECTION OF THE ENVIRONMENT OPERATION ACT (POEO 1997) AND SHALL BE APPROVED BY LOCAL COUNCIL.



DIAGMATIC VIEW

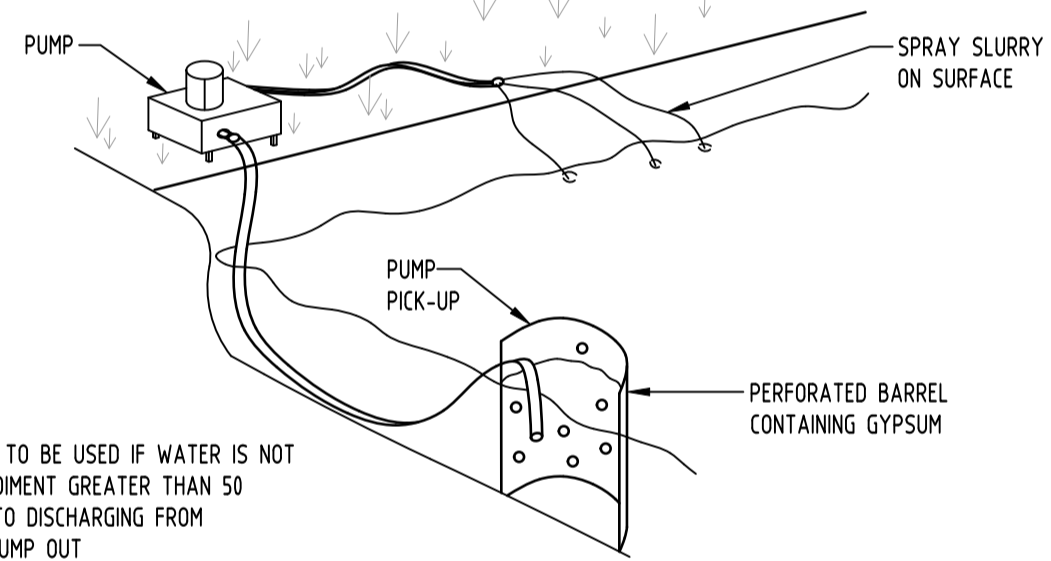


TYPICAL SECTION
SEDIMENT FENCE
NOT TO SCALE



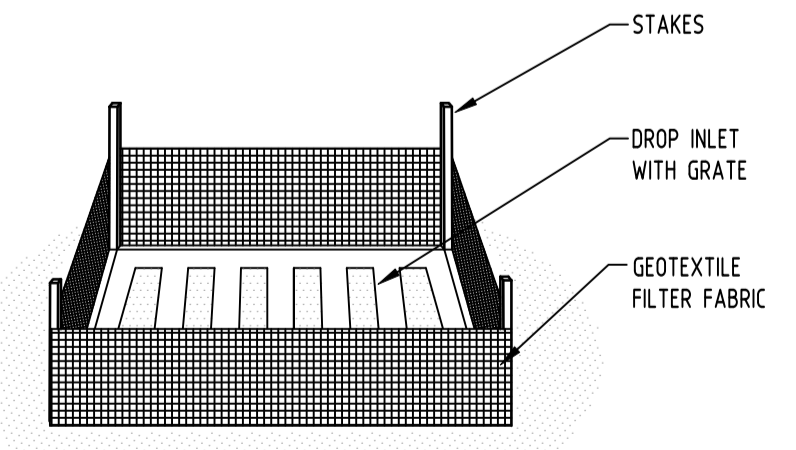
GRAVEL INLET FILTER (SAUSAGE)
NOT TO SCALE

CONSTRUCTION NOTES:
FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAT THE LENGTH OF THE INLET PIT
FILL THE SLEEVE WITH 25mm TO 50mm GRAVEL
FORM AN ELLIPTICAL CROSS-SECTION OF THE KERB INLET LEAVING A 100mm GAP AT THE TOP TO ACT AS AN EMERGENCY SPILLWAY
MAINTAIN THE OPENING WITH SPACER BLOCKS
FORM A SEAL WITH THE KERBING AND PREVENT SEDIMENT BYPASSING THE FILTER
FIT TO ALL KERB INLETS AT SAG POINTS

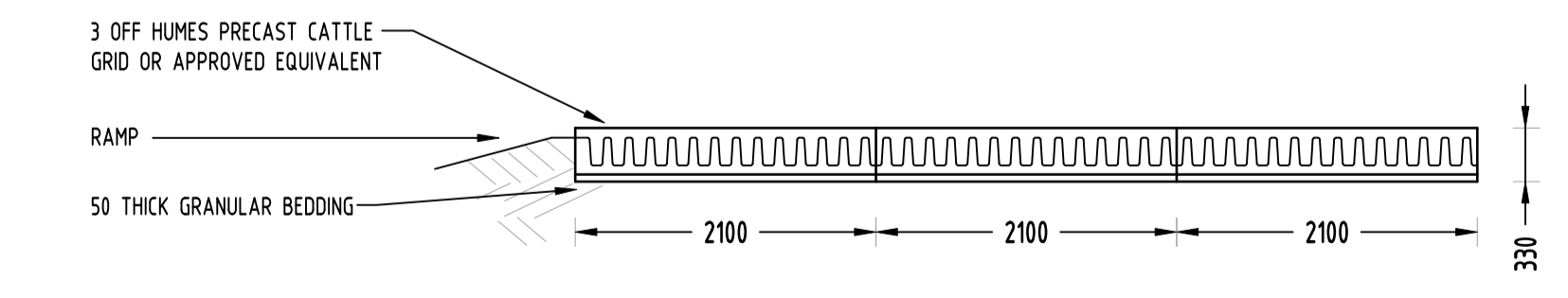
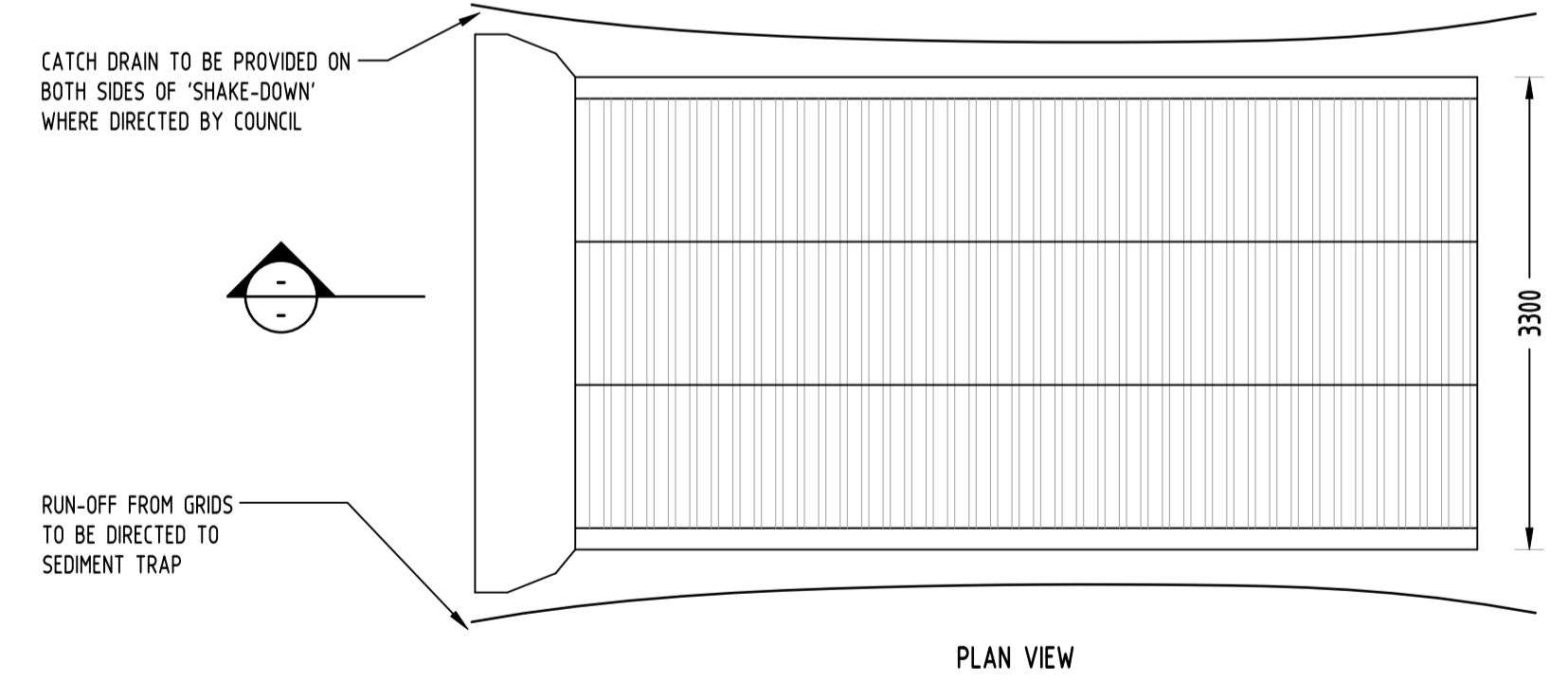
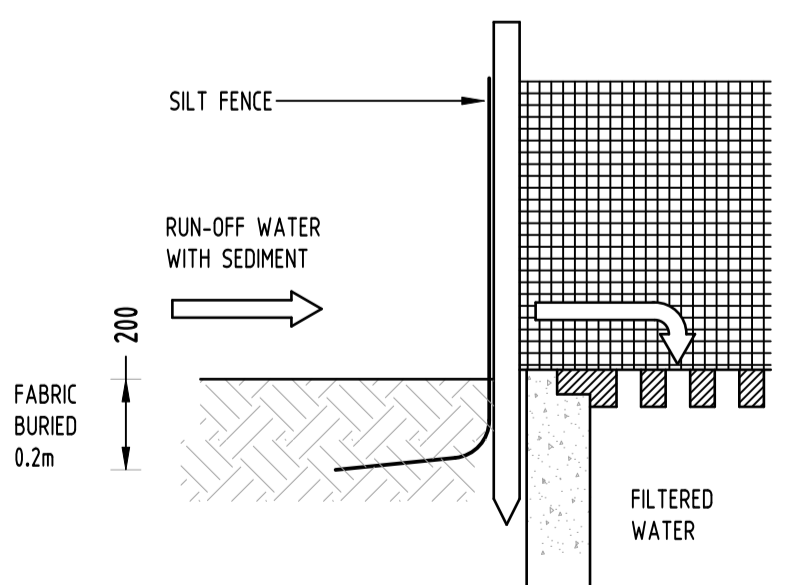


NOTE:
1. FLOCCULATION TO BE USED IF WATER IS NOT CLEAR (ie. SEDIMENT GREATER THAN 50 mg/L) PRIOR TO DISCHARGING FROM TEMPORARY PUMP OUT
2. FOR RATES & AGENTS SEE APPENDIX E OF NEW SOUTH WALES DEPARTMENT OF HOUSING "MANAGING URBAN STORMWATER SOILS & CONSTRUCTION".

FLOCCULATION DETAIL
NOT TO SCALE



GEOTEXTILE INLET FILTER
NOT TO SCALE



TYPICAL SECTION
'CATTLE GRID' ALTERNATIVE
TEMPORARY CONSTRUCTION EXIT
NOT TO SCALE

Issue No	Issue Title	By	Date	Status
D	ISSUE FOR DA	MS	30.11.22	2
C	ISSUE FOR DA	MS	18.12.21	2
B	ISSUE FOR DA	MS	04.12.21	2
A	ISSUE FOR DA	MS	26.11.21	2
P2	PRELIMINARY ISSUE	MN	01.11.21	1
P1	PRELIMINARY ISSUE	MS	17.08.21	1

Issuer internal sequence and revision history
1- preliminary 2- development application 3- construction certificate
4- tender 5- construction 6- other (specify)

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUCT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

Discipline	Checked	Date
DRAWN	MS	DATE 10.12.21
CHECKED	SH	DATE 10.12.21
DESIGNED	MS	DATE 10.12.21
VERIFIED	SH	DATE 10.12.21
APPROVED	SH	DATE 10.12.21

QUALITY CONTROL
DISCLAIMER: DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES' MANS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR RECORD/ABSELEATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

SERVICES ON THIS DRAWING ARE SHOWN BELOW SLAB U.L.O.

CLIENT
DEE WHY 3 PTY LTD &
DEE WHY 4 PTY LTD

ARCHITECT
rothelowman
Brisbane, Melbourne, Sydney
www.rothelowman.com.au

SGC
Suite 5.03, Level 5,
156 PACIFIC HIGHWAY
ST. LEONARDS, NSW 2065
T: +61 2 8883 4239
Email: office@sgce.com.au
Web: www.sgce.com.au
A.B.N. 21 118 222 530

PROJECT
PROPOSED MIXED USE DEVELOPMENT
4 DELMAR PARADE & 812 PITWATER ROAD,
DEE WHY

Drawing Title
EROSION AND SEDIMENT CONTROL
DETAILS

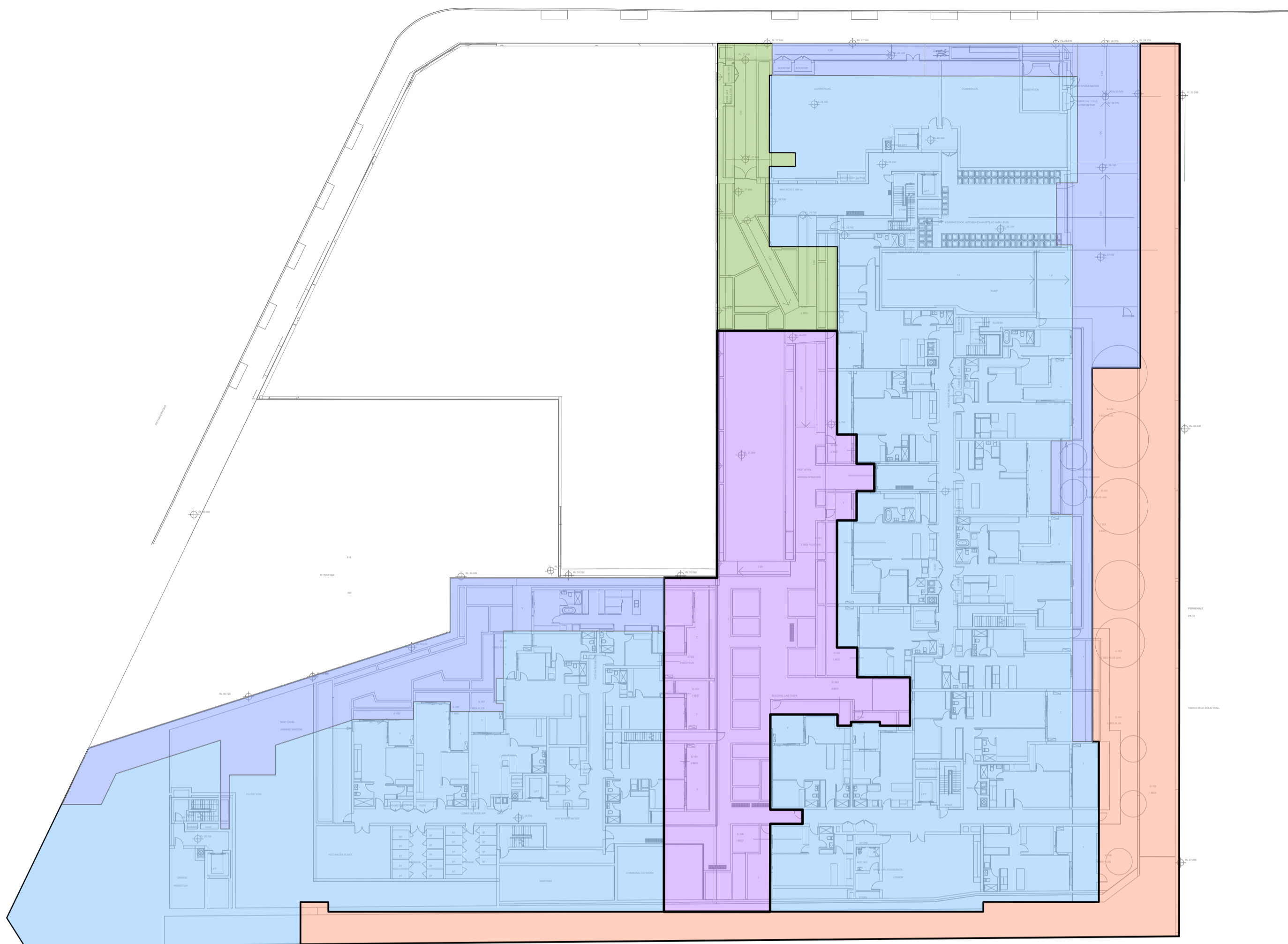
Project No	Drawing No	Revision No
20210067	SW401	D

Sheet	Scale	Grid	Datum
9/10	AS SHOWN	MGA 56	A.H.D.

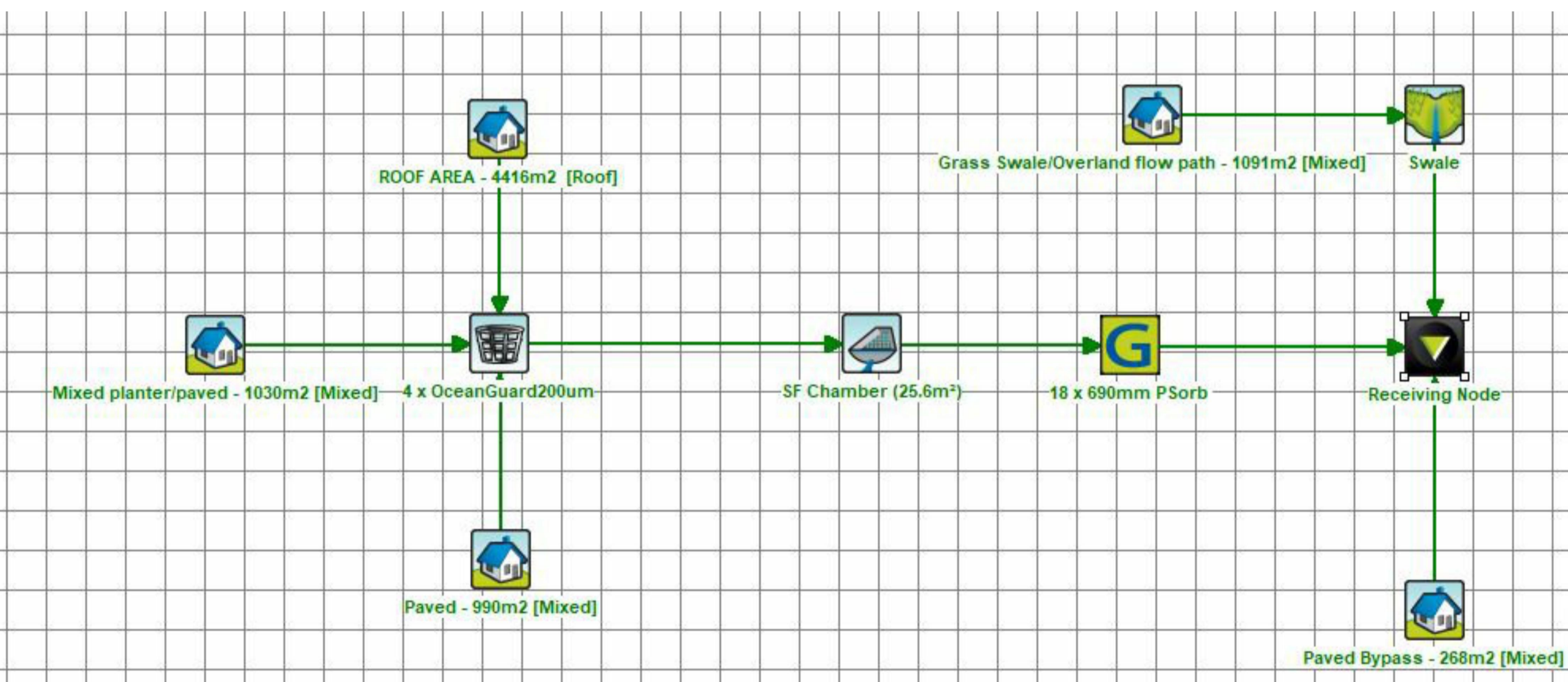
Drawing Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Scales
0m 1 2 3 4 5
SCALE 1:100 ON ORIGINAL SIZE

ENGINEERS AUSTRALIA
MEMBER
WARNING: THE DESIGNS, DRAWINGS, SPECIFICATIONS AND THE COPYRIGHT HEREIN REMAIN THE SOLE INTELLECTUAL PROPERTY OF S&G CONSULTANTS PTY LTD AND MUST NOT BE USED, COPIED, ALTERED OR REPRODUCED WHOLLY OR IN PART IN ANY FORM WITHOUT THE WRITTEN CONSENT OF S&G CONSULTANTS PTY LTD.



- ROOF AREA TO SF
AREA 4416m²
- MIXED PLANTER/PAVED TO OG/SF
AREA 1030m² (75% IMP.)
- PAVED TO SF
AREA 990m² (100% IMP.)
- GRASS SWALE BYPASS OSD/SF
AREA 1091m² (0% IMP.)
- PAVED BYPASS
AREA 268m² (100% IMP.)



	Sources	Residual Load	% Reduction
Flow (ML/yr)	2.6	2.6	0
Total Suspended Solids (kg/yr)	196	29.1	85.1
Total Phosphorus (kg/yr)	0.519	0.127	75.4
Total Nitrogen (kg/yr)	5.6	2.5	55.3
Gross Pollutants (kg/yr)	58.4	2.31	96

No	Last revision title	By	Date	Status
D	ISSUE FOR DA	MS	30.11.22	2
C	ISSUE FOR DA	MS	18.12.21	2
B	ISSUE FOR DA	MS	01.12.21	2
A	ISSUE FOR DA	MS	26.11.21	2
P2	PRELIMINARY ISSUE	MN	01.11.21	1
P1	PRELIMINARY ISSUE	MS	17.08.21	1

Issuer internal sequence and revision history
 1- preliminary 2- development application 3- construction certificate
 4- tender 5- construction 6- other (specify)

Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUCT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

DRAWN	MS	DATE	10.12.21
CHECKED	SH	DATE	10.12.21
DESIGNED	MS	DATE	10.12.21
VERIFIED	SH	DATE	10.12.21
APPROVED	SH	DATE	10.12.21

DISCLAIMER: DIMENSIONS NOT SHOWN TO BE CHECKED ON SITE. DO NOT SCALE OF THIS DRAWING. POSITIONS OF AUTHORITIES' MANS AND/OR EXISTING SERVICES ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE CONSULTING ENGINEER FOR RECORD/LABELATION BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS' DRAWINGS.

SERVICES ON THIS DRAWING ARE SHOWN BELOW SLAB U.N.O.

CLIENT
 DEE WHY 3 PTY LTD &
 DEE WHY 4 PTY LTD

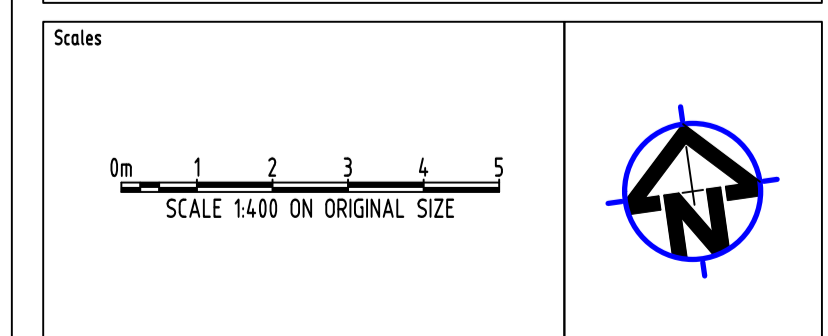
ARCHITECT
rothelowman
 Brisbane, Melbourne, Sydney
 www.rothelowman.com.au

SGC
 Suite 5.03, Level 5,
 156 PACIFIC HIGHWAY
 ST. LEONARDS, NSW 2065
 T: +61 2 8883 4239
 Email: office@sgce.com.au
 Web: www.sgce.com.au
 A.B.N. 21 118 222 530

PROJECT
 PROPOSED MIXED USE DEVELOPMENT
 4 DELMAR PARADE & 812 PITTSWATER ROAD,
 DEE WHY
 Drawing Title
 STORMWATER CONCEPT DESIGN
 MUSIC CATCHMENT PLAN

Project No	Drawing No	Revision No
20210067	SW500	D
Sheet	Scale	Grid
10/10	1:400 @ A1	MGA 56
		Datum
		A.H.D.

Drawing Status
 FOR APPROVAL
 NOT TO BE USED FOR CONSTRUCTION PURPOSES



ENGINEERS AUSTRALIA
 MEMBERSHIP
 WARNING: THE DESIGNS, DRAWINGS, SPECIFICATIONS AND THE COPYRIGHT HEREIN REMAIN THE SOLE INTELLECTUAL PROPERTY OF S&G CONSULTANTS PTY LTD AND MUST NOT BE USED, COPIED, ALTERED OR REPRODUCED WHOLLY OR IN PART IN ANY FORM WITHOUT THE WRITTEN CONSENT OF S&G CONSULTANTS PTY LTD.