



XAVIER
KNIGHT

S4.55 CIVIL ENGINEERING DESIGN REPORT

FOR

Rozelle Mixed Use Development – Tigers Leagues Club
138-152 Victoria Road, Rozelle, NSW, 2039



Project Number 220823

Date 18/11/2022

Prepared for: Touchstone Partners

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QUALITY CONTROL REGISTER

This report has been prepared and checked as per below.

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Checked by:	Scott Sharma		18/11/22
Authorised by:	Scott Sharma		18/11/22

DOCUMENT SUMMARY

Project Number: 220823
Project Name: 138-152 Victoria Road, Rozelle, NSW, 2039
Prepared For: Touchstone Partners
Date Prepared: 18/22
XK Project Director: Scott Sharma

Status	Issue	Date	Prepared By	Approved By
S4.55 Application	A	18.11.2022	Terry Fong	Scott Sharma



1 INTRODUCTION

1.1 BACKGROUND

This report has been prepared to accompany the Section 4.55 Application for the development of the Tigers League Club Mixed Use Development on behalf of Touchstone Partners.

The development is located on Lot 1 DP528045, Lot 1 DP 109047, Lot 36 DP190866, Lots 37 & 38 DP421, Lots 101 & 102 DP629133 and Lot 103 DP733658 at Victoria Road, Rozelle within the jurisdiction of Inner West Council. The development is area approximately 0.73Ha and is currently occupied by multiple two storey and multi storey commercial buildings.

All existing buildings will be demolished and replaced with a mixed-use development consisting of:

- Two-level of basements:
 - o One level basement for residential parking, accessed from Waterloo Street.
 - o One level basement for retail parking, accessed from Victoria Road.
- Supermarket tenancy on Lower Ground Level, fronting Victoria Road.
- Retail space, Balmain Leagues Club, and open communal space on the Upper Ground Floor, fronting Waterloo Street, Darling Street, and Victoria Road.
- Overlain by residential floors to Level 12, with the residential floor areas reducing with height.

This report details the procedures and design criteria used in developing the stormwater management plan for this DA documentation. The report discusses the existing site condition, water quality and quantity as well as sediment and erosion controls.

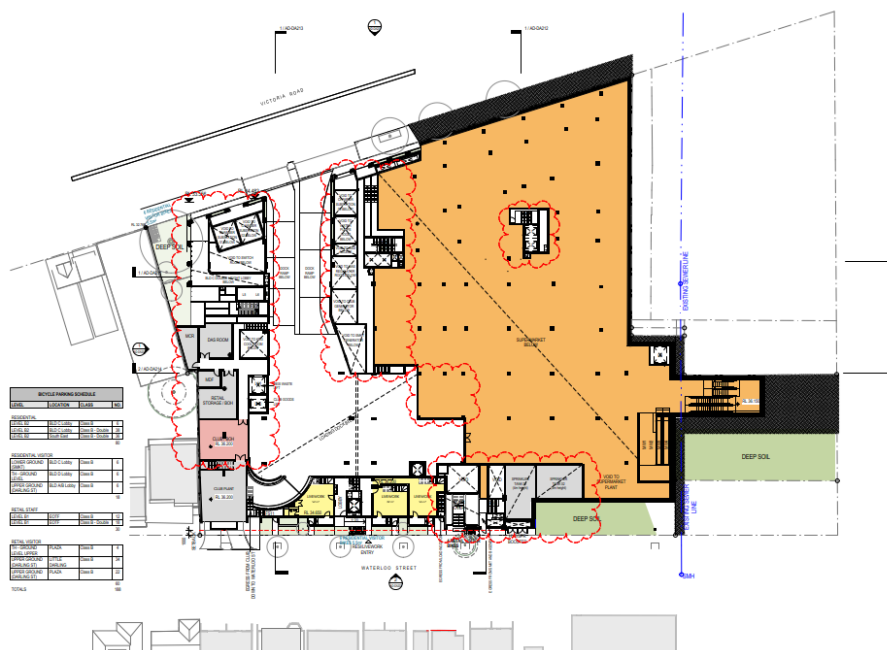


Figure 1 - Site Plan

1.2 EXISTING CONDITIONS

A detailed survey was conducted by LTS Lockley in December 2017 (See **Appendix B**).

The site contours generally fall in a western direction from Darling Street down Victoria Road and Waterloo Street. The site is bounded from the north, east and south by Victoria Road, Darling Street and Waterloo Street respectively, and by commercial and residential developments to the west. The majority of the existing site is a non-operational commercial building in a state of dilapidation.

The survey depicts all existing stormwater drainage as discharging to the kerb and gutter. Approximately 70m west of the site, further downstream along Victoria Road, an existing kerb inlet pit with a 300mm diameter outlet pipe.

2 STORMWATER DRAINAGE

2.1 STORMWATER DESIGN

The existing buildings and paving within the site area will be demolished and replaced with a new stormwater network system servicing the new development.

In accordance with Inner West Council's Notice of Determination D/2018/219, Condition 88)h), the pipe and channel drainage systems have been designed for the 100-Year Storm.

The Stormwater management drawings in **Appendix A** shows the design intent of draining the site by gravity towards a single On-Site Detention (OSD) tank at the Victoria Road frontage of the site, except for the basement drainage which will discharge to the OSD via a proposed pump-out pit. The OSD discharges to a proposed extension of Council's stormwater drainage system located near the corner of Victoria Road and Moodie Street which will serve as the proposed site discharge. The design of the OSD is discussed in more detail in the next chapter of this report.

All trafficable surfaces are proposed to discharge to the OSD, while non-trafficable roof surfaces will first discharge to the rainwater tank prior to discharge to the OSD.

The existing overland flow path is directed towards Victoria Road. The proposed stormwater drainage will maintain this arrangement by directing overland flows towards the northwest corner of the site, fronting Victoria Road.

2.2 STORMWATER ON-SITE DETENTION

In accordance with Leichardt DCP 2013 - Part E, as required by Inner West Council specifications, post development flows for the 100 Year ARI storm must be restricted to the pre development flows for the 5 Year ARI storm event .

The pre-development catchment was assumed as 0% impervious for the purposes of the OSD analysis, and post-development catchment as 95% impervious. The site has been modelled in



DRAINS using ILSAX hydrology and Australian Rainfall and Runoff 2019 (ARR 2019) methods. The pre and post development non-attenuated flows are shown in **Table 1** below.

Table 1 - On-Site Detention Tank Calculation Details

Storm Event (ARI)	Pre-Dev Flow (L/s)	Post-Dev Flow Non-Attenuated (L/s)	Post-Dev Flow Attenuated (L/s)	Stored Volume (m³)
5	182	261	128	68.0
100	369	462	182	151.0

In case of emergencies or when storms larger than the 100-Year event occur, Pit B03 has been provided with an open grate and grated drain to allow stormwater to escape and flow overland towards Victoria Road. An internal overflow weir within the OSD has also been provided.

3 STORMWATER QUALITY

In accordance with Leichardt DCP 2013 - Part E, as required by Inner West Council specifications, the following performance criteria have been adopted:

- 85% reduction in total suspended solids (TSS)
- 65% reduction in total phosphorus (TP)
- 45% reduction in total nitrogen (TN)
- 90% reduction in gross pollutants (size >5mm)

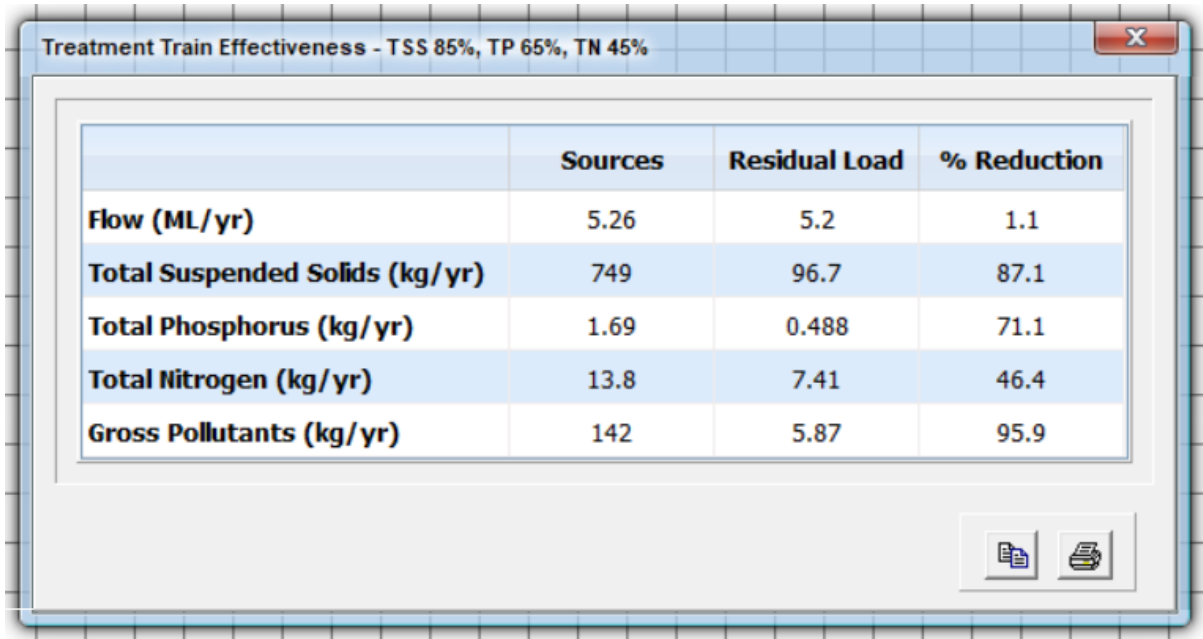
3.1 WATER QUALITY TREATMENT MEASURES

The following WSUD measures have been adopted for the site:

- **Rainwater Tanks**
A single underground rainwater tank measuring 40.3m³ was provided on site. All non-trafficable roof rainwater shall be routed to this tank and be made available for re use in site. The final volume of the rainwater tank shall be confirmed at CC stage in accordance with BASIX section J requirements and coordination with the hydraulic engineer.
- **Gross Pollutant Trap**
A SPEL Vortceptor gross pollutant trap has been proposed prior to the OSD/WSUD Chamber to treat runoff captured from trafficable surfaces.
- **Tertiary treatment filter cartridges**
SPEL SPELFilter cartridges have been proposed within a Water Sensitive Urban Design (WSUD) chamber integrated within the OSD tank.

3.2 WATER QUALITY MODELLING

Conceptual modelling of water quality was undertaken using the MUSIC 6 software. The overall MUSIC analysis results are shown below:



	Sources	Residual Load	% Reduction
Flow (ML/yr)	5.26	5.2	1.1
Total Suspended Solids (kg/yr)	749	96.7	87.1
Total Phosphorus (kg/yr)	1.69	0.488	71.1
Total Nitrogen (kg/yr)	13.8	7.41	46.4
Gross Pollutants (kg/yr)	142	5.87	95.9

Figure 2 - MUSIC Analysis Results

Some of the site area has been designed to bypass the water treatment devices. Refer to the catchment area drawing in **Appendix A** for more detail.

Refer to **Appendix C** for the MUSIC Treatment Train details.

4 SOIL AND WATER MANAGEMENT

A Soil and Water Management Plan has been prepared for the site and is shown in **Appendix A**. The plan has been prepared in accordance with Managing Urban Stormwater – Soils & Construction Volume 1 (Landcom 2004).

5 DISCLAIMER

Xavier Knight Consulting Engineers gives notice that the particulars set out in this report are for the exclusive use of Client and that no responsibility or liability is accepted as a result of the use of this report by any other party. This report shall not be construed as a certificate or warranty.

For and on behalf of the Xavier Knight team.

Kind regards,

Scott Sharma
PROJECT DIRECTOR



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6 APPENDICES

6.1 APPENDIX A – CIVIL ENGINEERING DESIGN FOR S4.55



TIGERS LEAGUES CLUB

PROPOSED MIXED USE DEVELOPMENT

138-152 VICTORIA ROAD, ROZELLE, NSW, 2039



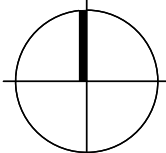
LOCALITY PLAN
IMAGE FROM SIXMAPS
28.10.2022

DRAWING SCHEDULE	
DRAWING NO.	DRAWING TITLE
C200	COVER SHEET
C207	STORMWATER MANAGEMENT PLAN - BASEMENT 3
C208	STORMWATER MANAGEMENT PLAN - BASEMENT 2
C209	STORMWATER MANAGEMENT PLAN - BASEMENT 1
C210	STORMWATER MANAGEMENT PLAN - LOWER GROUND FLOOR
C220	STORMWATER MANAGEMENT PLAN - UPPER GROUND FLOOR
C250	CATCHMENT PLAN (WATER QUALITY)
C300	STORMWATER DRAINAGE DETAILS - SHEET 1
C301	STORMWATER DRAINAGE DETAILS - SHEET 2
C400	SEDIMENT AND EROSION CONTROL PLAN
C450	SEDIMENT AND EROSION CONTROL DETAILS

PRINTING NOTE:
THIS DRAWING TO BE PRINTED IN COLOUR.

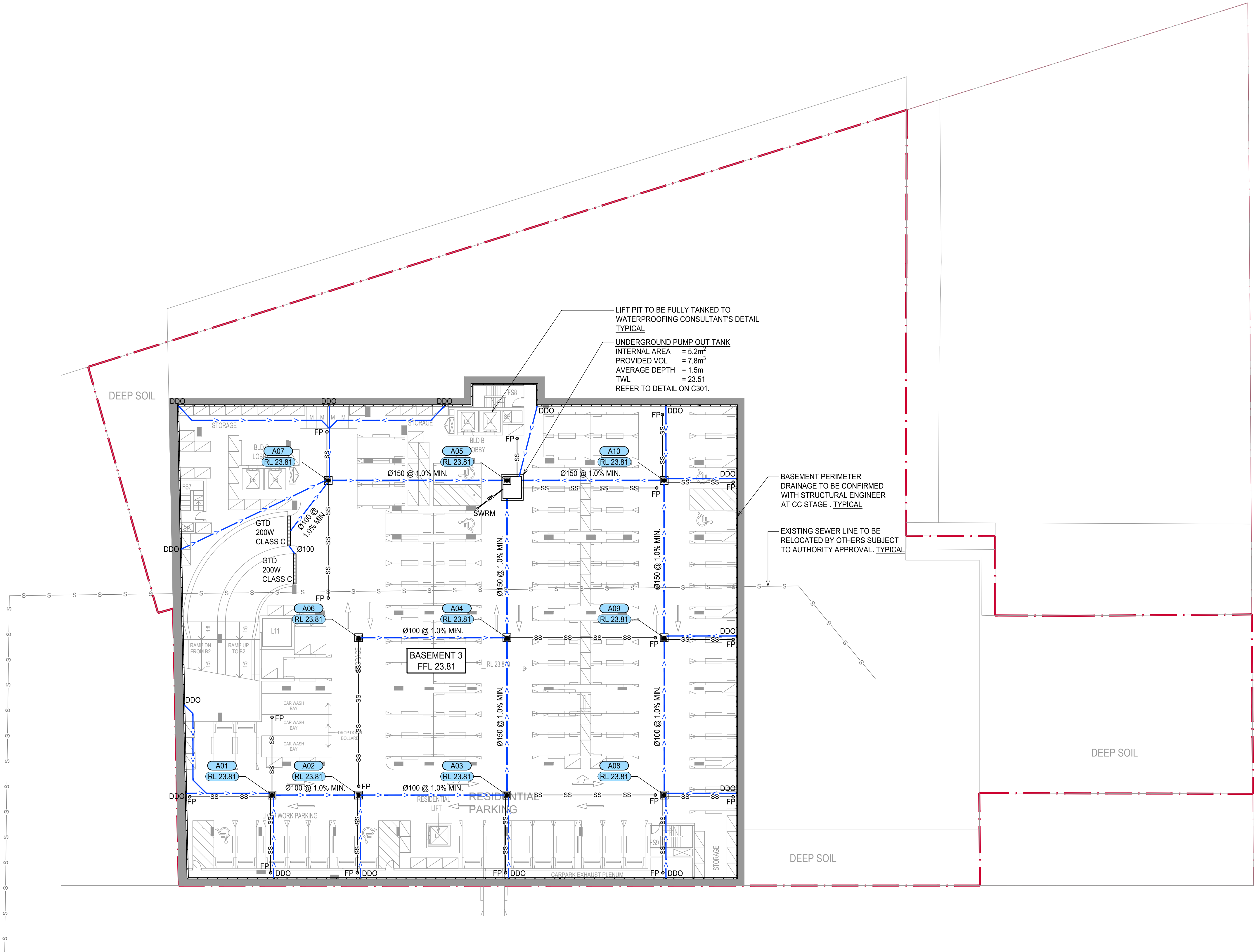


SECTION 4.55

Architect SCOTT CARVER LEVEL 1, 1 CHIFLEY SQUARE, SYDNEY, NSW, 2000	Client TOUCHSTONE PARTNERS LEVEL 8/92 PITT STREET, SYDNEY, NSW, 2000	 XAVIER KNIGHT	T : 02 8810 5800 E : info@xavierknight.com.au A : Level 7, 210 Clarence Street, Sydney NSW 2000 xavierknight.com.au This drawing is copyright and is the property of XAVIER KNIGHT CONSULTING ENGINEERS Pty. Ltd. and must not be used without authorisation.	North 	Project ROZELLE MIXED USE DEVELOPMENT - TIGERS LEAGUES CLUB 138-152 VICTORIA ROAD, ROZELLE, NSW, 2039	Scale at A1 NTS	Drawn TF	Approved SS
Rev Description A ISSUE FOR SECTION 4.55 TF TF 18.11.2022 Eng Draft Date	Sheet Subject COVER SHEET	Job No 220823	Drawing No C200	Revision A				

LEGEND

- SITE BOUNDARY
- PROPOSED STORMWATER LINE
- RM --- RM --- STORMWATER RISING MAIN
- SS --- SS --- SUBSOIL LINE @ 1% MIN.
- GTD GRATED DRAIN
- PERIMETER DRAIN
- GRATED SURFACE INLET PIT
- A10 PIT TAG
- RL 23.81 PIT SURFACE LEVEL
- S --- S --- EXISTING SEWER LINE
- SWRM STORMWATER RISING MAIN
- FP FLUSHING POINT
- DDO DISH DRAIN OUTLET



PIT SCHEDULE

PIT ID	PIT TYPE	COVER LEVEL (mAHD)	PIT IL (mAHD)	DEPTH TO IL (m)
A01	900x900 GSP CLASS C GRATE	23.81	22.96	0.85
A02	900x900 GSP CLASS C GRATE	23.81	22.85	0.96
A03	900x900 GSP CLASS C GRATE	23.81	22.66	1.15
A04	900x900 GSP CLASS C GRATE	23.81	22.47	1.34
A05	PUMP OUT PIT 900SQ CLASS C GRATE	23.81	22.31	1.50
A06	900x900 GSP CLASS C GRATE	23.81	23.10	0.71
A07	900x900 GSP CLASS C GRATE	23.81	22.51	1.30
A08	900x900 GSP CLASS C GRATE	23.81	23.10	0.71
A09	900x900 GSP CLASS C GRATE	23.81	22.91	0.90
A10	900x900 GSP CLASS C GRATE	23.81	22.72	1.09
B01	900x900 SJP CLASS C LID	33.30	32.03	1.27
B02	900x900 SJP CLASS D LID	34.64	32.34	2.30
B03	900x900 GSP CLASS D GRATE	35.20	34.15	1.05

NOTES:

- SURVEY INFORMATION HAS BEEN OBTAINED FROM LTS LOCKLEY'S SURVEY TITLED 'PLAN OF DETAIL AND LEVELS OVER LOT 1 DP528045, LOT 1 DP 109047, LOT 36 DP190866, LOTS 37 & 38 DP421, LOTS 101 & 102 DP629133 AND LOT 103 DP733658 AT VICTORIA ROAD, ROZELLE' - JOB NO. 50194 001DT, ISSUED 21.12.2017.
- ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE
- ALL PIPES ARE TO BE MINIMUM Ø100mm uPVC U.N.O.
- ALL PIPES ARE TO BE AT 1% MINIMUM GRADE U.N.O.
- SLAB TO BE GRADED 1% TOWARDS PITS TO MEET REQUIREMENTS OF AS 2890.

SECTION 4.55

PRINTING NOTE:

THIS DRAWING TO BE PRINTED IN COLOUR.

STORMWATER MANAGEMENT PLAN

BASEMENT 3

SCALE 1:250

A1 0 2.5 5 7.5 10 12.5 15 17.5 20 22.5 25 1:250

Architect	Client
SCOTT CARVER LEVEL 1, 1 CHIFLEY SQUARE, SYDNEY, NSW, 2000	TOUCHSTONE PARTNERS LEVEL 8/92 PITT STREET, SYDNEY, NSW, 2000
TF	TF
18.11.2022	18.11.2022
Eng	Draft
Date	Date

Architect

SCOTT CARVER

LEVEL 1, 1 CHIFLEY SQUARE, SYDNEY, NSW, 2000

Client

TOUCHSTONE PARTNERS

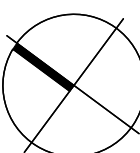
LEVEL 8/92 PITT STREET, SYDNEY, NSW, 2000



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North



Project

ROZELLE MIXED USE DEVELOPMENT - TIGERS LEAGUES CLUB
138-152 VICTORIA ROAD, ROZELLE, NSW, 2039

Sheet Subject

STORMWATER MANAGEMENT PLAN -
BASEMENT 3

Scale at A1

1:250

Drawn

TF

Approved

SS

Job No

220823

Drawing No

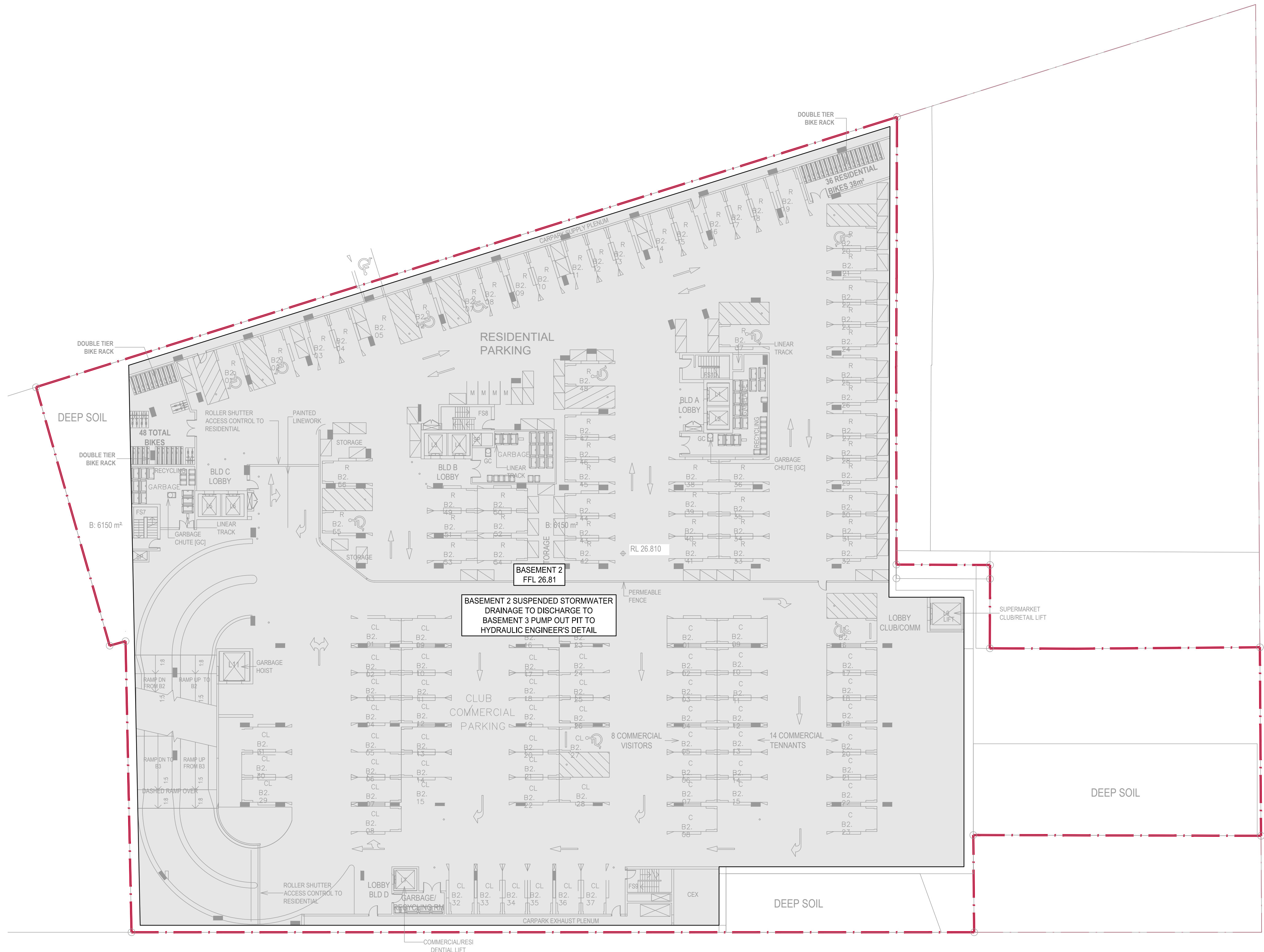
C207

Revision

A

LEGEND

- SITE BOUNDARY
- STORMWATER DRAINAGE TO
HYDRAULIC ENGINEER'S DETAIL



- NOTES:
1. SURVEY INFORMATION HAS BEEN OBTAINED FROM LTS LOCKLEY'S SURVEY TITLED 'PLAN OF DETAIL AND LEVELS OVER LOT 1 DP528045, LOT 1 DP 109047, LOT 36 DP190866, LOTS 37 & 38 DP421, LOTS 101 & 102 DP629133 AND LOT 103 DP733658 AT VICTORIA ROAD, ROZELLE' - JOB NO. 50194 001DT, ISSUED 21.12.2017.

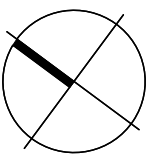
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STORMWATER MANAGEMENT PLAN
BASEMENT 2
SCALE 1:250

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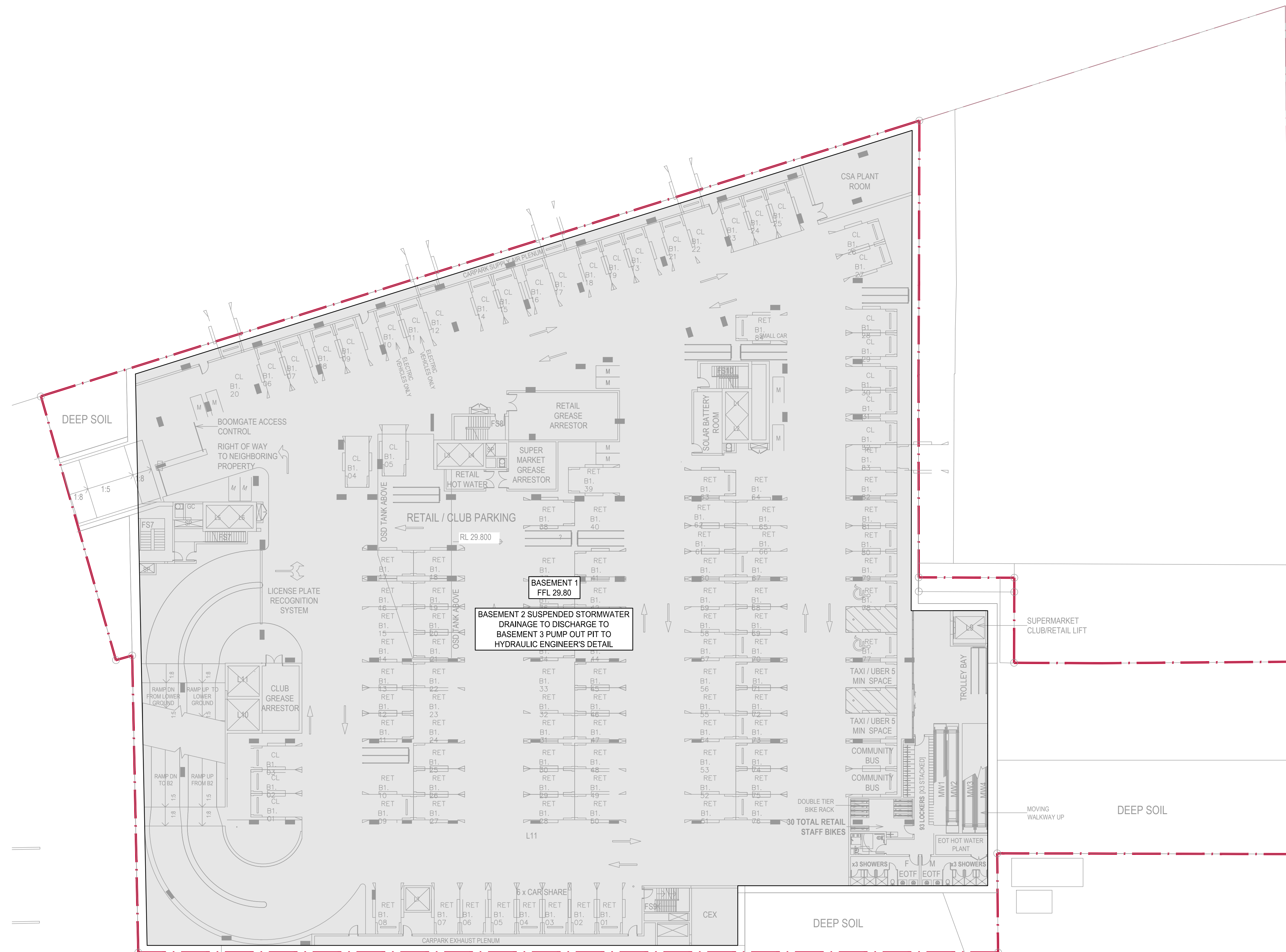
Architect			
SCOTT CARVER			
LEVEL 1, 1 CHIFLEY SQUARE, SYDNEY, NSW, 2000			
Client			
TOUCHSTONE PARTNERS			
LEVEL 8/92 PITT STREET, SYDNEY, NSW, 2000			
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ROZELLE MIXED USE DEVELOPMENT - TIGERS LEAGUES CLUB			
138-152 VICTORIA ROAD, ROZELLE, NSW, 2039			
Sheet Subject			
STORMWATER MANAGEMENT PLAN - BASEMENT 2			
Scale at A1			
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Approved			
SS			
Job No			
220823			
Drawing No			
C208			
Revision			
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A ISSUE FOR SECTION 4.55			
TF TF 18.11.2022			
Rev Description Eng Draft Date			



LEGEND

 SITE BOUNDARY

 STORMWATER DRAINAGE TO
HYDRAULIC ENGINEER'S DETAIL



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STORMWATER MANAGEMENT PLAN
BASEMENT 1
SCALE 1:250



A	ISSUE FOR SECTION 4.55			18.11.2022
Rev	Description	Eng	Draft	Date

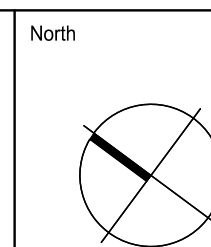
Architect
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LEVEL 1, 1 CHIFLEY SQUARE, SYDNEY, NSW, 2000

Client
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LEVEL 8/92 PITT STREET, SYDNEY, NSW, 2000



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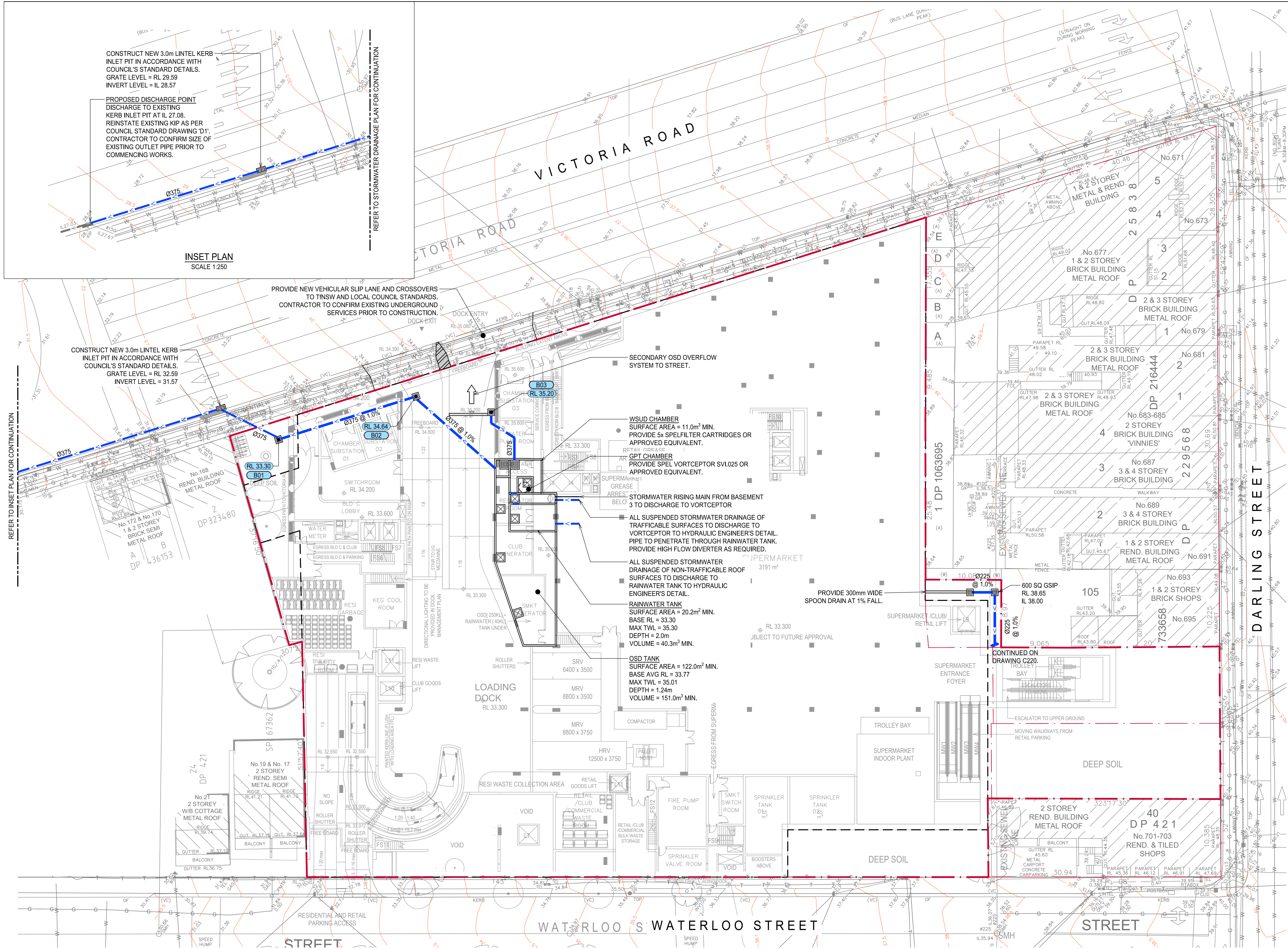
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ROZELLE MIXED USE DEVELOPMENT - TIGERS LEAGUES CLUB 138-152 VICTORIA ROAD, ROZELLE, NSW, 2039

Sheet Subject
STORMWATER MANAGEMENT PLAN -
BASEMENT 1

Scale at A1	Drawn	Approved
1:250	TF	SS
Job No	Drawing No	Revision
220823	C209	A



LEGEND

- SITE BOUNDARY
- PROPOSED STORMWATER LINE
- EXISTING STORMWATER LINE SHOWN INDICATIVELY ONLY
- EXTENT OF FLOOR BELOW
- GTD
- GRATED DRAIN
- KERB INLET PIT
- GRATED SURFACE INLET PIT
- SEALED JUNCTION PIT
- PIT TAG
- PIT SURFACE LEVEL
- EXISTING SEWER LINE
- EXISTING WATER MAIN
- EXISTING TELECOMMUNICATION LINE
- EXISTING GAS MAIN
- EXISTING ELECTRICAL MAIN

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- ALL PIPES ARE TO BE AT 1% MINIMUM GRADE U.N.O.
- SLAB TO BE GRADED 1% TOWARDS PITS TO MEET REQUIREMENTS OF AS 2890.
- REFER TO DRAWING C207 FOR PIT SCHEDULE.
- GROUND FLOOR STORMWATER DRAINAGE PRIOR TO OSD CONNECTION TO HYDRAULIC ENGINEER'S DETAIL.

PRINTING NOTE:
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STORMWATER MANAGEMENT PLAN
LOWER GROUND FLOOR
SCALE 1:250

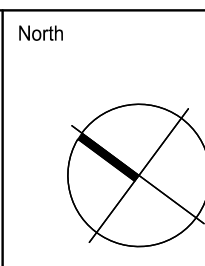
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Architect	Client
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A ISSUE FOR SECTION 4.55	TF TF 18.11.2022
Rev Description	Eng Draft Date

Client
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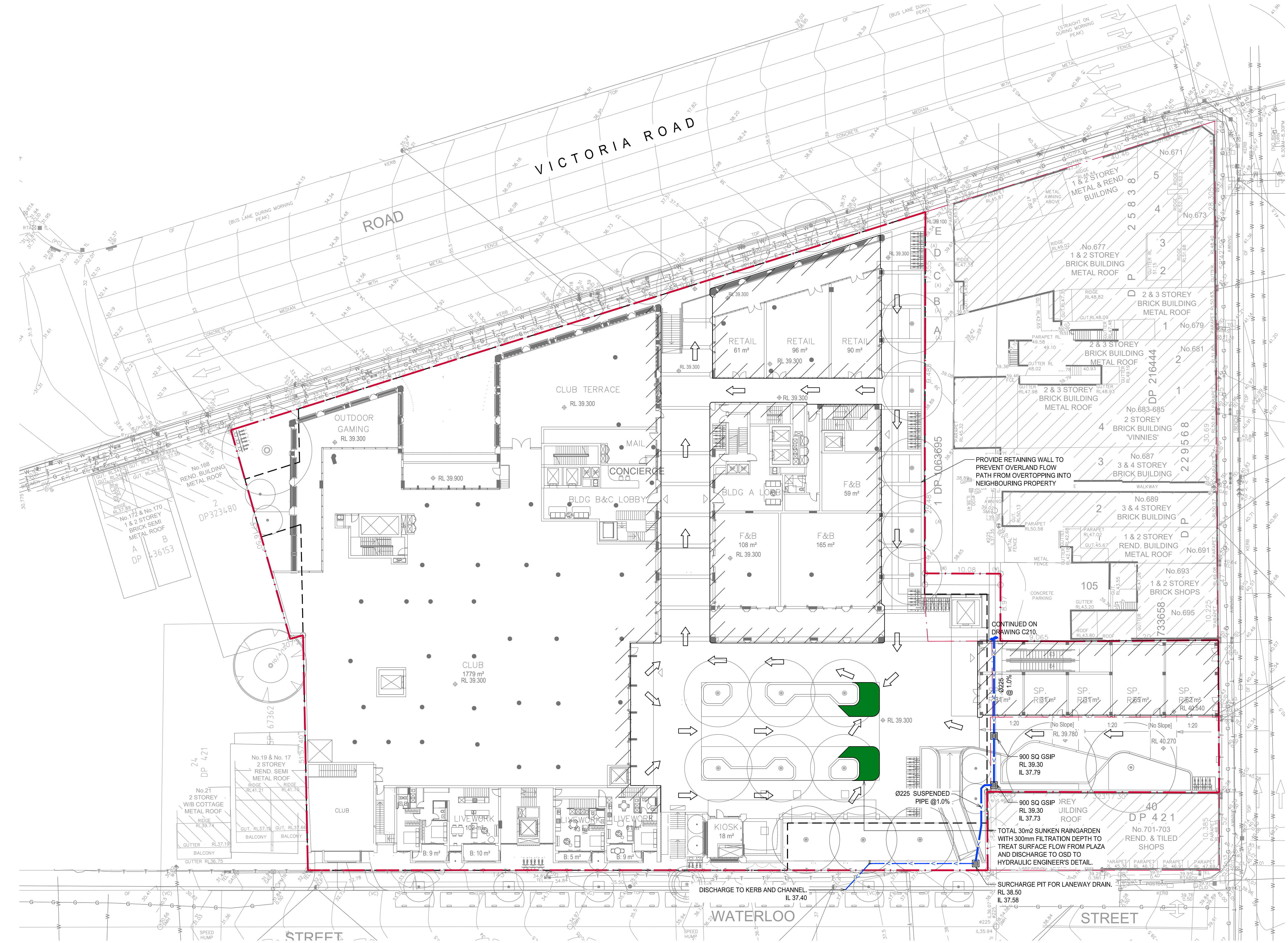
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ROZELLE MIXED USE DEVELOPMENT - TIGERS LEAGUES CLUB
138-152 VICTORIA ROAD, ROZELLE, NSW, 2039
Sheet Subject
STORMWATER MANAGEMENT PLAN -
LOWER GROUND FLOOR

Scale at A1	Drawn	Approved
1:250	TF	SS
Job No	Drawing No	Revision
220823	C210	A

SECTION 4.55



LEGEND

- SITE BOUNDARY
- PROPOSED STORMWATER LINE
- EXISTING STORMWATER LINE SHOWN INDICATIVELY ONLY
- EXTENT OF FLOOR BELOW
- PROPOSED RAINGARDEN
- ← OVERFLOW DIRECTION
- EXISTING SEWER LINE
- EXISTING WATER MAIN
- EXISTING TELECOMMUNICATION LINE
- EXISTING GAS MAIN
- EXISTING ELECTRICAL MAIN

- NOTES:**
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 - ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE
 - SLAB TO BE GRADED 1% TOWARDS PITS TO MEET REQUIREMENTS OF AS 2890.
 - STORMWATER DRAINAGE CONNECTION TO OSD CONNECTION TO HYDRAULIC ENGINEER'S DETAIL.
 - PROVIDE MIN. 150mm FREEBOARD TO INTERNAL SPACES.

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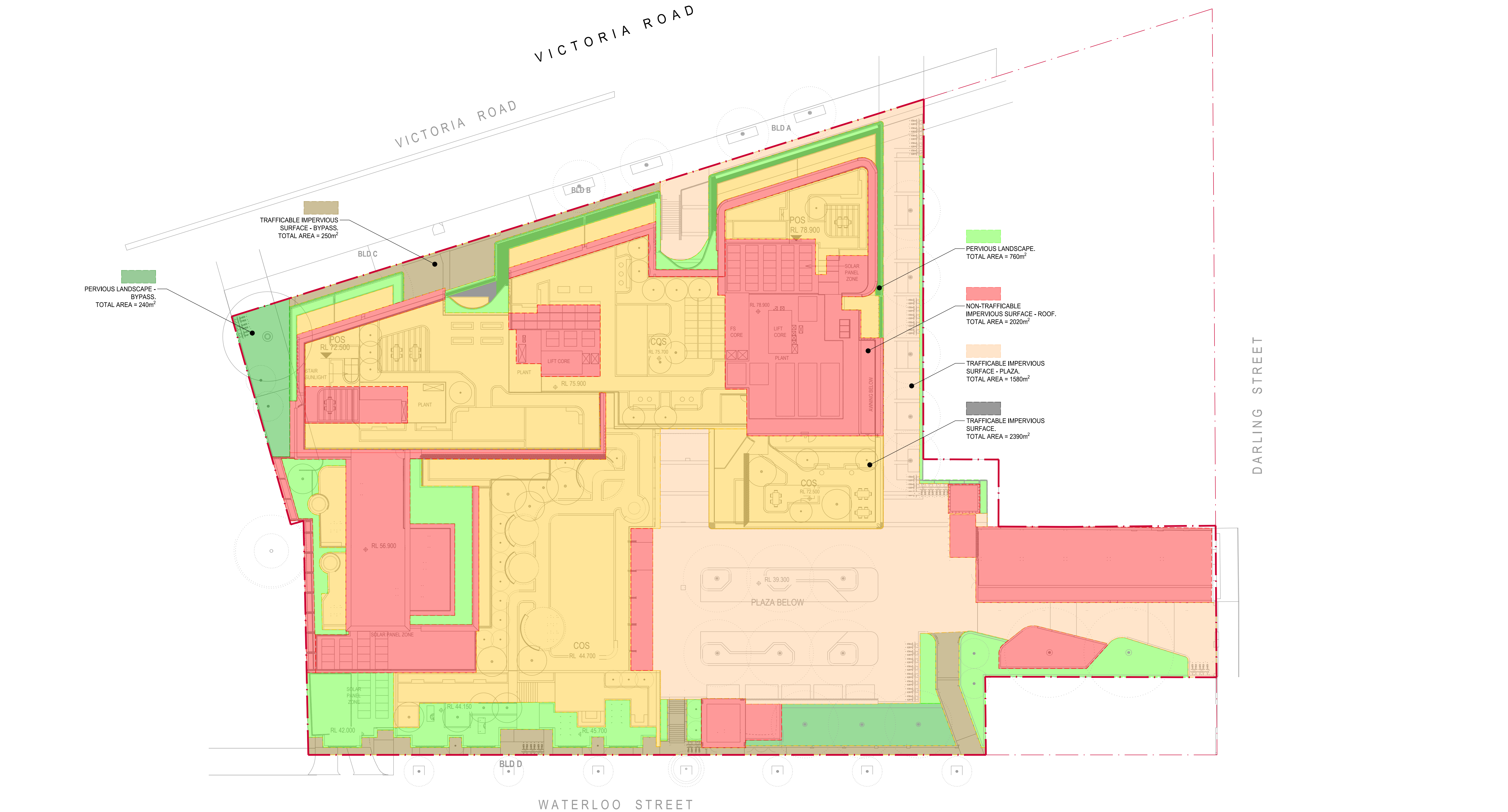
**STORMWATER MANAGEMENT PLAN
UPPER GROUND FLOOR
SCALE 1:250**

SECTION 4.55

A1 0 2.5 5 7.5 10 12.5 15 17.5 20 22.5 25 1:250		Architect SCOTT CARVER LEVEL 1, 1 CHIFLEY SQUARE, SYDNEY, NSW, 2000	Client TOUCHSTONE PARTNERS LEVEL 8/92 PITT STREET, SYDNEY, NSW, 2000		T : 02 8810 5800 E : info@xavierknight.com.au A : Level 7, 210 Clarence Street, Sydney NSW 2000 xavierknight.com.au This drawing is copyright and is the property of XAVIER KNIGHT CONSULTING ENGINEERS Pty. Ltd. and must not be used without authorisation.	North 	Project ROZELLE MIXED USE DEVELOPMENT - TIGERS LEAGUES CLUB 138-152 VICTORIA ROAD, ROZELLE, NSW, 2039	Scale at A1 1:250	Drawn TF	Approved SS
A ISSUE FOR SECTION 4.55 Rev Description		TF 18.11.2022 Eng Draft Date						Job No 220823	Drawing No C220	Revision A

LEGEND

--- SITE BOUNDARY

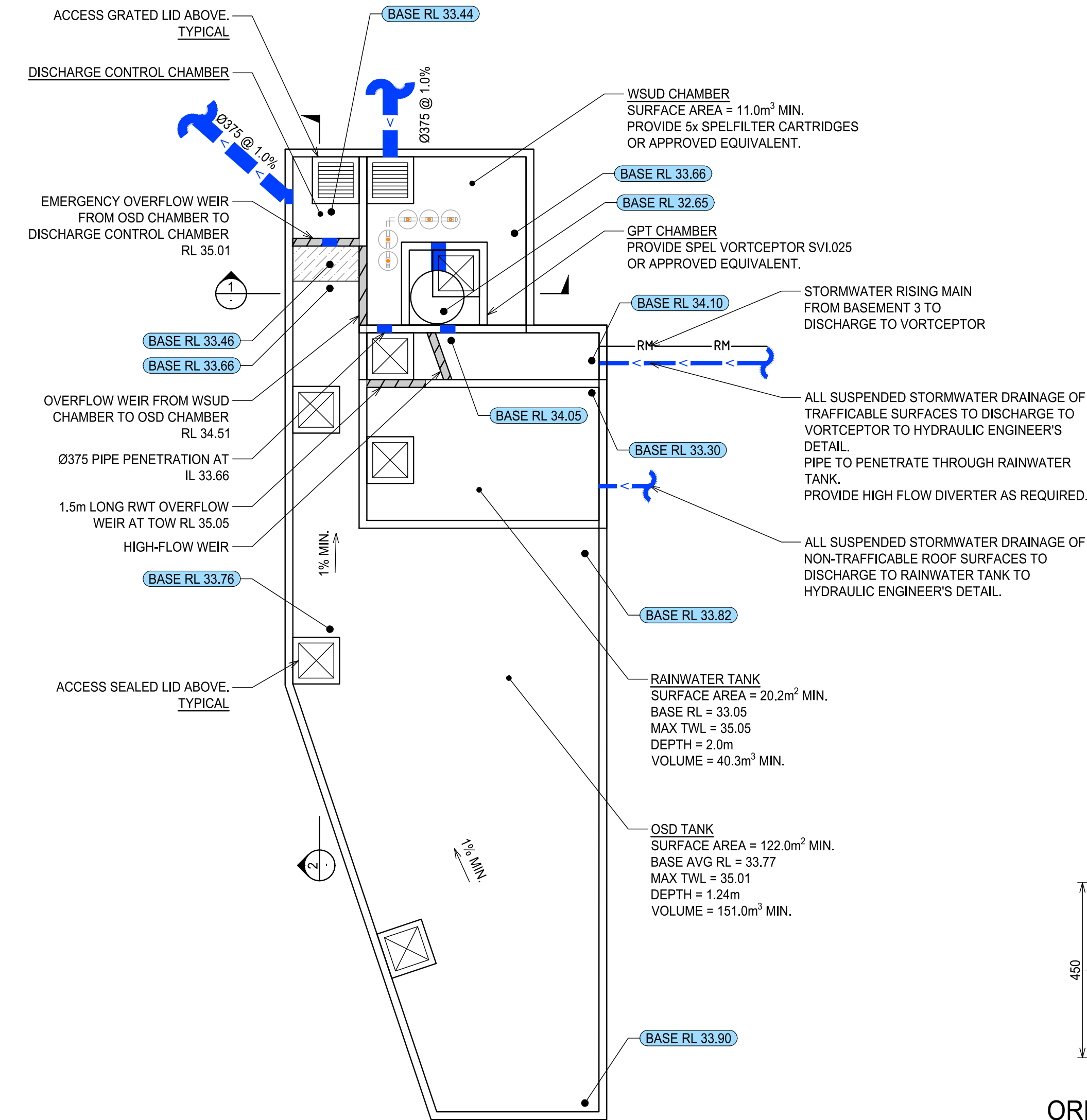


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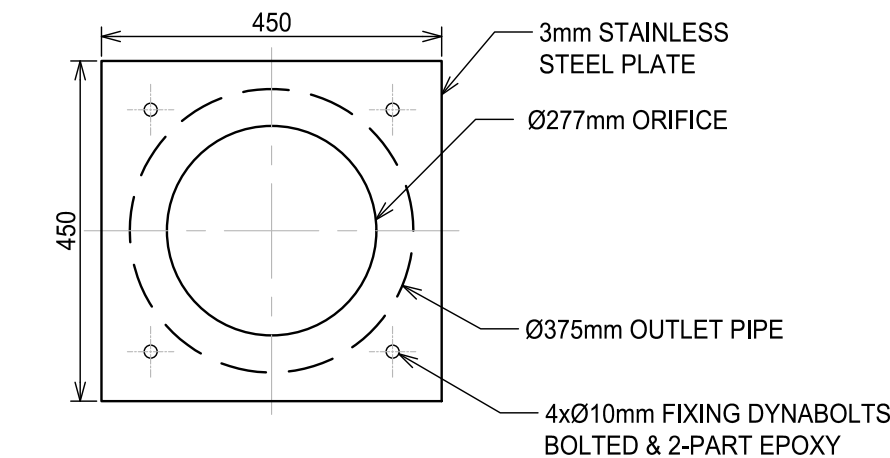
A1 0 2.5 5 7.5 10 12.5 15 17.5 20 22.5 25 1:250

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A : Level 7, 210 Clarence Street, Sydney NSW 2000			
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North			
Project			
ROZELLE MIXED USE DEVELOPMENT - TIGERS LEAGUES CLUB			
138-152 VICTORIA ROAD, ROZELLE, NSW, 2039			
Sheet Subject			
CATCHMENT PLAN (WATER QUALITY)			
Scale at A1			
1:250			
Drawn			
TF			
Approved			
SS			
Job No			
220823			
Drawing No			
C250			
Revision			
A			
A ISSUE FOR SECTION 4.55			
TF TF 18.11.2022			
Rev Description Eng Draft Date			

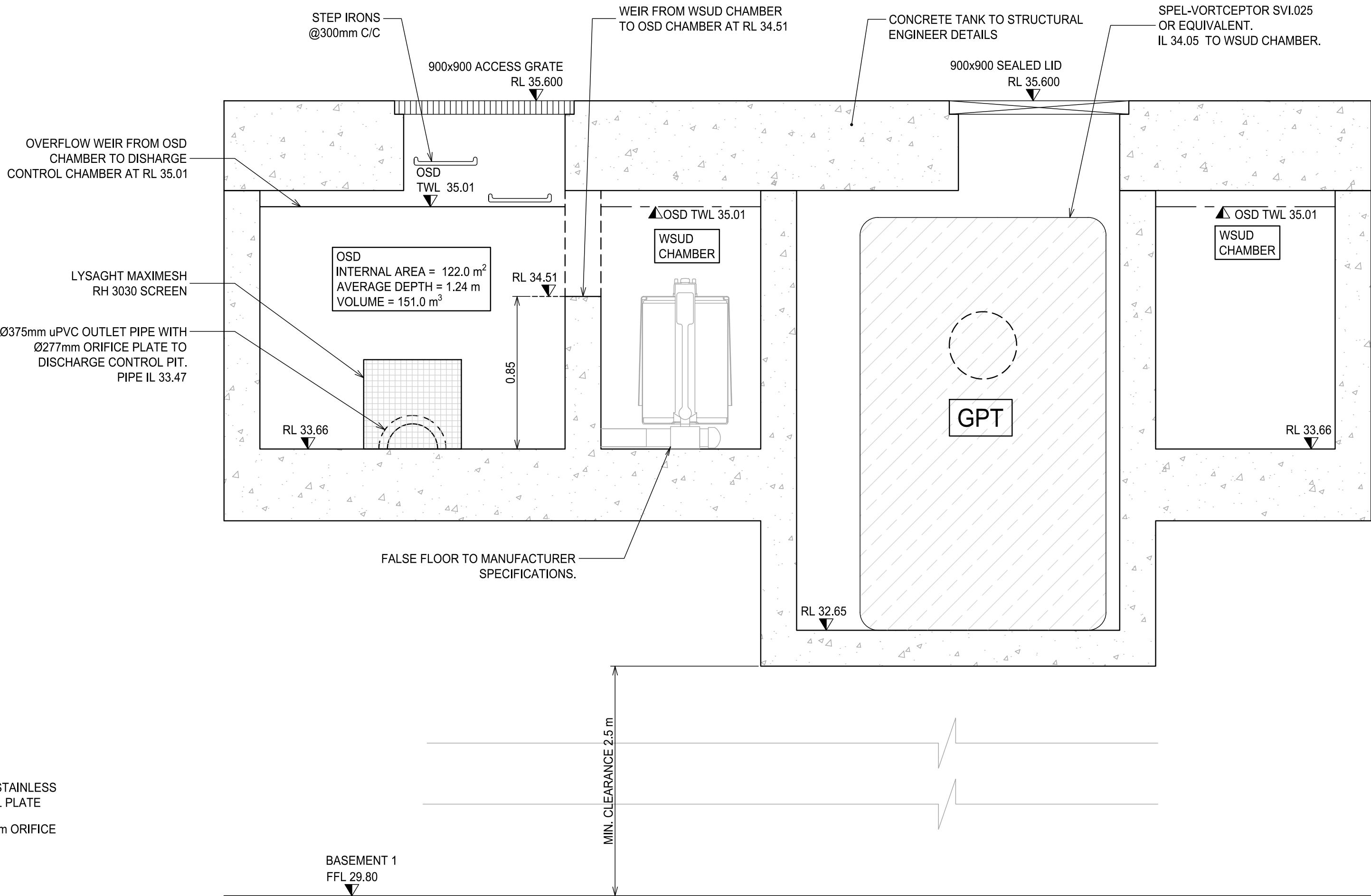
SECTION 4.55



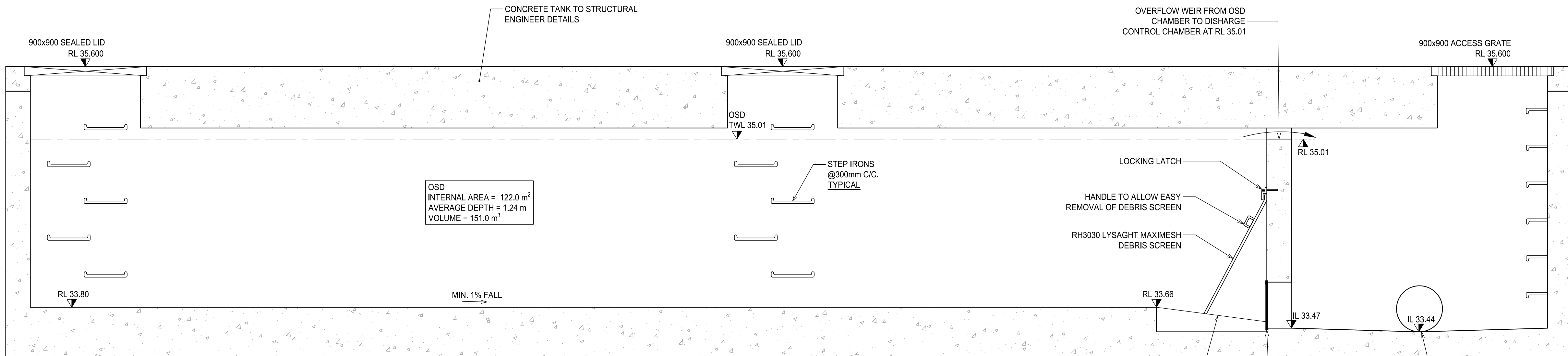
OSD TANK PLAN
SCALE 1:100



ORIFICE PLATE DETAIL
SCALE 1:10



SECTION 1
SCALE 1:20



SECTION 2
SCALE 1:20

NOTES:

- ON-SITE DETENTION TANK BASE TO GRADE TOWARDS OUTLET AT MINIMUM 1% FALL.
- ALL TANK STRUCTURAL ELEMENTS ARE SHOWN INDICATIVELY ONLY. REFER TO STRUCTURAL ENGINEER FOR DETAILS.

A1 1 2 3 4 5 6 7 8 9 10 1:20
A1 1 2 3 4 5 6 7 8 9 10 1:100

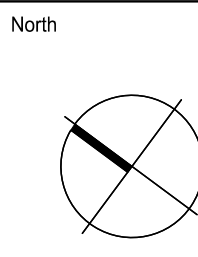
Rev	Description	Eng	Draft	Date
A	ISSUE FOR SECTION 4.55	TF	MH	18.11.2022

Architect
SCOTT CARVER
LEVEL 1, 1 CHIFLEY SQUARE, SYDNEY, NSW, 2000

Client
TOUCHSTONE PARTNERS
LEVEL 8/92 PITT STREET, SYDNEY, NSW, 2000



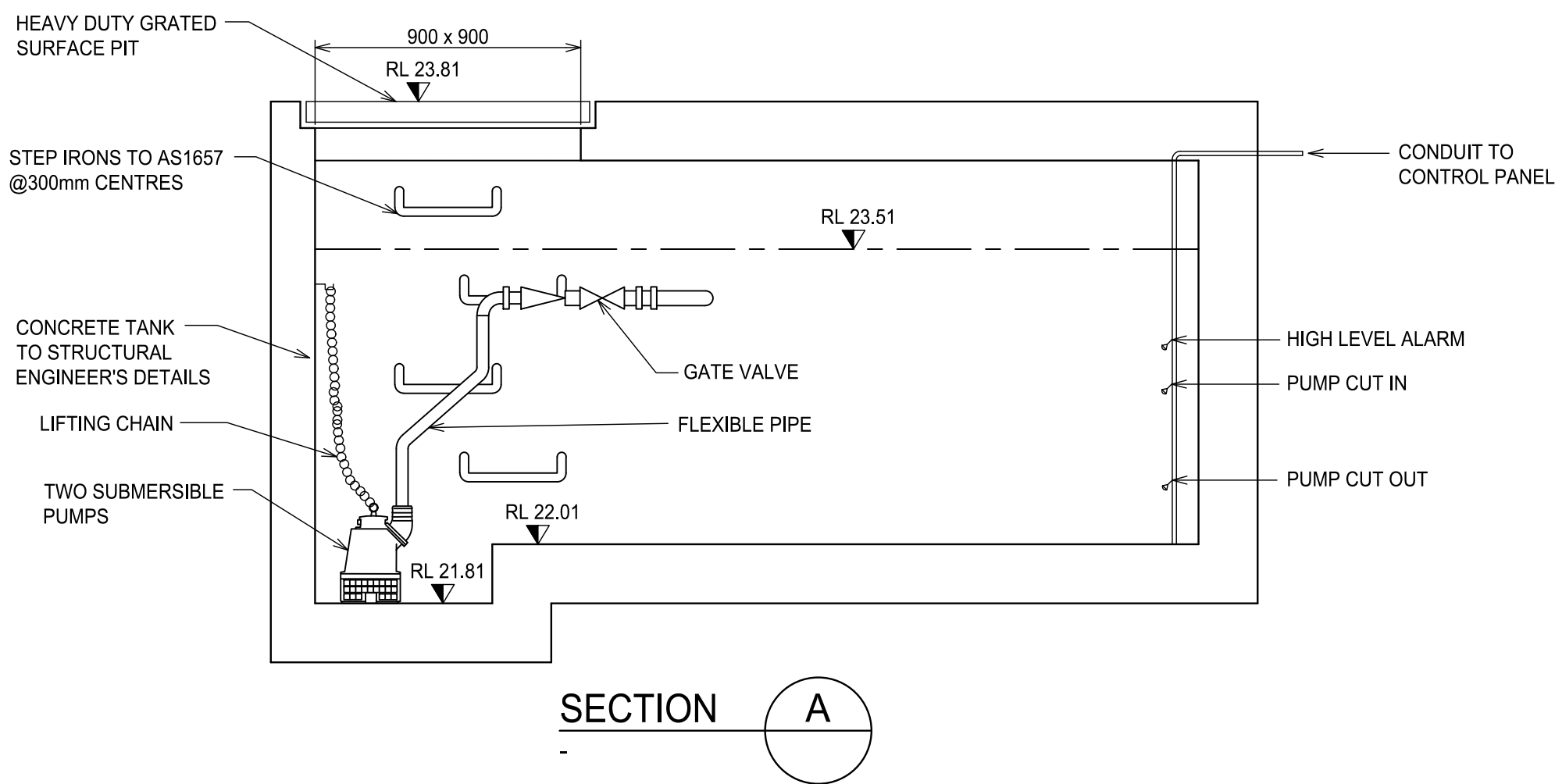
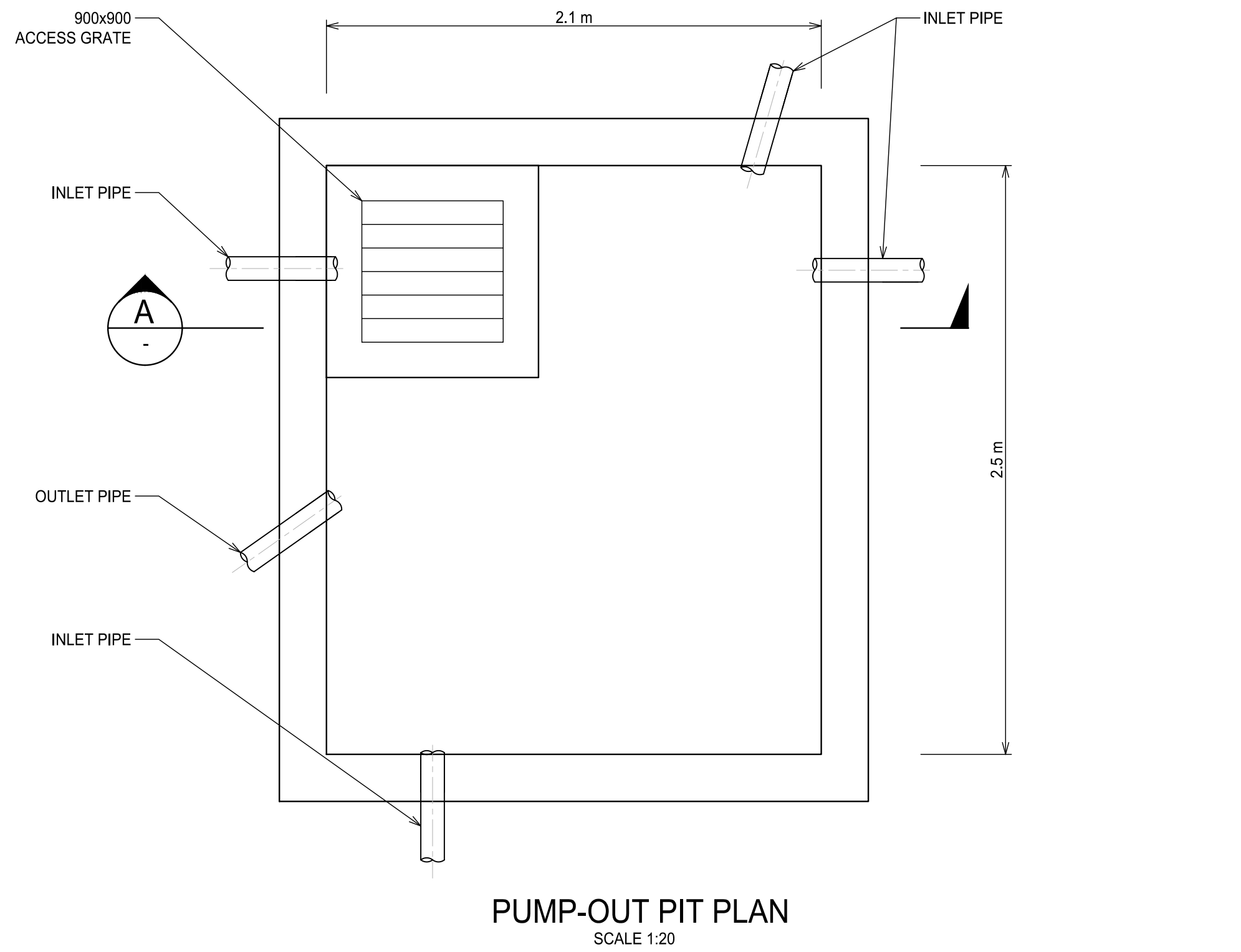
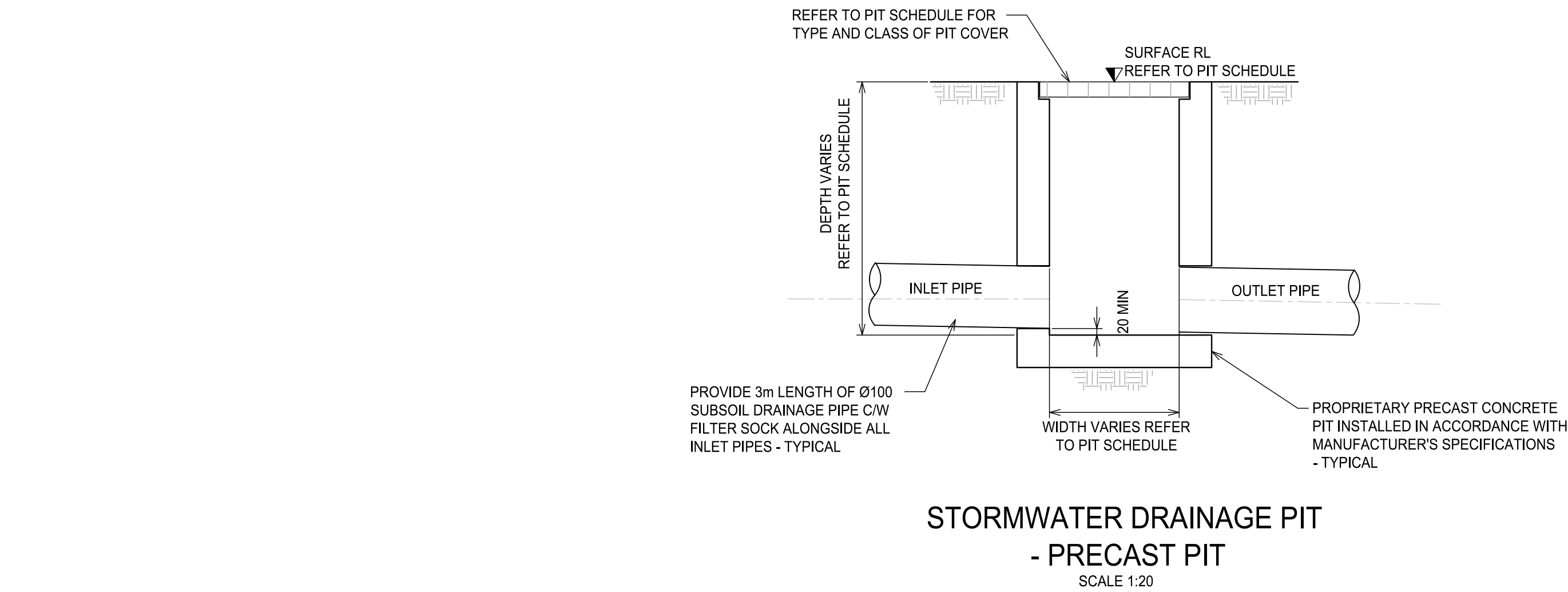
T : 02 8810 5800 E : info@xavierknight.com.au
A : Level 7, 210 Clarence Street, Sydney NSW 2000
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Project
ROZELLE MIXED USE DEVELOPMENT - TIGERS LEAGUES CLUB
138-152 VICTORIA ROAD, ROZELLE, NSW, 2039
Sheet Subject
STORMWATER DRAINAGE DETAILS - SHEET 1

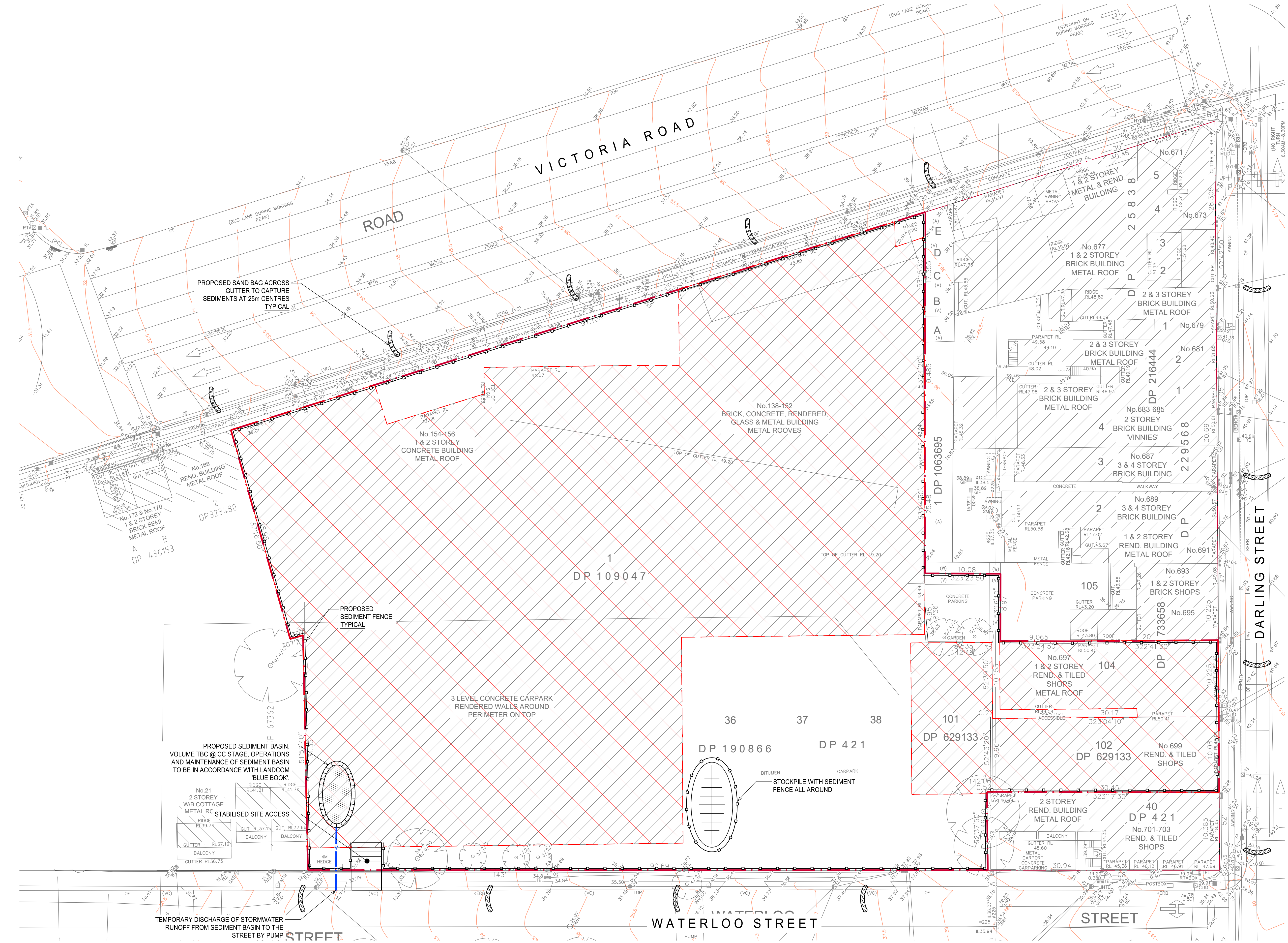
Scale at A1	Drawn	Approved
1:250	TF	SS
Job No	Drawing No	Revision
220823	C300	A

SECTION 4.55



SECTION 4.55

A1 0 0.5 1.0 1.5 2.0 1:20				Client		North	Project	Scale at A1	Drawn	Approved
Architect				Client				AS SHOWN	TF	SS
SCOTT CARVER LEVEL 1, 1 CHIFLEY SQUARE, SYDNEY, NSW, 2000				TOUCHSTONE PARTNERS LEVEL 8/92 PITT STREET, SYDNEY, NSW, 2000			T : 02 8810 5800 E : info@xavierknight.com.au A : Level 7, 210 Clarence Street, Sydney NSW 2000 xavierknight.com.au This drawing is copyright and is the property of XAVIER KNIGHT CONSULTING ENGINEERS Pty, Ltd, and must not be used without authorisation.			
A ISSUE FOR SECTION 4.55 TF TF 18.11.2022										
Rev	Description	Eng	Draft	Date			Sheet Subject STORMWATER DRAINAGE DETAILS - SHEET 2	Job No	Drawing No	Revision
								220823	C301	A



LEGEND

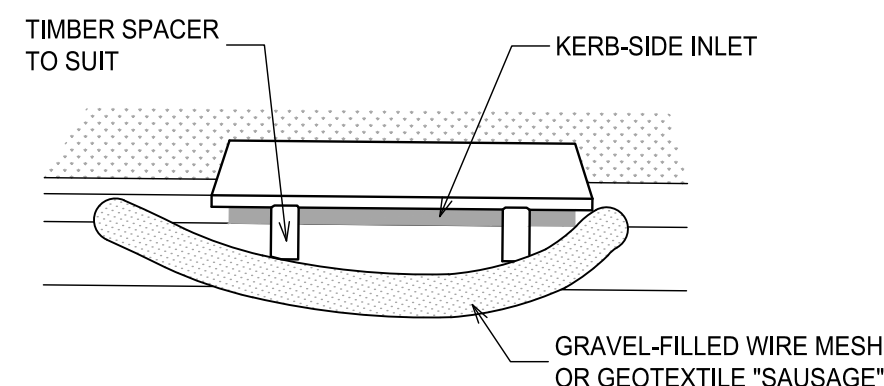
- SITE BOUNDARY
- PROPOSED STORMWATER LINE
- EXISTING STORMWATER LINE SHOWN INDICATIVELY ONLY
- EXTENT OF FLOOR BELOW
- GTD GRATED DRAIN
- KERB INLET PIT
- GRATED SURFACE INLET PIT
- SEALED JUNCTION PIT
- PIT TAG
- PIT SURFACE LEVEL
- EXISTING SEWER LINE
- EXISTING WATER MAIN
- EXISTING TELECOMMUNICATION LINE
- EXISTING GAS MAIN
- EXISTING ELECTRICAL MAIN

- NOTES:**
- SURVEY INFORMATION HAS BEEN OBTAINED FROM LTS LOCKLEY'S SURVEY TITLED 'PLAN OF DETAIL AND LEVELS OVER LOT 1 DP528045, LOT 1 DP 109047, LOT 36 DP190866, LOTS 37 & 38 DP421, LOTS 101 & 102 DP629133 AND LOT 103 DP733658 AT VICTORIA ROAD, ROZELLE' - JOB NO. 50194 001DT, ISSUED 21.12.2017.
 - ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE
 - ALL PIPES ARE TO BE MINIMUM Ø100mm uPVC U.N.O.
 - ALL PIPES ARE TO BE AT 1% MINIMUM GRADE U.N.O.
 - SLAB TO BE GRADED 1% TOWARDS PITS TO MEET REQUIREMENTS OF AS 2890.
 - REFER TO DRAWING C207 FOR PIT SCHEDULE.
 - GROUND FLOOR STORMWATER DRAINAGE PRIOR TO OSD CONNECTION TO HYDRAULIC ENGINEER'S DETAIL.

PRINTING NOTE:
THIS DRAWING TO BE PRINTED IN COLOUR.

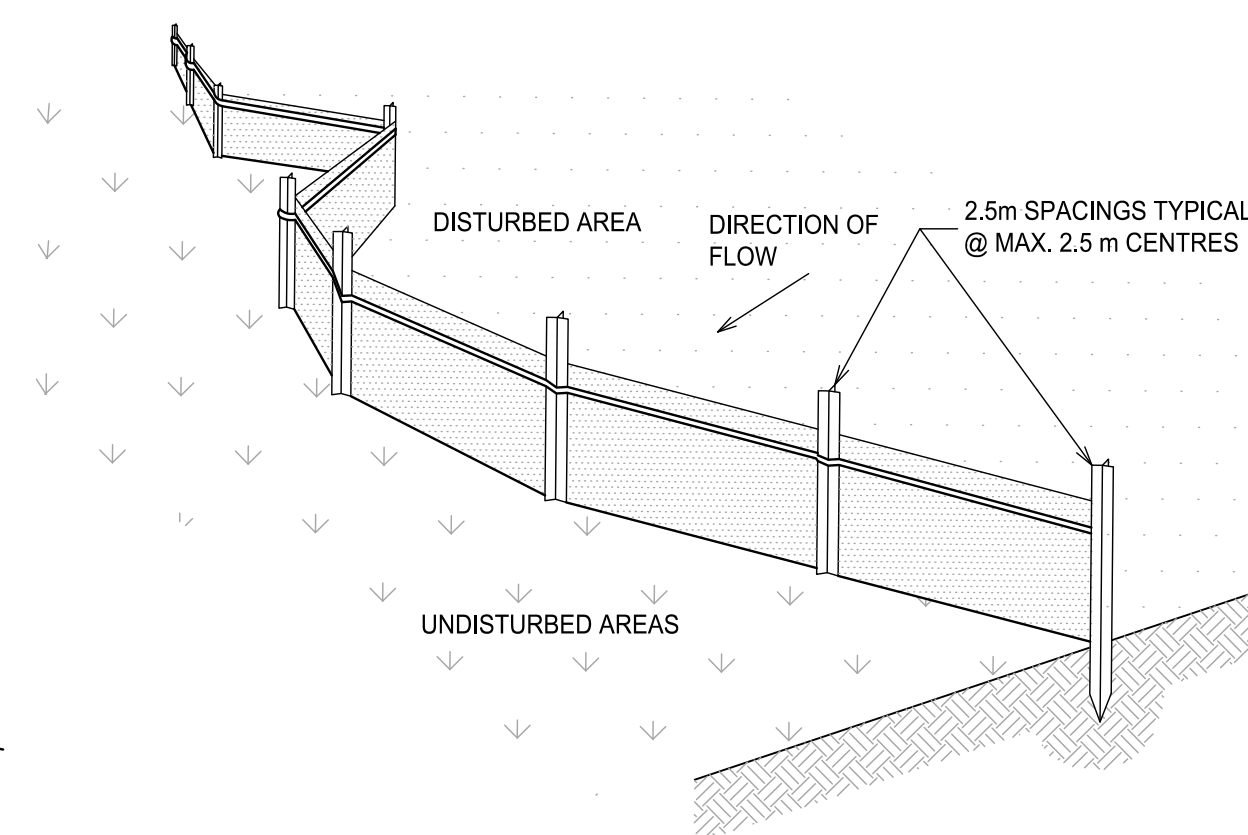
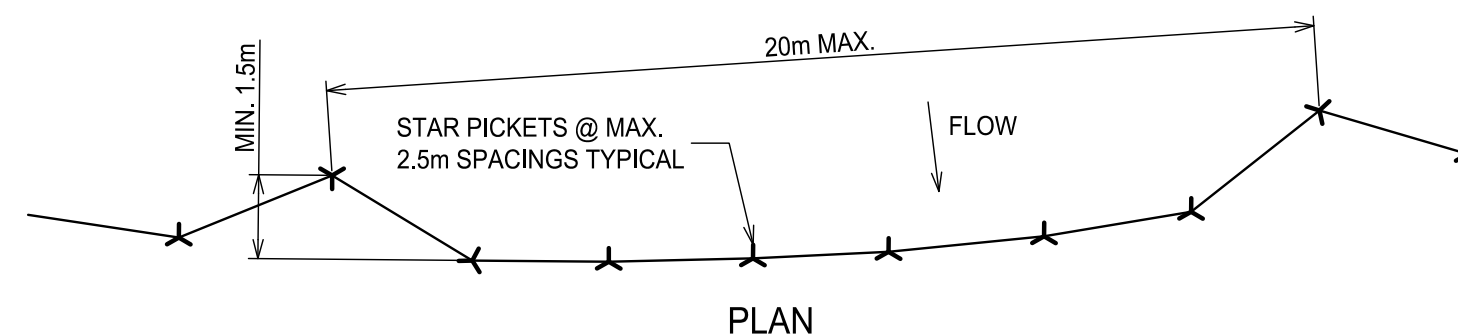
A1 0 2.5 5 7.5 10 12.5 15 17.5 20 22.5 25 1:250

Architect SCOTT CARVER LEVEL 1, 1 CHIFLEY SQUARE, SYDNEY, NSW, 2000		Client TOUCHSTONE PARTNERS LEVEL 8/92 PITT STREET, SYDNEY, NSW, 2000		Project ROZELLE MIXED USE DEVELOPMENT - TIGERS LEAGUES CLUB 138-152 VICTORIA ROAD, ROZELLE, NSW, 2039		Scale at A1 1:250	Drawn TF	Approved SS
A ISSUE FOR SECTION 4.55 Rev Description		T: 02 8810 5800 E: info@xavierknight.com.au A: Level 7, 210 Clarence Street, Sydney NSW 2000 xavierknight.com.au This drawing is copyright and is the property of XAVIER KNIGHT CONSULTING ENGINEERS Pty. Ltd. and must not be used without authorisation.		Sheet Subject SEDIMENT AND EROSION CONTROL PLAN		Job No 220823	Drawing No C400	Revision A

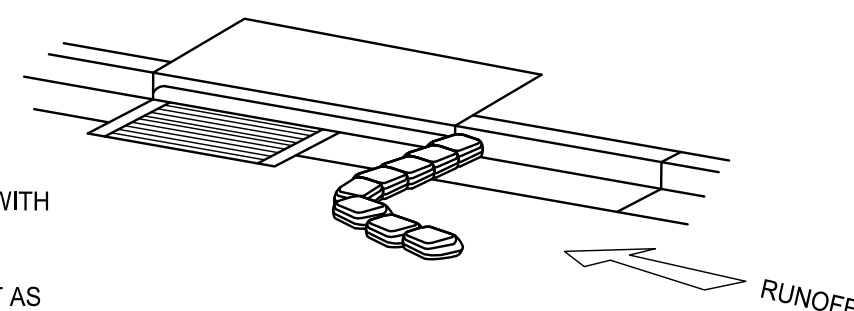


1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
2. FORM AN ELLIPTICAL CROSS-SECTION ABOVE 150mm high x 400mm WIDE.
3. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
4. COVER THE KERB INLET TO PREVENT SEDIMENT FROM ENTERING 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.

SCALE N.T.S.

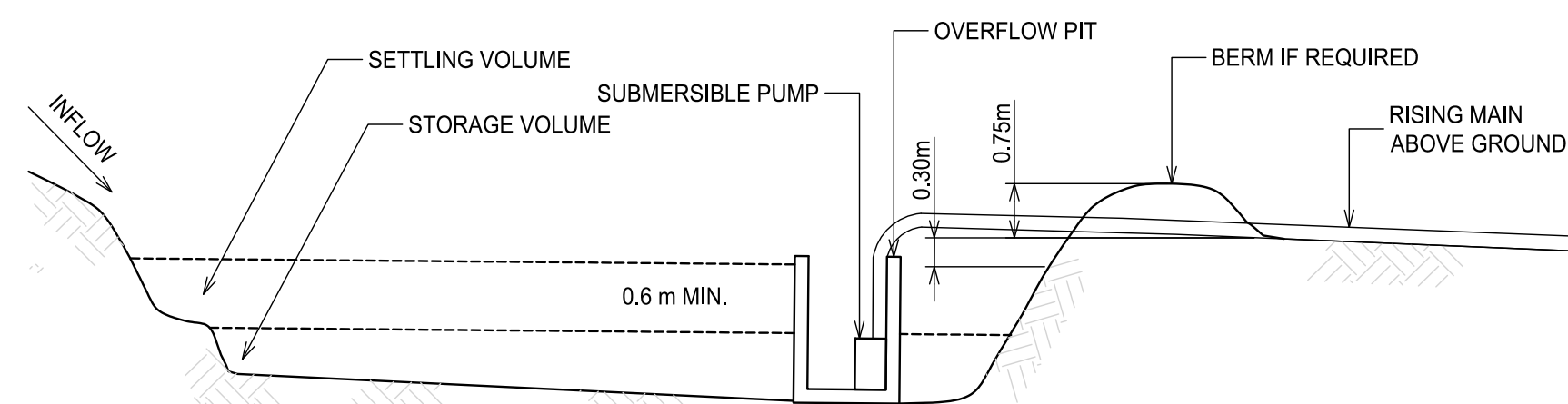


SCALE N.T.S.

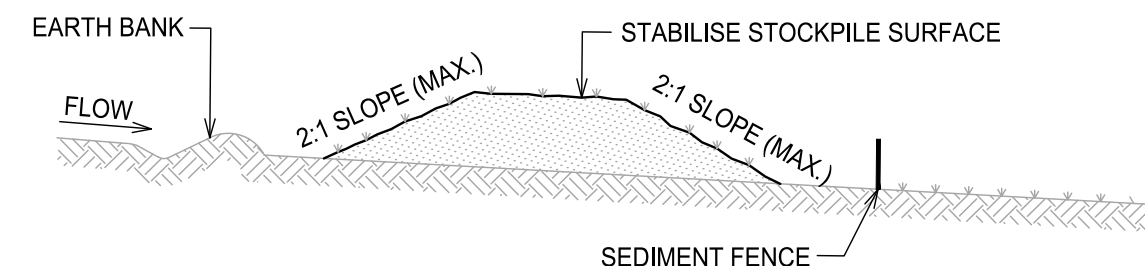


SCALENTS

- NOTES:**
1. PROVIDE THREE LAYERS OF SANDBAGS WITH THEIR ENDS OVERLAPPED AND ALSO OVERLAPPING ONTO THE KERB.
 2. CREATE A GAP IN THE SANDBAGS TO ACT AS A SPILLWAY.
 3. SANDBAG BARRIER TO BE MIN. 2m FROM THE INLET AND EXTEND MIN. 0.9m OUT FROM THE KERB.



SCALE N.T.S.



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.
4. 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.
5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

SCALE N.T.S.

1. THIS SOIL AND WATER MANAGEMENT WORKS FOR THE SITE SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION, 4TH EDITION (2004)" BY LANDCOM.
2. AS REQUIRED BY COUNCIL, SEDIMENT CONTROL MEASURES WILL BE REQUIRED DURING THE CONSTRUCTION OF ALL DEVELOPMENTS/BUILDING WORKS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY THAT THE WORKS ARE CARRIED OUT IN ACCORDANCE WITH THE SEDIMENT AND EROSION CONTROL PLAN AND COUNCIL'S REQUIREMENTS.
3. THE CONTRACTOR SHALL ENSURE THAT ALL SUBCONTRACTORS ARE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE AREAS.
4. THE NON-DISTURBED PORTION OF THE CATCHMENT OUTSIDE OF OPERATING AREA IS TO BYPASS THE BASINS BY MEANS OF LINED CATCH DRAINS.
5. WHERE PRACTICABLE, THE SOIL EROSION HAZARD SHALL BE KEPT AS LOW AS POSSIBLE. LIMITATIONS TO ACCESS ARE TO BE VIA DAVY STREET UNLESS OTHERWISE APPROVED BY COUNCIL.
6. THE CONTRACTOR SHALL ENSURE THAT ALL DRAINS ARE OPERATING EFFECTIVELY AND SHALL MAKE ANY NECESSARY REPAIRS. REMOVE TRAPPED SEDIMENT WHERE THE CAPACITY OF THE TRAPPING DEVICE FALLS BELOW 60%.
7. CONSTRUCT ADDITIONAL EROSION OR SEDIMENT CONTROL WORKS AS MAY BE APPROPRIATE TO ENSURE THE PROTECTION OF DOWNSLOPE LANDS AND WATERWAYS.
8. MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN A FULLY FUNCTIONING CONDITION AT ALL TIMES UNTIL THE SITE IS REHABILITATED.

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 150 mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 m LONG STAR PICKETS INTO GROUND @ 2.5 m 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 150 mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:

1. INSTALL SEDIMENT FENCING AND CUT DRAINS TO MEET THE REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLAN. WASTE COLLECTION BINS SHALL BE INSTALLED ADJACENT TO SITE OFFICE.
2. CONSTRUCT STABILISED SITE ACCESS IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS
3. REDIRECT CLEAN WATER AROUND THE CONSTRUCTION SITE.
4. INSTALL SEDIMENT CONTROL PROTECTION MEASURES AT ALL NATURAL AND MAN-MADE DRAINAGE STRUCTURES. MAINTAIN UNTIL ALL THE DISTURBED AREAS ARE STABILISED.
5. CLEAR AND STRIP THE WORK AREAS. MINIMISE THE DAMAGE TO THE GRASS AND LOW GROUND COVER OF NON-DISTURBED AREAS.
6. ANY DISTURBED AREAS, OTHER THAN BUILDING PAD AREAS, SHALL IMMEDIATELY BE COVERED WITH SITE TOPSOIL WITHIN 7 DAYS OF CLEARING. BUILDING PAD AREAS SHALL BE COVERED WITH BITUMEN EMULSION AS SPECIFIED.
7. APPLY PERMANENT STABILISATION TO SITE (LANDSCAPING).

Architect SCOTT CARVER LEVEL 1, 1 CHIFLEY SQUARE, SYDNEY, NSW, 2000			Client TOUCHSTONE PARTNERS LEVEL 8/92 PITT STREET, SYDNEY, NSW, 2000			X XAVIER KNIGHT			T : 02 8810 5800 E : info@xavierknight.com.au A : Level 7, 210 Clarence Street, Sydney NSW 2000 xavierknight.com.au This drawing is copyright and is the property of XAVIER KNIGHT CONSULTING ENGINEERS Pty. Ltd, and must not be used without authorisation.			North			Project ROZELLE MIXED USE DEVELOPMENT - TIGERS LEAGUES CLUB 138-152 VICTORIA ROAD, ROZELLE, NSW, 2039			Scale at A1 NTS			Drawn TF			Approved SS		
A ISSUE FOR SECTION 4.55 TF TF 18.11.2022 Rev Description Eng Draft Date												Sheet Subject SEDIMENT AND EROSION CONTROL DETAILS			Job No 220823			Drawing No C450			Revision A					

SECTION 4.55

6.2 APPENDIX B – DETAIL SURVEY AND DEPOSITED PLAN



- NOTES
1. THE BOUNDARIES HAVE NOT BEEN MARKED
 2. ALL AREAS AND DIMENSIONS HAVE BEEN COMPILED FROM PLANS MADE AVAILABLE BY THE OFFICE of LAND & PROPERTY INFORMATION (NSW) AND ARE SUBJECT TO FINAL SURVEY
 3. ORIGIN OF LEVELS ON A.H.D. IS TAKEN FROM **PM27846** R.L. **26.158** (A.H.D.) IN VICTORIA ROAD
 4. CONTOUR INTERVAL **0.5 m**
 5. CONTOURS ARE INDICATIVE ONLY. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION
 6. KERB LEVELS ARE TO THE TOP OF KERB UNLESS SHOWN OTHERWISE
 7. FLOOR LEVELS SHOWN ARE THRESHOLD LEVELS. NO INVESTIGATION OF INTERNAL FLOOR LEVELS HAS BEEN UNDERTAKEN
 8. NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. SERVICES HAVE BEEN PLOTTED FROM RELEVANT AUTHORITIES INFORMATION AND HAVE NOT BEEN SURVEYED. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE
 9. AN INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. UNDERGROUND SERVICES HAVE BEEN DETECTED BY "DOWN UNDER DETECTION SERVICES" AND ARE APPROXIMATE ONLY. SOME SERVICES SUCH AS FIRE&WATER SUPPLY, GAS AND OPTICAL FIBRE CABLING DO NOT HAVE METALLIC TRACING WIRES OR METAL PIPES AND MAY NOT HAVE BEEN DETECTED. SERVICES HAVE ALSO BEEN PLOTTED FROM RELEVANT AUTHORITIES RECORDS AS SUPPLIED BY DIAL BEFORE YOU DIG.
 10. 8/4/7 DENOTES TREE SPREAD OF 8m, TRUNK DIAMETER OF 0.4m & APPROX HEIGHT OF 7m
 11. BEARINGS SHOWN ARE MGA (MAP GRID OF AUSTRALIA) ADD APPROX. 1°00' FOR TRUE NORTH

EASEMENTS

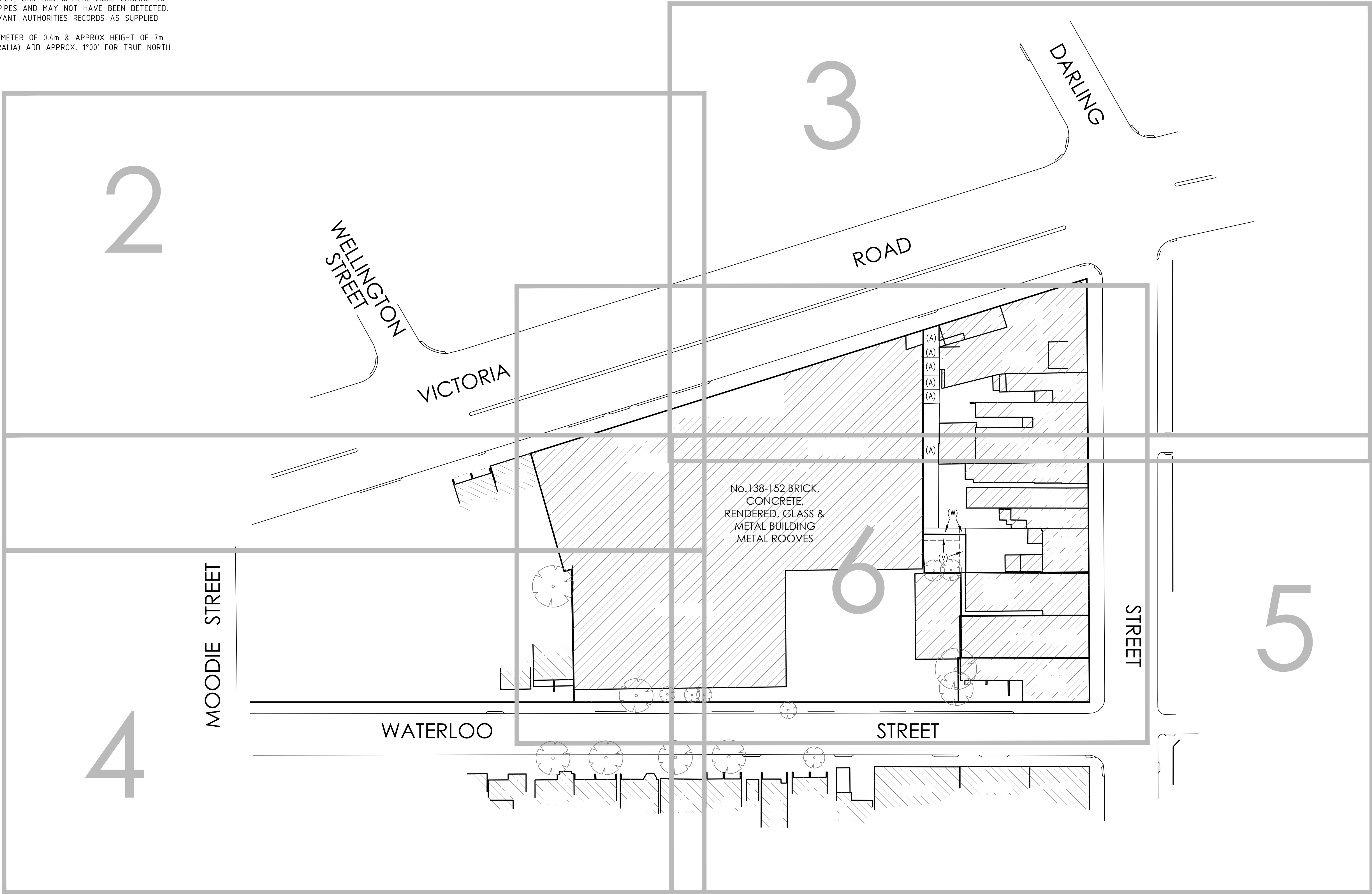
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(V) RIGHT OF CARRIAGEWAY 1.5 WIDE (VIDE DP733658)

(W) RIGHT OF CARRIAGEWAY 1.5 WIDE (VIDE DP733658)

LEGEND

BENCH MARK	▲
TELSTRA PILLAR	☒ TP
TELSTRA PIT	☒ TEL
ELECTRIC LIGHT POLE	⦿ ELP
ELECTRICITY PIT	☒ EPIT
ELECTRICITY BOX	☒ EL
POWER POLE	● PP
PIT WITH CONCRETE LID	□ CLID
PIT WITH METAL LID	□ MLID
TRAFFIC LIGHT	■ TL
STREET SIGN	☒ SS
RUBBISH BIN	○ RB
ROAD TRAFFIC AUTHORITY	☒ RTA
GRATED INLET PIT	☒ GIP
KERB INLET PIT	☒ KIP
SEWER INSPECTION POINT	○ SIP
SEWER VENT	⦿ SEV
SEWER MANHOLE	○ SMH
STOP VALVE	☒ SV
HYDRANT	■ HYD
WATER VALVE	⦿ WV
GAS VALVE	☒ GAS
VEHICLE CROSSING	☒ (VC)
PRAM CROSSING	☒ (PC)
GAS (DBYD)	—
TELSTRA (DBYD)	—
WATER (DBYD)	—
STORMWATER (DBYD)	—
SEWER (DBYD)	—
ELECTRICITY (OVERHEAD)	—
ELECTRICITY (U'GROUND) (DBYD)	—
NATIONAL BROADBAND NETWORK (DBYD)	— NBN —
GAS (DETECTED)	— G(D) —
TELSTRA (DETECTED)	— T(D) —
WATER (DETECTED)	— W(D) —
ELECTRICITY (DETECTED)	— E(D) —



REFER TO NOTES AND LEGEND



D	00/00/00	-	00
C	00/00/00	-	00
B	00/00/00	-	00
A	19/02/18	TREES WITHIN SITE BOUNDARY ADDED	00
Revision	Date	Description	Reference

THIS IS THE PLAN REFERRED TO IN MY LETTER DATED:

.....

Registered Surveyor NSW



Suite 1, Level 1
810 Pacific Highway
Gordon NSW 2072
Locked Bag 5
Gordon NSW 2072
P 1300 587 000
F 02 9499 7760

Client **GRAND ROZELLE**

Drawing title
PLAN OF DETAIL AND LEVELS OVER LOT 1 DP528045, LOT 1 DP 109047, LOT 36 DP190866, LOTS 37 & 38 DP421, LOTS 101 & 102 DP629133 AND LOT 104 DP733658 AT VICTORIA ROAD, ROZELLE

datum
AHD
site Area
7331m²
LGA
INNER WEST

reference number
50194 001DT
scale
1:500 @A1
date of survey
21/12/2017
SHEET
10 OF 10 SHEETS | 1

NOTES

1. THE BOUNDARIES HAVE NOT BEEN MARKED
2. ALL AREAS AND DIMENSIONS HAVE BEEN COMPILED FROM PLANS MADE AVAILABLE BY THE OFFICE of LAND & PROPERTY INFORMATION (NSW) AND ARE SUBJECT TO FINAL SURVEY
3. ORIGIN of LEVELS ON A.H.D. IS TAKEN FROM PM27846 R.L. 26.158 (A.H.D.) IN VICTORIA ROAD
4. CONTOUR INTERVAL 0.5 m
5. CONTOURS ARE INDICATIVE ONLY. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION
6. KERB LEVELS ARE TO THE TOP OF KERB UNLESS SHOWN OTHERWISE
7. FLOOR LEVELS SHOWN ARE THRESHOLD LEVELS. NO INVESTIGATION OF INTERNAL FLOOR LEVELS HAS BEEN UNDERTAKEN
8. NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. SERVICES HAVE BEEN PLOTTED FROM RELEVANT AUTHORITIES INFORMATION AND HAVE NOT BEEN SURVEYED. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE
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10. 8/4/7 DENOTES TREE SPREAD OF 8m, TRUNK DIAMETER OF 0.4m & APPROX HEIGHT OF 7m
11. BEARINGS SHOWN ARE MGA (MAP GRID OF AUSTRALIA) ADD APPROX. 1°00' FOR TRUE NORTH

LEGEND

BENCH MARK	▲
TELSTRA PILLAR	⊠ TP
TELSTRA PIT	⊠ TEL
ELECTRIC LIGHT POLE	● ELP
ELECTRICITY PIT	⊠ EPIT
ELECTRICITY BOX	⊠ EL
POWER POLE	● PP
PIT WITH CONCRETE LID	□ CLID
PIT WITH METAL LID	□ MLID
TRAFFIC LIGHT	■ TL
STREET SIGN	⊠ SS
RUBBISH BIN	○ RB
ROAD TRAFFIC AUTHORITY	⊠ RTA
GRATED INLET PIT	⊠ GIP
KERB INLET PIT	⊠ KIP
SEWER INSPECTION POINT	○ SIP
SEWER VENT	⊠ SEV
SEWER MANHOLE	○ SMH
STOP VALVE	⊠ SV
HYDRANT	■ HYD
WATER VALVE	◆ WV
GAS VALVE	⊠ GAS
VEHICLE CROSSING	(VC)
PRAM CROSSING	(PC)
GAS (DBYD)	—
TELSTRA (DBYD)	—
WATER (DBYD)	—
STORMWATER (DBYD)	—
SEWER (DBYD)	—
ELECTRICITY (OVERHEAD)	—
ELECTRICITY (U'GROUND) (DBYD)	—
NATIONAL BROADBAND NETWORK (DBYD)	— NBN —
GAS (DETECTED)	— G(D) —
TELSTRA (DETECTED)	— T(D) —
WATER (DETECTED)	— W(D) —
ELECTRICITY (DETECTED)	— E(D) —



REFER TO NOTES AND LEGEND



D	00/00/00	-	00
C	00/00/00	-	00
B	00/00/00	-	00
A	19/02/18	TREES WITHIN SITE BOUNDARY ADDED	00
Revision	Date	Description	Reference

THIS IS THE PLAN REFERRED TO IN MY LETTER DATED:
.....
Registered Surveyor NSW



Client GRAND ROZELLE
Drawing title
PLAN OF DETAIL AND LEVELS OVER LOT 1 DP528045, LOT 1 DP 109047, LOT 36 DP190866, LOTS 37 & 38 DP421, LOTS 101 & 102 DP629133 AND LOT 104 DP733658 AT VICTORIA ROAD, ROZELLE

datum
AHD
site Area
7331m²
LGA
INNER WEST

reference number
50194 001DT
scale
1:200 @A1
date of survey
21/12/2017
SHEET
10 OF SHEETS

NOTES

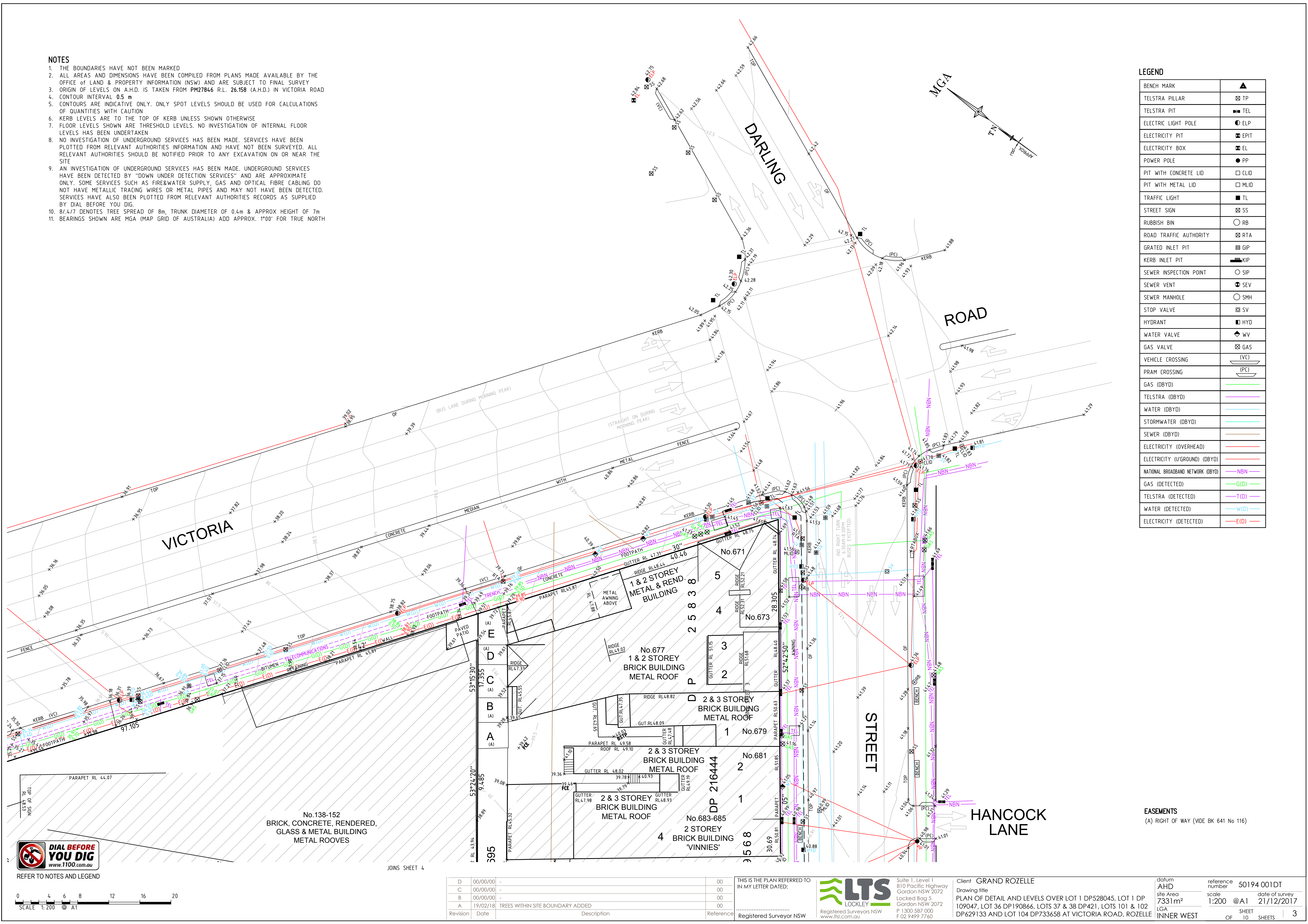
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11. BEARINGS SHOWN ARE MGA (MAP GRID OF AUSTRALIA) ADD APPROX. 1°00' FOR TRUE NORTH

LEGEND

BENCH MARK	▲
TELSTRA PILLAR	TP
TELSTRA PIT	TEL
ELECTRIC LIGHT POLE	ELP
ELECTRICITY PIT	EPIT
ELECTRICITY BOX	EL
POWER POLE	PP
PIT WITH CONCRETE LID	CLID
PIT WITH METAL LID	MLID
TRAFFIC LIGHT	TL
STREET SIGN	SS
RUBBISH BIN	RB
ROAD TRAFFIC AUTHORITY	RTA
GRATED INLET PIT	GIP
KERB INLET PIT	KIP
SEWER INSPECTION POINT	SIP
SEWER VENT	SEV
SEWER MANHOLE	SMH
STOP VALVE	SV
HYDRANT	HYD
WATER VALVE	WV
GAS VALVE	GAS
VEHICLE CROSSING	(VC)
PRAM CROSSING	(PC)
GAS (DBYD)	---
TELSTRA (DBYD)	---
WATER (DBYD)	---
STORMWATER (DBYD)	---
SEWER (DBYD)	---
ELECTRICITY (OVERHEAD)	---
ELECTRICITY (UGROUND) (DBYD)	---
NATIONAL BROADBAND NETWORK (DBYD)	NBN
GAS (DETECTED)	G(D)
TELSTRA (DETECTED)	T(D)
WATER (DETECTED)	W(D)
ELECTRICITY (DETECTED)	E(D)

EASEMENTS

(A) RIGHT OF WAY (VIDE BK 641 No 116)



REFER TO NOTES AND LEGEND



JOINS SHEET 4

D	00/00/00	-	00
C	00/00/00	-	00
B	00/00/00	-	00
A	19/02/18	TREES WITHIN SITE BOUNDARY ADDED	00
Revision	Date	Description	Reference

THIS IS THE PLAN REFERRED TO IN MY LETTER DATED:

Registered Surveyor NSW



Suite 1, Level 1
810 Pacific Highway
Gordon NSW 2072
Locked Bag 5
Gordon NSW 2072
P 1300 587 000
F 02 9499 7760

Client GRAND ROZELLE

Drawing title
PLAN OF DETAIL AND LEVELS OVER LOT 1 DP528045, LOT 1 DP 109047, LOT 36 DP190866, LOTS 37 & 38 DP421, LOTS 101 & 102 DP629133 AND LOT 104 DP733658 AT VICTORIA ROAD, ROZELLE

datum
AHD
site Area
7331m²
LGA
INNER WEST

reference number
50194 001DT
scale
1:200 @A1
date of survey
21/12/2017
SHEET
10 OF SHEETS

LEGEND	
BENCH MARK	▲
TELSTRA PILLAR	☒ TP
TELSTRA PIT	☒ TEL
ELECTRIC LIGHT POLE	● ELP
ELECTRICITY PIT	☒ EPIT
ELECTRICITY BOX	☒ EL
POWER POLE	● PP
PIT WITH CONCRETE LID	□ CLID
PIT WITH METAL LID	□ MLID
TRAFFIC LIGHT	■ TL
STREET SIGN	☒ SS
RUBBISH BIN	○ RB
ROAD TRAFFIC AUTHORITY	☒ RTA
GRATED INLET PIT	☒ GIP
KERB INLET PIT	☒ KIP
SEWER INSPECTION POINT	○ SIP
SEWER VENT	⊗ SEV
SEWER MANHOLE	○ SMH
STOP VALVE	⊗ SV
HYDRANT	■ HYD
WATER VALVE	◆ WV
GAS VALVE	☒ GAS
VEHICLE CROSSING	(VC)
PRAM CROSSING	(PC)
GAS (DBYD)	—
TELSTRA (DBYD)	—
WATER (DBYD)	—
STORMWATER (DBYD)	—
SEWER (DBYD)	—
ELECTRICITY (OVERHEAD)	—
ELECTRICITY (UGROUND) (DBYD)	—
NATIONAL BROADBAND NETWORK (DBYD)	—
GAS (DETECTED)	—G(D)—
TELSTRA (DETECTED)	—T(D)—
WATER (DETECTED)	—W(D)—
ELECTRICITY (DETECTED)	—E(D)—

- NOTES
1. THE BOUNDARIES HAVE NOT BEEN MARKED
 2. ALL AREAS AND DIMENSIONS HAVE BEEN COMPILED FROM PLANS MADE AVAILABLE BY THE OFFICE OF LAND & PROPERTY INFORMATION (NSW) AND ARE SUBJECT TO FINAL SURVEY
 3. ORIGIN OF LEVELS ON A.H.D. IS TAKEN FROM PM27846 R.L. 26.158 (A.H.D.) IN VICTORIA ROAD
 4. CONTOUR INTERVAL 0.5 m
 5. CONTOURS ARE INDICATIVE ONLY. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION
 6. KERB LEVELS ARE TO THE TOP OF KERB UNLESS SHOWN OTHERWISE
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C	00/00/00	-	00
B	00/00/00	-	00
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Registered Surveyor NSW

Lockley
Registered Surveyors NSW
www.ltsl.com.au

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Gordon NSW 2072
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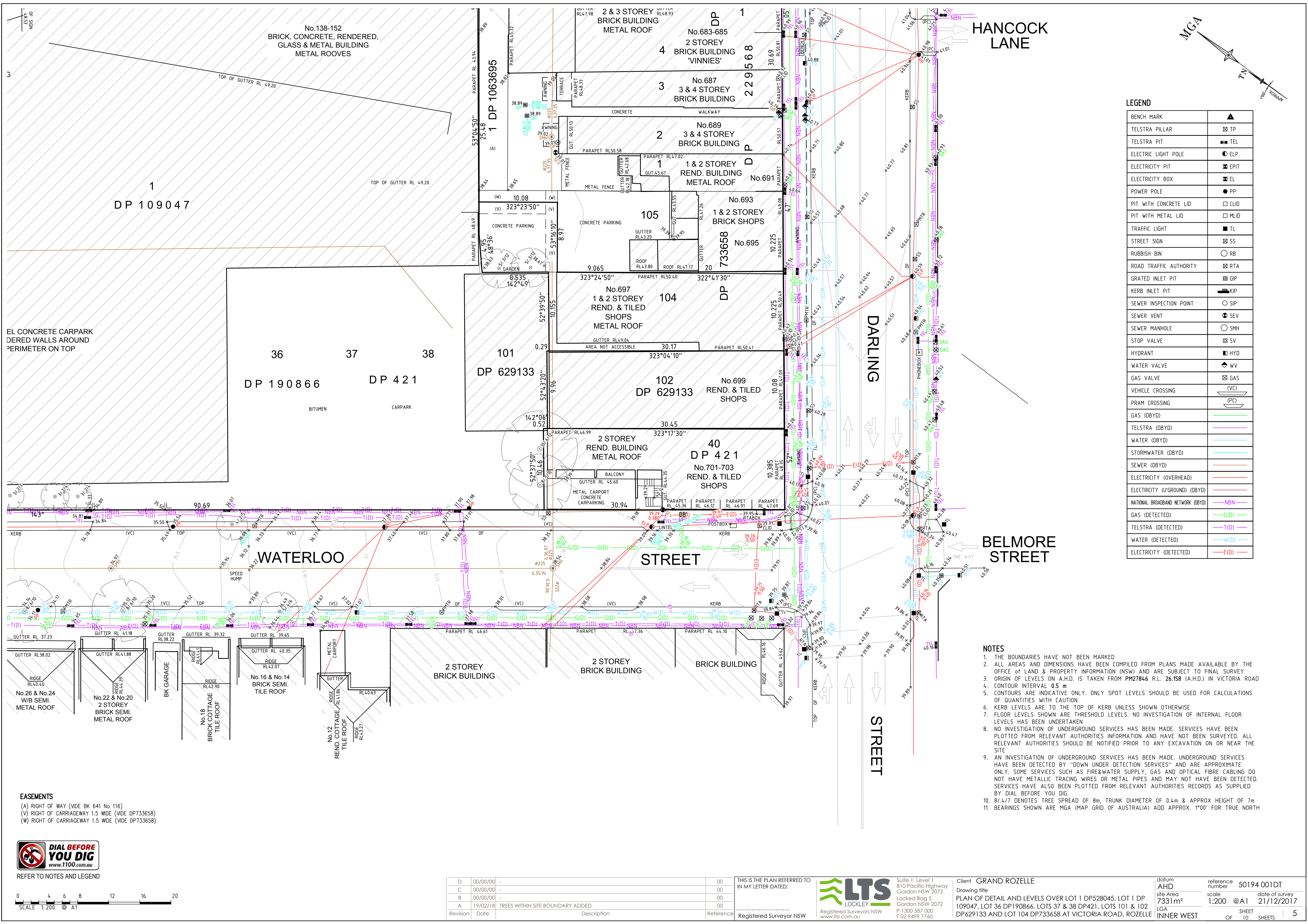
datum
AHD
site Area
7331m²
LGA
INNER WEST

reference number
50194 001DT

scale
1:200 @A1

date of survey
21/12/2017

SHEET
10 OF SHEETS



EASEMENTS
(A) RIGHT OF WAY (VIDE BK 641 No 116)
(V) RIGHT OF CARRIAGEWAY 1.5 WIDE (VIDE DP733658)
(W) RIGHT OF CARRIAGEWAY 1.5 WIDE (VIDE DP733658)



REFER TO NOTES AND LEGEND



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C	00/00/00	-	00
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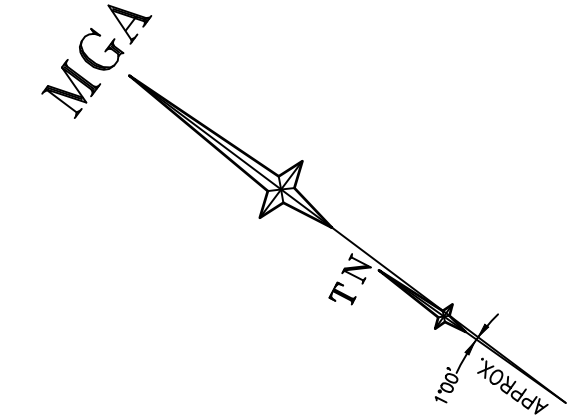
Client GRAND ROZELLE
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datum
AHD
site Area
7331m²
LGA
INNER WEST

reference number
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scale
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date of survey
21/12/2017
SHEET
10 OF 10 SHEETS

NOTES

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LEGEND

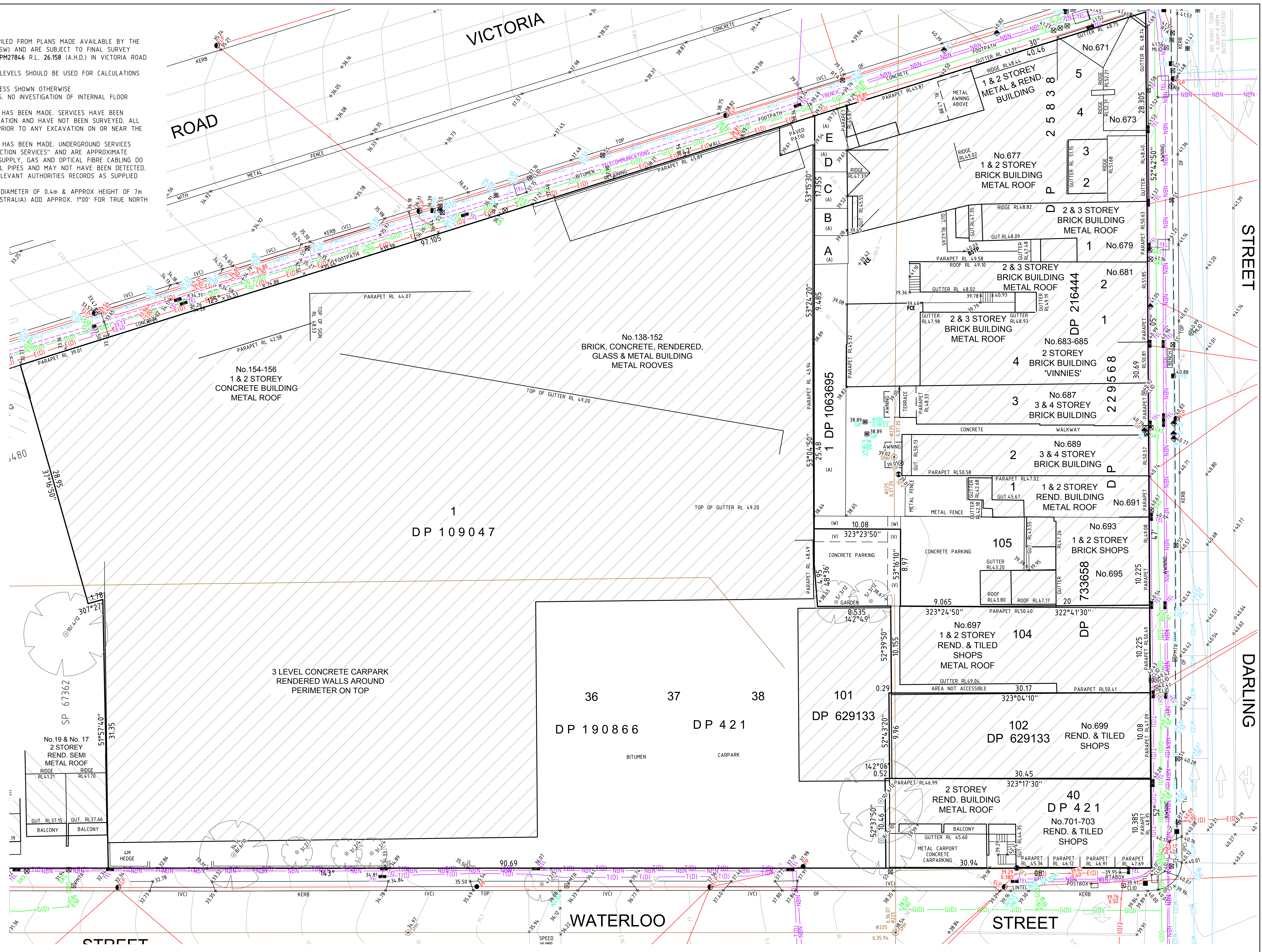
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TELSTRA PIT	⊠ TEL
ELECTRIC LIGHT POLE	● ELP
ELECTRICITY PIT	⊠ EPIT
ELECTRICITY BOX	⊠ EL
POWER POLE	● PP
PIT WITH CONCRETE LID	□ CLID
PIT WITH METAL LID	□ MLID
TRAFFIC LIGHT	■ TL
STREET SIGN	⊠ SS
RUBBISH BIN	○ RB
ROAD TRAFFIC AUTHORITY	⊠ RTA
GRATED INLET PIT	⊠ GIP
KERB INLET PIT	⊠ KIP
SEWER INSPECTION POINT	○ SIP
SEWER VENT	⊠ SEV
SEWER MANHOLE	○ SMH
STOP VALVE	⊠ SV
HYDRANT	■ HYD
WATER VALVE	◆ WV
GAS VALVE	⊠ GAS
VEHICLE CROSSING	(VC)
PRAM CROSSING	(PC)
GAS (DBYD)	—
TELSTRA (DBYD)	—
WATER (DBYD)	—
STORMWATER (DBYD)	—
SEWER (DBYD)	—
ELECTRICITY (OVERHEAD)	—
ELECTRICITY (U'GROUND) (DBYD)	—
NATIONAL BROADBAND NETWORK (DBYD)	—
GAS (DETECTED)	—G(D)—
TELSTRA (DETECTED)	—T(D)—
WATER (DETECTED)	—W(D)—
ELECTRICITY (DETECTED)	—E(D)—

EASEMENTS

- (A) RIGHT OF WAY (VDE BK 641 No 116)
(V) RIGHT OF CARRIAGEWAY 1.5 WIDE (VDE DP733658)
(W) RIGHT OF CARRIAGEWAY 1.5 WIDE (VDE DP733658)



REFER TO NOTES AND LEGEND

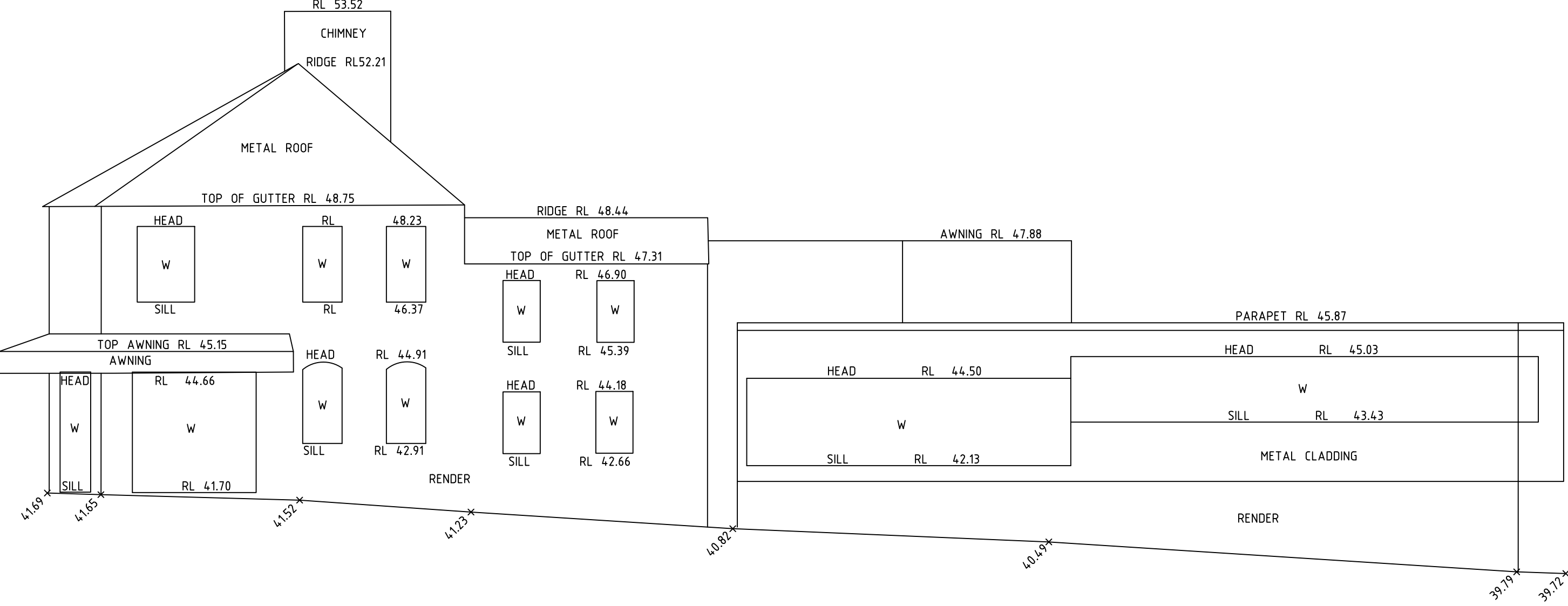


D	00/00/00	-	00	THIS IS THE PLAN REFERRED TO IN MY LETTER DATED:
C	00/00/00	-	00	
B	00/00/00	-	00	
A	19/02/18	TREES WITHIN SITE BOUNDARY ADDED	00	
Revision	Date	Description	Reference	Registered Surveyor NSW

LTS
LOCKLEY
Registered Surveyors NSW
www.ltsi.com.au

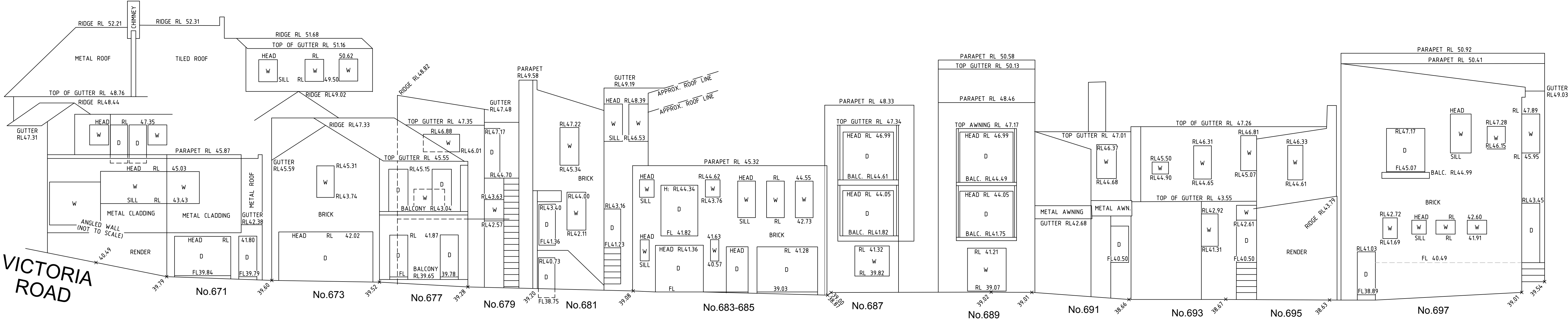
Client	GRAND ROZELLE	datum	AHD	reference number	50194 001DT
Drawing title	PLAN OF DETAIL AND LEVELS OVER LOT 1 DP528045, LOT 1 DP 109047, LOT 36 DP190866, LOTS 37 & 38 DP421, LOTS 101 & 102 DP629133 AND LOT 104 DP733658 AT VICTORIA ROAD, ROZELLE	site Area	7331m ²	scale	1:200 @A1
		LGA	INNER WEST	date of survey	21/12/2017
				SHEET	10
				OF	11 SHEETS

DARLING STREET

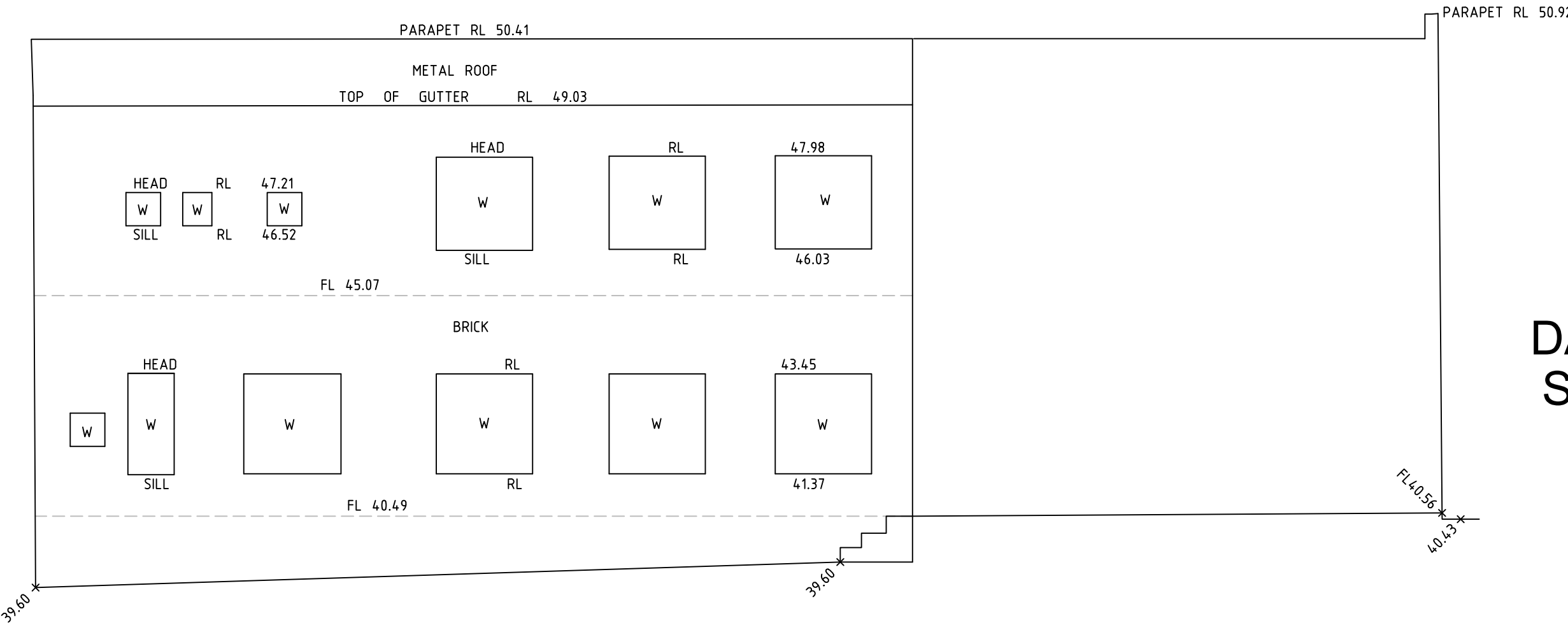


LANEWAY

NORTH-EASTERN ELEVATION - VICTORIA ROAD

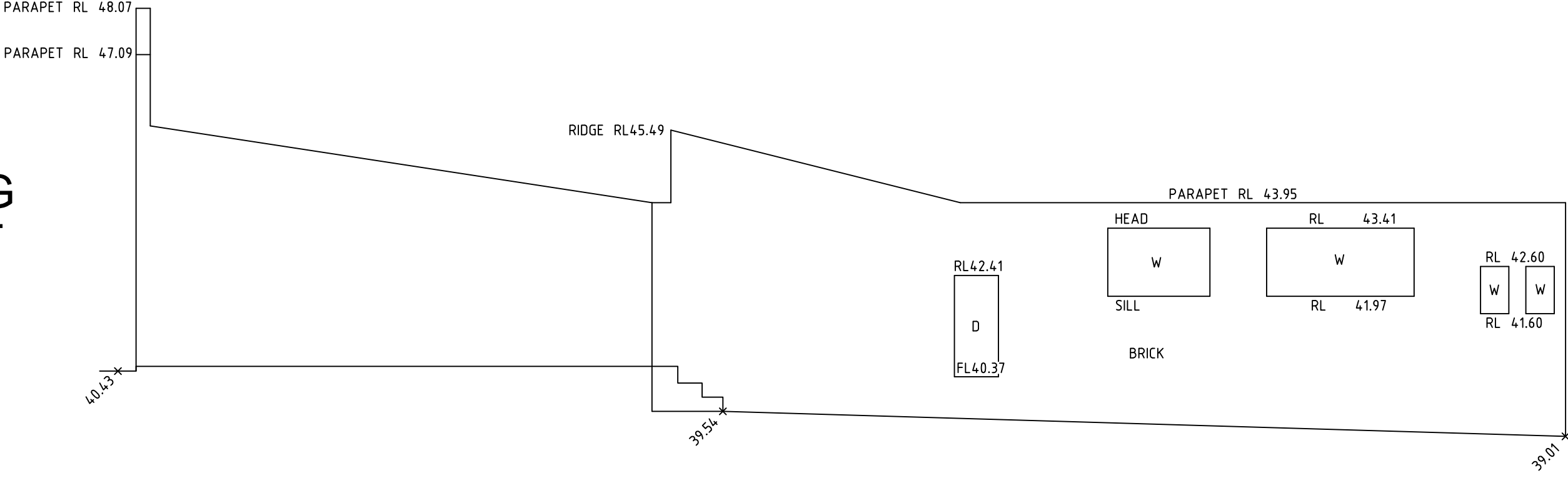


NORTH-WESTERN ELEVATION - LANEWAY



SOUTH-WESTERN ELEVATION OF No.697

DARLING STREET



NORTH-EASTERN ELEVATION OF No.699



REFER TO NOTES AND LEGEND ON SHEET 1



D	00/00/00	-	00
C	00/00/00	-	00
B	00/00/00	-	00
A	19/02/18	TREES WITHIN SITE BOUNDARY ADDED	00
Revision	Date	Description	Reference

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Registered Surveyor NSW

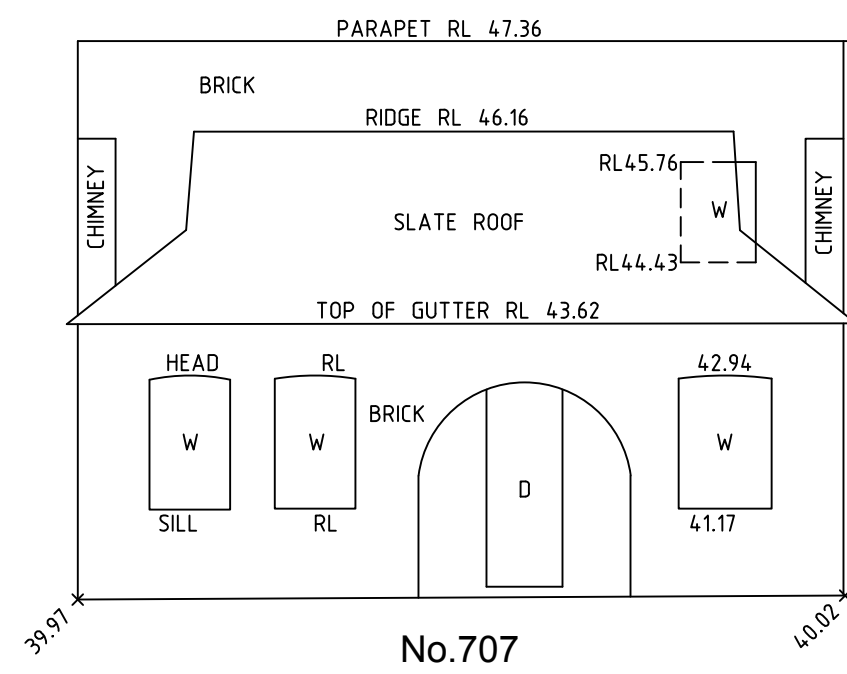


Suite 1, Level 1
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Gordon NSW 2072
Locked Bag 5
Gordon NSW 2072
P 1300 587 000
F 02 9499 7760

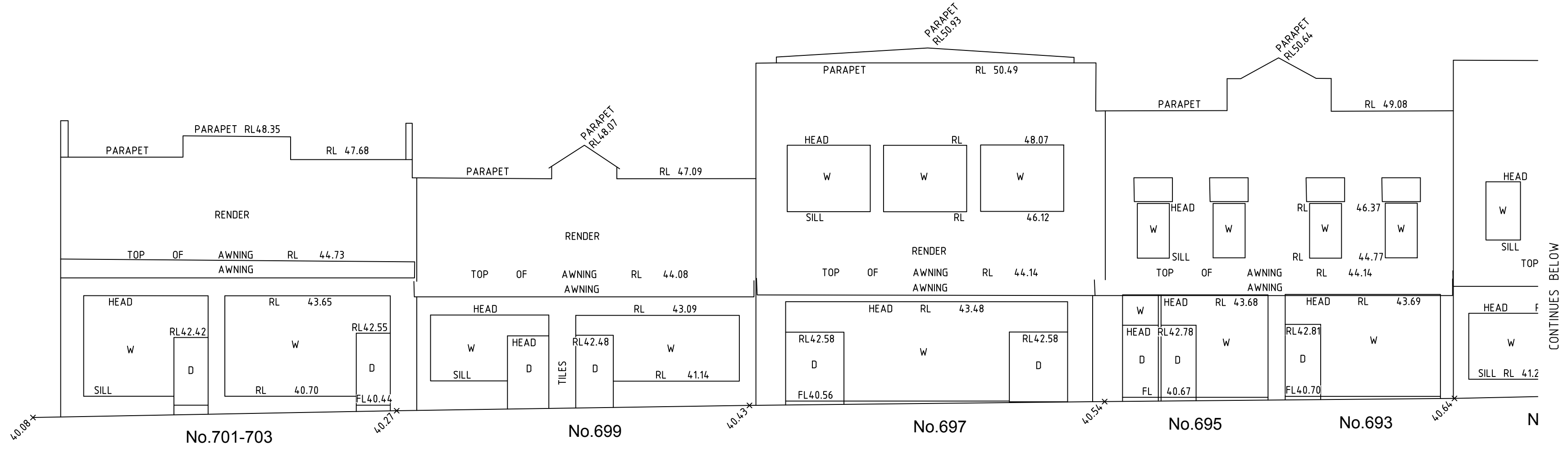
Client GRAND ROZELLE
Drawing title
PLAN OF DETAIL AND LEVELS OVER LOT 1 DP528045, LOT 1 DP
109047, LOT 36 DP190866, LOTS 37 & 38 DP421, LOTS 101 & 102
DP629133 AND LOT 104 DP733658 AT VICTORIA ROAD, ROZELLE

datum
AHD
site Area
7331m²
LGA
INNER WEST

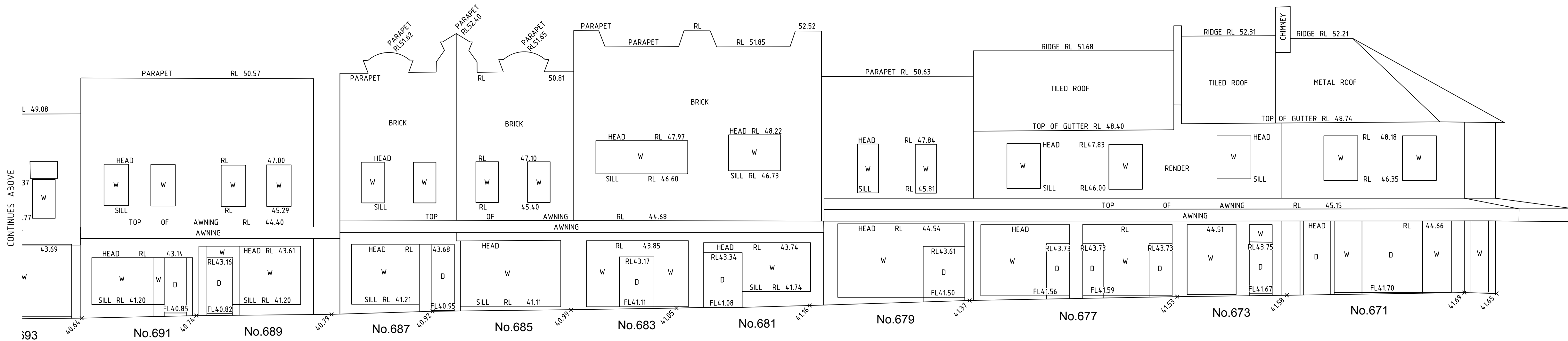
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number
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scale
1:100 @A1
date of survey
21/12/2017
SHEET
10
SHEETS
7



WATERLOO STREET

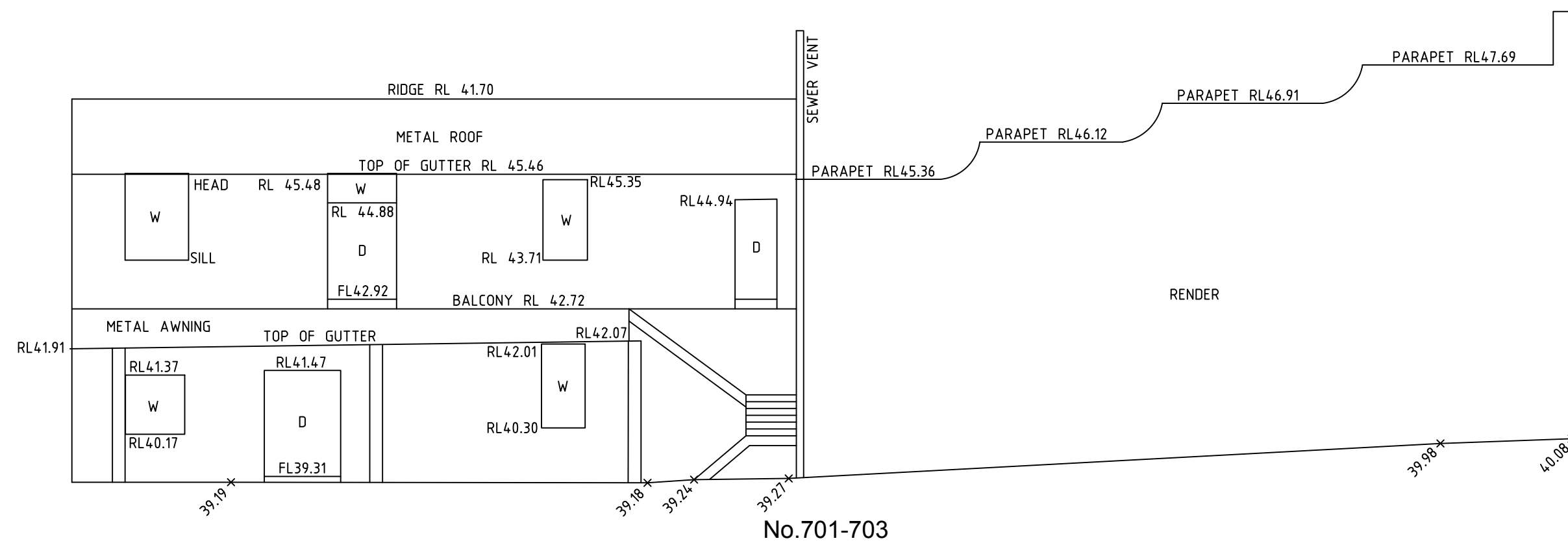


SOUTH-EASTERN ELEVATION - DARLING STREET



VICTORIA ROAD

SOUTH-EASTERN ELEVATION - DARLING STREET



DARLING STREET

SOUTH-WESTERN ELEVATION - WATERLOO STREET



REFER TO NOTES AND LEGEND ON SHEET 1



D	00/00/00	-	00
C	00/00/00	-	00
B	00/00/00	-	00
A	19/02/18	TREES WITHIN SITE BOUNDARY ADDED	00
Revision	Date	Description	Reference

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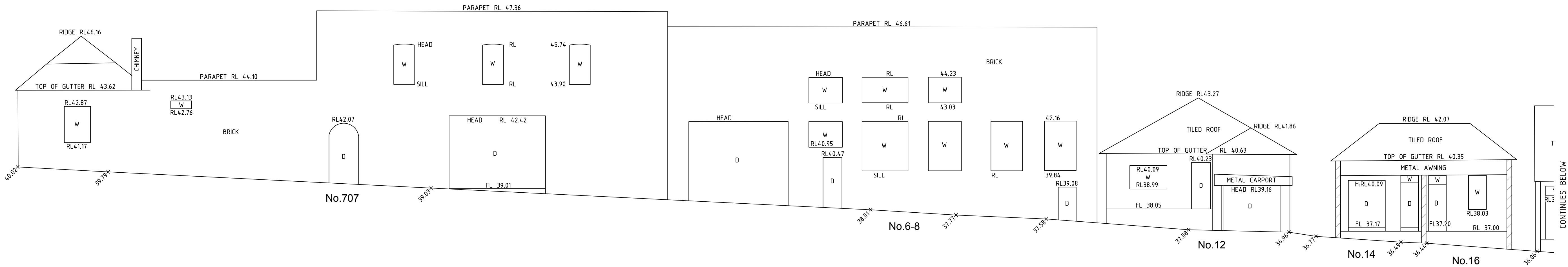
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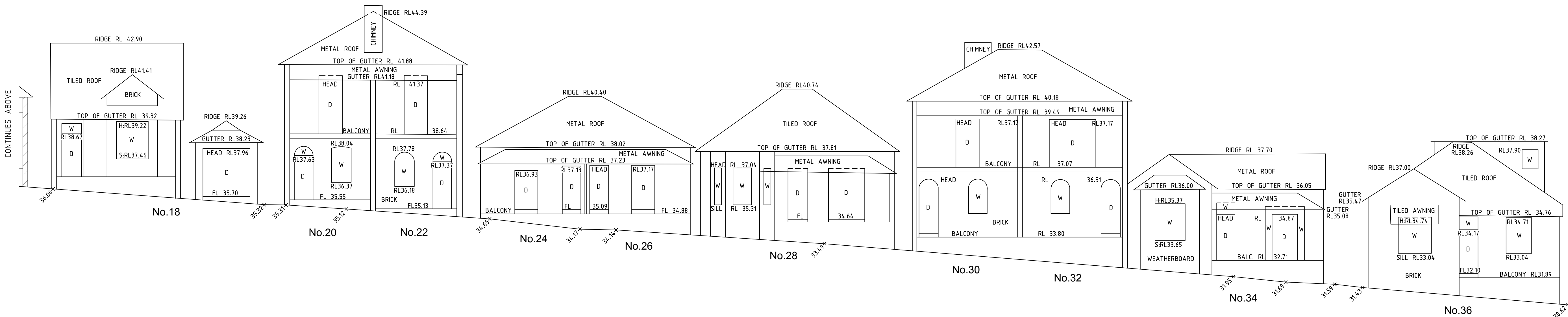
datum
AHD
site Area
7331m²
LGA
INNER WEST

reference number 50194 001DT
scale 1:100 @A1
date of survey 21/12/2017
SHEET 10 OF 8

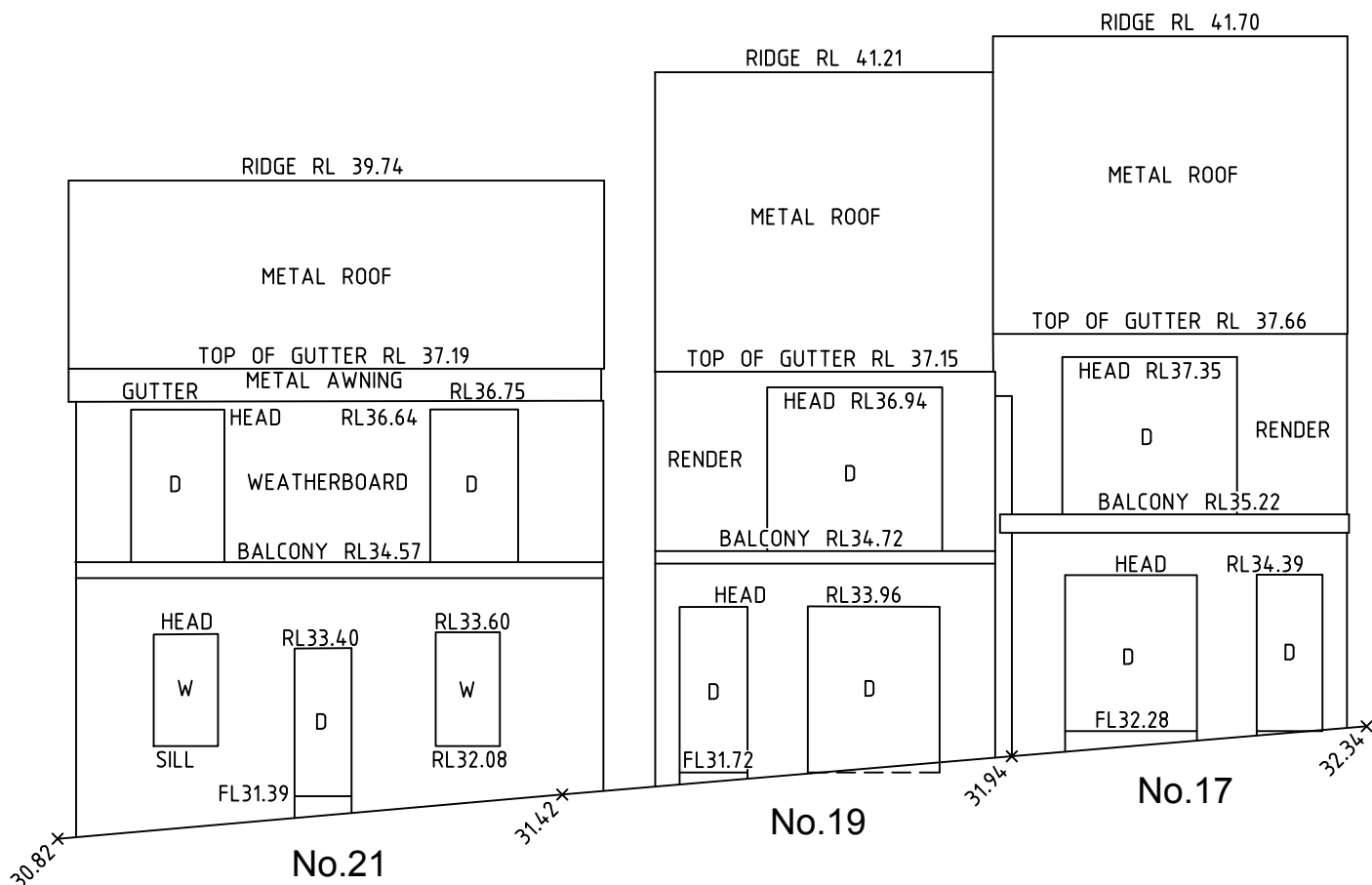
DARLING STREET



NORTH-EASTERN ELEVATION - WATERLOO STREET



NORTH-EASTERN ELEVATION - WATERLOO STREET



SOUTH-WESTERN ELEVATION - WATERLOO STREET



REFER TO NOTES AND LEGEND ON SHEET 1



D	00/00/00	-	00
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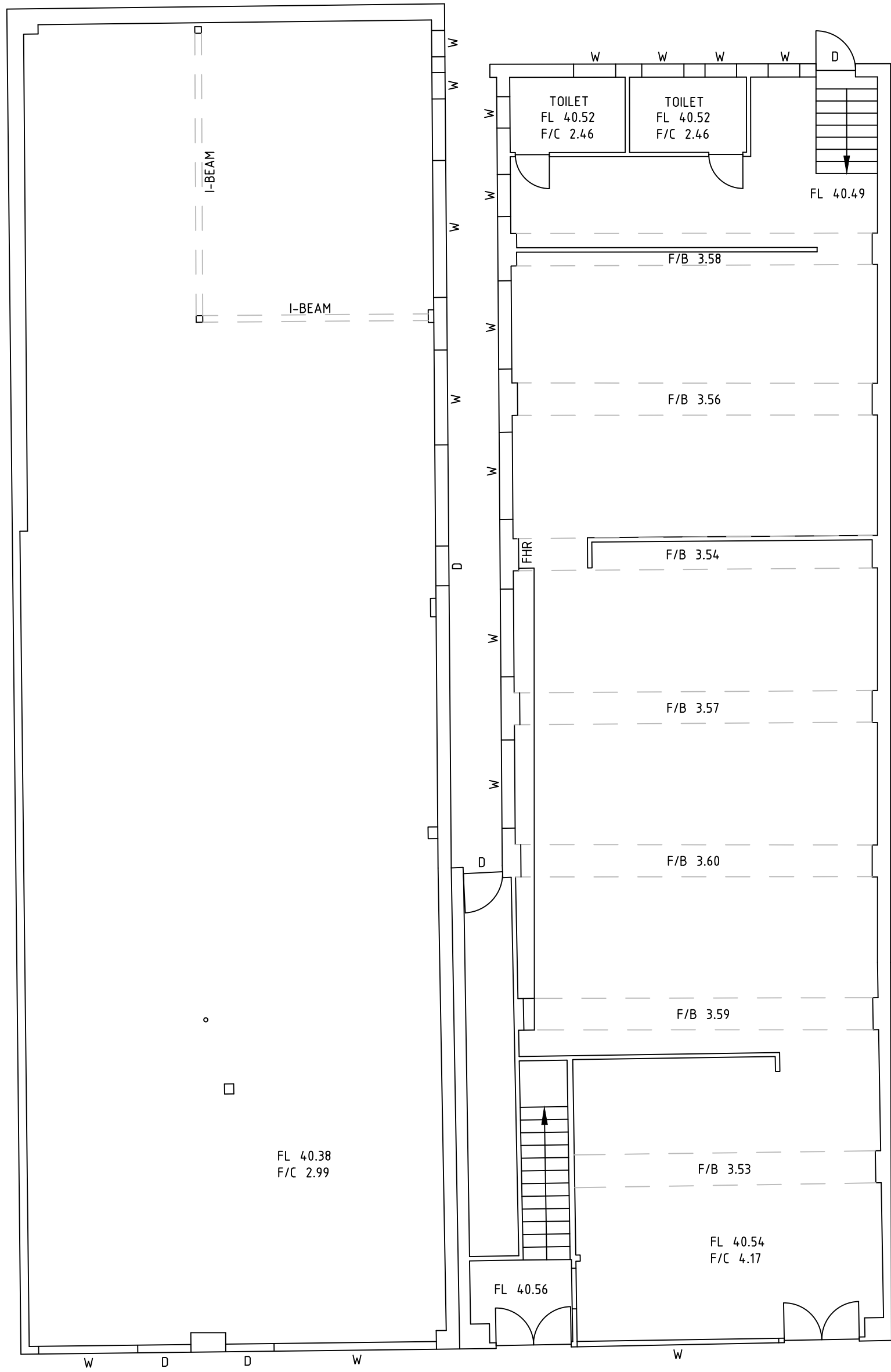
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datum
AHD
site Area
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LGA
INNER WEST

reference
number
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scale
1:100 @A1
date of survey
21/12/2017
SHEET
10 OF 9

GROUND FLOOR PLAN

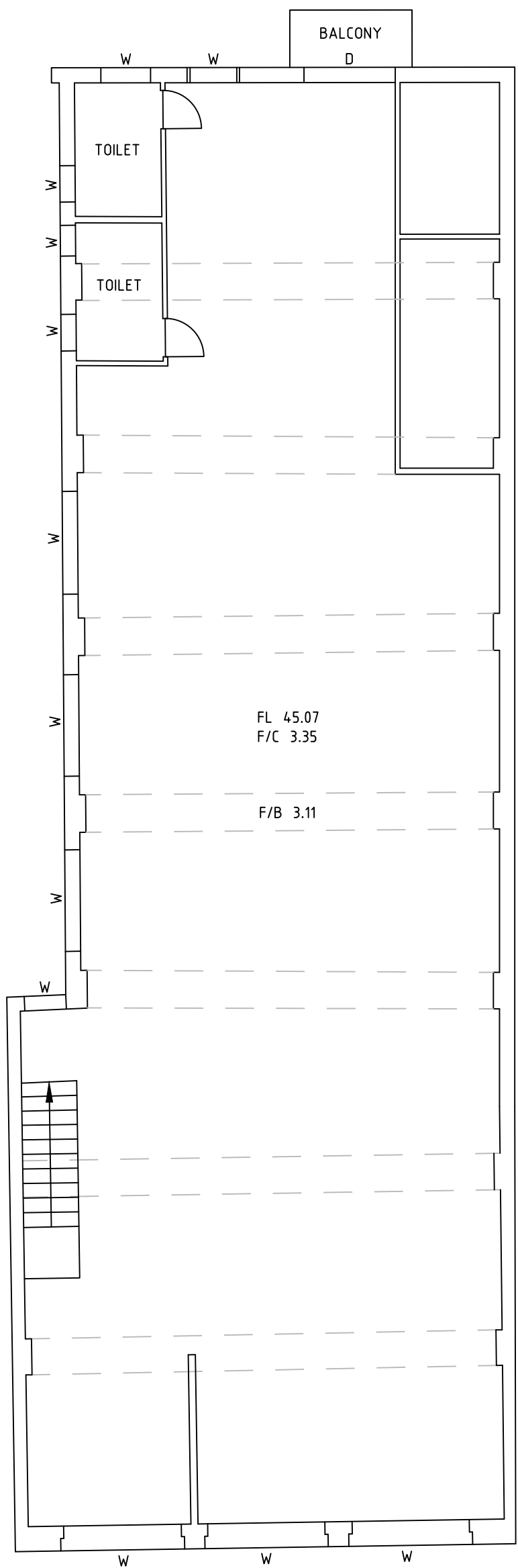


No.699

No.697

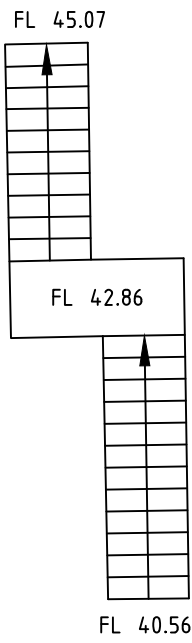
DARLING STREET

FIRST FLOOR PLAN

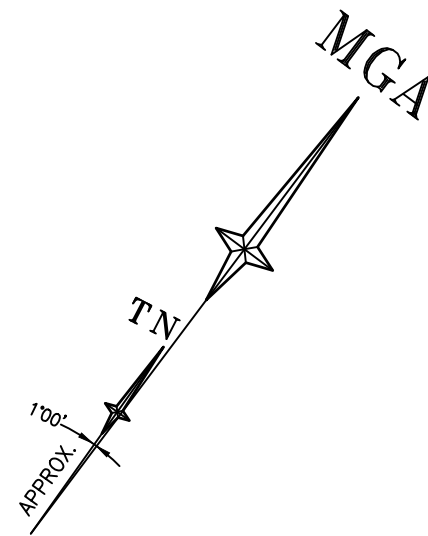


No.697

DARLING STREET



STAIR DETAIL



D = DOOR
W = WINDOW
FL = FLOOR LEVEL
F/C = HEIGHT OF FLOOR TO CEILING
F/B = HEIGHT OF FLOOR TO BEAM
FHR = FIRE HOSE REEL



REFER TO NOTES AND LEGEND ON SHEET 1



D	00/00/00	-	00
C	00/00/00	-	00
B	00/00/00	-	00
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site Area
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LGA
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date of survey
21/12/2017
OF SHEET 10 SHEETS 10

6.3 APPENDIX C – MUSIC Treatment Train

Treatment Train Effectiveness - TSS 85%, TP 65%, TN 45%

	Sources	Residual Load	% Reduction
Flow (ML/yr)	5.26	5.2	1.1
Total Suspended Solids (kg/yr)	749	96.7	87.1
Total Phosphorus (kg/yr)	1.69	0.488	71.1
Total Nitrogen (kg/yr)	13.8	7.41	46.4
Gross Pollutants (kg/yr)	142	5.87	95.9

Print Save

6.4 APPENDIX D – DRAINS MODEL AND RESULTS

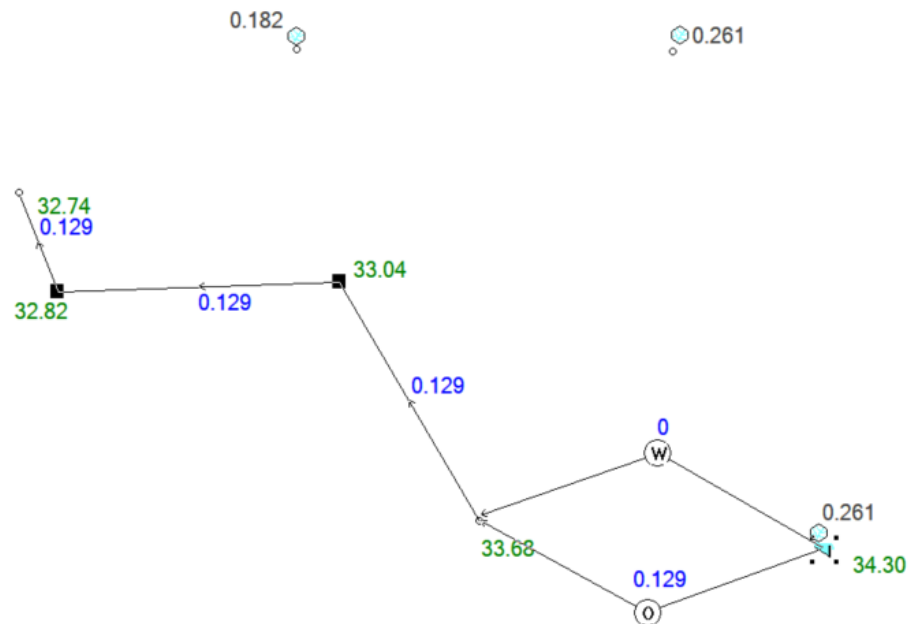


Figure D1 - 5 Year ARI Storm Event

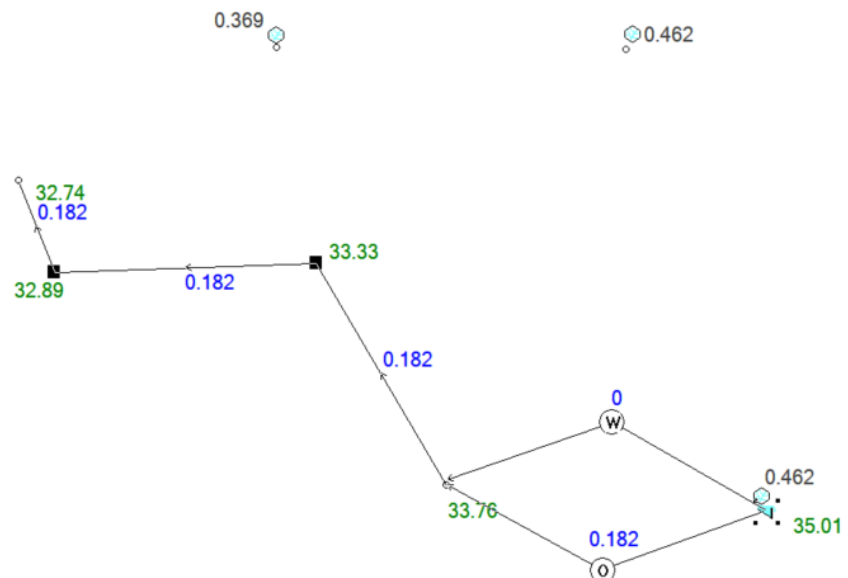


Figure D2 - 100 Year ARI Storm Event