

COLD WINDS

TEMPERATE SOUTH BASTERLY BREEZE

TEMPERATE NORTHEAST BREEZE

OLD PITTWATER ROAD

FUNDA PLACE

NO.45-49
ONE STOREY
BRICK RESIDENCES
TILE ROOF

NO.45-49
TWO STOREY
BRICK RESIDENCES
TILE ROOF

NO.45-49
ONE STOREY
BRICK RESIDENCES
TILE ROOF

SUMMER SUN PATH
AFTERNOON SUN

WINTER SUN PATH
AFTERNOON SUN

WINTER SUN PATH
MORNING SUN

SUMMER SUN PATH
MORNING SUN

BASIX NOTES:

All Showerheads: 3 star(>4.5 but <=6 L/min)

All Toilet Flushing Systems: 4 star

All Kitchen Taps: 5 star

All Bathroom Taps: 5 star

All Dishwashers: 3 star

DESIGN STATISTICS:

SITE AREA: 613.4sqm

ZONING: R3 Medium Density Residential

PERMITTED USE: Multi dwelling housing

PARKING SPACE: Proposed 7 Car Parking Spaces
including 1 visitor car park space, 5 bicycle parking spaces

DWELLING: 4 Townhouses



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THIS PLAN IS TO BE READ IN
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THE CONDITIONS OF DEVELOPMENT
CONSENT

DA2018/1610

43 Old Pittwater Road, Brookvale, NSW2100



ENHANCE GROUP PROJECT PTY LTD

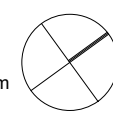
LEO WANG
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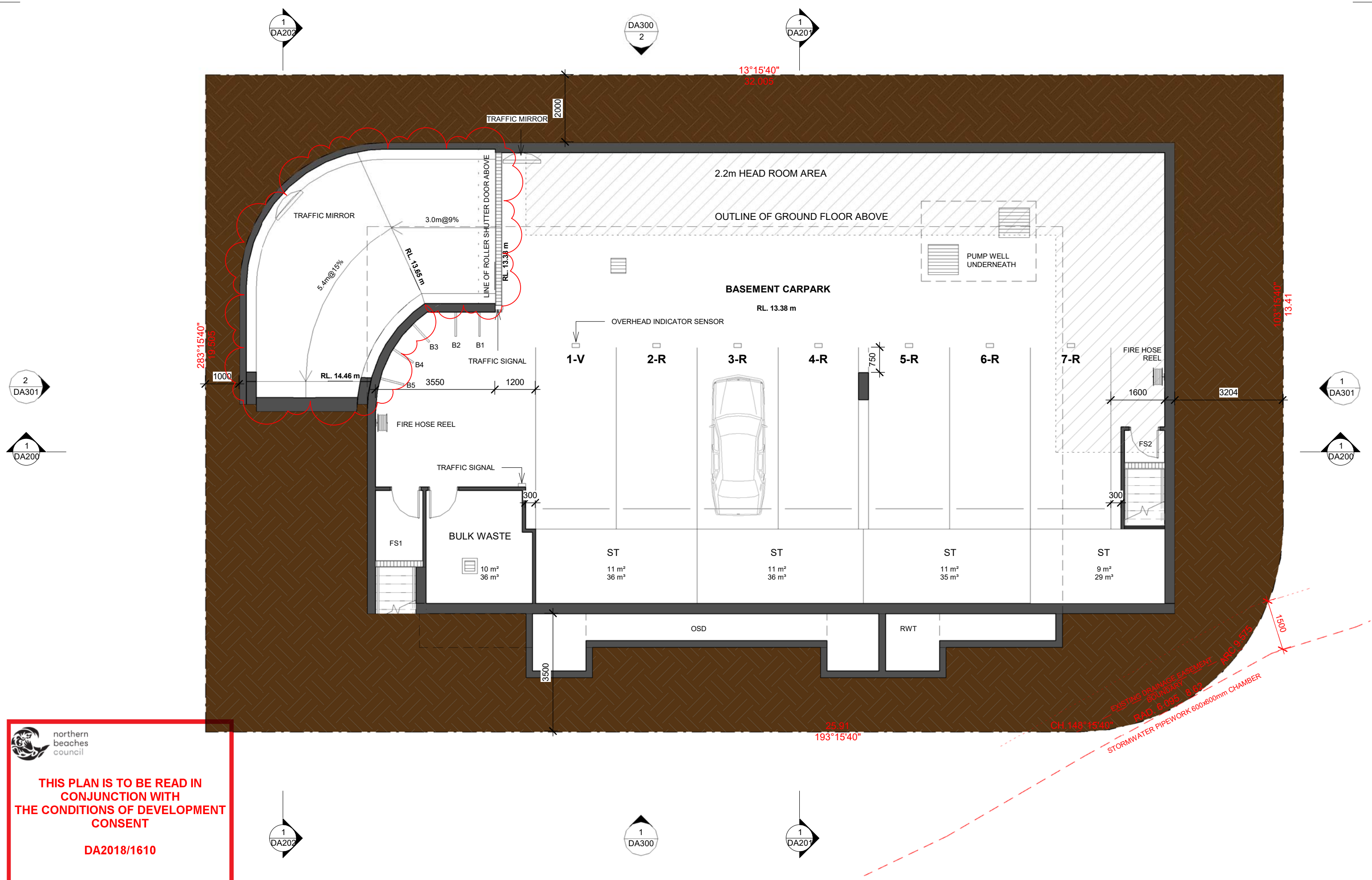
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A	Issue for DA	21/09/2018
B	Issue for Revised DA	27/11/2018
C	Issue for Revised DA	11/03/2019
D	Issue for Revised DA	21/05/2019
E	Issue for Revised DA	17/06/2019
F	Issue for Revised DA	27/07/2019

DA SUBMISSION

0m 2m 4m 6m 8m 10m
Scale Bar 1:200



TITLE	JOB No.	HH01
Site Analysis Plan	DATE	JUL 2018
	SCALE	A3 @ 1 : 200
	DWG No.	DA014 F



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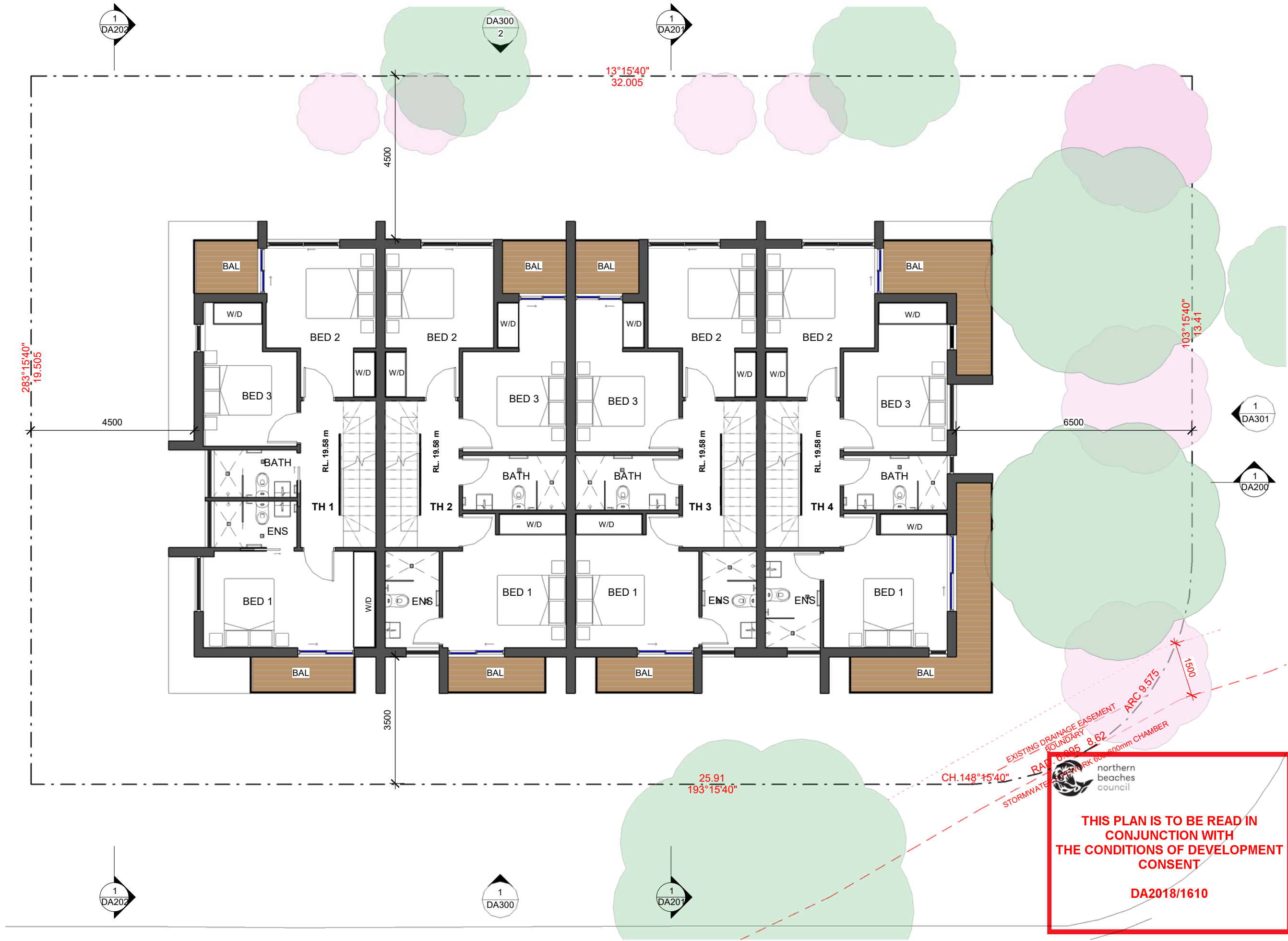


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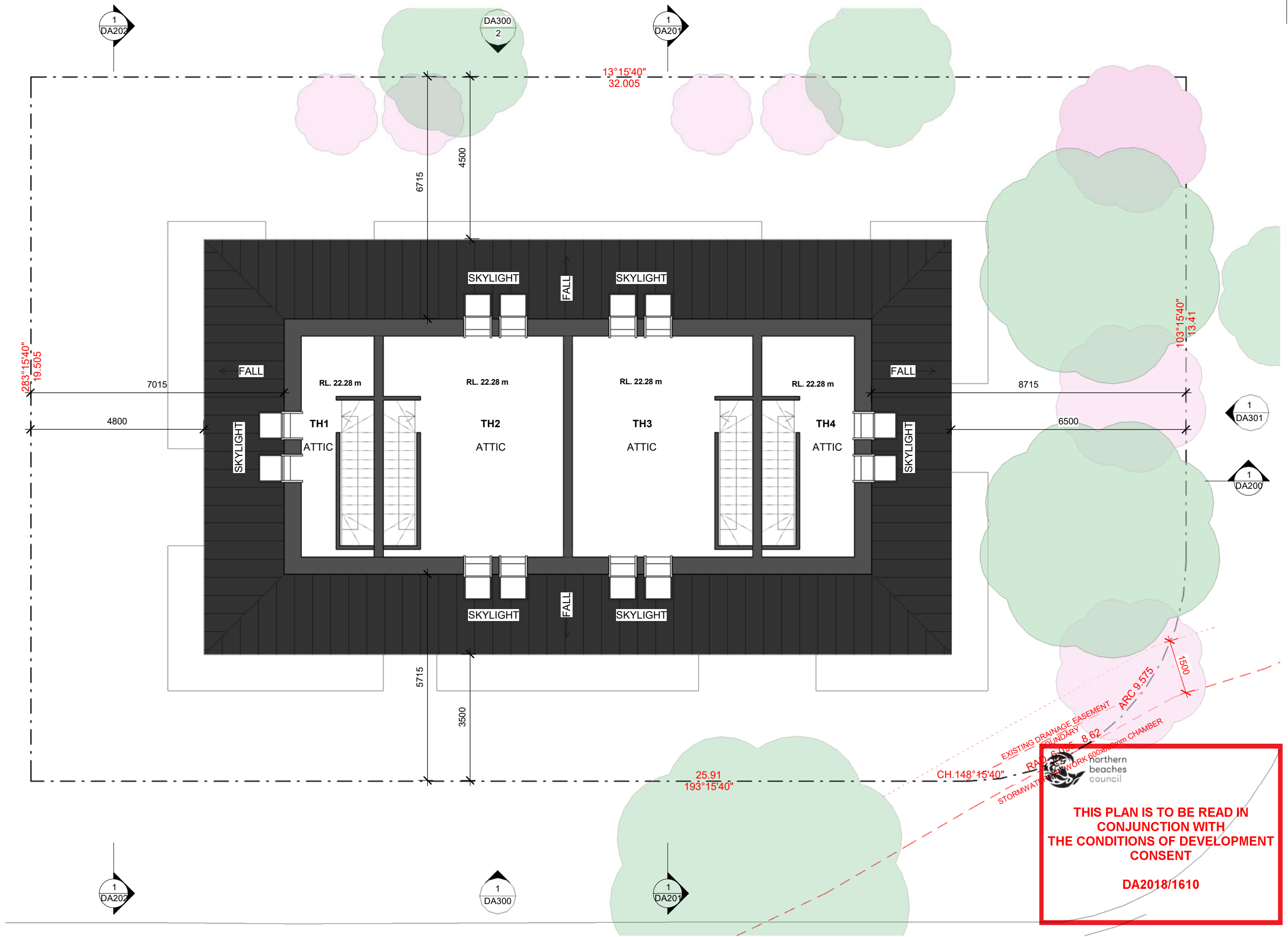
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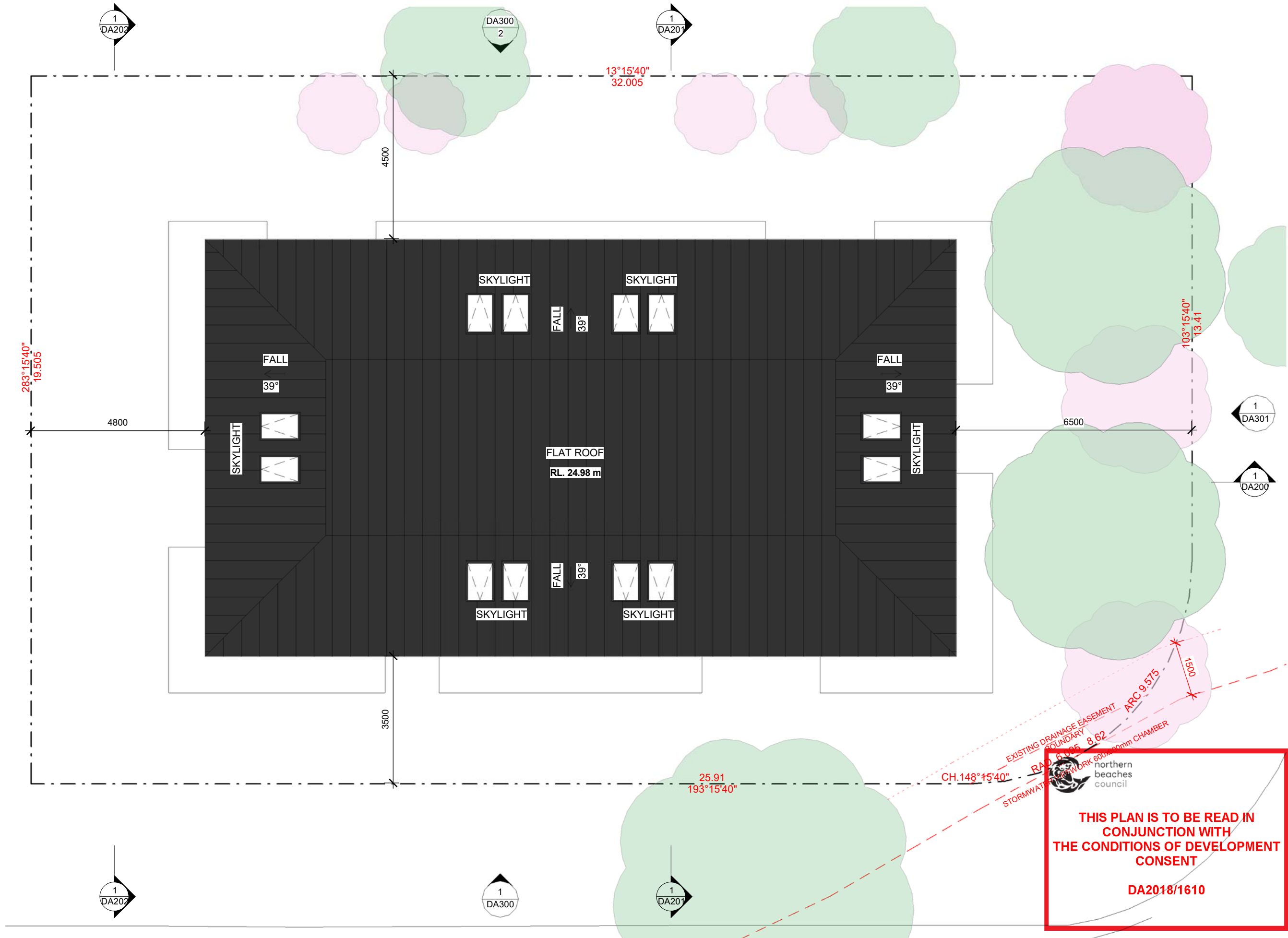


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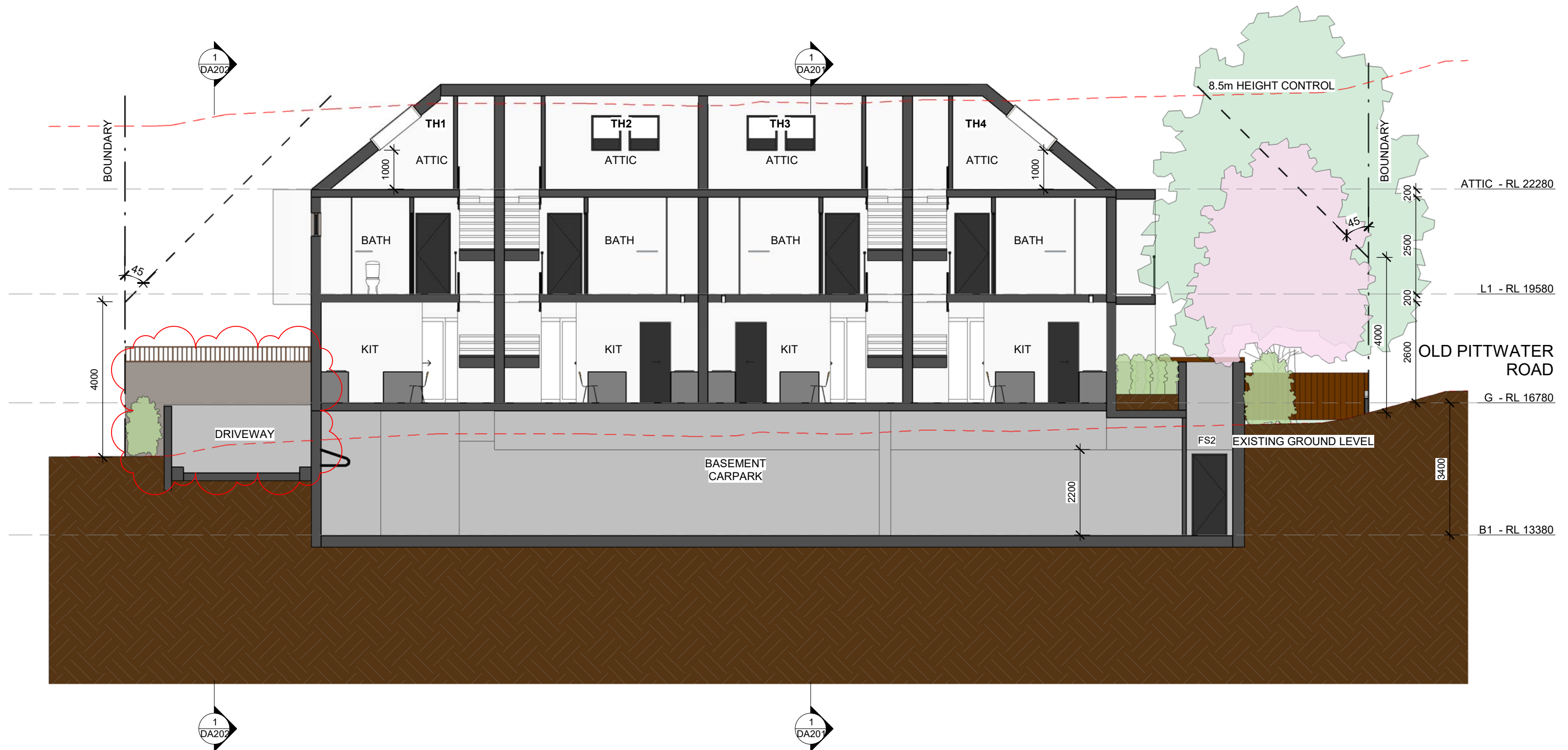


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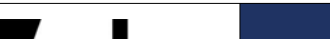


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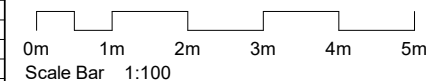


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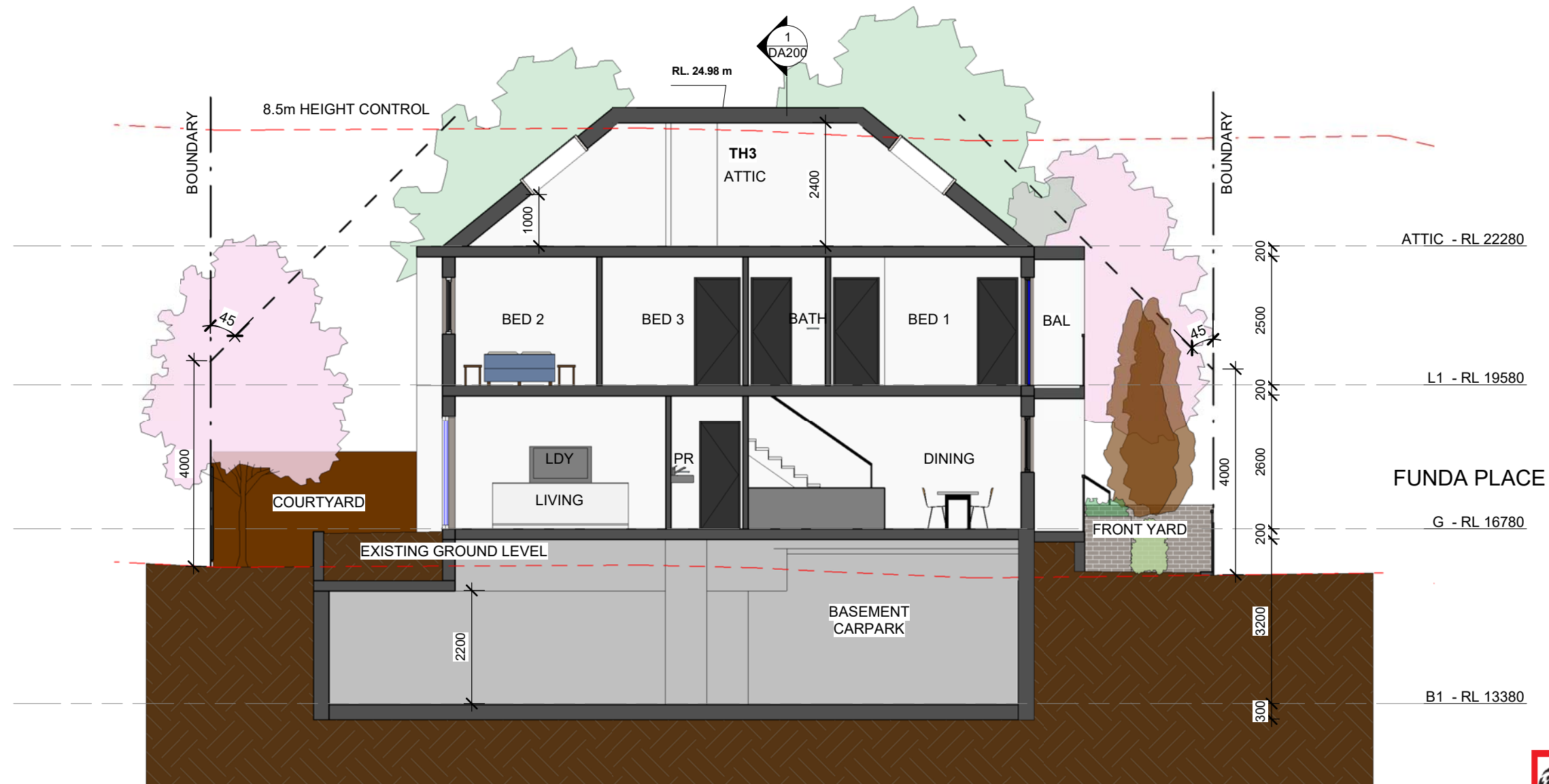
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TITLE Section 1	JOB No.	HH01
	DATE	JUL 2018
	SCALE	A3 @ 1 : 100
	DWG No.	DA200 F



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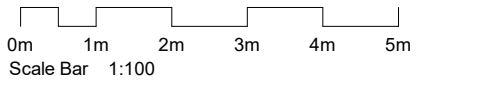
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0m 1m 2m 3m 4m 5m

Scale Bar 1:100

TITLE

Section 2

JOB No.

HH01

DATE

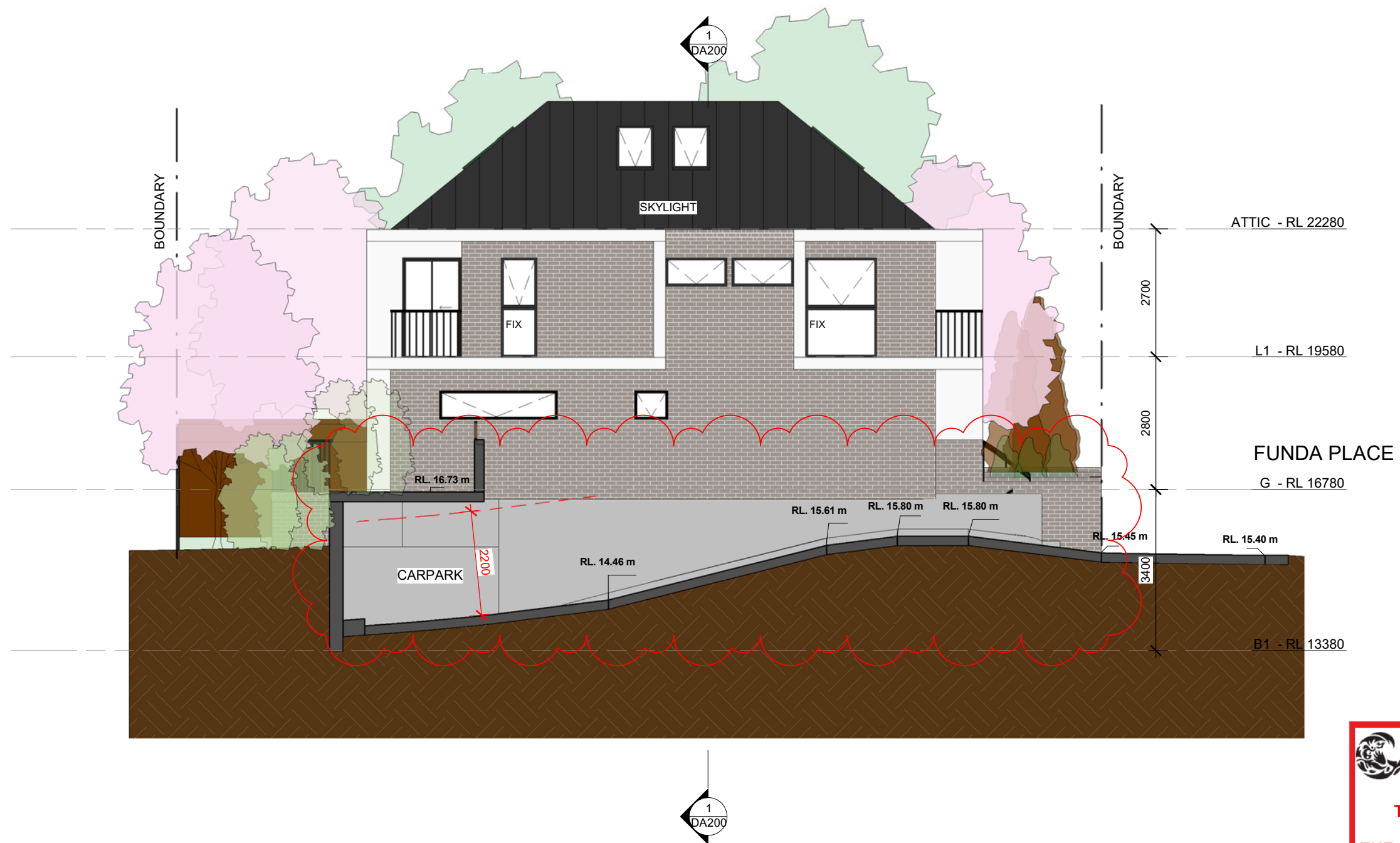
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SCALE

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DWG No.

DA201 E



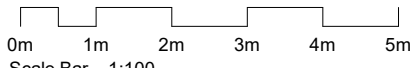
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DA SUBMISSION

43 Old Pittwater Road, Brookvale, NSW2100

 AIPM	 Member Australian Institute of Architects		ENHANCE GROUP PROJECT PTY LTD LEO WANG NSW Nominated Architect: No. 9898 NSW Registered Project Manager: MAIPM, CPPM	E leo.w@enhanceproject.com.au P +61 2 8004 3281 A Suite 79 Level 4 89-97 Jones St Ultimo NSW 2007	Rev	Description	Date	 0m 1m 2m 3m 4m 5m Scale Bar 1:100	TITLE Section 3	JOB No.	HH01
					A	Issue for DA	21/09/2018			DATE	JUL 2018
					B	Issue for Revised DA	27/11/2018			SCALE	A3 @ 1 : 100
					C	Issue for Revised DA	11/03/2019			DWG No.	DA202 F
					D	Issue for Revised DA	21/05/2019				
					E	Issue for Revised DA	17/06/2019				
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1

EAST ELEVATION

1 : 100

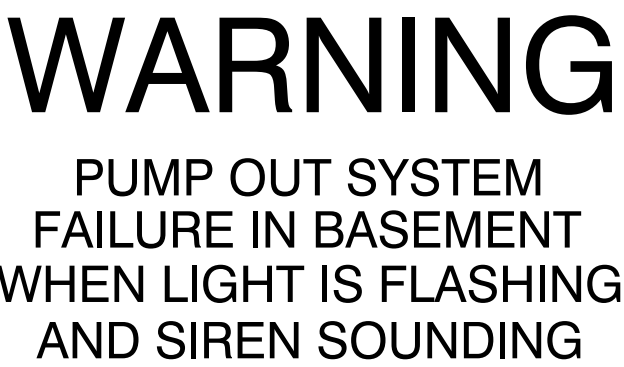


2

WEST ELEVATION

1 : 100

- | Type | Output | | Outlet | | Rated Head Capacity | | Maximum Head Capacity | | Weight | Dimension | | |
|--------|--------|------|--------|--------|---------------------|-----|-----------------------|------|--------|-----------|-----|-----|
| | HP | kW | m | in | M | UM | M | UM | | | | |
| ES-02 | 12 | 8.92 | 22 | 2 1/2" | 5 | 120 | 8 | 198 | 5 | 108 | 125 | 335 |
| ES-04 | 15 | 11.0 | 30 | 3" | 6 | 150 | 9 | 231 | 7 | 138 | 168 | 405 |
| ES-06 | 22 | 16.1 | 42 | 4 1/2" | 8 | 210 | 12 | 330 | 10 | 210 | 252 | 630 |
| ES-08 | 32 | 23.5 | 60 | 6" | 9 | 300 | 16 | 462 | 14 | 270 | 324 | 810 |
| ES-08 | 1 | 0.75 | 30 | 3" | 6 | 240 | 51 | 231 | 21 | 240 | 108 | 415 |
| ES-20 | 2 | 1.5 | 80 | 3" | 23 | 500 | 51 | 600 | 42 | 278 | 182 | 475 |
| ES-30 | 3 | 2.2 | 80 | 3" | 33 | 500 | 58 | 800 | 42 | 330 | 220 | 490 |
| ES-40 | 5 | 3.7 | 110 | 4" | 53 | 500 | 71 | 1100 | 48 | 495 | 340 | 530 |
| ES-75 | 7 1/2 | 5.5 | 130 | 4" | 73 | 500 | 23 | 1300 | 60 | 550 | 370 | 590 |
| ES-100 | 10 | 7.5 | 130 | 6" | 100 | 500 | 25 | 1600 | 70 | 550 | 380 | 610 |



WIDTH 200mm

WARNING SIGN

F. P. L.	FINISHED FLOOR LEVEL
T. K.	TOP OF KERB
RL	PIT SURFACE LEVEL
IL	INVERT LEVEL
----	STORMWATER DRAINAGE PIPE
— —	DOWNPIPE TO RAINWATER TANK
• DP	100 DOWN PIPE (U. N. O.)
• SP	SPREADER
• IE	INSPECTION EYE
	MASONRY RETAINING WALL
FW	FLOOR WASTE 150
	GRATED INLET PIT
	GRATED DRAIN
	OVERLAND FLOW PATH
ES—	EMERGENCY SPILLTHER
VD•	VERTICAL DROP
• EDP	EXISTING 100 DOWN PIPE (U. N. O.)
----	EXISTING STORMWATER DRAINAGE PIPE

APPROXIMATE LOCATIONS OF EXISTING SERVICES SHOWN ON LONGITUDINAL SECTION. EXACT LOCATIONS & DEPTHS TO BE ACCURATELY LOCATED BY THE BUILDING CONTRACTOR BY CONTACTING THE RELEVANT AUTHORITIES BEFORE COMMENCEMENT OF ANY WORKS

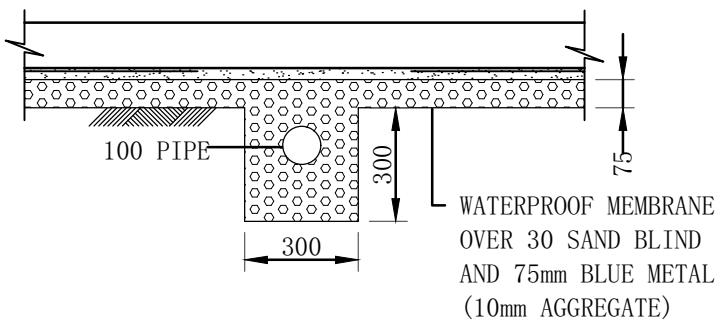


**DIAL 1100
BEFORE YOU DIG**



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DA2018/1610



TYPICAL SECTION THROUGH SUBSOIL HARD PIPE
N. T. S.

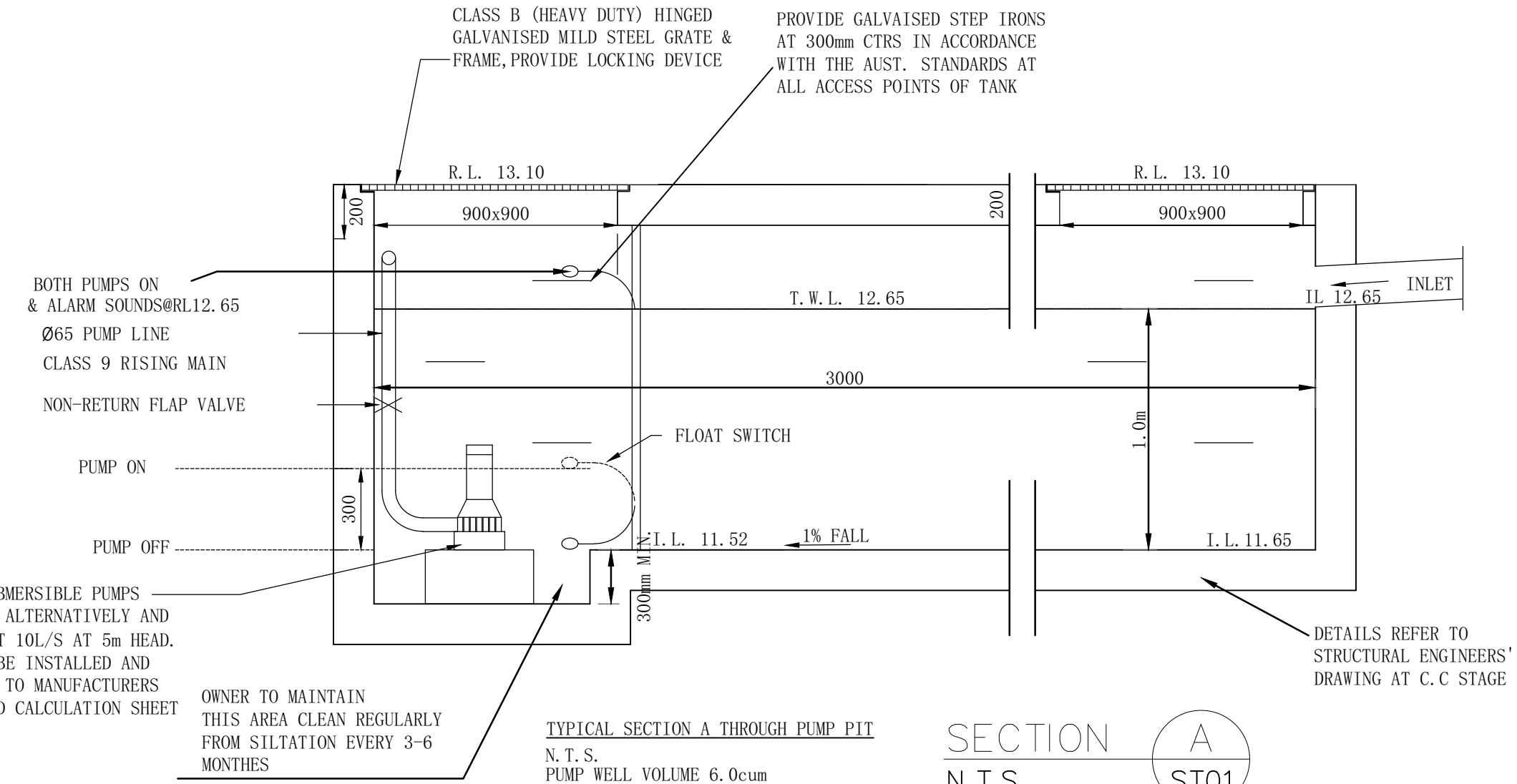
THE PUMP SHALL BE PROGRAMMED TO WORK ALTERNATIVELY SO AS TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.

A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK, IN THIS REGARD, THIS FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS. A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, APPROXIMATELY 300mm ABOVE THE MINIMUM WATER LEVEL, WHEREBY ONE OF THE PUMPS WILL OPERATE AND DRAIN THE TANK TO THE LEVEL OF THE LOW LEVEL FLOAT.

A THIRD FLOAT SHALL BE PROVIDED AT A HIGH LEVEL WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHOULD START THE OTHER PUMP THAT IS NOT OPERATING AND ACTIVATE THE ALARM.

AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT AND A PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL. THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE

SCALE 1:100



SECTION A
N.T.S. ST01

[illegible]

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STRONGHOLD ENGINEERS

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Client

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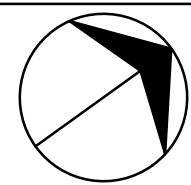
Project

43 OLD PITTWATER
ROAD, BROOKVALE, NSW 2100

Drawing Title

BASEMENT STORMWATER DRAINAGE PLAN AND DETAIL

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Project Number SH18095	Drawing Number ST01	Revision F
Engineer SH	Drawn IN	
Date SEP 2018	Scale 1:100 A1	

NOT FOR CONSTRUCTION

NOTES

- ALL LINES ARE TO BE MIN. 1000 $\varnothing$ PVC @ MIN 1.0% GRADE UNLESS NOTED OTHERWISE.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS. ALL DESIGN LEVELS SHOWN ON PLAN SHALL BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK.
- ALL PIPES TO HAVE MIN 200mm COVER IF LOCATED WITHIN PROPERTY.
- ALL PITS IN DRIVEWAYS BE HEAVY DUTY GRATES. DIRECT SURFACE FLOW TO ALL GRATED SURFACE INLET PITS.
- ALL WORK DO BE DONE IN ACCORDANCE WITH AS/NZ 3500.3.2:2003 AND COUNCIL SPECIFICATIONS.
- LOCATION OF DOWNPIPES & FLOOR WASTES ARE INDICATIVE ONLY. DOWNPIPE & FLOOR WASTE SIZE, LOCATION & QUANTITY TO BE DETERMINED BY BUILDER & IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
- THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, LANDSCAPE AND STRUCTURAL PLANS.
- ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE DESIGN ENGINEER FOR RESOLUTION.
- ALL PITS OR GRATES IN TRAFFICABLE AREAS TO BE HEAVY DUTY.
- ALL GUTTERS WILL BE FITTED WITH LEAF GUARDS AND SHOULD BE INSPECTED AND CLEANED TO ENSURE LEAF LITTER CANNOT ENTER THE DOWNPIPES

SYMBOLS

F.F.L.	FINISHED FLOOR LEVEL
T.K.	TOP OF KERB
RL	PIT SURFACE LEVEL
IL	INVERT LEVEL
---	STORMWATER DRAINAGE PIPE
---	DOWNPIPE TO RAINWATER TANK
•DP	100 DOWN PIPE (U.N.O.)
•SP	SPREADER
•IE	INSPECTION EYE
////	MASONRY RETAINING WALL
⊗FW	FLOOR WASTE 150
■	GRATED INLET PIT
■	GRATED DRAIN
←	OVERLAND FLOW PATH
ES	EMERGENCY SPILLTER
VD	VERTICAL DROP
•EDP	EXISTING 100 DOWN PIPE (U.N.O.)
---	EXISTING STORMWATER DRAINAGE PIPE

NOTE RE. SERVICES

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SITE STORMWATER DRAINAGE PLAN

SCALE 1:100

 **northern beaches council**

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PRE DEVELOPMENT VS POST DEVELOPMENT FLOWS:

ARI (YR)	PRE-DEV	POST DEV (WITH OSD)
5	23	16
10	26	18
20	31	20
50	33	22
100	37	24

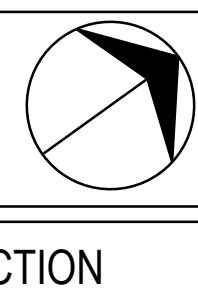
Rev	Description	By	App	Date
F	UPDATE AS PER FLOOD REPORT	SH	IN	06/06/19
E	UPDATED HGL	SH	IN	06/03/19
D	FOR DA APPROVAL	SH	IN	26/02/19
C	FOR DA APPROVAL	SH	IN	26/09/18
B	FOR DA APPROVAL	SH	IN	15/09/18
A	FOR DA APPROVAL	SH	IN	26/08/18

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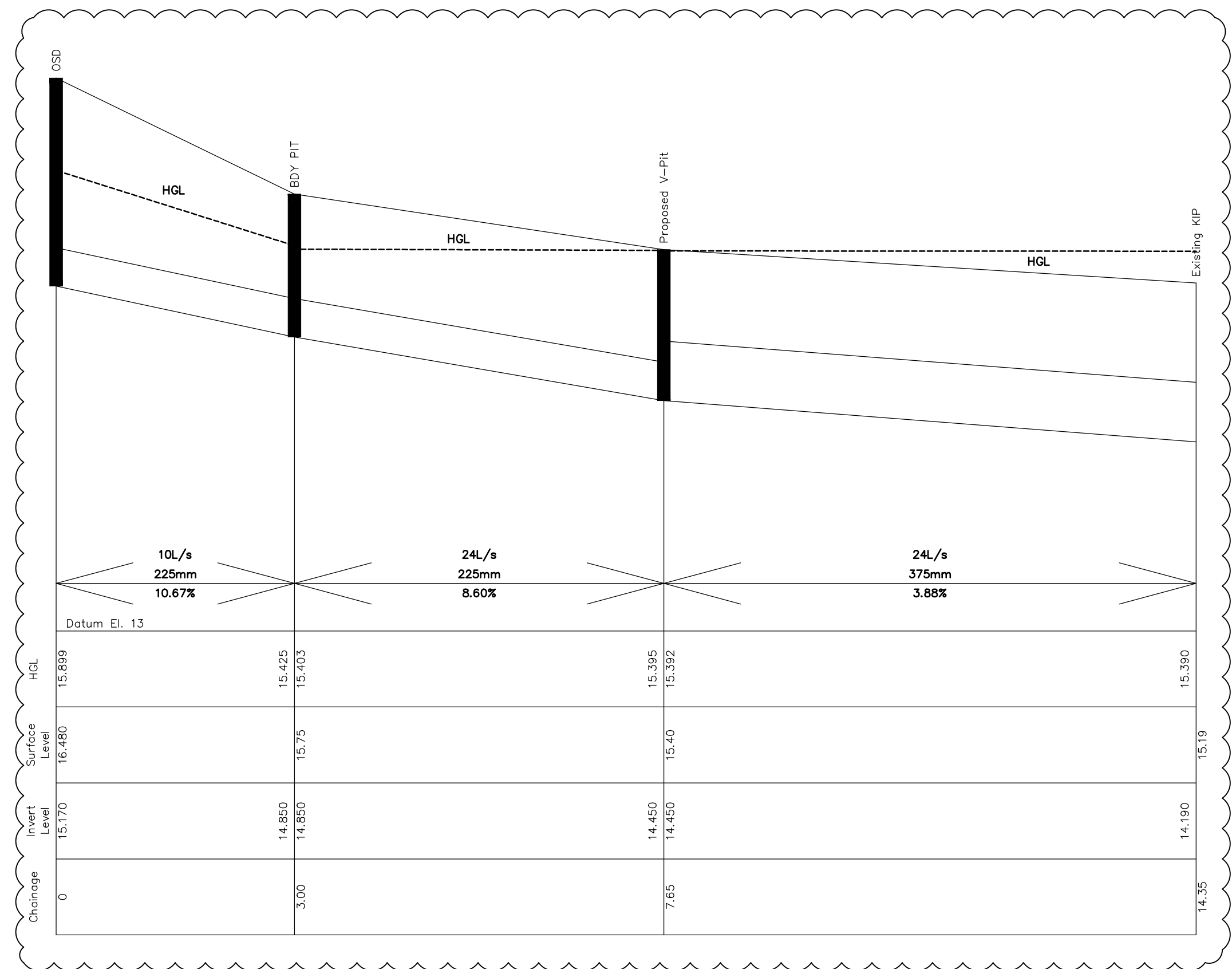
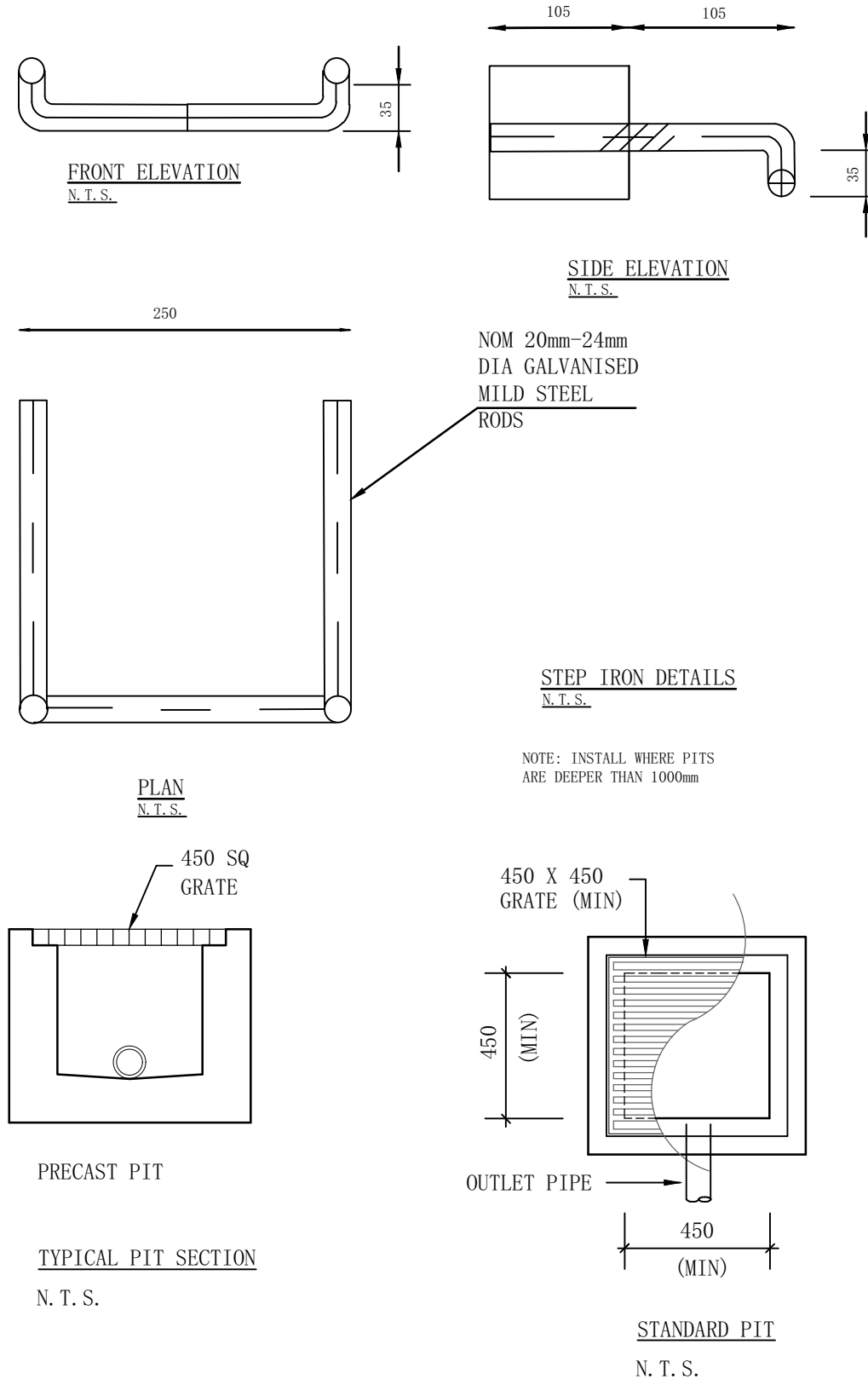
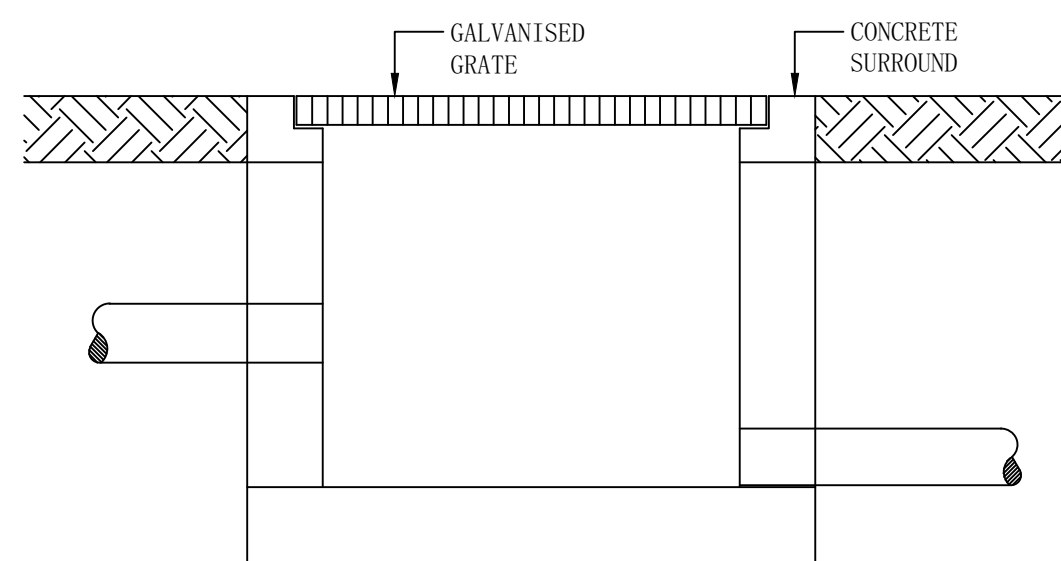
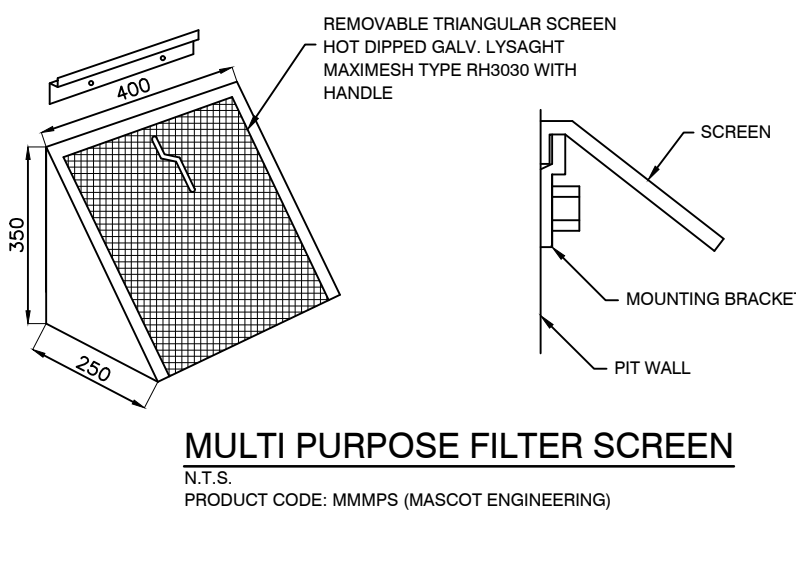
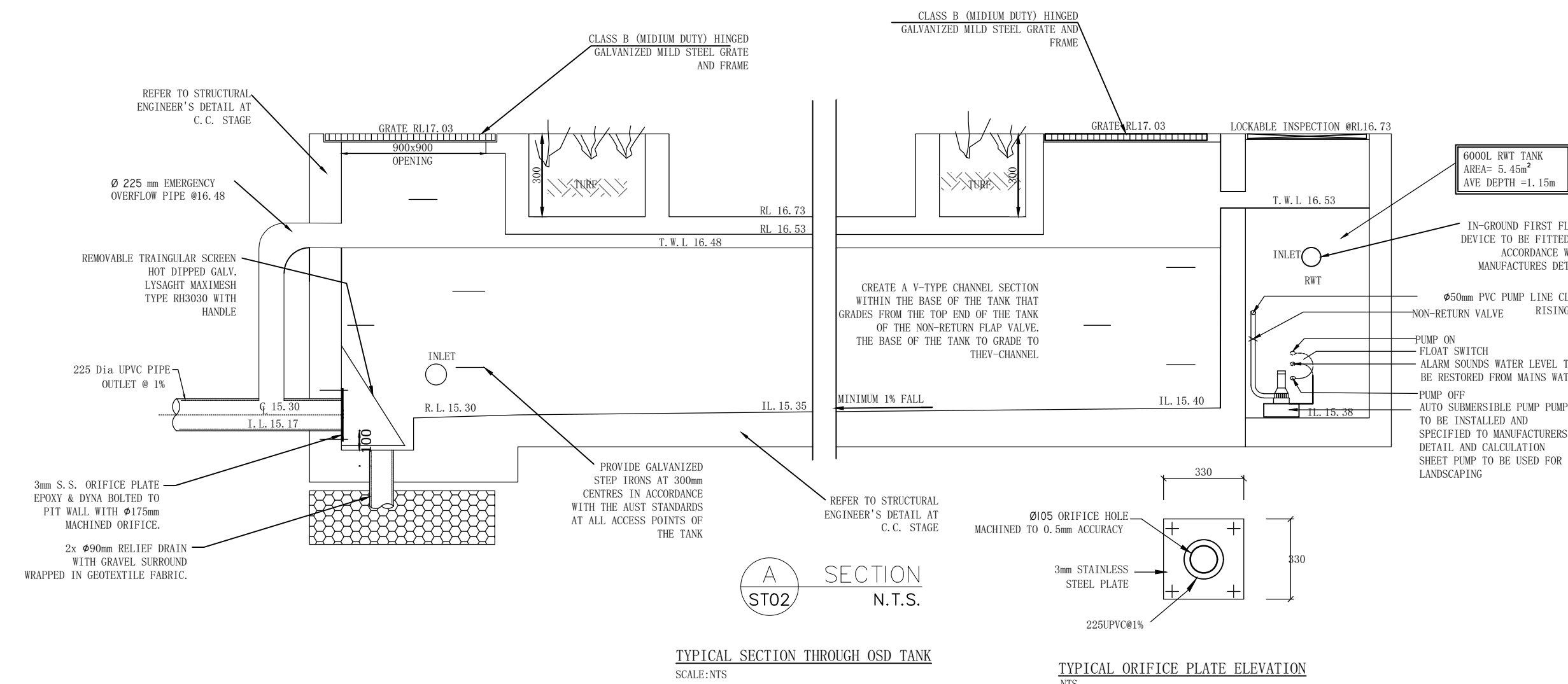
Client	EnHance ENHANCE GROUP PROJECT PTY LTD
Project	43 OLD PITTWATER ROAD, BROOKVALE, NSW 2100

Drawing Title	SITE STORMWATER DRAINAGE PLAN
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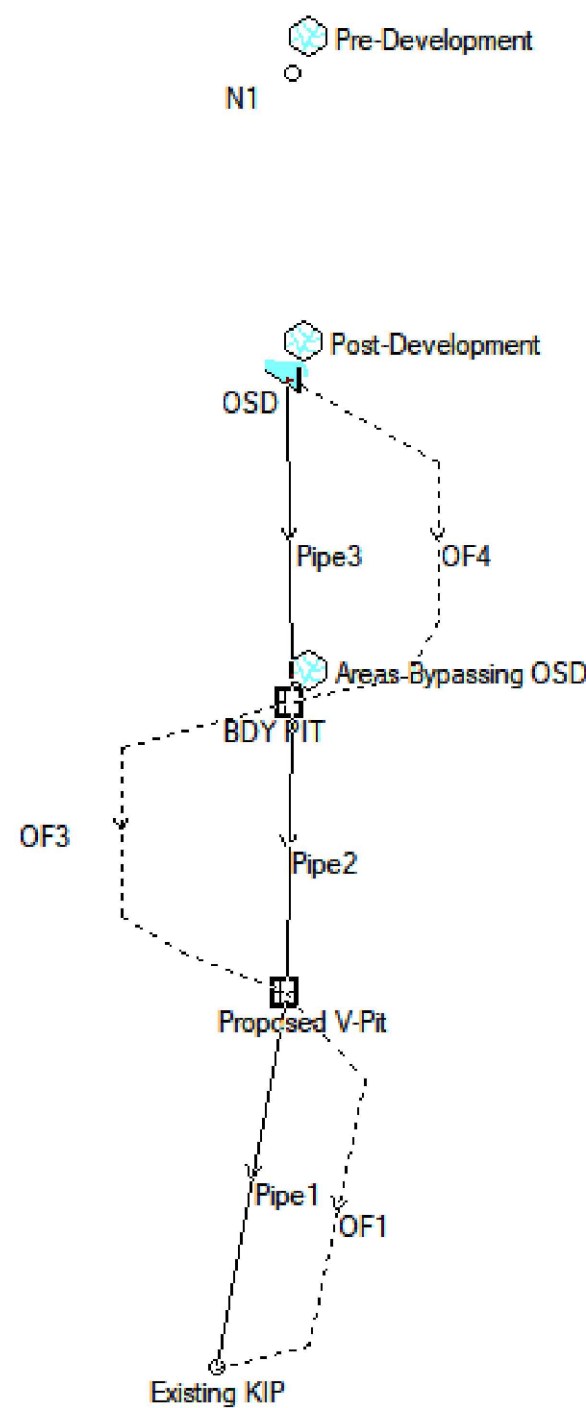
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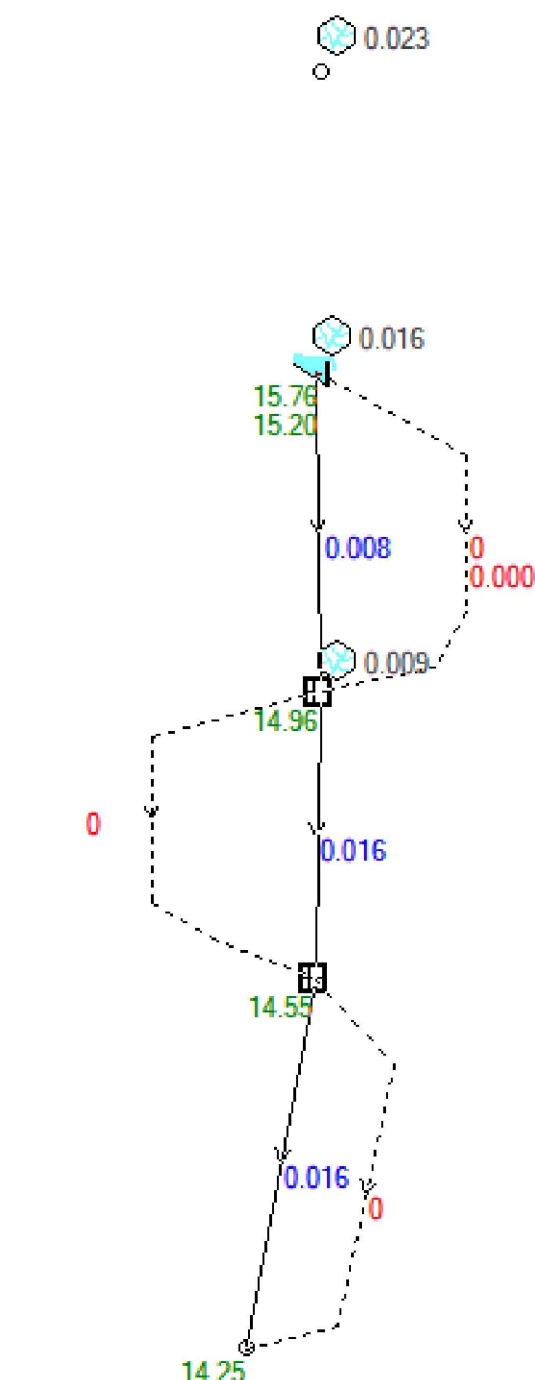
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SH18095	ST02	F
Engineer	Drawn	
SH	IN	
Date	Scale	
SEP 2018	1:100 A1	



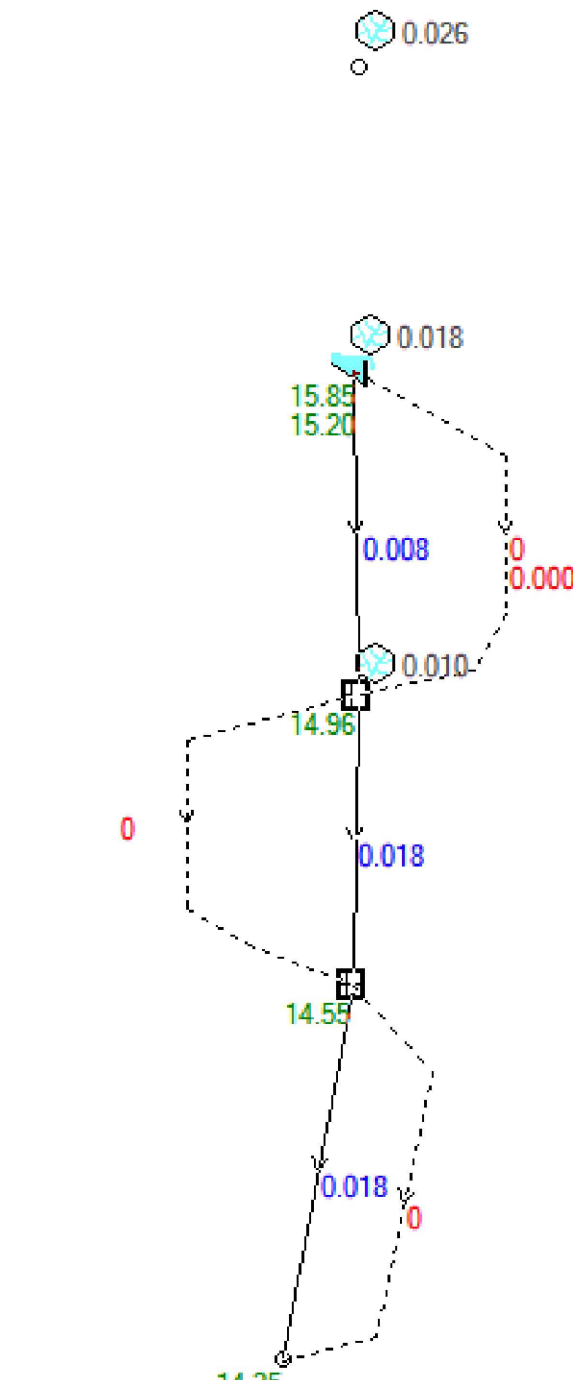
HYDRAULIC GRADE LINE - 1 IN 100 YEAR ARI - OSD TO eKIP
SCALE 1:100



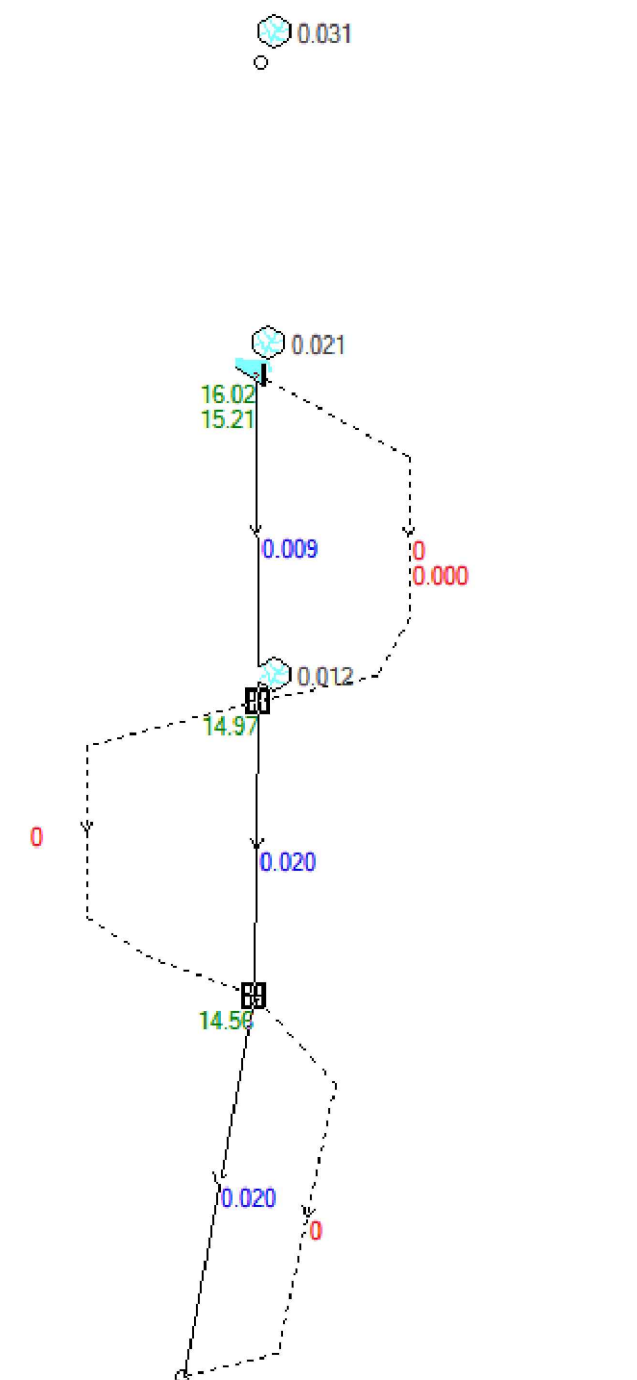
DRAINAGE NETWORK
SCALE NTS



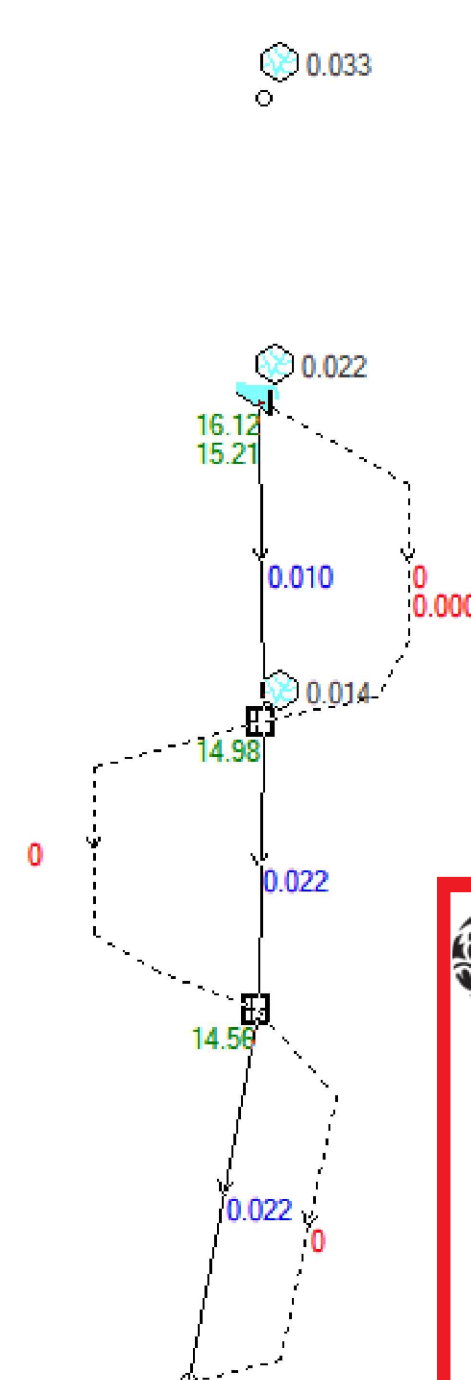
MINOR STORMS(5 YEARS ARI)
SCALE NTS



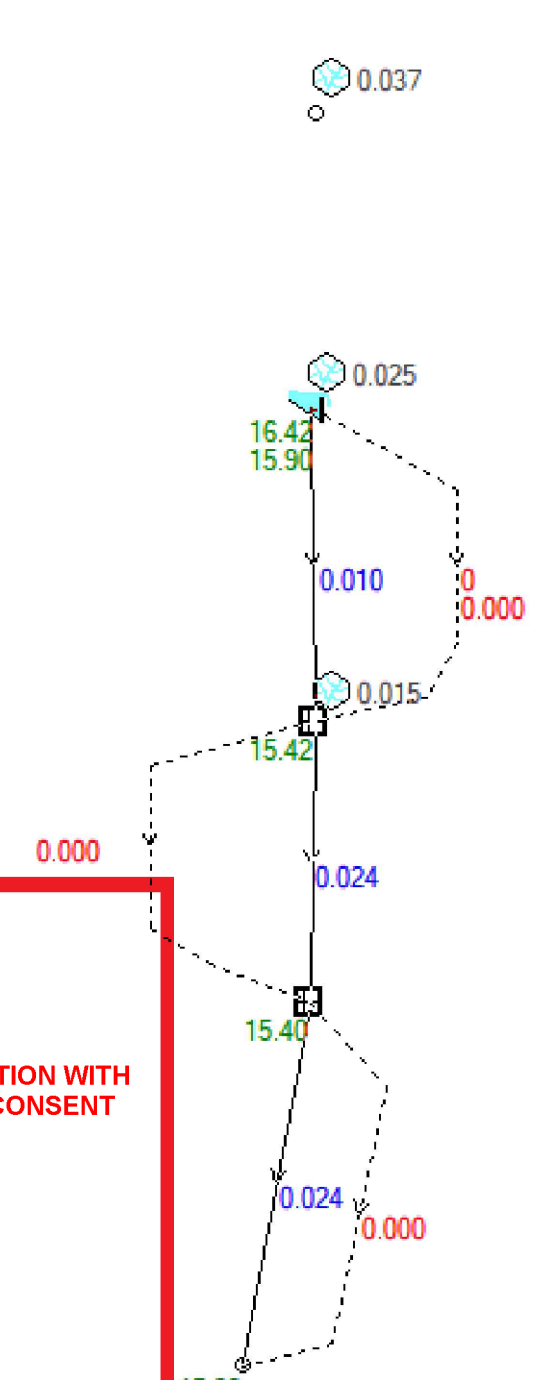
MINOR STORMS(10 YEARS ARI)
SCALE NTS



MINOR STORMS(20 YEARS ARI)
SCALE NTS



MAJOR STORMS(50 YEARS ARI)
SCALE NTS



MAJOR STORMS(100 YEARS ARI)
SCALE NTS

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Rev	Description	By	App	Date

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PTY LTD

Project

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Drawing Title

STORMWATER DRAINAGE DETAIL

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Project Number
SH18095

Drawing Number
ST03

Revision
F

Engineer
SH

Drawn
IN

Date
SEP 2018

Scale
1:100 A1



Project Number	Drawing Number	Revision
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SH	IN	
Date	Scale	
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