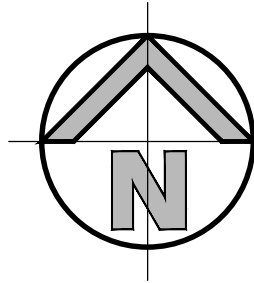


SUMMIT CARE
11-19 FRENCHMANS ROAD, RANDWICK NSW
DA - CIVIL ENGINEERING WORKS

GENERAL NOTES:

1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH RANDWICK CITY COUNCIL'S SPECIFICATION. CONTRACTOR TO OBTAIN AND RETAIN A COPY ON SITE DURING THE COURSE OF THE WORKS.
2. ALL NEW WORKS ARE TO MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS, AND MARRY IN A 'WORKMANLIKE' MANNER.
3. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL SERVICES WITH EACH RELEVANT AUTHORITY. ANY DAMAGE TO SERVICES SHALL BE RECTIFIED BY THE CONTRACTOR OR THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE. SERVICES SHOWN ON THESE PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY OR AS DETERMINED FROM SERVICE DIAGRAMS. HENRY AND HYMAS CONSULTING PTY. LTD. CANNOT GUARANTEE THE INFORMATION SHOWN NOR ACCEPT ANY RESPONSIBILITY FOR INACCURACIES OR INCOMPLETE DATA.
4. SERVICES & ACCESSSES TO THE EXISTING PROPERTIES ARE TO BE MAINTAINED IN WORKING ORDER AT ALL TIMES DURING CONSTRUCTION.
5. ADJUST EXISTING SERVICE COVERS TO SUIT NEW FINISHED LEVELS TO RELEVANT AUTHORITY REQUIREMENTS WHERE NECESSARY.
6. REINSTATE AND STABILISE ALL DISTURBED LANDSCAPED AREAS.
7. MINIMUM GRADE OF SUBSOIL SHALL BE 0.5% (1:200) FALL TO OUTLETS.
8. ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS, EROSION AND SEDIMENTATION CONTROL PLAN AND RANDWICK CITY COUNCIL'S REQUIREMENTS WHERE APPLICABLE.
9. CONTRACTOR TO CHECK AND CONFIRM SITE DRAINAGE CONNECTIONS ACROSS THE VERGE PRIOR TO COMMENCEMENT OF SITE DRAINAGE WORKS.
10. PROPERTIES AFFECTED BY THE WORKS ARE TO BE NOTIFIED IN ADVANCE WHERE DISRUPTION TO EXISTING ACCESS IS LIKELY.



LOCALITY SKETCH

EXISTING SERVICES & FEATURES

- THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL (IF REQUIRED) OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA OR AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT.
- THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.
- PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN APPROVAL OF HIS PROGRAM FOR THE RELOCATION/ CONSTRUCTION OF TEMPORARY SERVICES.
- CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN SUPPLY TO EXISTING BUILDING'S REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED, THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.
- INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE PRINCIPAL. CONTRACTOR TO GAIN APPROVAL FROM THE SUPERINTENDENT FOR TIME OF INTERRUPTION.
- EXISTING SERVICES, BUILDINGS, EXTERNAL STRUCTURES AND TREES SHOWN ON THESE DRAWINGS ARE EXISTING FEATURES PRIOR TO ANY DEMOLITION WORKS.
- EXISTING SERVICES UNLESS SHOWN ON SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE A DIAL BEFORE YOU DIG SEARCH AND TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN 800 uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.

SUBGRADE PREPARATION - SITEWORKS.

1. THE EXISTING SURFACE IS TO BE STRIPPED OF ANY PAVEMENTS, TOPSOIL OR OBVIOUS UNSUITABLE MATERIAL.
2. EXCAVATE TO ACHIEVE SUBGRADE LEVELS WHERE NECESSARY.
3. THE EXPOSED SUBGRADE AFTER STRIPPING AND/OR EXCAVATION IS TO BE PROOF ROLLED USING NOT FEWER THAN 5 PASSES OF A MINIMUM 8 TONNE DEAD WEIGHT STEEL SMOOTH-DRUM ROLLER UNDER THE SUPERVISION OF AN EXPERIENCED GEOTECHNICAL ENGINEER OR AN EXPERIENCED CIVIL ENGINEER. ANY AREAS ON THE SUBGRADE EXHIBITING EXCESSIVE DEFLECTION / MOVEMENT UNDER ROLLER TO BE EXCAVATED TO A MIN. DEPTH OF 0.5m AND REPLACED WITH APPROVED GRANULAR MATERIAL COMPACTED IN 250mm LOOSE LAYERS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
4. ENGINEERED FILL FOR REPLACEMENT OF SOFT OR HEAVING AREAS OR FOR BULK FILLING TO COMPRISE ESSENTIALLY OF GRANULAR MATERIALS (EG. EXCAVATED SHALE), WITH A PARTICLE SIZE NOT GREATER THAN 75mm DIAMETER. ENGINEERED FILL TO BE PLACED IN LAYERS NOT EXCEEDING 250mm LOOSE THICKNESS AND COMPACTED TO BETWEEN 98% AND 102% OF STANDARD MAXIMUM DRY DENSITY (SMD) WITHIN $\pm 2\%$ OF OPTIMUM MOISTURE CONTENT (OMC).
5. IMPORTED FILLING (IF REQUIRED) IS TO BE TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR IS TO NOMINATE THE SOURCE AND PROVIDE A SAMPLE FOR APPROVAL PRIOR TO IMPORTATION AND PLACEMENT ON SITE.
6. ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING.
 FREE FORM ORGANIC AND PERISHABLE MATTER
 MAXIMUM PARTICLE SIZE = 75mm
 MAXIMUM PLASTICITY INDEX = 15%

SITEWORKS NOTES

- DATUM A.H.D.
- ORIGIN OF LEVELS. REFER TO BENCH OR STATE SURVEY MARKS WHERE SHOWN ON PLAN.
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
- ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS & THE DIRECTIONS OF THE SUPERINTENDENT.
- EXISTING SERVICES UNLESS SHOWN ON SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS ACHIEVED.
- THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
- CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO BE UNDERTAKEN OVER TELSTRA OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- CONTRACTOR TO OBTAIN AUTHORITY APPROVALS WHERE APPLICABLE.
- MAKE SMOOTH TRANSITION TO EXISTING SURFACES AND MAKE GOOD.
- THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED LANDSCAPE, ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATIONS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING TO DEVELOPMENT AT THE SITE.
- TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50mm IN BITUMINOUS PAVING.
- ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN 800 uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.
- GRADES TO PAVEMENTS TO BE AS IMPLIED BY RL'S ON PLAN. GRADE EVENLY BETWEEN NOMINATED RL'S. AREAS EXHIBITING PONDING GREATER THAN 5mm DEPTH WILL NOT BE ACCEPTED/ UNLESS IN A DESIGNATED SAG POINT.
- ALL COVERS AND GRATES ETC TO EXISTING SERVICE UTILITIES ARE TO BE ADJUSTED TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE

SUBSOIL DRAINAGE NOTES

1. GENERAL PROVIDE SUBSOIL DRAINS TO INTERCEPT GROUNDWATER SEEPAGE AND PREVENT WATER BUILD-UP BEHIND WALLS AND UNDER FLOORS AND PAVEMENT. CONNECT SUBSOIL TO SURFACE DRAINS OR TO THE STORMWATER DRAINAGE SYSTEM AS APPLICABLE.
2. PIPE DEPTH:
PROVIDE THE FOLLOWING MINIMUM CLEAR DEPTH, MEASURED TO THE CROWN OF THE PIPE, WHERE THE PIPE PASSES BELOW THE FOLLOWING ELEMENTS:
 - 100mm BELOW FORMATION LEVEL OF THE PAVEMENT, KERB OR CHANNEL.
 - 100mm BELOW THE AVERAGE GRADIENT OF THE BOTTOM OF FOOTINGS.
3. JOINTING:
AT JUNCTIONS OF SUBSOIL PIPES PROVIDE TEES, COUPLINGS OR ADAPTORS TO AS2439.1.
4. TRENCH WIDTH MINIMUM 300mm
5. PIPE UNDERLAY
GENERAL: GRADE THE TRENCH FLOOR EVENLY TO THE GRADIENT OF THE PIPELINE. IF THE TRENCH FLOOR IS ROCK, CORRECT ANY IRREGULARITIES WITH COMPACTED BEDDING MATERIAL. BED PIPING ON A CONTINUOUS UNDERLAY OF BEDDING MATERIAL, AT LEAST 75mm THICK AFTER COMPACTION. LAY THE PIPE WITH ONE LINE OF PERFORATIONS AT THE BOTTOM.

CHASES: IF NECESSARY TO PREVENT PROJECTIONS SUCH AS SOCKETS AND FLANGES FROM BEARING ON THE TRENCH BOTTOM OR UNDERLAY.
6. PIPE SURROUNDS:
GENERAL: PLACE THE MATERIAL IN THE PIPE SURROUND IN LAYERS SMALLER THAN OR EQUAL TO 200mm LOOSE THICKNESS, AND COMPACT WITHOUT DAMAGING OR DISPLACING PIPING.
DEPTH OF OVERLAY: TO THE UNDERSIDE OF THE BASE OF OVERLYING STRUCTURES SUCH AS PAVEMENTS, SLABS AND CHANNELS. TO WITHIN 150mm OF THE FINISHED SURFACE OF UNPAVED OR LANDSCAPED AREAS.
7. FILTER SOCKS PROVIDE POLYESTER PERMEABLE SOCKS CAPABLE OF RETAINING PARTICLES OF 0.25mm SIZES. SECURELY FIT OF JOIN THE SOCK AT EACH JOINT.

SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE SURVEYOR SPECIFIED IN THE TITLE BLOCK.

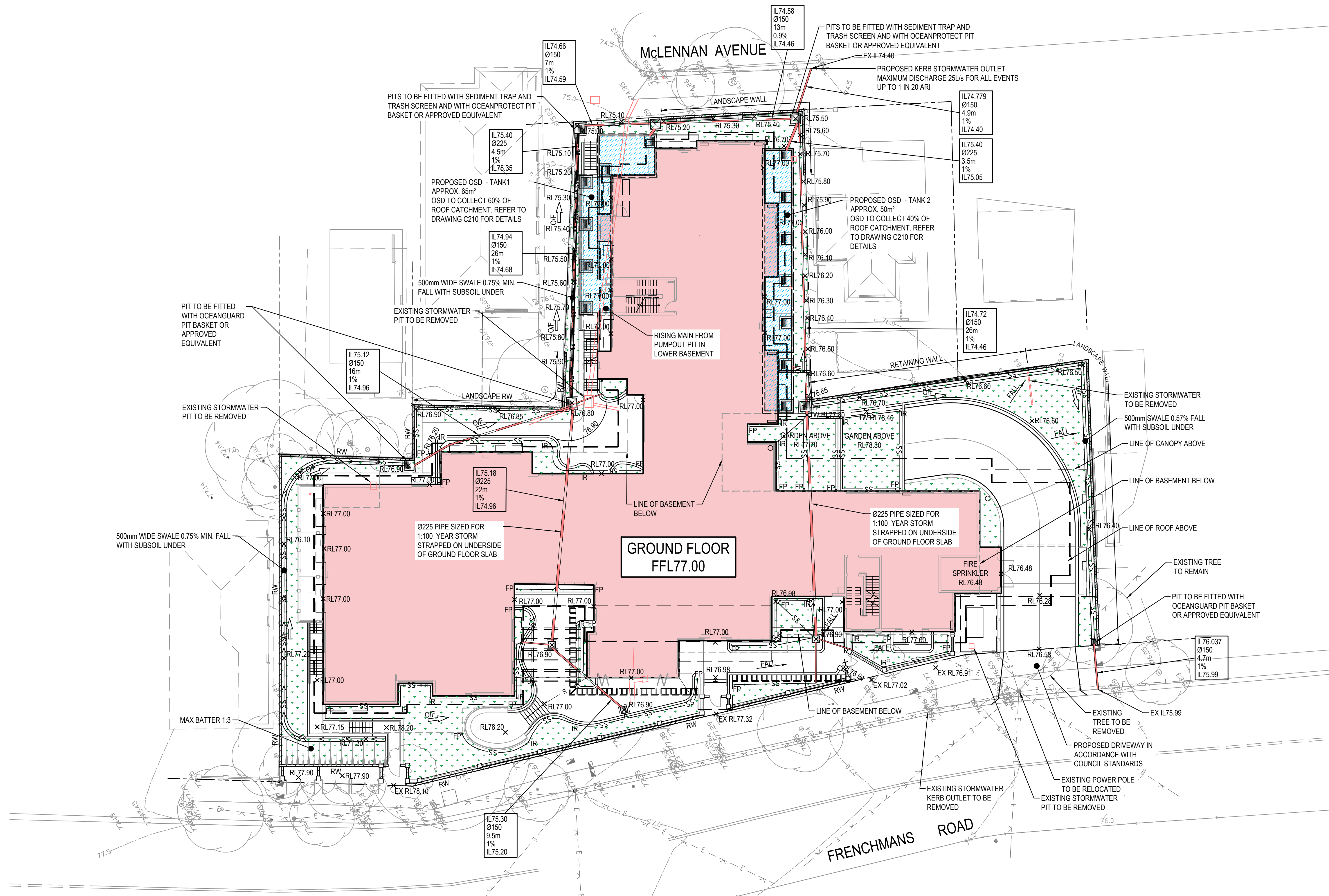
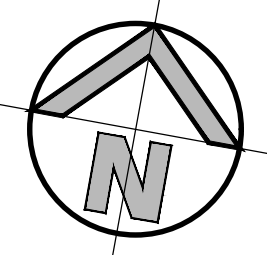
THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. HENRY AND HYMAS PTY. LTD. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT HENRY AND HYMAS PTY. LTD. THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM ORIGINAL SURVEY DOCUMENTS.

DATUM A.H.D.

FOR DA ONLY

[illegible]



LEGEND

- EXISTING BOUNDARY
- - - ROOF ABOVE
- - - BUILDING BELOW (BASEMENT)
- - - EXISTING ELECTRICAL OVERHEAD LINE
- R - PROPOSED RIDGE LINE
- EXISTING STORMWATER
- PROPOSED DISH DRAIN
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED STORMWATER PIPE
- PROPOSED SPOT LEVEL
- PROPOSED RETAINING WALL
- PROPOSED LANDSCAPE WALL
- PROPOSED SUBSOIL LINE
- PROPOSED FLUSHING POINT
- PROPOSED INTERMEDIATE RISER
- PROPOSED BATTER LINE

IL74.72
Ø150
26m
1%
IL74.46

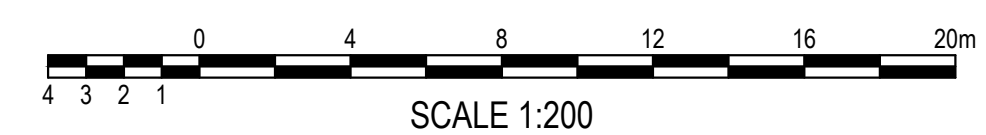
- STORMWATER UPSTREAM INVERT RL
- STORMWATER PIPE DIAMETER & CLASS
- STORMWATER PIPE LENGTH
- STORMWATER PIPE GRADE
- STORMWATER DOWNSTREAM INVERT RL

NOTE:
ALL STORMWATER PITS TO HAVE Ø100 UPVC SLOTTED SUBSOIL PIPES CONNECTED TO THEM. THESE SUBSOIL TO EXTEND 3m UPSTREAM OF THE PIT AT A MINIMUM GRADE.

NOTE:
SERVICES SHOWN ON THIS DRAWING ARE DEPICTED FROM SERVICES SEARCH PLANS AND CAN NOT BE GUARANTEED. THE EXACT DEPTH AND LOCATION OF ALL IN-GROUND UTILITIES TO BE DETERMINED BY POT HOLING OR CABLE SEARCH.

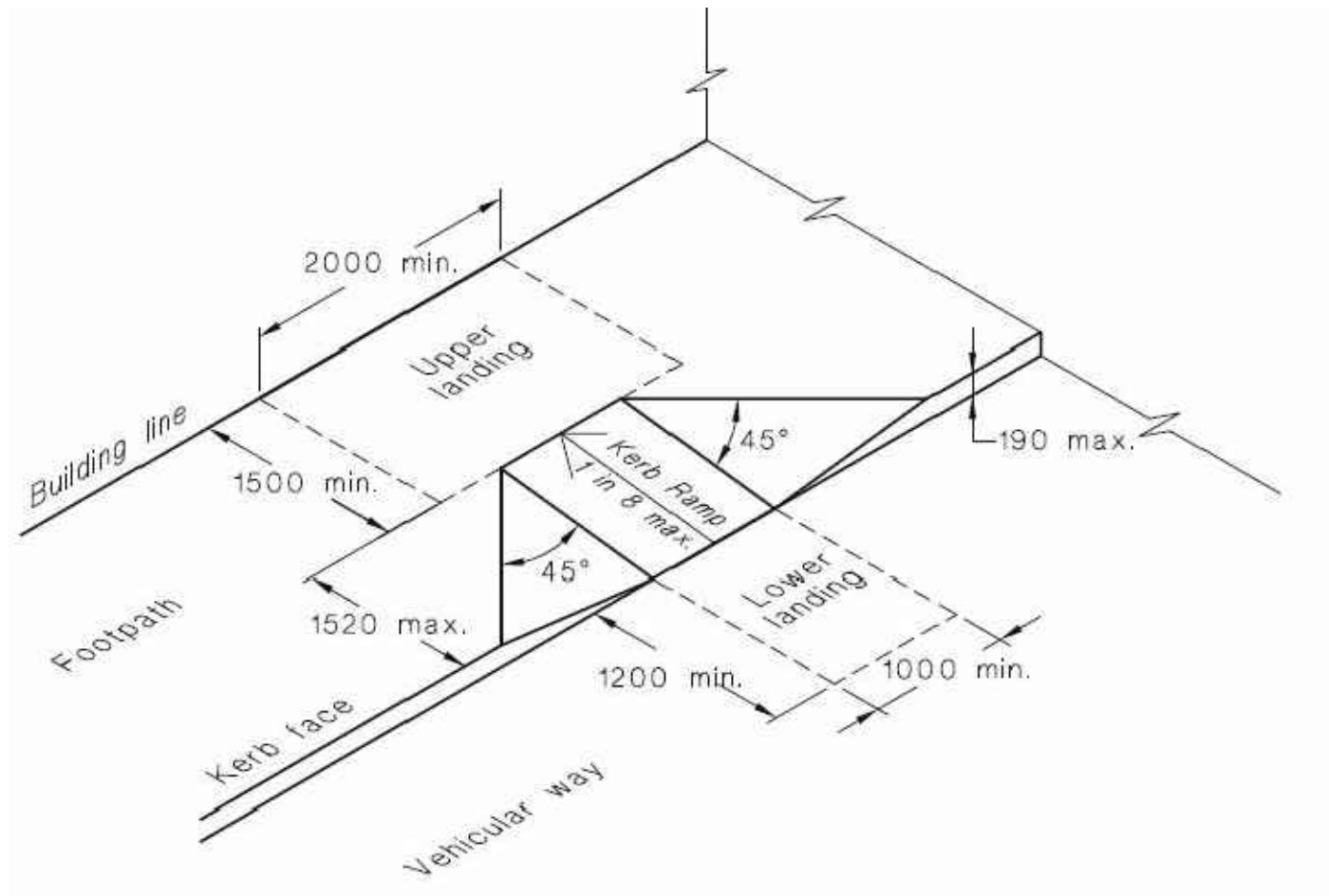
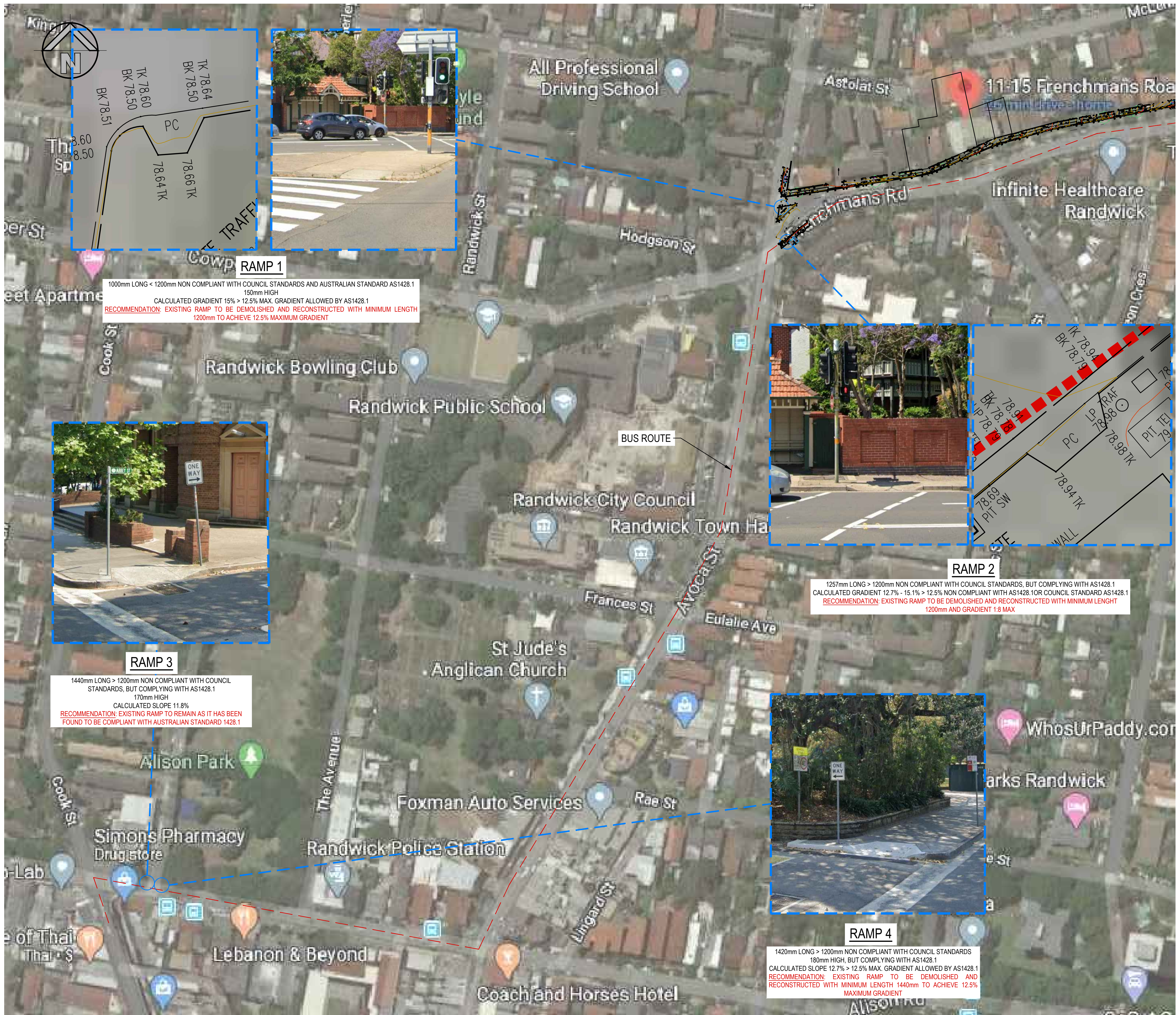
NOTE:
CONTRACTOR TO INVESTIGATE PRESENCE OF EXISTING UTILITIES, SIZE AND DEPTH OF ALL IN-GROUND UTILITIES, PRIOR TO CONSTRUCTION. SERVICES SHOWN ON THIS DRAWING DEPICTED FROM SERVICES SEARCH PLANS AND CANNOT BE GUARANTEED.

**GENERAL ARRANGEMENT PLAN
GROUND FLOOR**
SCALE 1:200

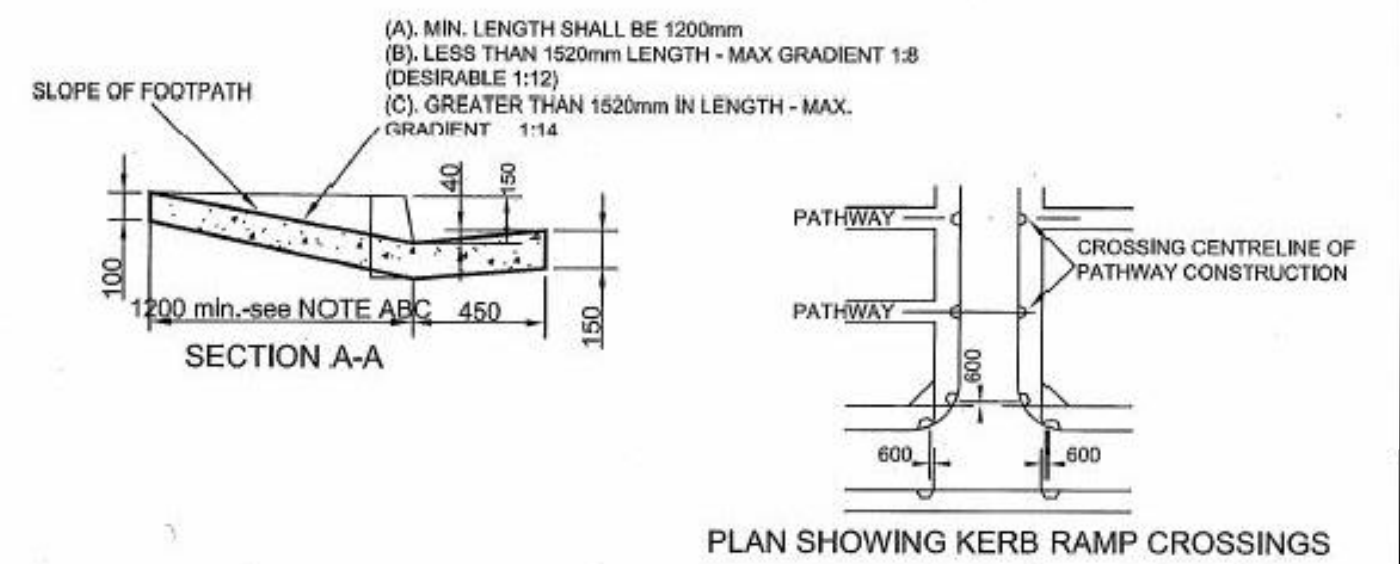
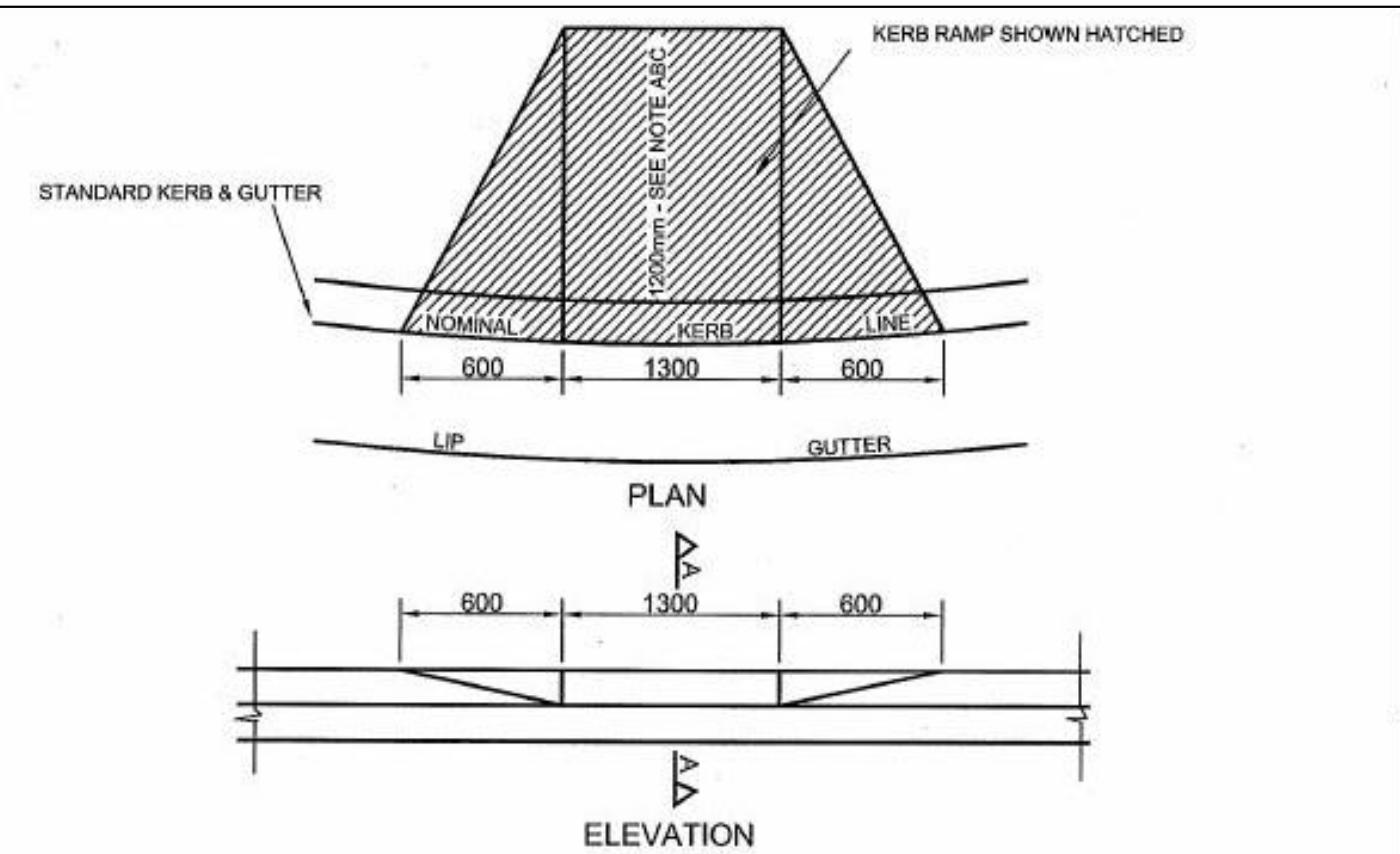


FOR DA ONLY

SURVEY INFORMATION SURVEYED BY CONSULTING SURVEYORS DENNY LINKER & CO. DATUM: A.H.D.				Client FRENCHMANS LODGE PROPERTIES PTY LTD				Level 5, 79 Victoria Avenue Chotswood NSW 2067 Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hconsult.com.au Web www.henryandhymas.com.au				Project SUMMIT CARE 11-19 FRENCHMANS ROAD, RANDWICK NSW				Drawn K.Rom Designed L.Villa Checked T.Rozehnal Approved A.Francis				Date SEP 2019 Scale (B1) 1:200			
03 ISSUED FOR DA				Architect BOFFA ROBERTSON GROUP				Title GENERAL ARRANGEMENT PLAN GROUND FLOOR				Drawing number 19826_DA_C100				Revision 03							
02 ISSUED FOR DA				This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.																			
01 PRELIMINARY ISSUE																							
REVISION				AMENDMENT				DRAWN				DESIGNED				DATE				REVISION			
JK				LV				28.08.2020															
KR				LV				16.07.2020															
KR				LV				05.12.2019															



AUSTRALIAN STANDARD A1428.1 KERB RAMP
SCALE: NTS



NOTES:
1. KERB RAMP SHOULD BE PROVIDED AT APPROVED SITES ON CORNERS OF STREET INTERSECTIONS AND AT ESTABLISHED PEDESTRIAN CROSSINGS BETWEEN STREET INTERSECTIONS.
2. THE NUMBER AND POSITIONS OF RAMP IS TO BE DETERMINED AFTER CONSIDERATION OF THE GENERAL MOVEMENT OF PEDESTRIANS. THE LOCATION OF MARKED FOOT CROSSINGS, AND THE POSITION OF ANY EXISTING OBSTACLES SUCH AS TRAFFIC SIGNALS, GULLY PITS, ETC. THE LOCATION OF KERB RAMP SHOULD BE CAREFULLY PLANNED TO ENSURE THAT USERS ARE NOT PUT AT RISK FROM TRAFFIC OF ANY KIND, BEARING IN MIND THAT THE DISABLED PERSON'S REACTION TIME MAY BE GREATER THAN THAT OF PERSONS HAVING FULL MOBILITY.
3. KERB RAMP SHOULD BE INSTALLED IN THE KERB IN A MANNER WHICH WILL DIRECT THE USER ACROSS THE ADJACENT ROADWAY BY THE MOST DIRECT ROUTE.
4. KERB RAMP TO BE LAID ON WELL COMPACTED FINE CRUSHED ROCK BASE MINIMUM THICKNESS 50mm.
5. CONCRETE TO BE OF 32MPa COMPRESSIVE STRENGTH AT 28 DAYS.

DRAWN BY	NMcFall	CHECKED	J Ingegneri	CITY OF RANDWICK	SCALE:
DESIGNED	NMcFall	APPROVED	M Shaw	STANDARD KERB RAMP CROSSINGS	NTS
DATE	28/01/10	ENGINEER			SD5

COUNCIL STANDARD DETAIL
SCALE: NTS

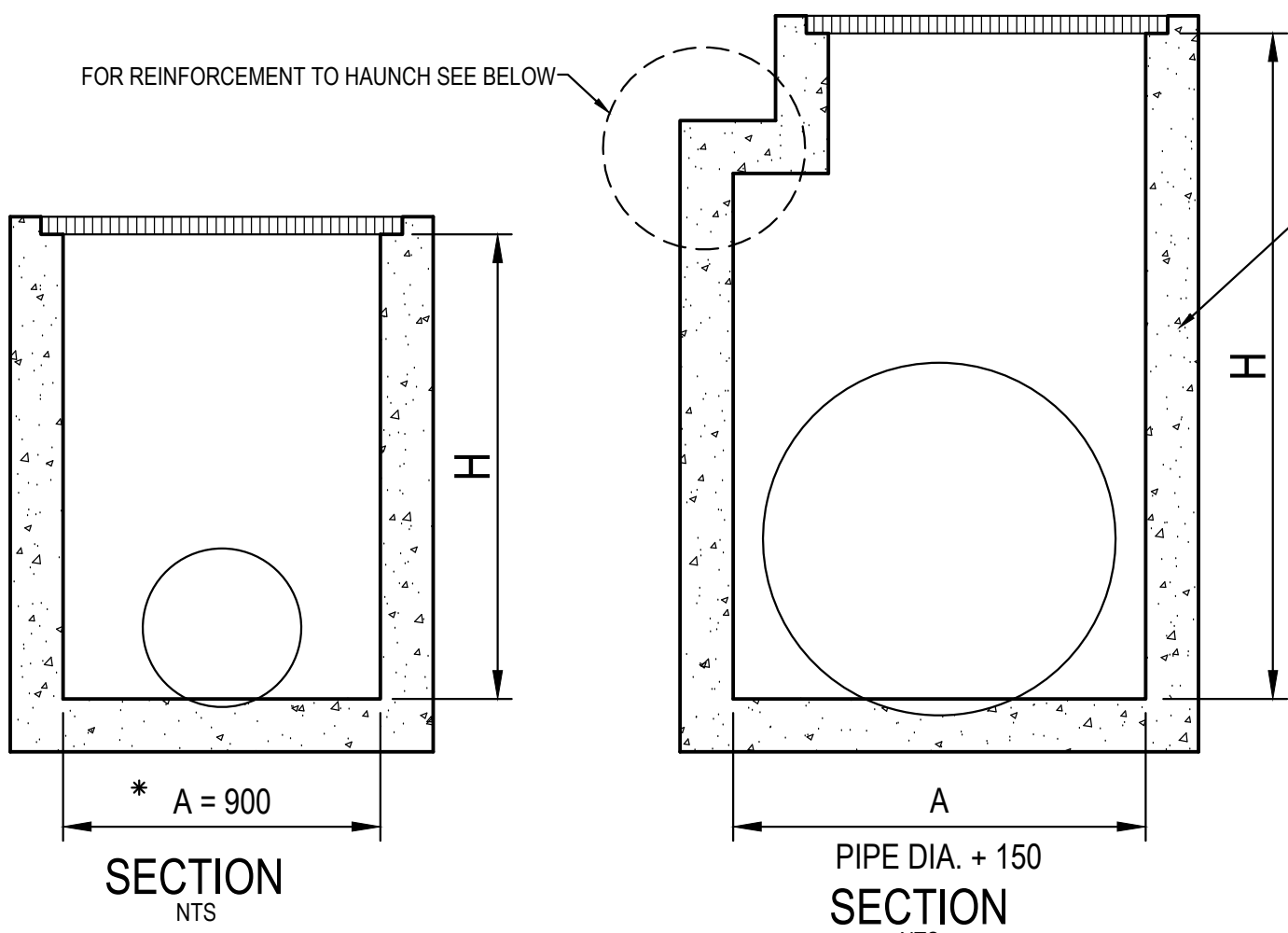
SKETCH

SURVEY INFORMATION SURVEYED BY CONSULTING SURVEYORS DENNY LINKER & CO. DATUM: A.H.D.										Client FRENCHMANS LODGE PROPERTIES PTY LTD Level 5, 79 Victoria Avenue Chatswood NSW 2067 Architect BOFFA ROBERTSON GROUP This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.										Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hconsult.com.au Web www.henryandhymas.com.au 										Project SUMMIT CARE 11-19 FRENCHMANS ROAD, RANDWICK NSW										Drawn J.Knight		Designed L.Villa		Date AUG 2020							
																														Checked B.Seizov		Approved A.Francis		Scale @A1 1:200		Revision															
																														Title SECTION 138 EXTERNAL WORKS										Drawing number 19826_DA_C103										Revision 03	
																														REVISION AMENDMENT DRAWN DESIGNED DATE REVISION AMENDMENT DRAWN DESIGNED DATE										03 SKETCH JK LV 10.11.2020										02 SKETCH JK LV 25.08.2020	

TYPICAL PIT CHAMBER SIZES

IT IS THE CONTRACTORS RESPONSIBILITY TO SELECT PIT CHAMBER SIZE WITH REGARDS TO PIPE SIZE, DEPTH TO INVERT AND SKEW ANGLE. REFER SKETCHES BELOW.

1. SELECT PIT CHAMBER USING THE STEPS BELOW:
2. SELECT PIT CHAMBER SIZE DEPENDING ON THE PIPE DIAMETERS.
3. CHECK PIT CHAMBER SIZE TO SATISFY DEPTH TO INVERT REQUIREMENTS.
4. CHECK PIT CHAMBER DIMENSIONS TO SATISFY THE SKEW ANGLE IN THE TABLE.

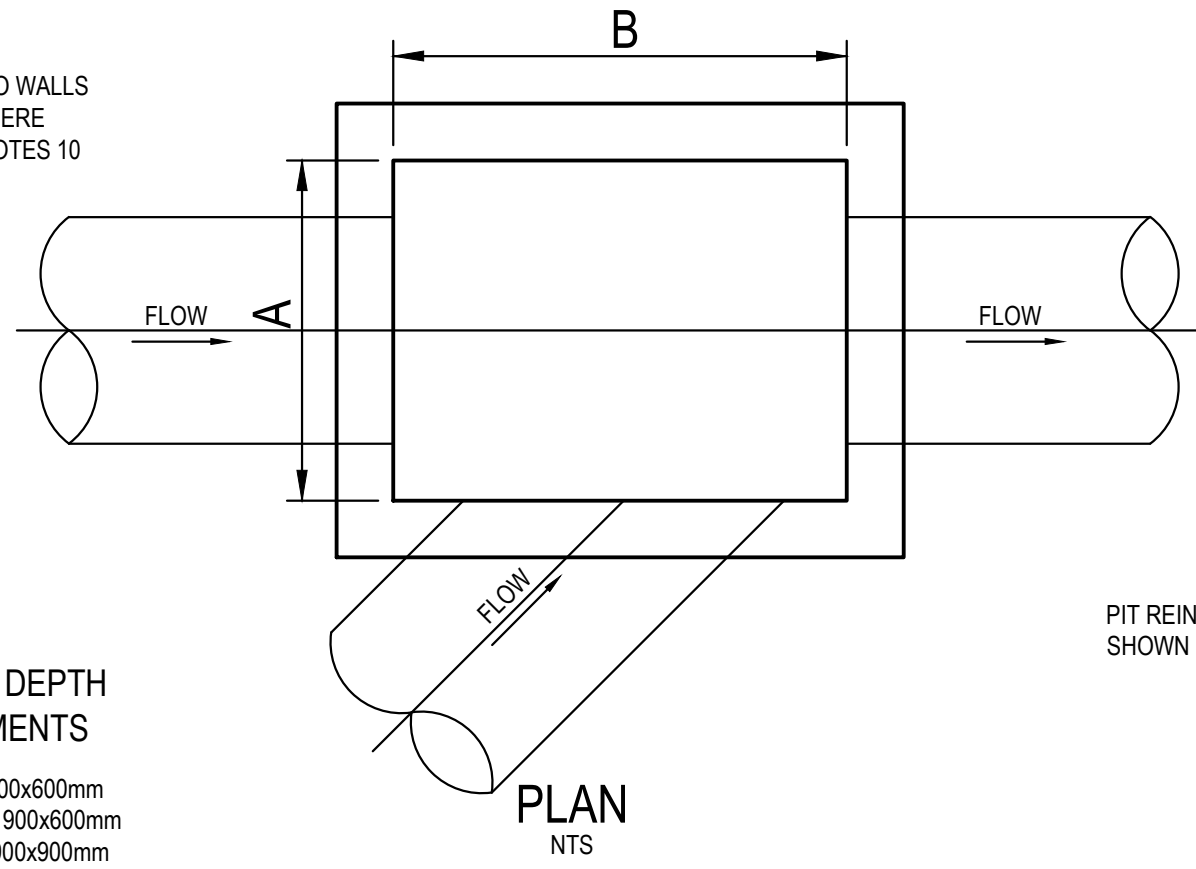


*A = 600 FOR PIPES UP TO 375 DIA.

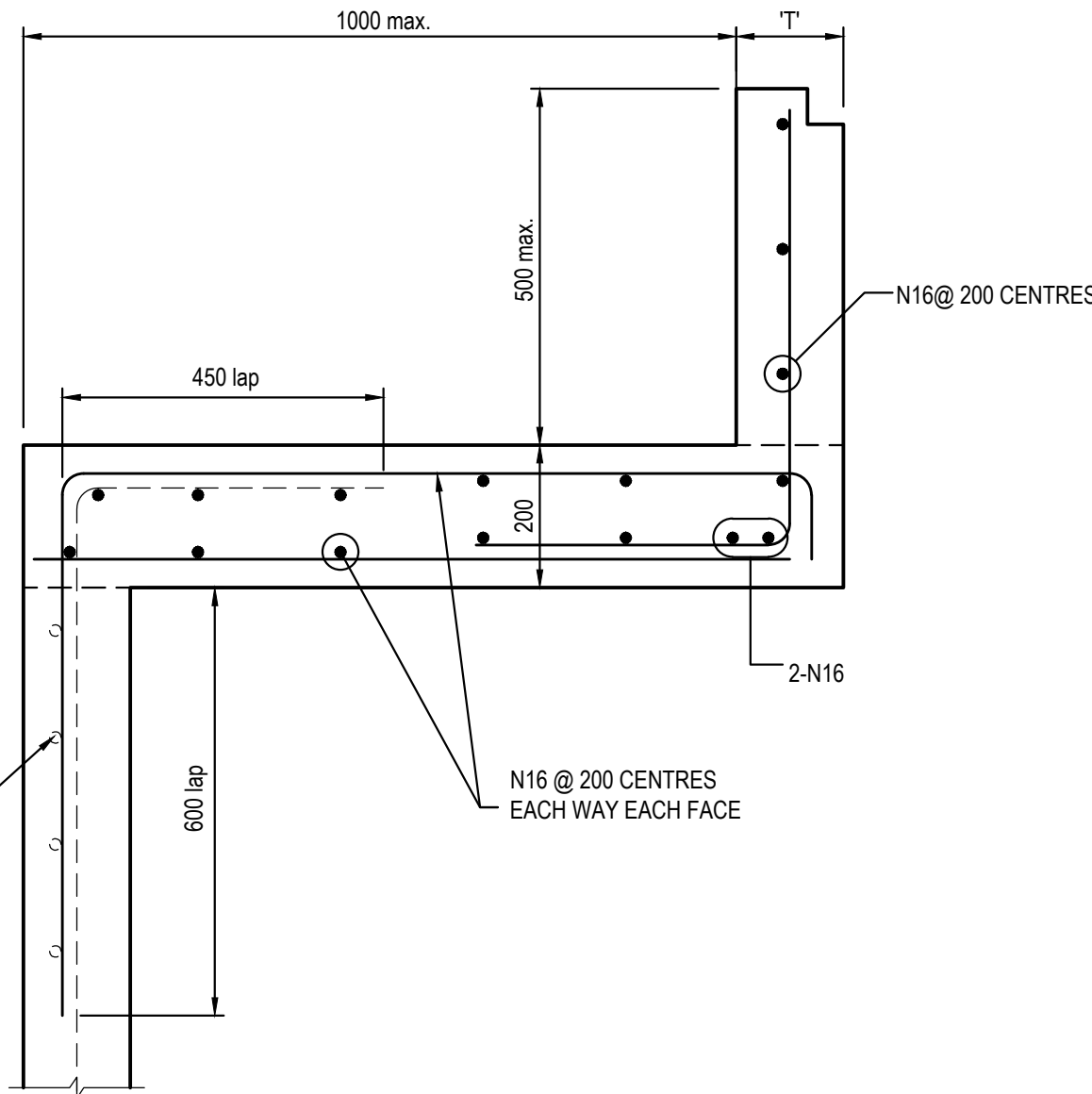
1. PIT CHAMBER DIMENSIONS FOR PIPES UP TO 600 DIA.

1. PIT CHAMBER FOR PIPES GREATER THAN 600 DIA.

FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm
FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm
FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm
FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
FOR B = 1900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm



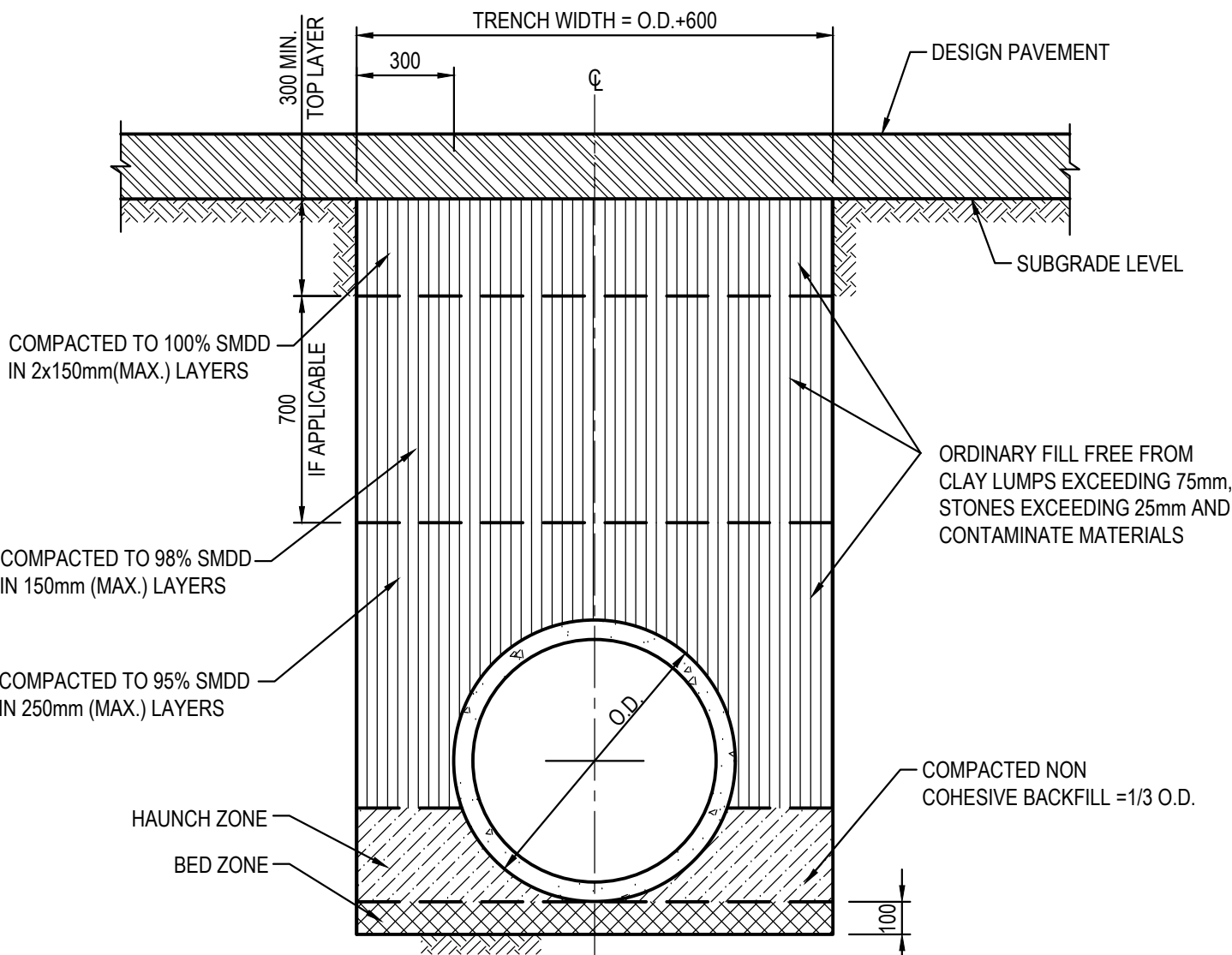
3. PIT CHAMBER FOR SIDE ENTRY ON SKEW



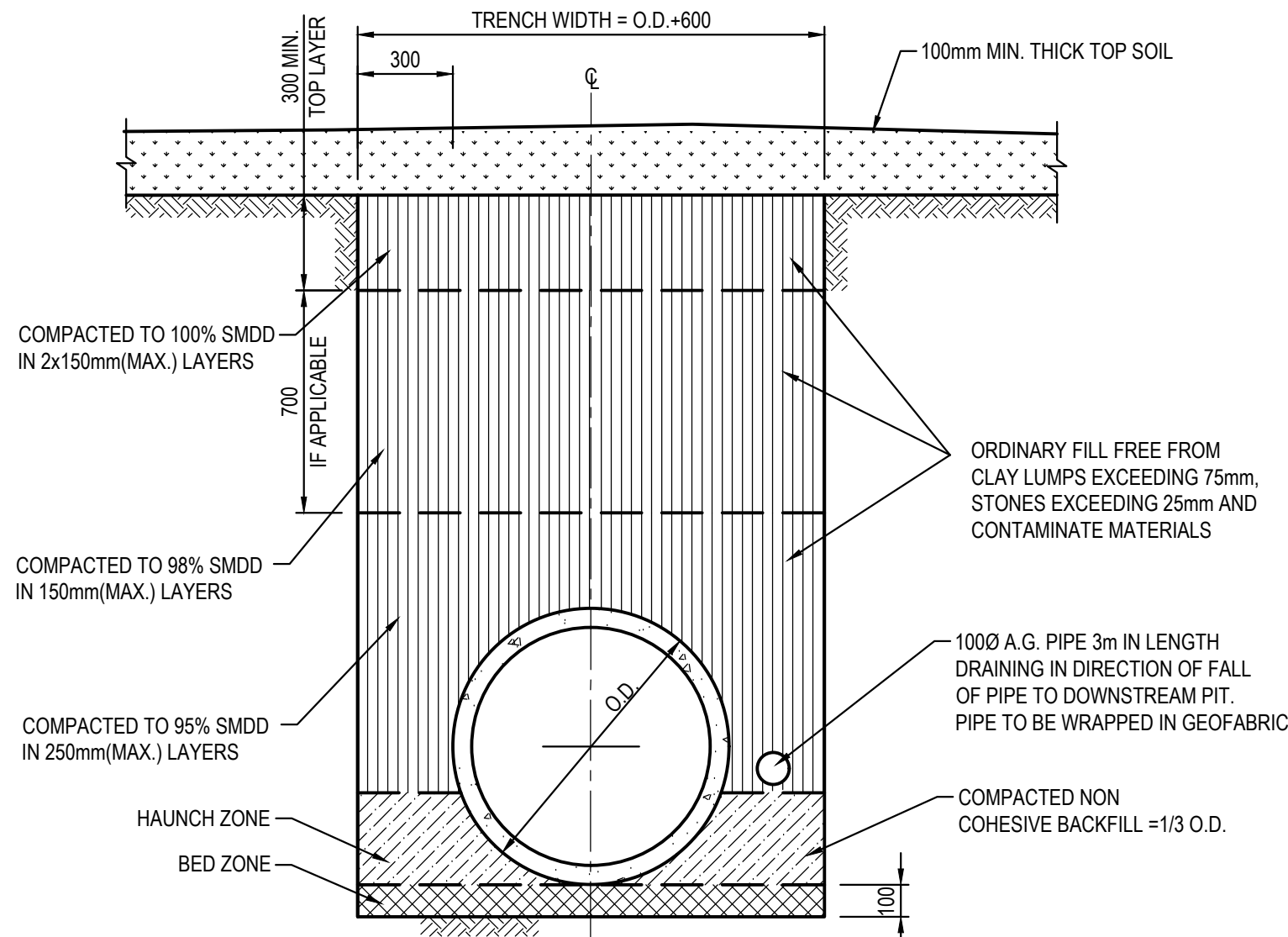
HAUNCH DETAIL -TYPICAL
SCALE 1:10

DRAINAGE NOTES:

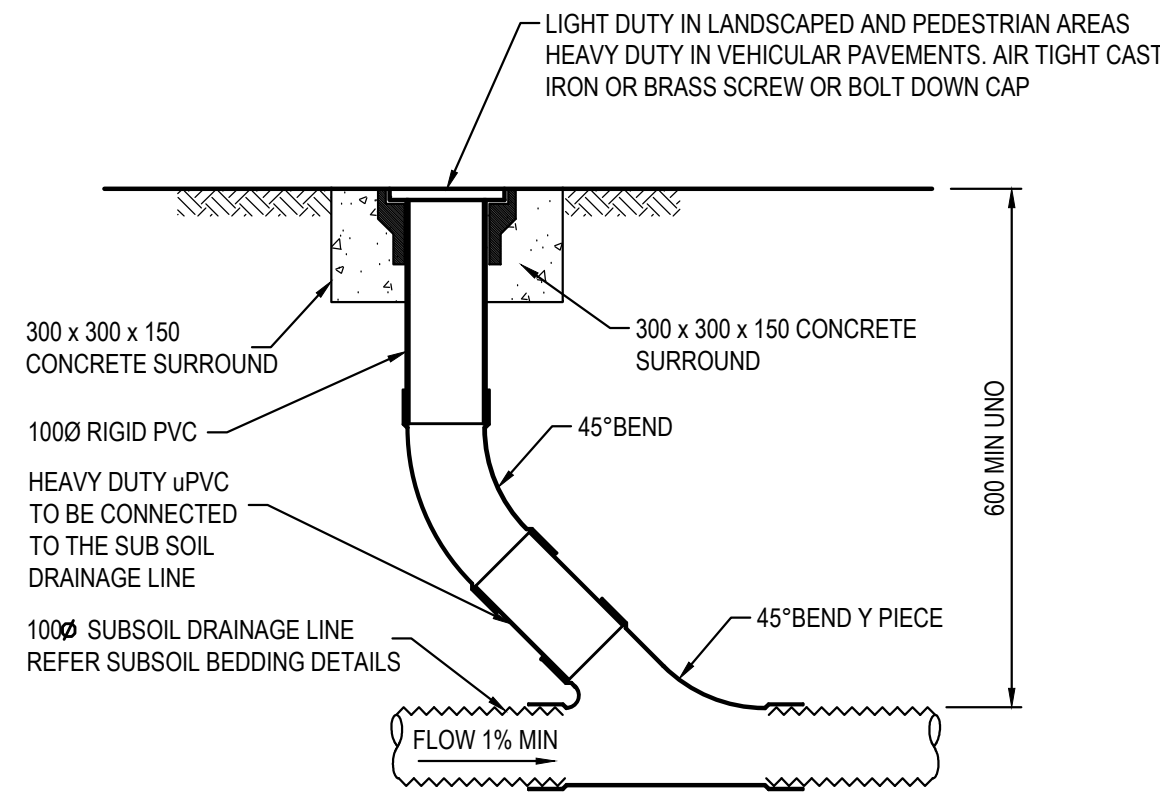
1. ALL STORMWATER WORK TO COMPLY WITH AS 3500 PART 3.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES.
3. PROTECTION OF PIPES DUE TO LOADS EXCEEDING W7 WHEEL LOAD SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
4. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS. REFER TO THIS DRAWING FOR DETAILS.
5. MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.
6. NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.
7. FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.
8. ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SH PIPE TO AS1260. ALL OTHER PIPES TO BE RCP USING CLASS 2 RUBBER RING JOINTED PIPE. HARDIES FRC PIPE MAY BE USED IN LIEU OF RCP IF DESIRED IN GROUND. ALL AERIAL PIPES TO BE PVC CLASS SH.
9. ALL PITS IN NON TRAFFICABLE AREAS TO BE PREFABRICATED POLYESTER CONCRETE 'POLYCRETE' WITH 'LIGHT DUTY' CLASS B GALV. MILD STEEL GRATING AND FRAME. ALL PITS IN TRAFFICABLE AREAS (CLASS 'D' LOADING MAX) TO HAVE 150mm THICK CONCRETE WALLS AND BASE CAST IN-SITU $f_c=32$ MPa, REINFORCED WITH N12-200 BOTH LOADING WAYS CENTRALLY PLACE U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. GALV. MILD STEEL GRATING AND FRAME TO SUIT DESIGN LOADING. PRECAST PITS, RECTANGULAR OR CIRCULAR IN SHAPE, MAY BE USED IN LIEU AND SHALL COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.
10. ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3996.
11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:
 - PIPE SIZE
 - DEPTH TO INVERT
 - SKEW ANGLEREFER TYPICAL PIT CHAMBER DETAILS BELOW
IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.
12. FOR PIPE SIZES GREATER THAN Ø300mm, PIT FLOOR IS TO BE BENCHED TO FACILITATE FLOW.
13. GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES. (MINIMUM LENGTH 3m).
14. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK, UNO, WITH 3m INSTALLED UPSTREAM OF ALL PITS.
15. ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.
16. MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.
17. ALL PIPE JUNCTIONS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.
18. ALL ROOF DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH AS3500, PART 3. TESTING TO BE UNDERTAKEN AND REPORTS PROVIDED TO THE SUPERINTENDENT.
19. LOCATION OF THE DIRECT DOWN PIPE CONNECTIONS MAY VARY ON SITE TO SUIT SITE CONDITIONS, WHERE CONNECTION SHOWN ON LONG SECTIONS CHAINAGES ARE INDICATIVE ONLY.
20. PITS IN EXCESS OF 1.5 m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12@200 CTS CENTRALLY PLACED BOTH WAYS THROUGHOUT U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. IF DEPTH EXCEEDS 5m CONTACT ENGINEER.
21. SUBSOIL DRAINAGE LINES FOR LANDSCAPE AREA NOT SHOWN ON THESE DRAWINGS. REFER TO LANDSCAPING PLANS FOR DETAILS.
22. ALL STORMWATER PITS TO HAVE Ø100 uPVC SLOTTED SUBSOIL PIPES CONNECTED TO THEM. THESE SUBSOILS TO EXTEND 3m UPSTREAM OF THE PIT AT A MINIMUM GRADE.



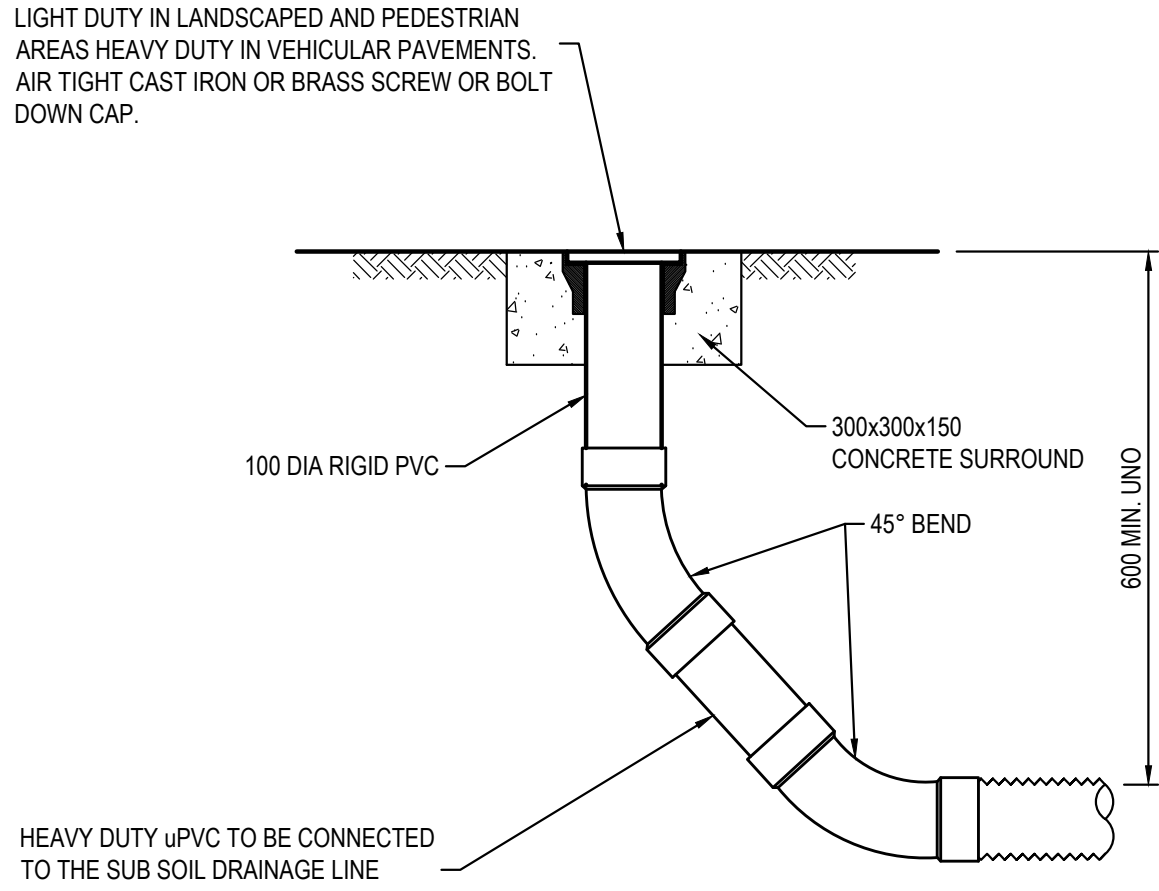
PIPE TRENCH INSTALLATION
BENEATH PAVEMENT
(H1 & H2 SUPPORT)
SCALE 1:20



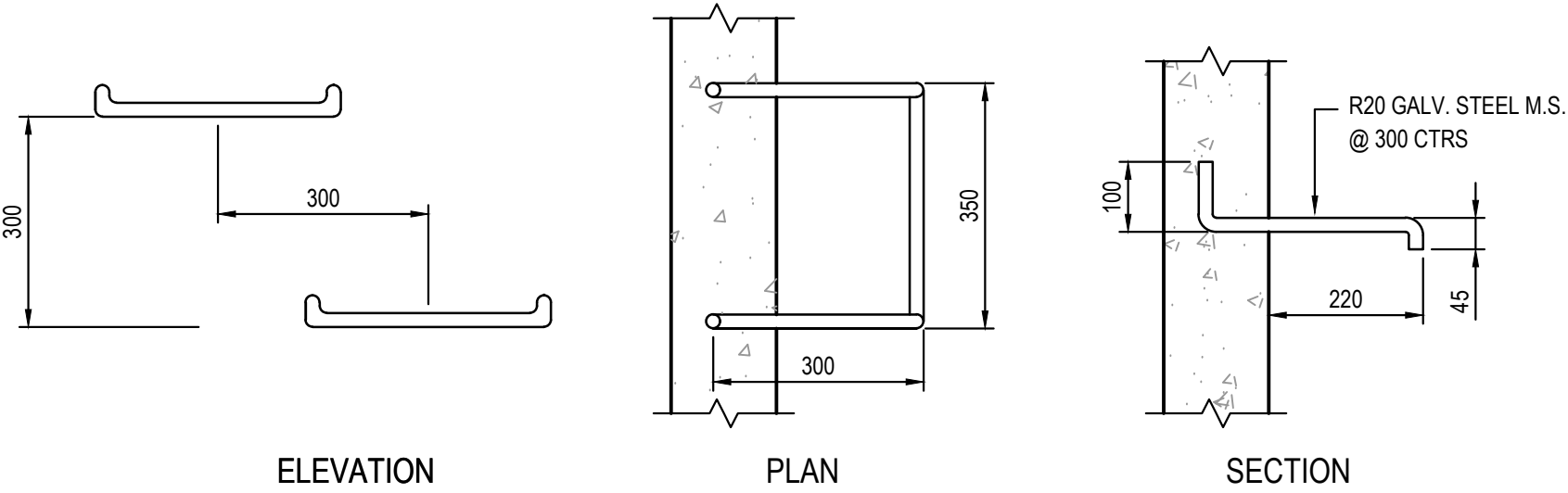
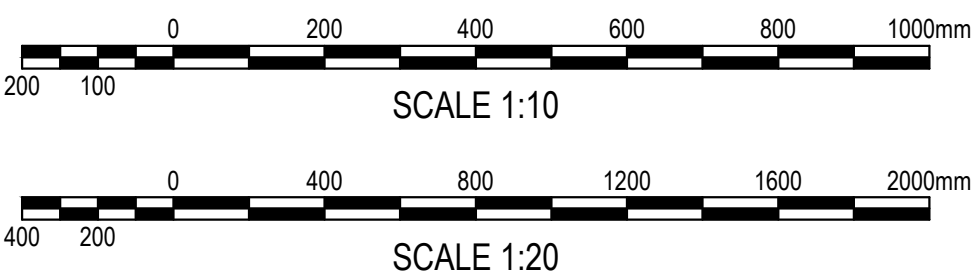
PIPE TRENCH INSTALLATION
IN LANDSCAPE AREAS
(H1 & H2 SUPPORT)
SCALE 1:20



INTERMEDIATE RISER (IR)
SCALE 1:10
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



FLUSHING POINT (FP)
SCALE 1:10
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



TYPICAL STEP IRON DETAIL
SCALE 1:10

FOR DA ONLY

SURVEY
INFORMATION
SURVEYED BY
CONSULTING SURVEYORS
DENNY LINKER & CO.
DATUM: A.H.D.

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
02	PRELIMINARY ISSUE	JK	LV	18.07.2020					
01	PRELIMINARY ISSUE	KR	LV	05.12.2019					

Client	FRENCHMANS LODGE PROPERTIES PTY LTD
Architect	BOFFA ROBERTSON GROUP
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Project	SUMMIT CARE 11-19 FRENCHMANS ROAD, RANDWICK NSW
Drawn	K.Rom
Designed	L.Villa
Checked	T.Rozehnal
Approved	A.Francis
Title	STORMWATER MISCELLANEOUS DETAILS

Drawn	K.Rom	Designed	L.Villa	Date	SEP 2019
Checked	T.Rozehnal	Approved	A.Francis	Scale	B/A1
Drawing number				Revision	AS NOTED
19826_DA_C200				02	

TOTAL SITE AREA: 2709 m²
SITE DISCHARGE DIRECTED VIA GRAVITY IN ACCORDANCE WITH
COUNCIL REQUIREMENTS.

A DRAINS MODEL HAS BEEN PREPARED TO DETERMINE THE PRE-DEVELOPMENT AND POST-DEVELOPMENT STORMWATER RUNOFF. THE DEVELOPED STORMWATER RUNOFF HAS BEEN LIMITED TO THE PERMISSIBLE KERB OUTLET SITE DISCHARGE OF 25LS FOR ALL STORM EVENTS UP TO AND INCLUDING 20YEAR ARI, IN ACCORDANCE WITH SECTION 3.1 OF RANDWICK CITY COUNCIL PRIVATE STORMWATER CODE.

PERMISSIBLE SITE DISCHARGE (PSD): 25L/S

YR	POST-DEVELOPMENT (L/S)
5	23
10	25
100	30

THE VOLUME OF ON SITE STORAGE HAS BEEN DETERMINED USING THE MASS CURVE TECHNIQUE AS PER COUNCIL'S GUIDELINES. REFER TO CALCULATION TABLES.

TOTAL ON -SITE DETENTION VOLUME PROVIDED: 110m³

OSD 1 VOLUME: 65 m³

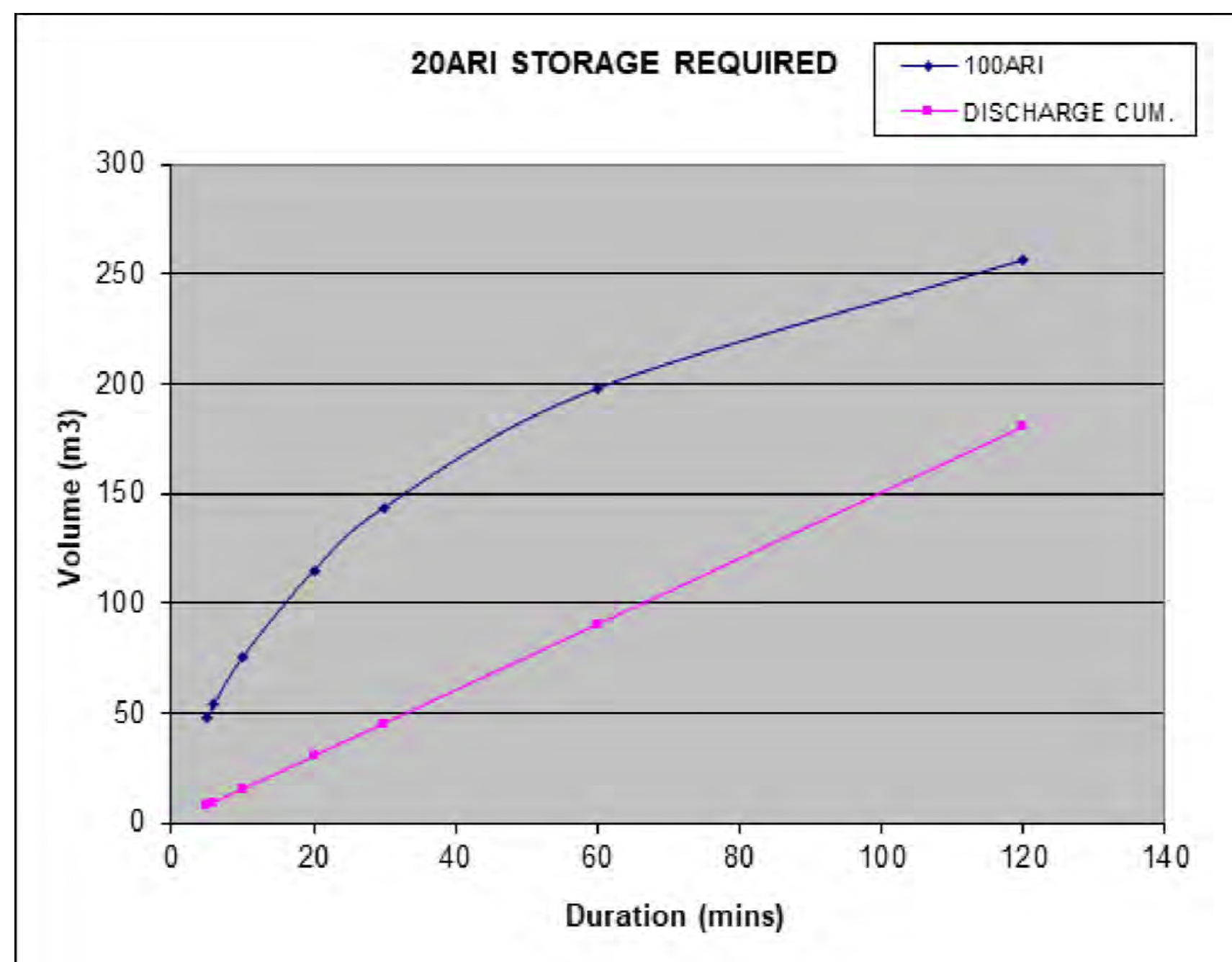
OSD 1 OUTLET CONTROL: Ø60mm ORIFICE

OSD 2 VOLUME: 50 m³

OSD 2 OUTLET CONTROL: Ø60mm ORIFICE

INTENSITY (mm/hr)							
ARI							
DURATION (min)	1	2	5	10	20	50	100
5	106.00	134.00	138.00	187.00	213.00	246.00	271.00
6	98.80	126.00	158.00	176.00	200.00	213.00	254.00
10	80.90	103.00	131.00	146.00	137.00	193.00	214.00
20	59.50	76.50	98.20	111.00	127.00	149.00	165.00
30	48.50	62.60	81.00	91.60	106.00	124.00	138.00
60	32.80	42.40	55.40	63.00	72.90	86.10	96.00
120	21.00	27.30	35.70	40.70	47.20	55.80	62.30
180	16.00	20.70	27.10	30.90	35.90	42.40	47.30
360	9.96	12.90	16.80	19.20	22.20	26.10	29.20
720	6.30	8.14	10.60	12.00	13.90	16.40	18.30
1440	4.09	5.29	6.87	7.79	9.00	10.60	11.80
2880	2.65	3.42	4.44	5.03	5.81	6.83	7.61
4320	1.98	2.55	3.31	3.74	4.31	5.06	5.64

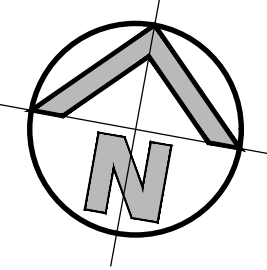
VOLUME IN (m³)						
ARI						
1	2	5	10	20	50	100
23.99133	30.32867	31.23400	42.32433	48.20900	55.67800	61.33633
26.83408	34.22160	42.91280	47.80160	54.32000	57.85080	68.98640
36.62073	46.62467	59.29933	66.08933	75.59533	87.36467	96.87067
53.86733	69.25800	88.90373	100.49200	114.97730	134.89470	149.38000
65.86300	85.01080	109.99800	124.39280	143.94800	168.39200	187.40400
89.08480	115.15840	150.46640	171.10800	197.99640	233.84760	260.73600
114.07200	148.29360	193.92240	221.08240	256.39040	303.10560	338.41360
130.36800	168.66360	220.81080	251.77320	292.51320	345.47520	385.40040
162.30820	210.21840	273.77280	312.88320	361.17710	425.32560	475.84320
205.32960	265.29890	345.47520	391.10400	453.02880	534.50880	596.43360
266.60260	344.82340	447.81410	507.78340	586.65600	690.95040	769.17120
345.47520	445.85860	578.83390	655.75100	757.43810	890.41340	992.10050
387.19300	498.65760	647.27710	731.36450	842.82910	989.49310	1102.91300

[illegible]

STORAGE REQUIRED (m³)							
ARI							
DURATION (min)	1	2	5	10	20	50	100
5	16.49133	22.82867	23.73400	34.82433	40.70900	48.17800	53.83633
6	17.83408	25.22160	33.91280	38.80160	45.32000	48.85080	59.98640
10	21.62073	31.62467	44.29933	51.08933	60.59533	72.36467	81.87067
20	23.86733	39.25800	58.90373	70.49200	84.97733	104.89470	119.38000
30	20.86300	40.01080	64.99800	79.39280	98.94800	123.39200	142.40400
60	-0.91520	25.15840	60.46640	81.10800	107.99640	143.84760	170.73600
120	-65.92800	-31.70640	13.92240	41.08240	76.39040	123.10560	158.41360
180	-139.63200	-101.33640	-49.18920	-18.22680	22.51320	75.47520	115.40040
360	-377.69180	-329.78160	-266.22720	-227.11680	-178.22880	-114.67440	-64.15680
720	-874.67040	-814.70110	-734.52480	-688.89600	-626.97120	-545.49120	-483.56640
1440	-1893.39700	-1815.17700	-1712.18600	-1652.21700	-1573.34400	-1469.05000	-1390.82900
2880	-3874.52500	-3874.14100	-3741.16600	-3664.24900	-3562.56200	-3429.58700	-3327.90000
4320	-6092.80700	-5981.34200	-5832.72300	-5748.63600	-5637.17100	-5490.50700	-5377.08700
	23.86733	40.01080	64.99800	81.10800	107.99640	143.84760	170.73600
MIN. OSD VOLUME (m³)							107.99640

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[illegible]



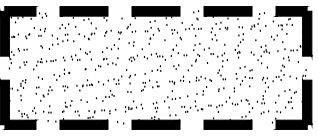
PRE-DEVELOPMENT CATHCMENT PLAN

SCALE 1:200

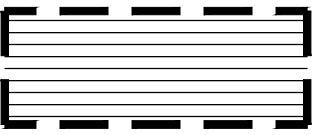
TOTAL CATCHMENT AREA: 2709.7m²



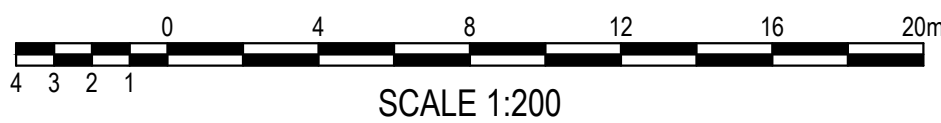
LANDSCAPE
AREA: 326.2m² (12.0%)



HARDSTAND
AREA: 797.9m² (29.5%)



ROOF DRAINAGE
AREA: 1585.6m² (58.5%)



SCALE 1:200

FOR DA ONLY

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INFORMATION**
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DENNY LINKER & CO.
DATUM: A.H.D.

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
02	ISSUED FOR DA	JK	LV	16.07.2020					
01	PRELIMINARY ISSUE	KR	LV	05.12.2019					

Client
BESOL PTY LTD
Architect
BOFFA ROBERTSON GROUP

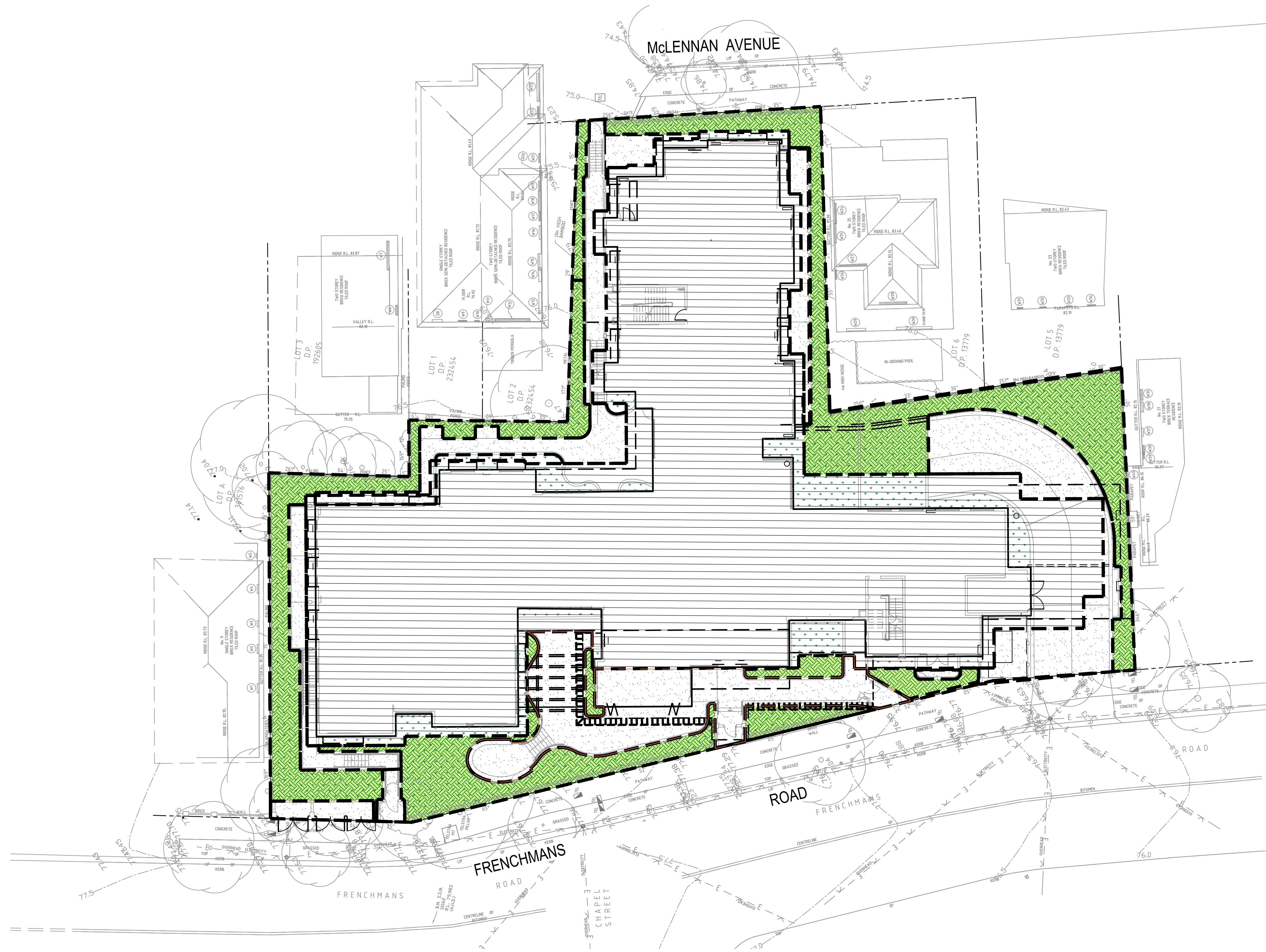
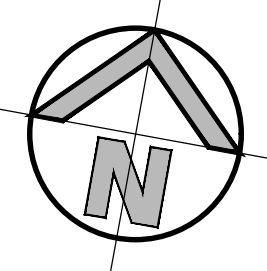
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Project
SUMMIT CARE
11-19 FRENCHMANS ROAD, RANDWICK NSW
Title
PRE-DEVELOPMENT CATCHMENT PLAN

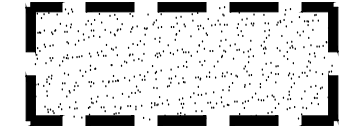
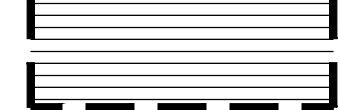
Drawn	Designed	Date
K.Rom	L.Villa	SEP 2019
Checked	Approved	Scale @A1
T.Rozehnal	A.Francis	1:200
Drawing number	Revision	
19826_DA_C250	02	

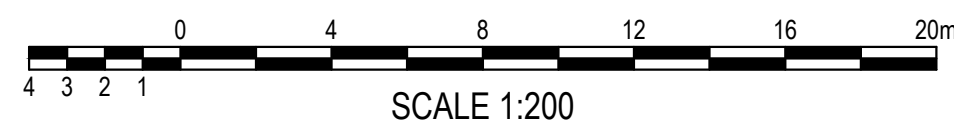


POST-DEVELOPMENT CATHCMENT PLAN

SCALE 1:200

TOTAL CATCHMENT AREA: 2709.7m²

-  **LANDSCAPE**
AREA: 518.7m² (19%)
-  **HARDSTAND & ROOF**
AREA: 520m² (19%)
-  **ROOF DRAINAGE**
AREA: 1671m² (62%)



SCALE 1:200

FOR DA ONLY

**SURVEY
INFORMATION**
SURVEYED BY
CONSULTING SURVEYORS
DENNY LINKER & CO.
DATUM: A.H.D.

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
03	ISSUED FOR DA	JK	LV	28.08.2020					
02	ISSUED FOR DA	JK	LV	16.07.2020					
01	PRELIMINARY ISSUE	KR	LV	05.12.2019					

Client
FRENCHMANS LODGE PROPERTIES PTY LTD

Architect
BOFFA ROBERTSON GROUP

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Project
**SUMMIT CARE
11-19 FRENCHMANS ROAD, RANDWICK NSW**

Title
POST-DEVELOPMENT CATCHMENT PLAN

Drawn	Designed	Date
K.Rom	L.Villa	SEP 2019
Checked	Approved	Scale @A1
T.Rozehnal	A.Francis	1:200
Drawing number		Revision
19826_DA_C251		03