

20G21_DA_C101

20G21_DA_C102

20G21_DA_C103

FORRESTER ROAD

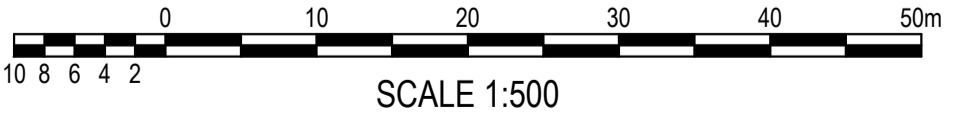
ROPES CROSSING BLVD

LINKS ROAD

FORRESTER ROAD

GENERAL ARRANGEMENT PLAN

SCALE: 1:500



SCALE 1:500

FOR DA ONLY

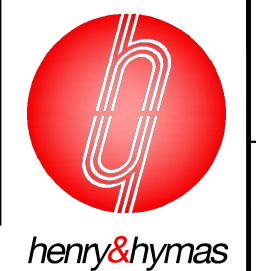
SURVEY INFORMATION
SURVEYED BY REAL SERVE
DATUM: AHD
ORIGIN OF LEVELS: PM 41946

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
02	ISSUED FOR DA ONLY	MS	TR	09/04/2021					
01	PRELIMINARY ISSUE	MC	TC	11/12/2020					

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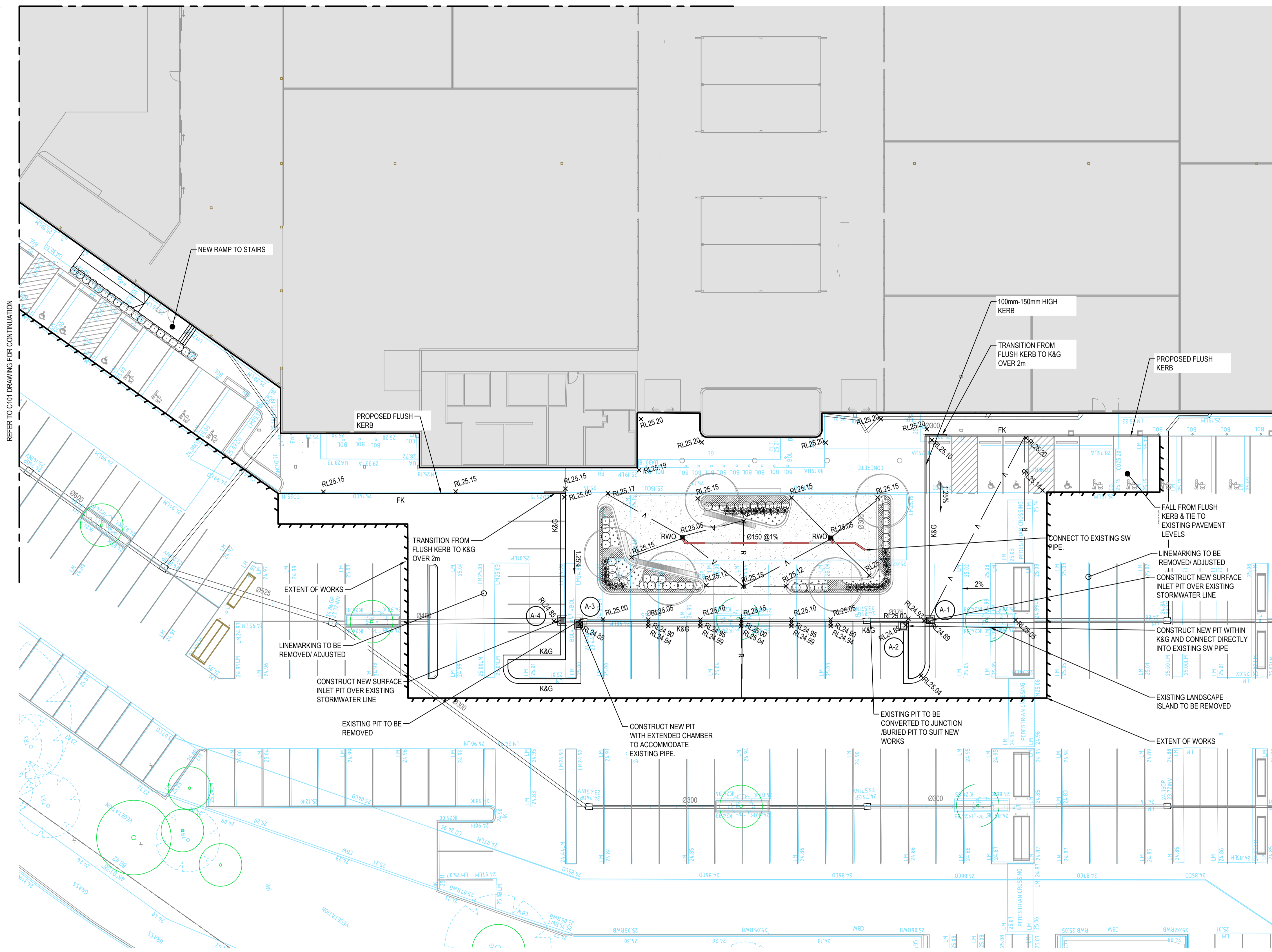
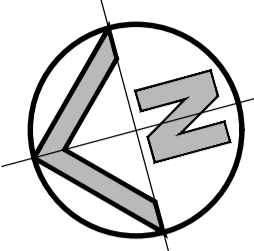


Project
COMMERCIAL DEVELOPMENT
243 FORRESTER RD, ST MARYS NSW
Title
GENERAL ARRANGEMENT PLAN

Drawn	Designed	Date
M.Cerna	T.Chan	DEC 20
Checked	Approved	Scale
T.Rozehnal	A.Francis	Scale B/A1
		1:500

Drawing number
20G21_DA_C100 Revision
02

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LEGEND	
	EXISTING BOUNDARY
	PROPOSED JUNCTION PITS
	PROPOSED SURFACE INLET PITS
	PROPOSED GRATED DRAIN
	PROPOSED PIT TAG
	PROPOSED PIT TAG
	STORMWATER UPSTREAM INVERT RL, STORMWATER PIPE DIAMETER & CLASS
	STORMWATER PIPE LENGTH
	STORMWATER PIPE GRADE
	STORMWATER DOWNSTREAM INVERT RL
	PROPOSED STORMWATER PIPE
	EXISTING SPOT LEVEL
	PROPOSED SPOT LEVEL
	EXISTING STORMWATER PIT
	EXISTING STORMWATER PIPE
	PROPOSED RIDGE LINE
	PROPOSED VALLEY LINE
	PROPOSED RETAINING WALL
	OVERLAND FLOW PATH
	PROPOSED LIMIT OF WORK
	PROPOSED KERB ONLY
	PROPOSED KERB & GUTTER
	PROPOSED FLUSH ONLY
	PROPOSED RAINWATER OUTLET
	EXISTING CONTOURS
	EXISTING KERB
	EXISTING LINEMARKING

NOTE:
 1. SUBSOIL DRAINAGE TO BE PROVIDED FOR ALL NEW LANDSCAPE AREAS.

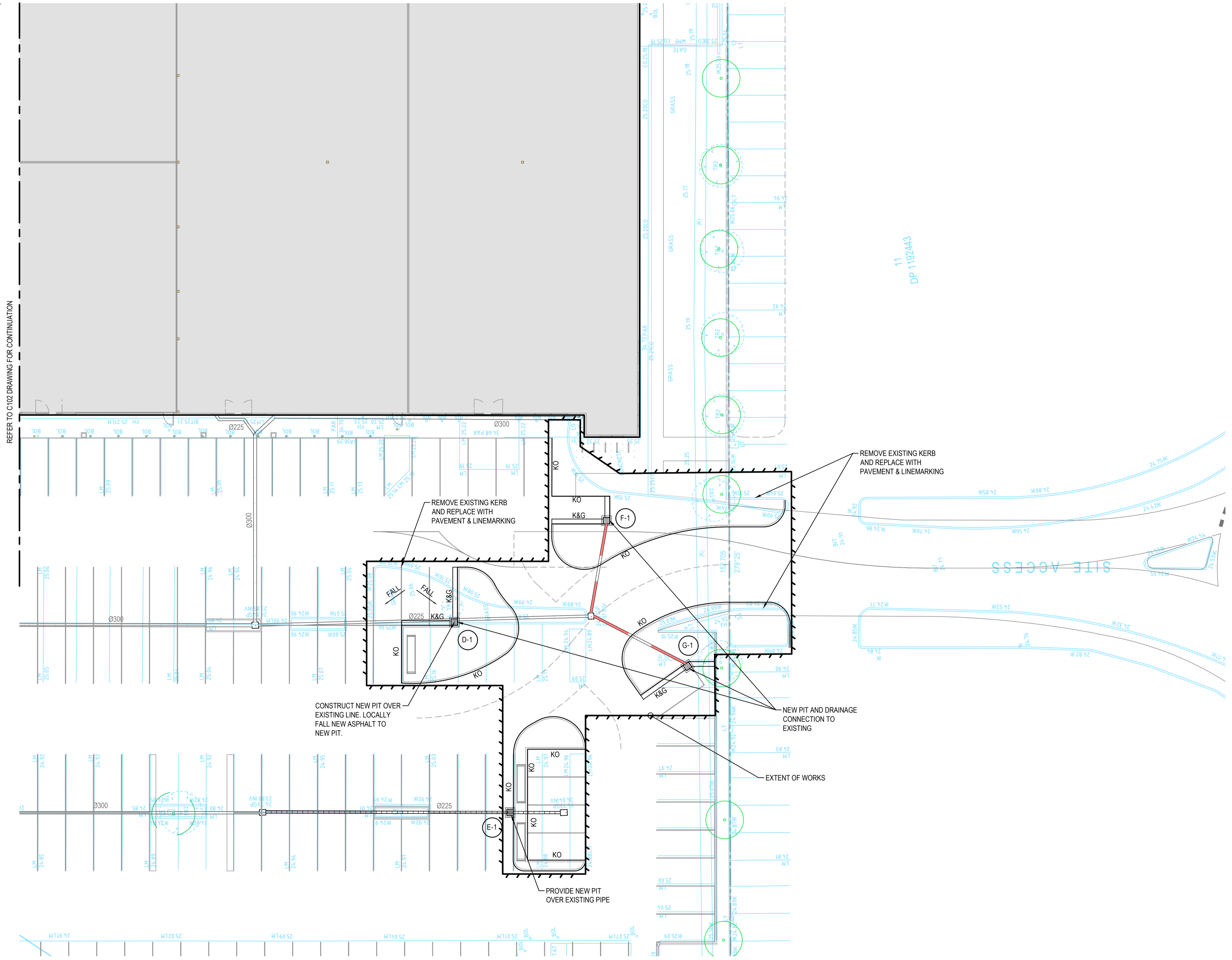
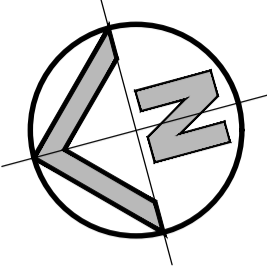
DETAIL PLAN
 SCALE: 1:200



FOR DA ONLY

SURVEY INFORMATION SURVEYED BY REAL SERVE DATUM: AHD ORIGIN OF LEVELS: PM 41946					Client HOME CO.	Suite 2.01 828 Pacific Highway Gordon NSW 2072	Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hhconsult.com.au Web www.henrydhymas.com.au		Project COMMERCIAL DEVELOPMENT 243 FORRESTER RD, ST MARYS NSW	Drawn M.Cerna	Designed T.Chan	Date DEC 2020
	02 ISSUED FOR DA ONLY MS TR 09/04/2021 01 PRELIMINARY ISSUE MC TC 11/12/2020								Architect BUCHAN	Title DETAIL PLAN SHEET 2 OF 3	Checked T.Rozehnal Approved A.Francis	Drawing number 20G21_DA_C102

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LEGEND

	EXISTING BOUNDARY
	PROPOSED JUNCTION PITS
	PROPOSED SURFACE INLET PITS
	PROPOSED GRATED DRAIN
	PROPOSED PIT TAG
	STORMWATER UPSTREAM INVERT RL, STORMWATER PIPE DIAMETER & CLASS, STORMWATER PIPE LENGTH, STORMWATER PIPE GRADE, STORMWATER DOWNSTREAM INVERT RL
	PROPOSED STORMWATER PIPE
	EXISTING SPOT LEVEL
	PROPOSED SPOT LEVEL
	EXISTING STORMWATER PIT
	EXISTING STORMWATER PIPE
	PROPOSED RIDGE LINE
	PROPOSED VALLEY LINE
	PROPOSED RETAINING WALL
	OVERLAND FLOW PATH
	PROPOSED LIMIT OF WORK
	PROPOSED KERB ONLY
	PROPOSED KERB & GUTTER
	PROPOSED FLUSH ONLY
	PROPOSED RAINWATER OUTLET
	EXISTING CONTOURS
	EXISTING KERB
	EXISTING LINEMARKING

NOTE:
 1. SUBSOIL DRAINAGE TO BE PROVIDED FOR ALL NEW LANDSCAPE AREAS.

DETAIL PLAN
 SCALE: 1:200



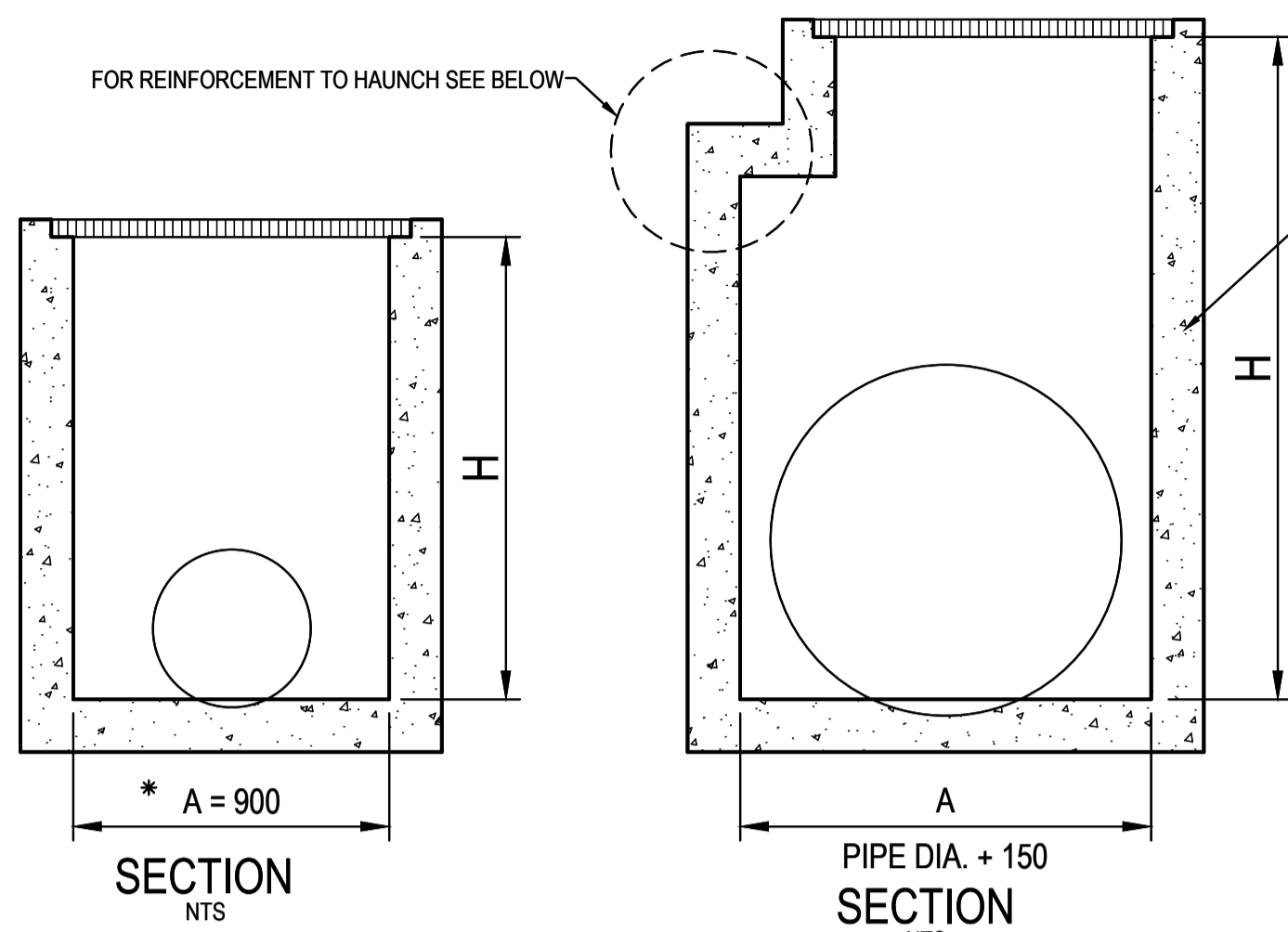
FOR DA ONLY

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	01 ISSUED FOR DA ONLY	MS TR	09.04.2021	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.					Checked T.Rozehnal	Approved A.Francis	Scale @A1 1:200	
REVISION AMENDMENT DRAWN DESIGNED DATE										Drawing number 20G21_DA_C103		Revision 01

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.

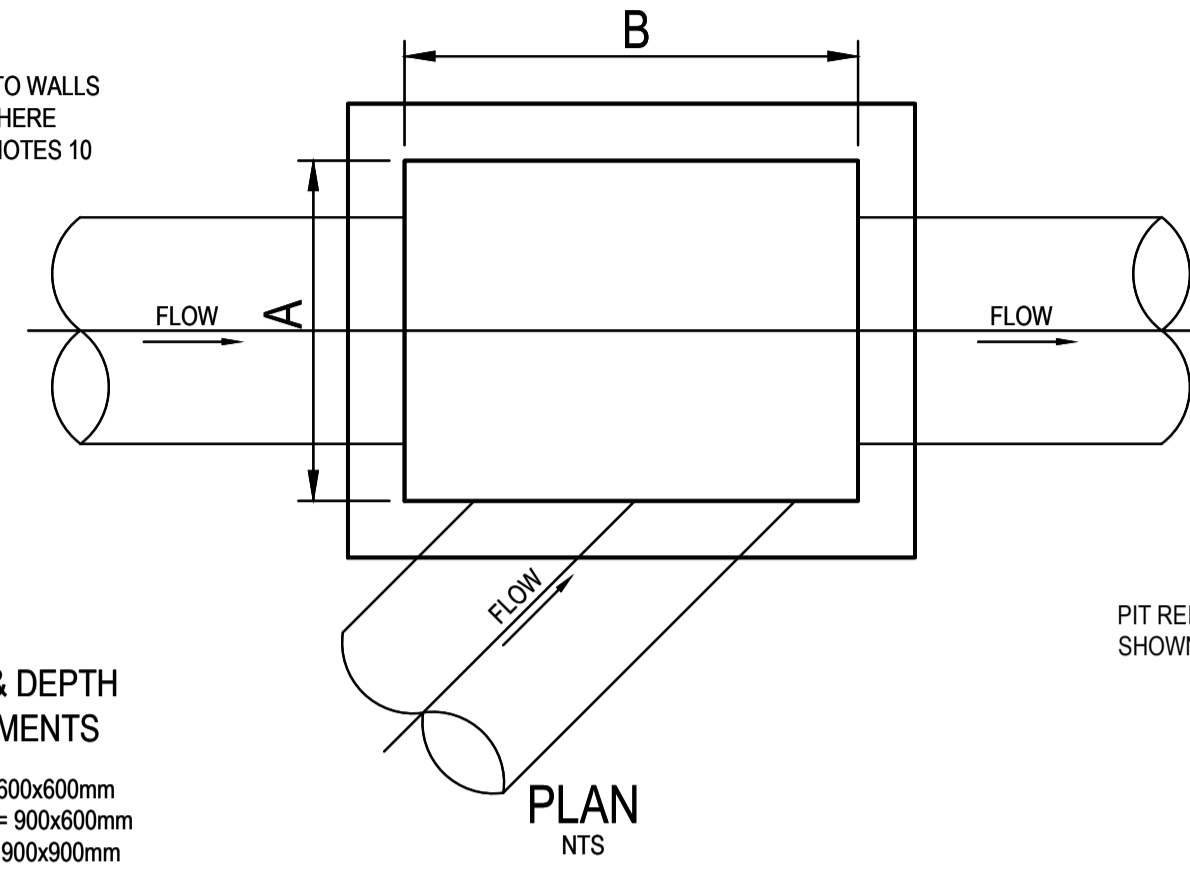
FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm
 FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm
 FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm
 FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
 FOR B = 1900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm



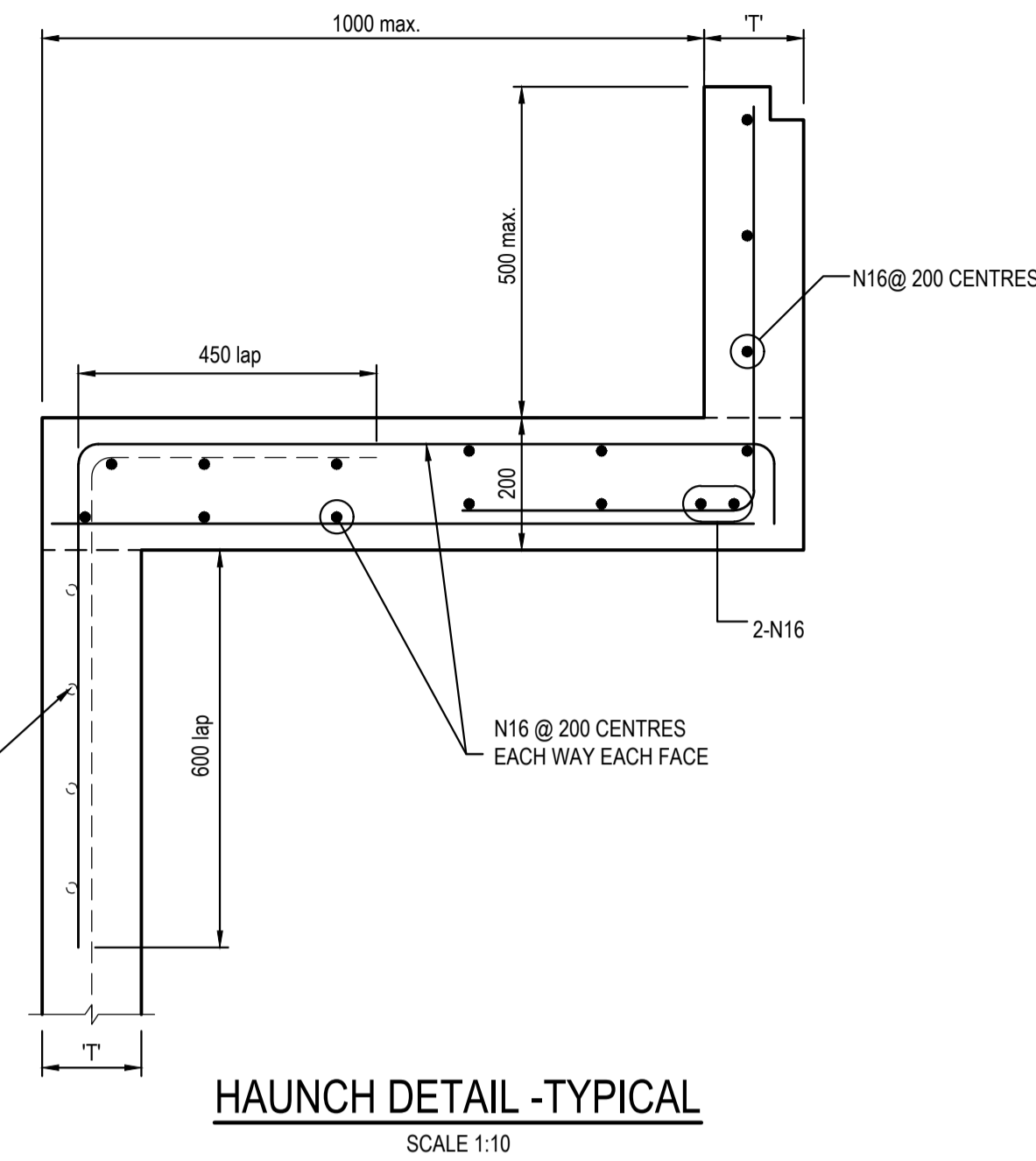
*A = 600 FOR PIPES UP TO 375 DIA.
1 PIT CHAMBER DIMENSIONS FOR PIPES UP TO 600 DIA.

1 PIT CHAMBER FOR PIPES GREATER THAN 600 DIA.

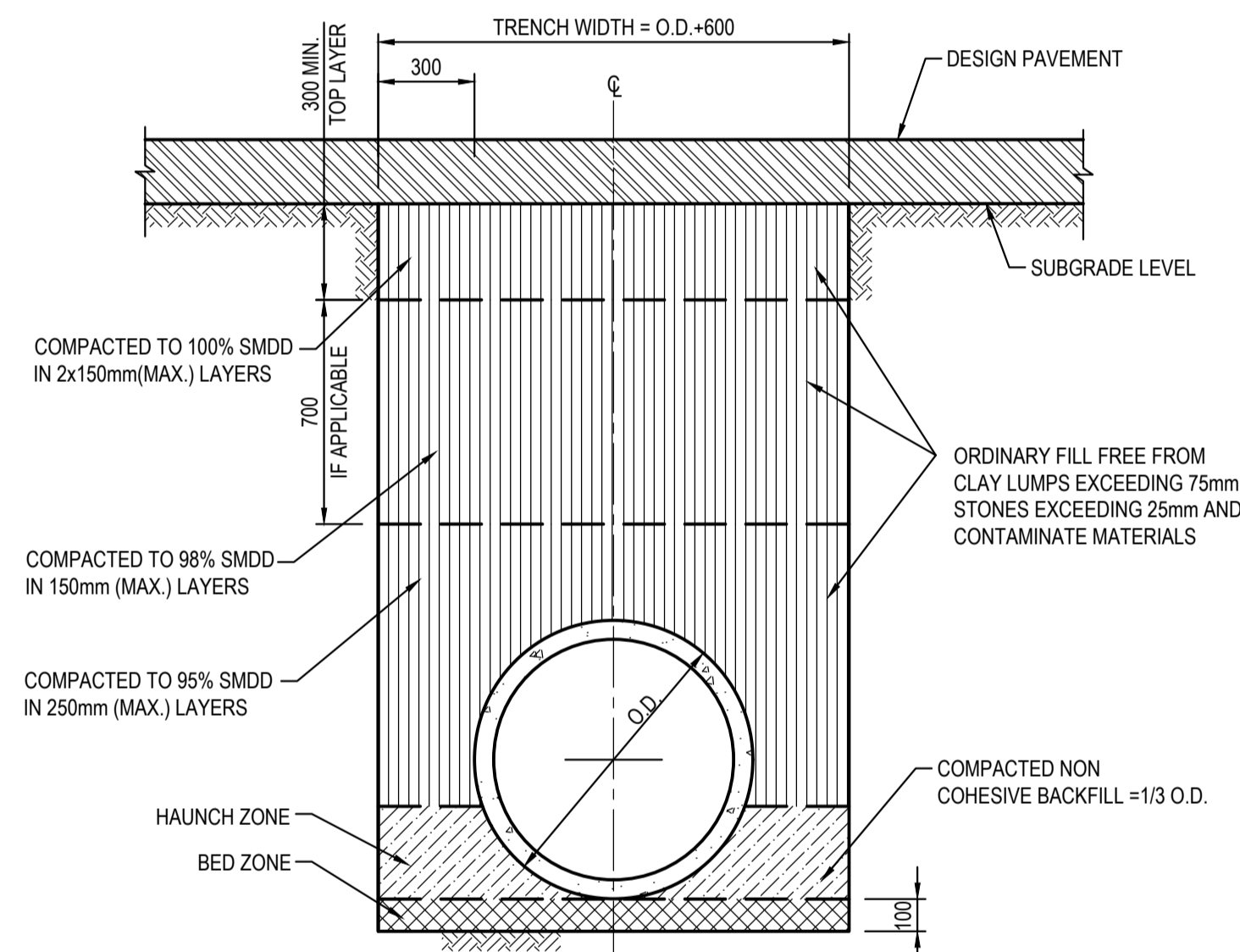
2 PIT SIZE & DEPTH REQUIREMENTS
 H = 0-900mm - Ax B = 600x600mm
 H = 900-1200mm - Ax B = 900x600mm
 H > 1200mm - Ax B = 900x900mm



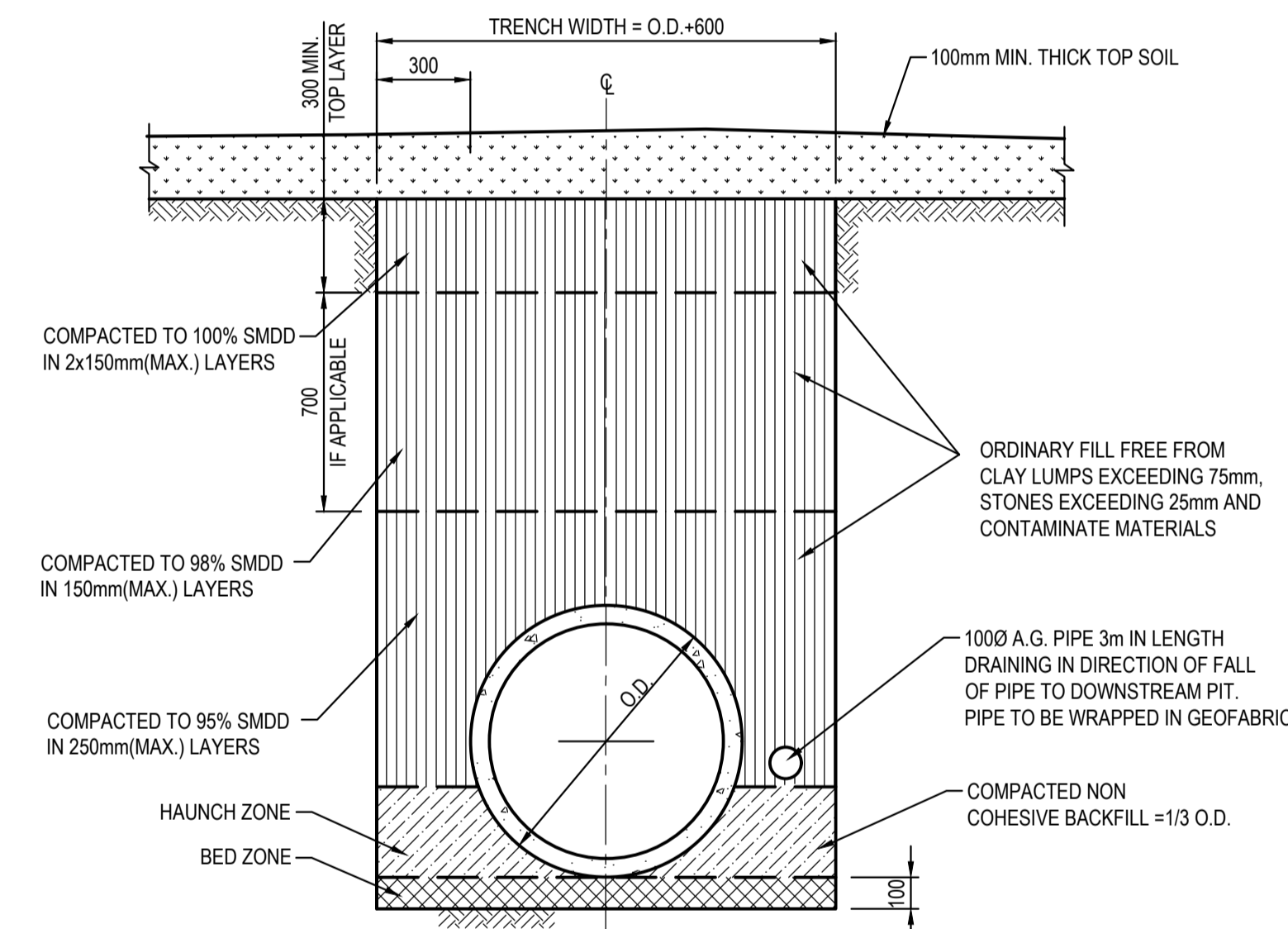
3 PIT CHAMBER FOR SIDE ENTRY ON SKEW



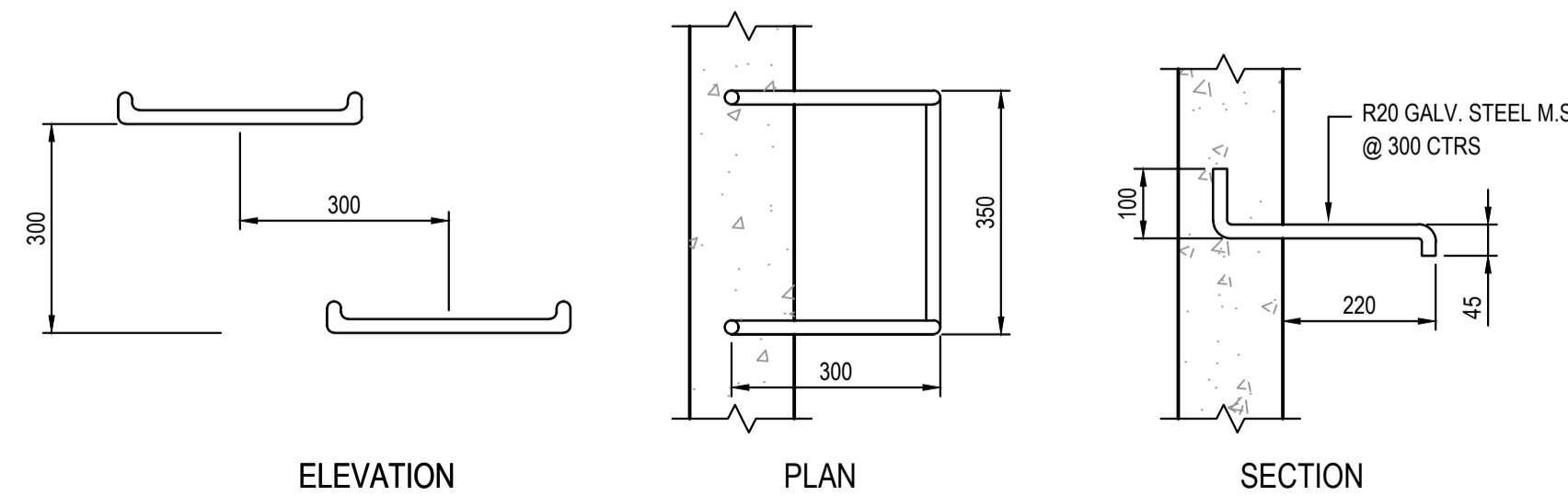
HAUNCH DETAIL - TYPICAL
 SCALE 1:10



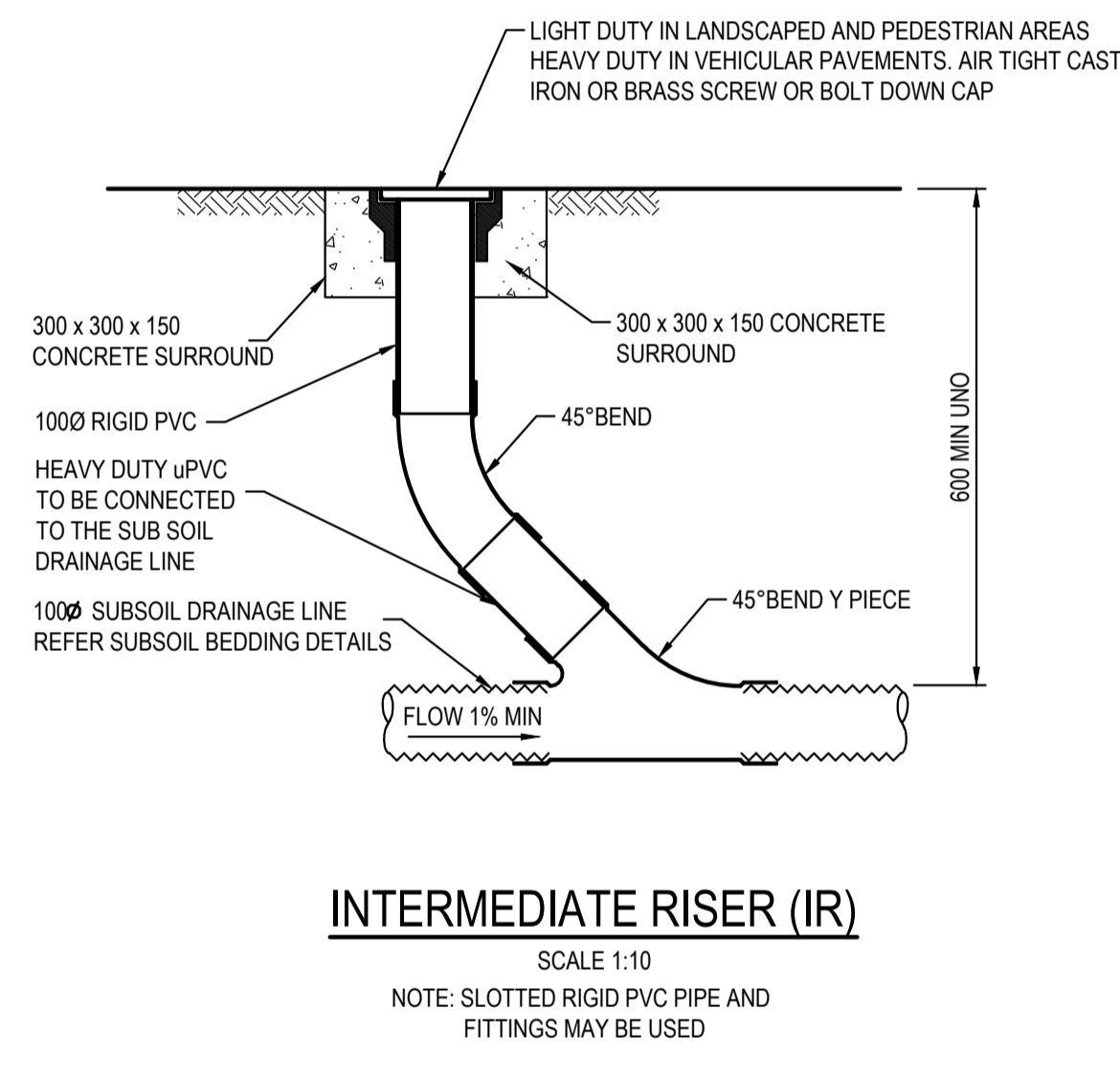
PIPE TRENCH INSTALLATION BENEATH PAVEMENT
 (H1 & H2 SUPPORT)
 SCALE 1:20



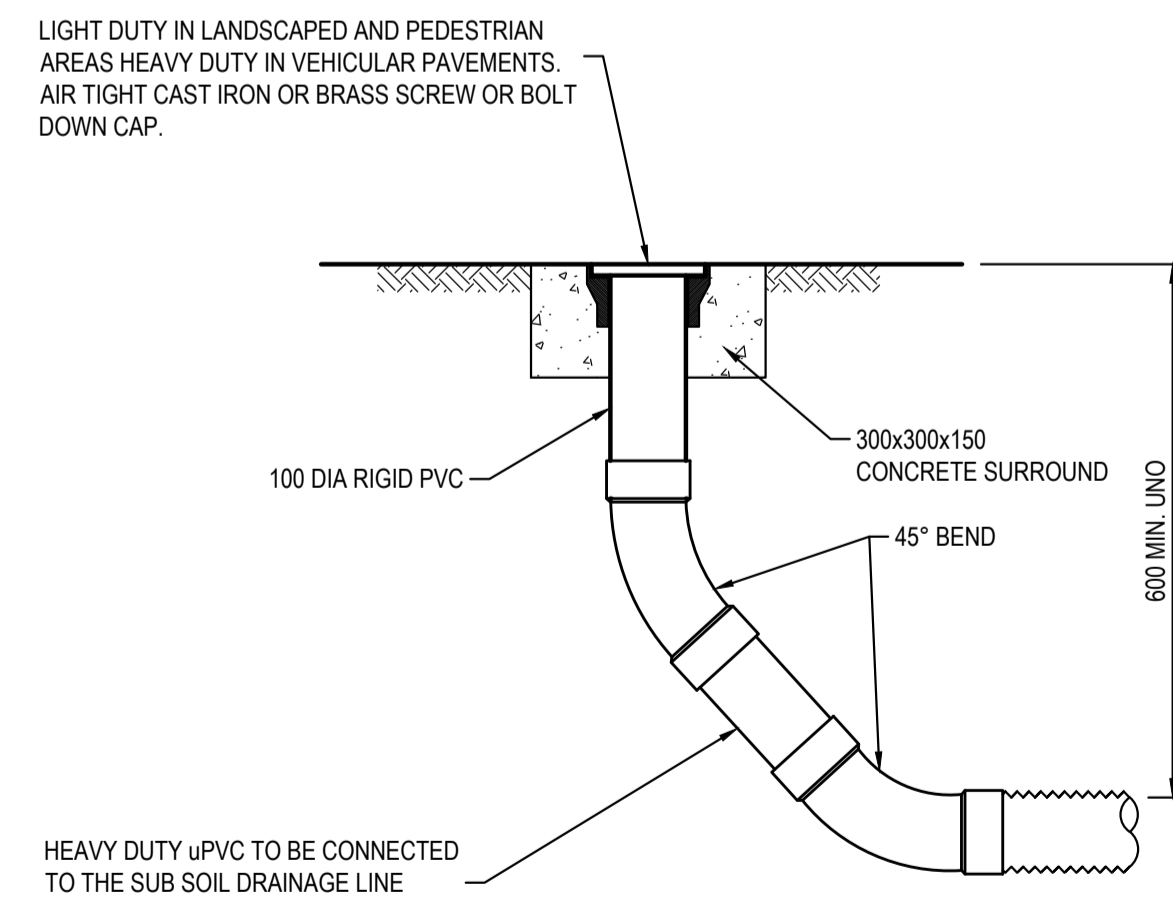
PIPE TRENCH INSTALLATION IN LANDSCAPE AREAS
 (H1 & H2 SUPPORT)
 SCALE 1:20



TYPICAL STEP IRON DETAIL
 SCALE 1:10



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

PIT LID SCHEDULE

PIT/STRUCTURE NUMBER	DESCRIPTION
A-1 A-2 A-3 A-4 D-1 E-1 F-1 G-1	PROPOSED INLET PIT WITH 600x600 HINGED MEDIUM DUTY CLASS 'C' HEELPROOF LID IN ACCORDANCE WITH PENRITH CITY COUNCIL'S REQUIREMENT.
B-1 C-1	PROPOSED INLET PIT WITH 600x600 HINGED LIGHT DUTY CLASS 'B' HEELPROOF/CHILDPROOF LID IN ACCORDANCE WITH PENRITH CITY COUNCIL'S REQUIREMENT.
C-2 C-3	PROPOSED INLET PIT WITH 900x900 HINGED LIGHT DUTY CLASS 'B' HEELPROOF/CHILDPROOF LID IN ACCORDANCE WITH PENRITH CITY COUNCIL'S REQUIREMENT.

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 ASS5000.3 AND ASS996.
11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:
 - PIPE SIZE
 - DEPTH TO INVERT
 - SKEW ANGLE
 REFER 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 ASS5000, 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.

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					Architect BUCHAN			Title STORMWATER MISCELLANEOUS DETAILS AND PIT LID SCHEDULE		Checked T.Rozehnal	Approved A.Francis	Scale @A1 1:500	Drawing number 20G21_DA_C200

