

LOCALITY LAYOUT
SCALE 1:68000

LEGENDS / NOTES

	RAILWAYS
	HIGHWAYS ROAD
	SECONDARY ROADS
	REVERS



PRINT ISSUED ON

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Mankop, 2075
T: +27 18 4511 005
E: info@nepgroup.co.za
Head Office situated between
Mankop and Wolmaransstad,
At Bone Bone

nepgroup.co.za **RESULT DRIVEN**

CLIENT

MAQUASSI HILLS LOCAL MUNICIPALITY

REFERENCE DRAWINGS

PLAN No.	DESCRIPTION

NEP CONSULTING ENGINEERS
PR. ENG: P.F.ERNST
PR.NR: 740593

SIGNATURE:

AMENDMENTS

No.	DATE	BY	DESCRIPTION

NOTES

TENDER DRAWING

IMPLEMENTING AGENT:
MAQUASSI HILLS LOCAL MUNICIPALITY

PROJECT

EMERGENCY WATER SUPPLY AUGMENTATION PROJECT FOR WOLMARANSSTAD EXT 13,17,18 & 19 (PORTION 1)

DRAWING TITLE

LOCALITY PLAN

DESIGN	DATE	DRAWN	DATE
		T.M	OCT 2023
SURVEYED	DATE	CHECKED	DATE
		P.F. ERNST	OCT 2023
SCALE as shown			
DRAWING No. NW404/15/13-19/2/PT 1/1			
AMENDMENT No.			

BOREHOLE INFORMATION		
BH ID	Safe Yield (L/s)	Pumping Cycle (hrs)
Existing BH 3	5.08	18
Existing BH 4	5.77	18
Tailings BH 1	4.97	18
Tailings BH 2	4.04	18
Tailings BH 3	5.77	18



LAYOUT PLAN
SCALE 1:1250

LEGENDS / NOTES:	
	RAILWAYS
	PROPOSED Ø200mm BULK WATER PIPELINE= 2.061 Km
	PROPOSED Ø300mm BULK WATER PIPELINE= 1.195 Km
	EXISTING BULKWATER PIPELINE Ø160mm, Ø250mm & Ø315mm
	FLOODLINE
	BOREHOLE TO BE UTILIZED
	EXISTING BOREHOLE
	PROPOSED ELEVATED TANK



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MAQUASSI HILLS LOCAL MUNICIPALITY

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NEP CONSULTING ENGINEERS
PR. ENG: P.F.ERNST
PR.NR: 740593

SIGNATURE:

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No.	DATE	BY	DESCRIPTION

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TENDER DRAWING

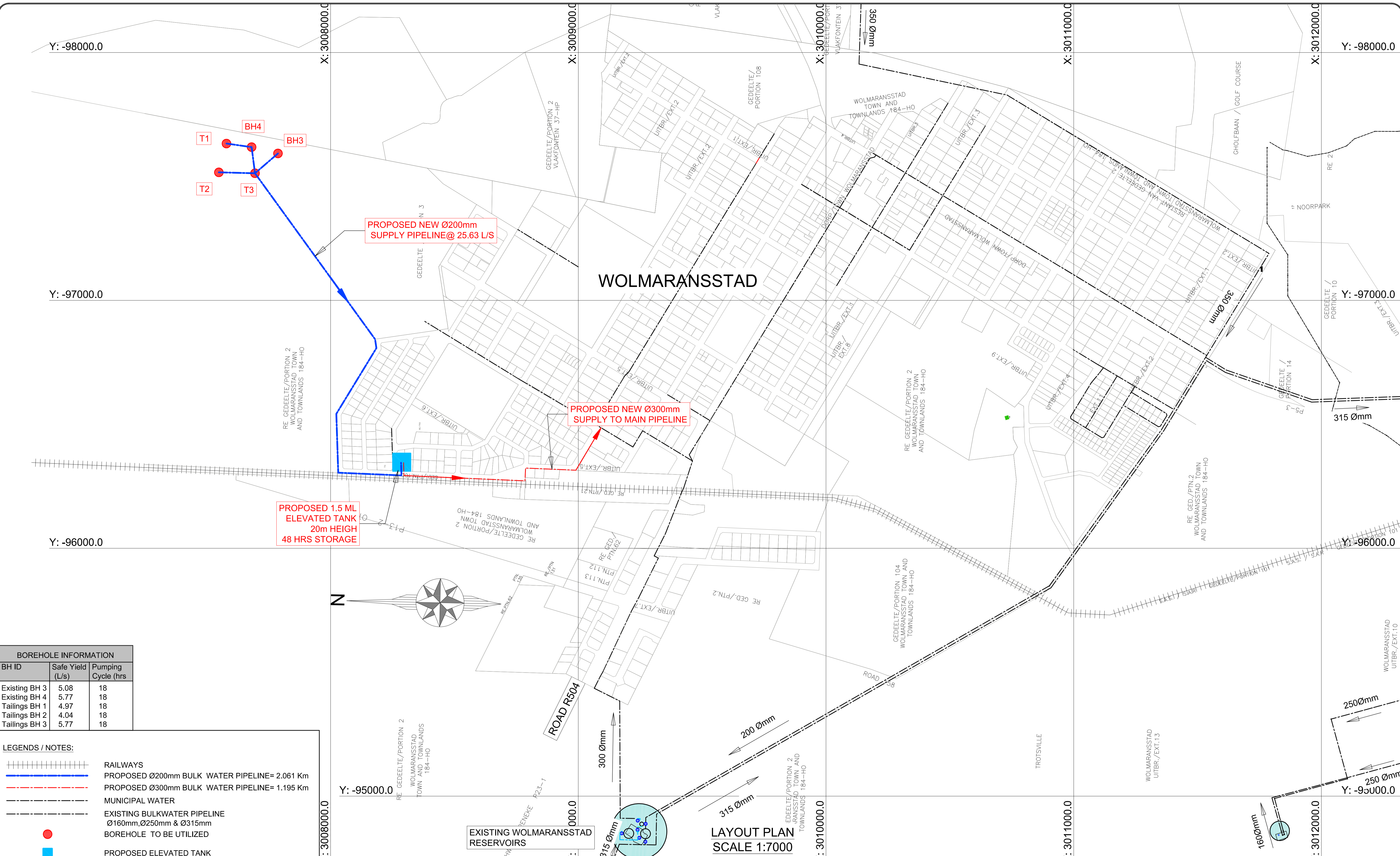
IMPLEMENTING AGENT:
MAQUASSI HILLS LOCAL MUNICIPALITY

PROJECT

EMERGENCY WATER SUPPLY AUGMENTATION PROJECT FOR WOLMARANSSTAD EXT 13,17,18 & 19 (PORTION 1)

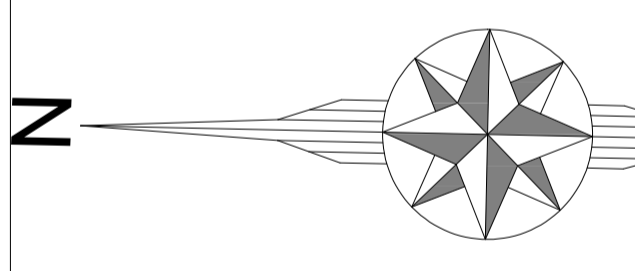
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PROPOSED BULK WATER SUPPLY FULL SCOPE OF WORK LAYOUT PLAN

DESIGN	DATE	DRAWN	DATE
		T.M	OCT 2023
SURVEYED	DATE	CHECKED	DATE
		P.F.ERNST	OCT 2023
SCALE as shown			
DRAWING No. NW404/15/13-19/2/PT 1/2			
AMENDMENT No.			



BOREHOLE INFORMATION		
BH ID	Safe Yield (L/s)	Pumping Cycle (hrs)
Existing BH 3	5.08	18
Existing BH 4	5.77	18
Tailings BH 1	4.97	18
Tailings BH 2	4.04	18
Tailings BH 3	5.77	18

- LEGENDS / NOTES:**
- RAILWAYS
 - PROPOSED Ø200mm BULK WATER PIPELINE= 2.061 Km
 - PROPOSED Ø300mm BULK WATER PIPELINE= 1.195 Km
 - MUNICIPAL WATER
 - EXISTING BULKWATER PIPELINE Ø160mm, Ø250mm & Ø315mm
 - BOREHOLE TO BE UTILIZED
 - PROPOSED ELEVATED TANK



EXISTING WOLMARANSSTAD RESERVOIRS

LAYOUT PLAN SCALE 1:7000



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CLIENT

MAQUASSI HILLS LOCAL MUNICIPALITY

REFERENCE DRAWINGS		AMENDMENTS			
PLAN No.	DESCRIPTION	No.	DATE	BY	DESCRIPTION

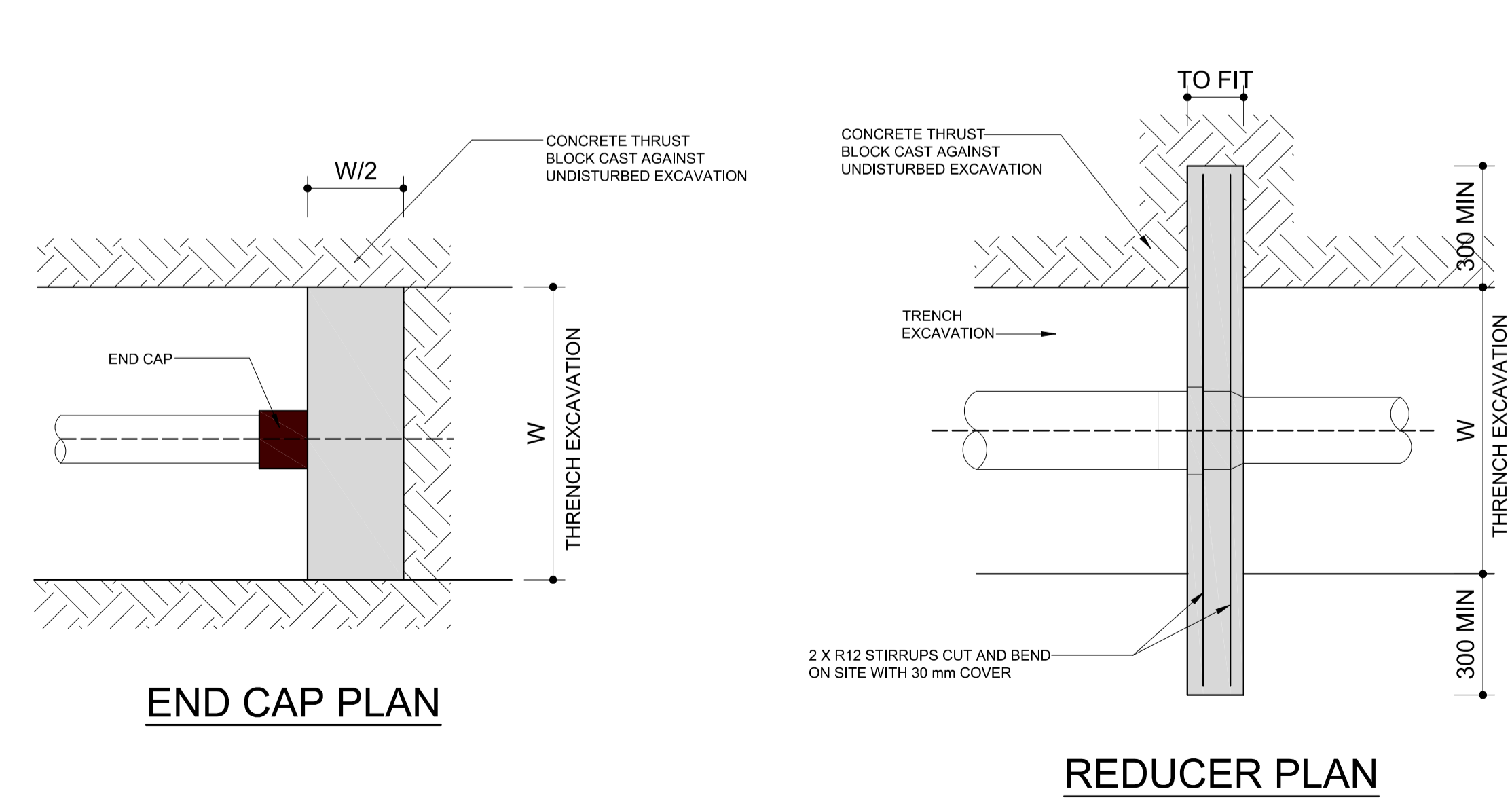
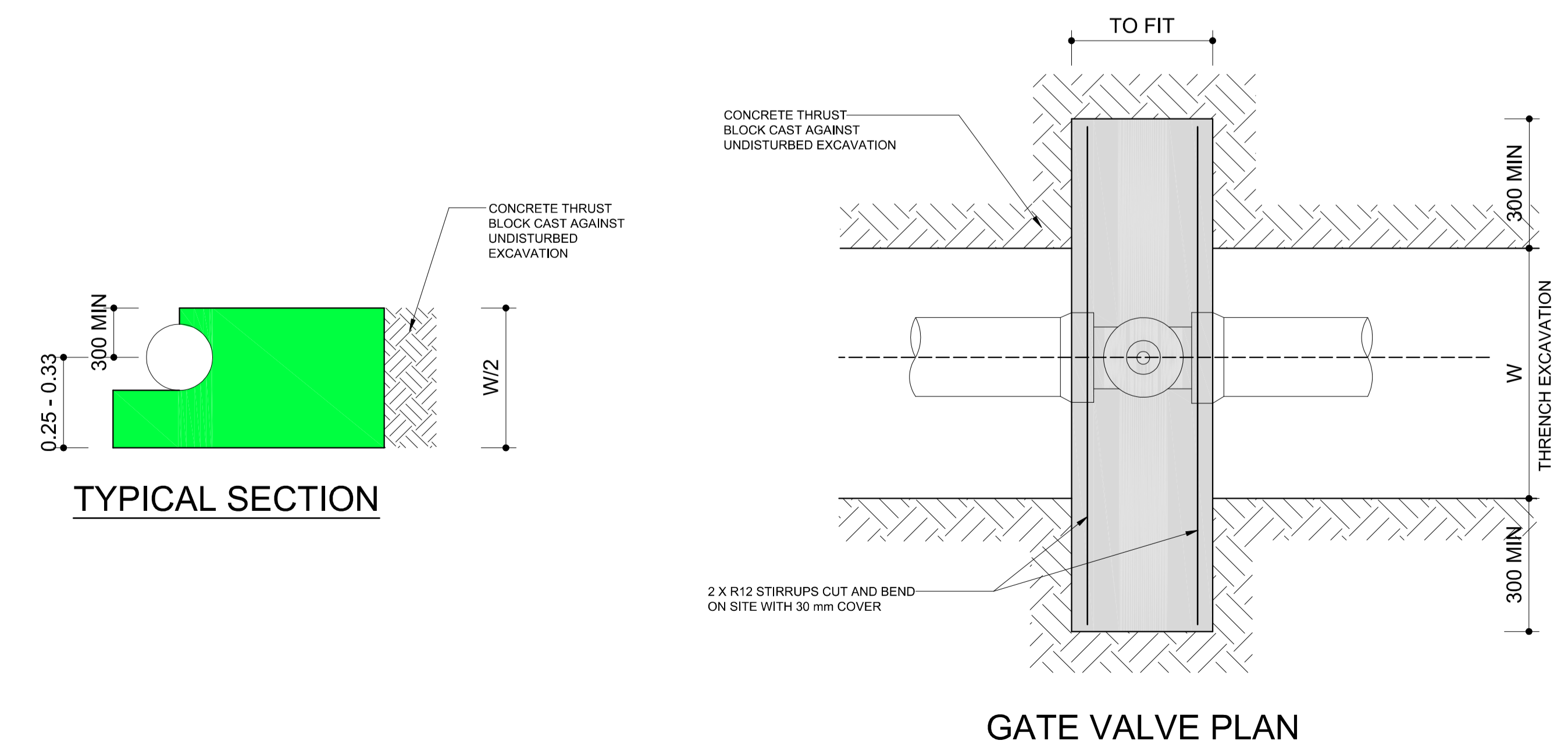
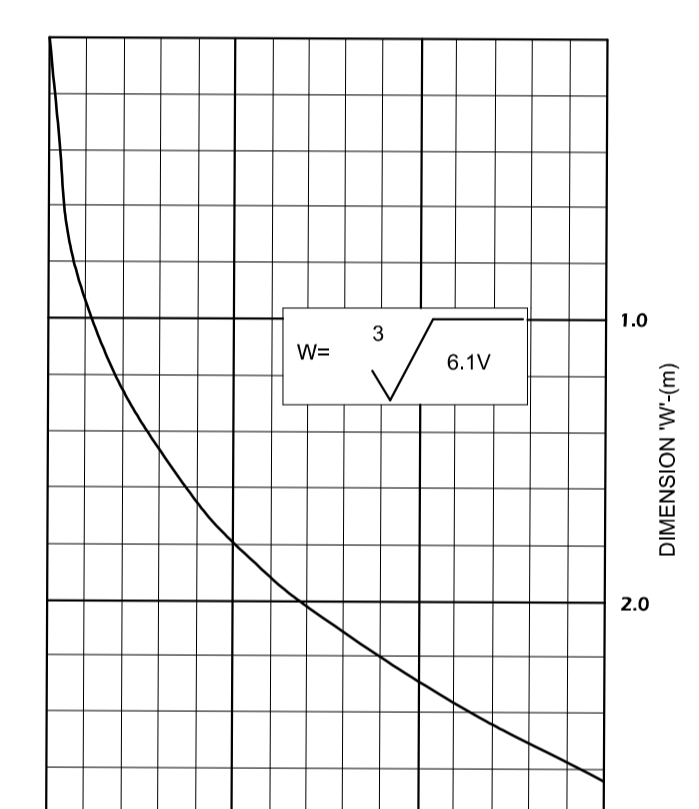
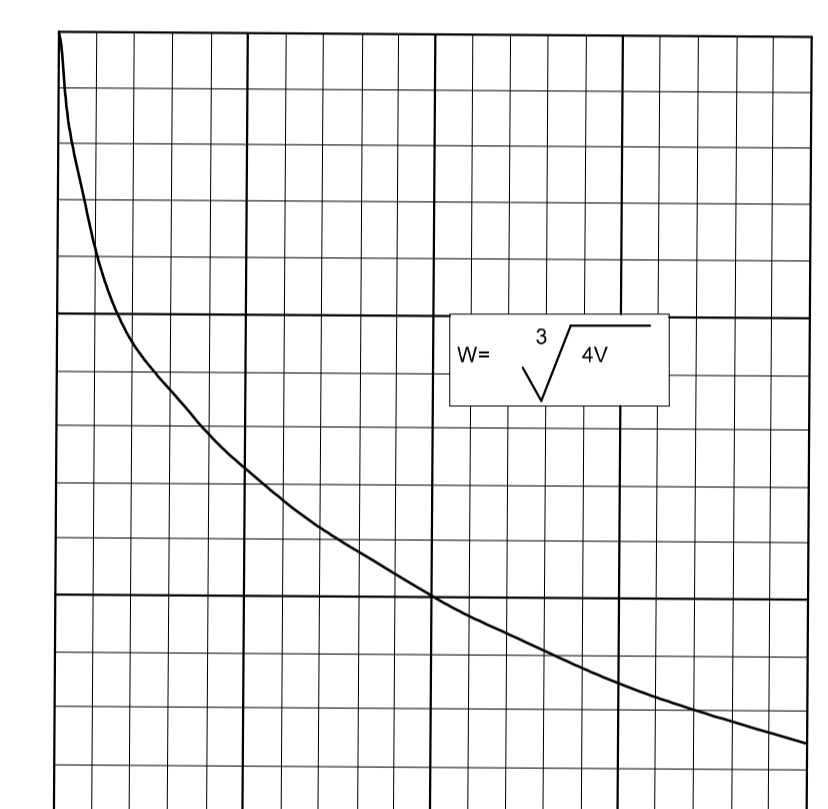
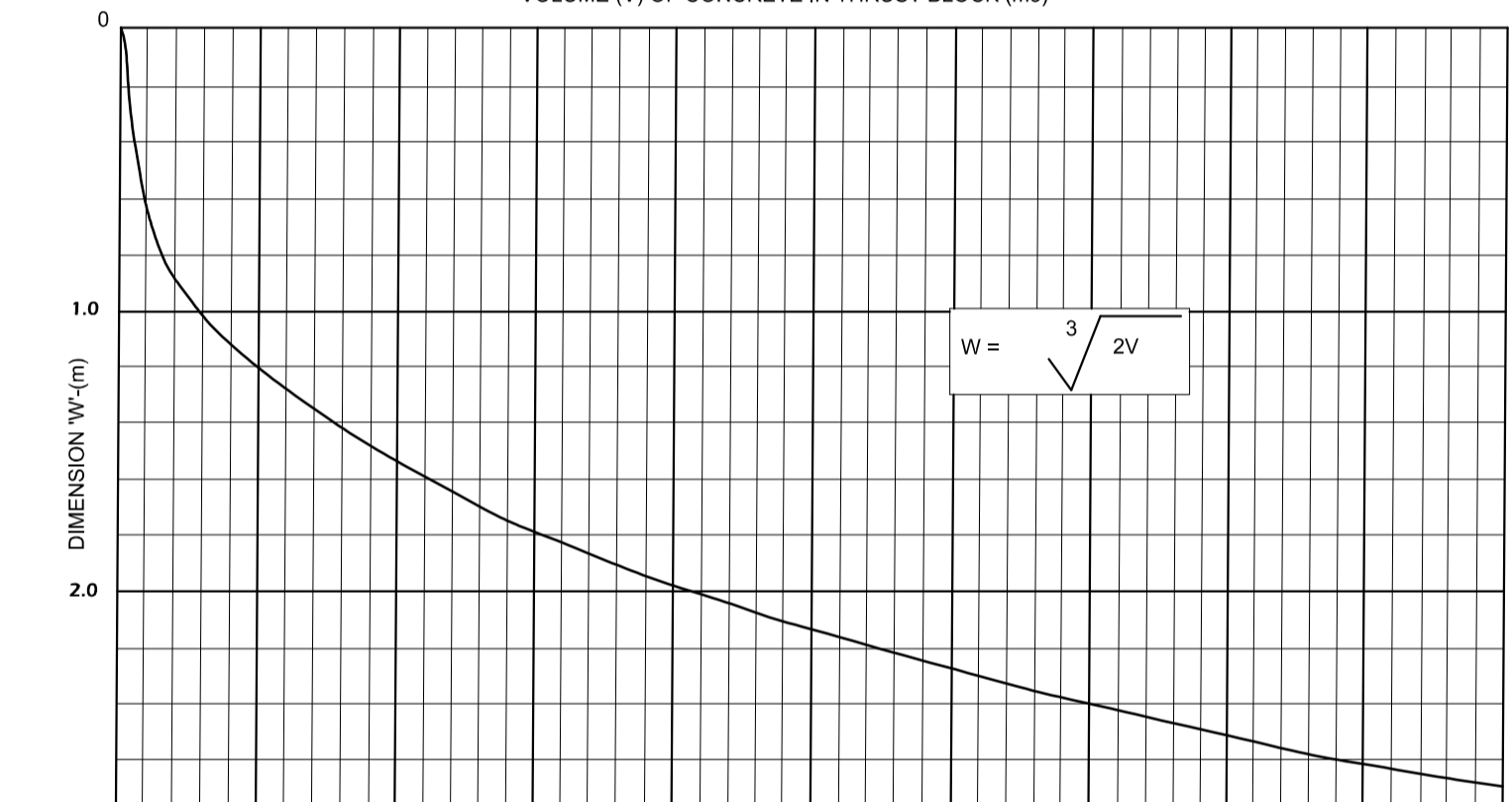
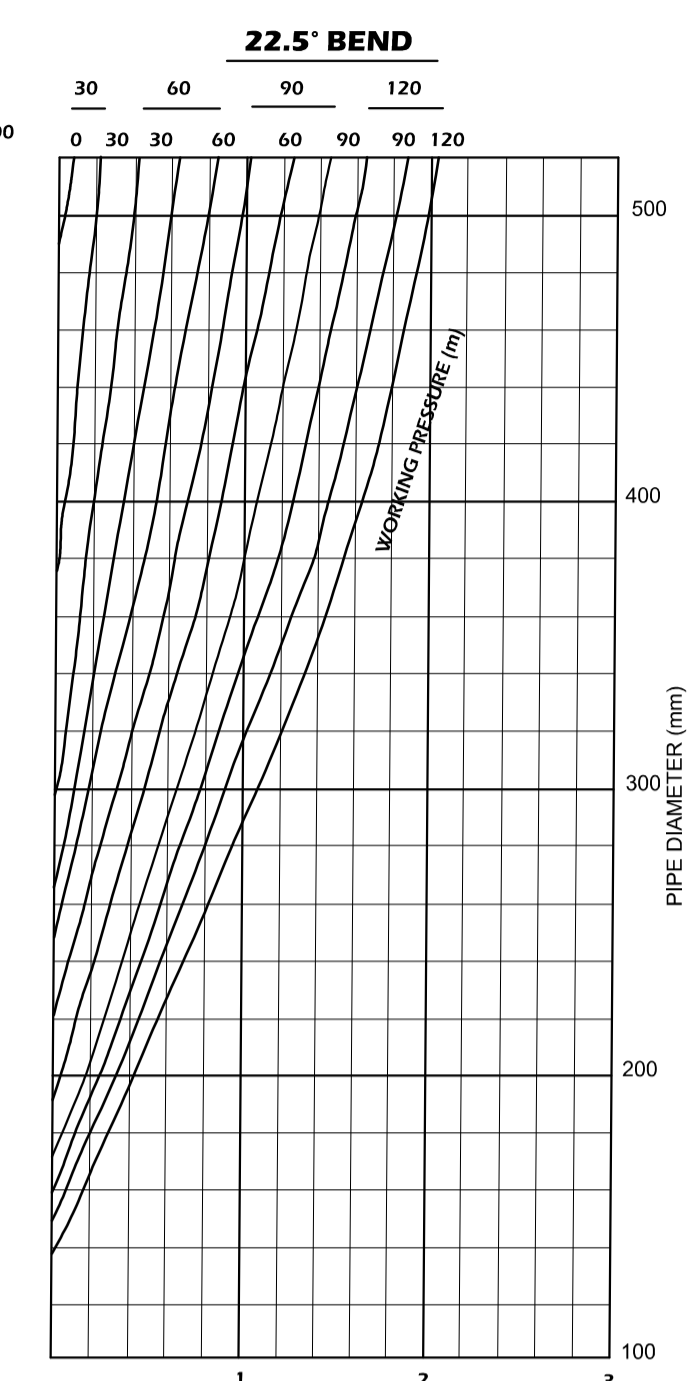
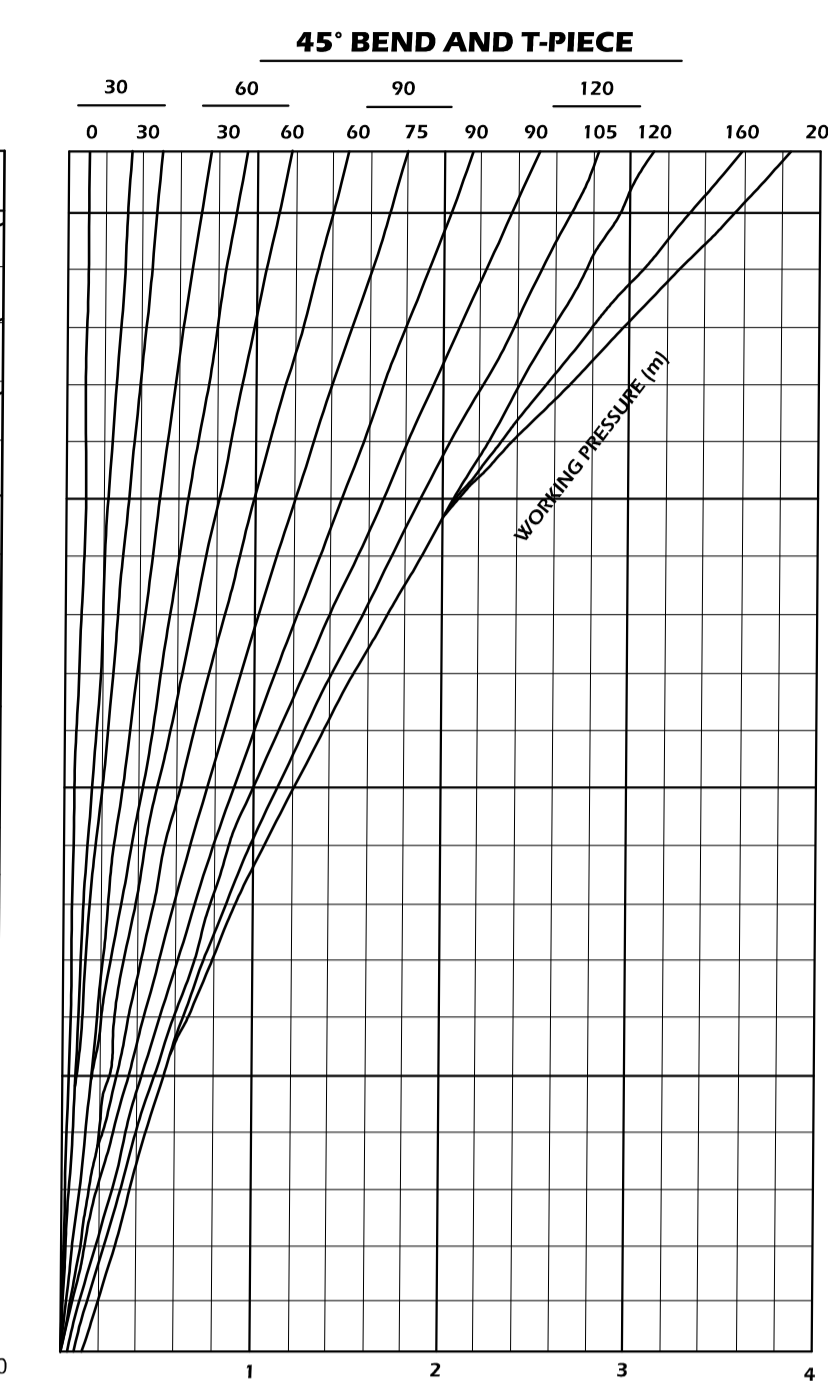
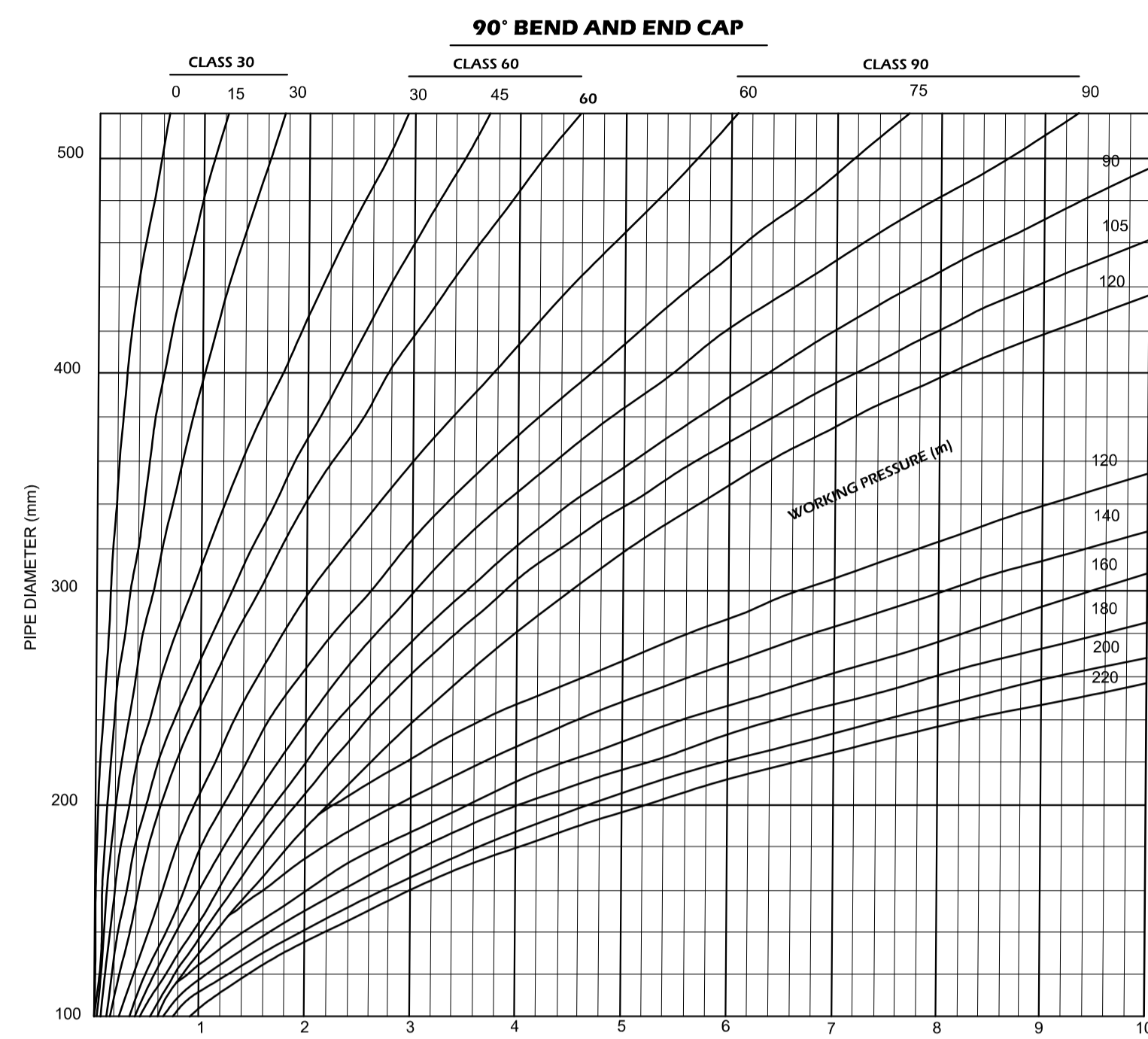
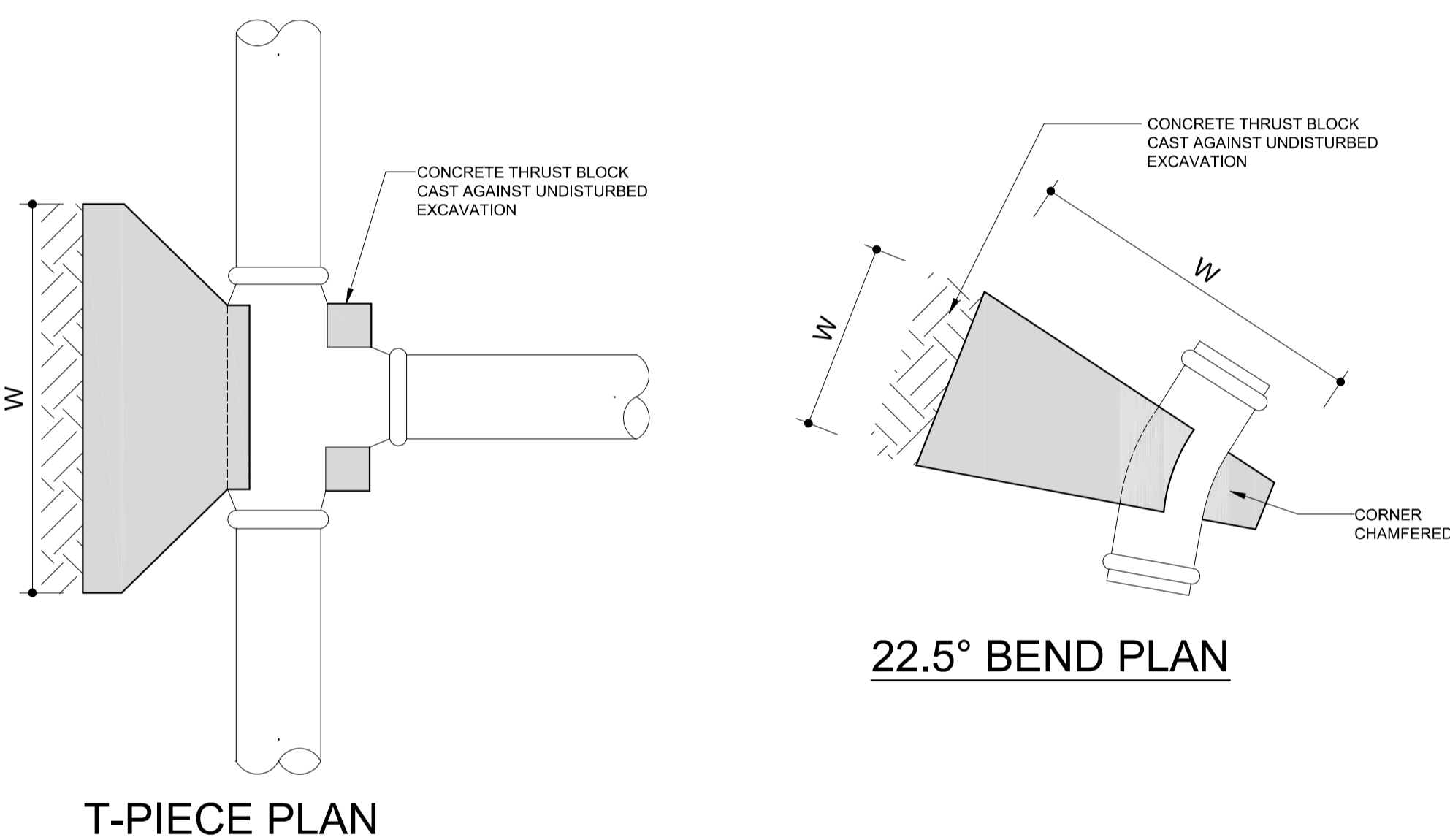
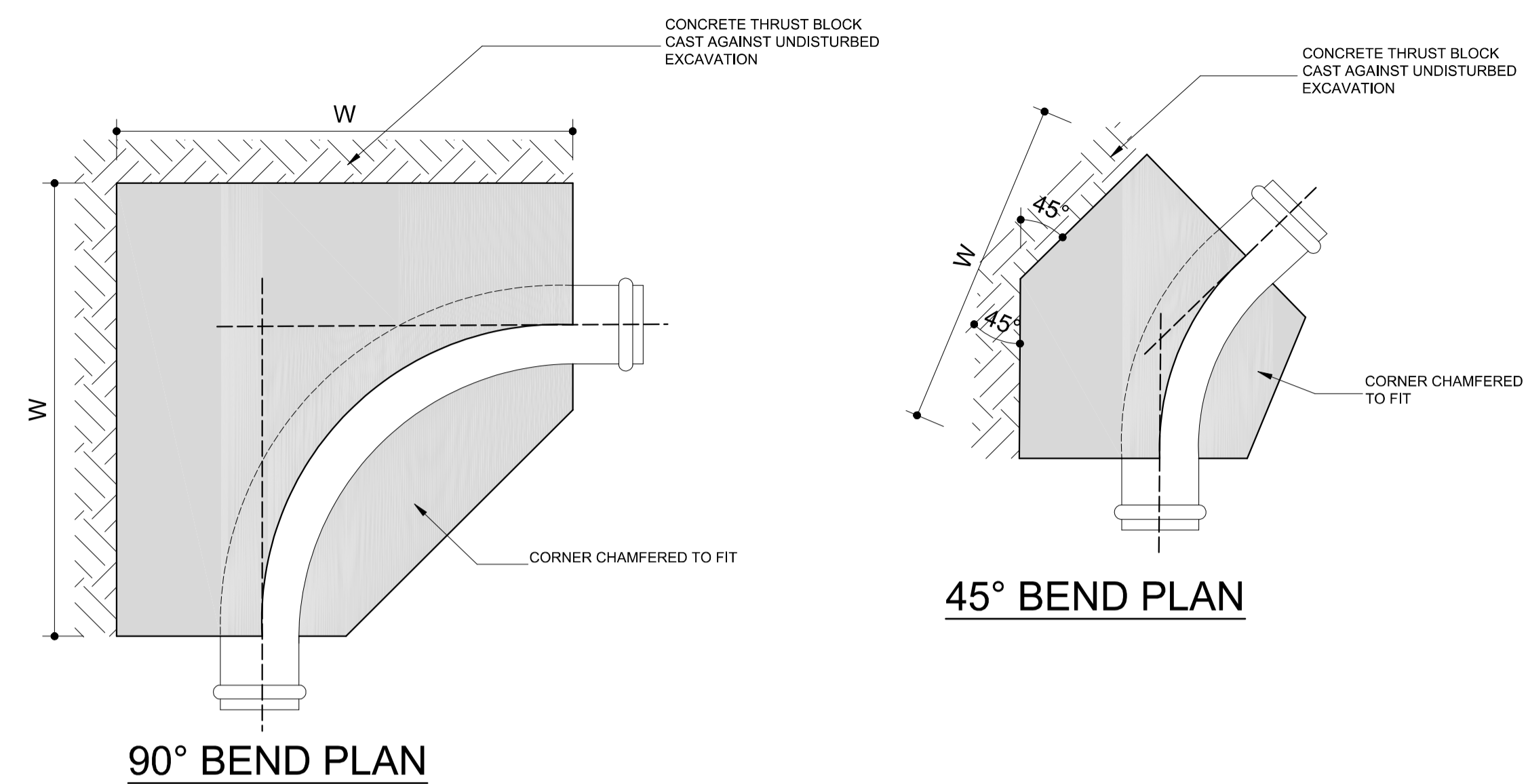
NEP CONSULTING ENGINEERS
PR. ENG: P.F. ERNST
PR. NR: 740593

SIGNATURE: _____

NOTES	
TENDER DRAWING	
IMPLEMENTING AGENT: MAQUASSI HILLS LOCAL MUNICIPALITY	

PROJECT
EMERGENCY WATER SUPPLY AUGMENTATION PROJECT FOR WOLMARANSSTAD EXT 13,17,18 & 19 (PORTION 1)
DRAWING TITLE
PROPOSED BULK WATER SUPPLY PORTION 1 LAYOUT PLAN

DESIGN	DATE	DRAWN	DATE
		T.M	OCT 2023
SURVEYED	DATE	CHECKED	DATE
		P.F. ERNST	OCT 2023
SCALE			
as shown			
DRAWING No.			
NW404/15/13-19/2/PT1/3			
AMENDMENT No.			



AMENDMENTS

No.	DATE	BY	DESCRIPTION

NOTES

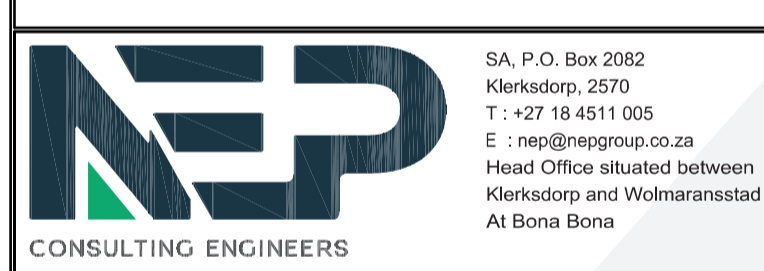
TENDER DRAWING

REFERENCE DRAWINGS

PLAN No.	DESCRIPTION

NEP CONSULTING ENGINEERS
 PR. ENG: P.F.ERNST
 PR.NR: 740593

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PROJECT
EMERGENCY WATER SUPPLY AUGMENTATION PROJECT FOR WOLMARANSSTAD EXT 13,17,18 & 19 (PORTION 1)

IMPLEMENTING AGENT:
MAQUASSI HILLS LOCAL MUNICIPALITY

DRAWING TITLE
THRUST BLOCK DETAILS & GRAPHS

DESIGN	DATE	DRAWN	DATE
PM	5-2023	PM	5-2023
SURVEYED	DATE	CHECKED	DATE
		PF.ERNST	5-2023

SCALE as shown

DRAWING No.
NW404/15/13-19/2/PT1/5

AMENDMENT No.



AMENDMENTS

No.	DATE	BY	DESCRIPTION

NOTES

TENDER DRAWING

REFERENCE DRAWINGS

PLAN No.	DESCRIPTION

NEP CONSULTING ENGINEERS
PR. ENG: P.F.ERNST
PR.NR: 740593

SIGNATURE:

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At Bona Bona

nepgroup.co.za **RESULT DRIVEN**

CLIENT
**MAQUASSI HILLS
LOCAL MUNICIPALITY**

PROJECT
**EMERGENCY WATER SUPPLY
AUGMENTATION PROJECT FOR
WOLMARANSSTAD
EXT 13,17,18 & 19 (PORTION 1)**

IMPLEMENTING AGENT:
MAQUASSI HILLS LOCAL MUNICIPALITY

DRAWING TITLE
**TYPICAL WATERMARKER
PIPE & CABLE CROSSINGS**

DESIGN	DATE	DRAWN	DATE
PM	5-2023	PM	5-2023
SURVEYED	DATE	CHECKED	DATE
		PF.ERNST	5-2023

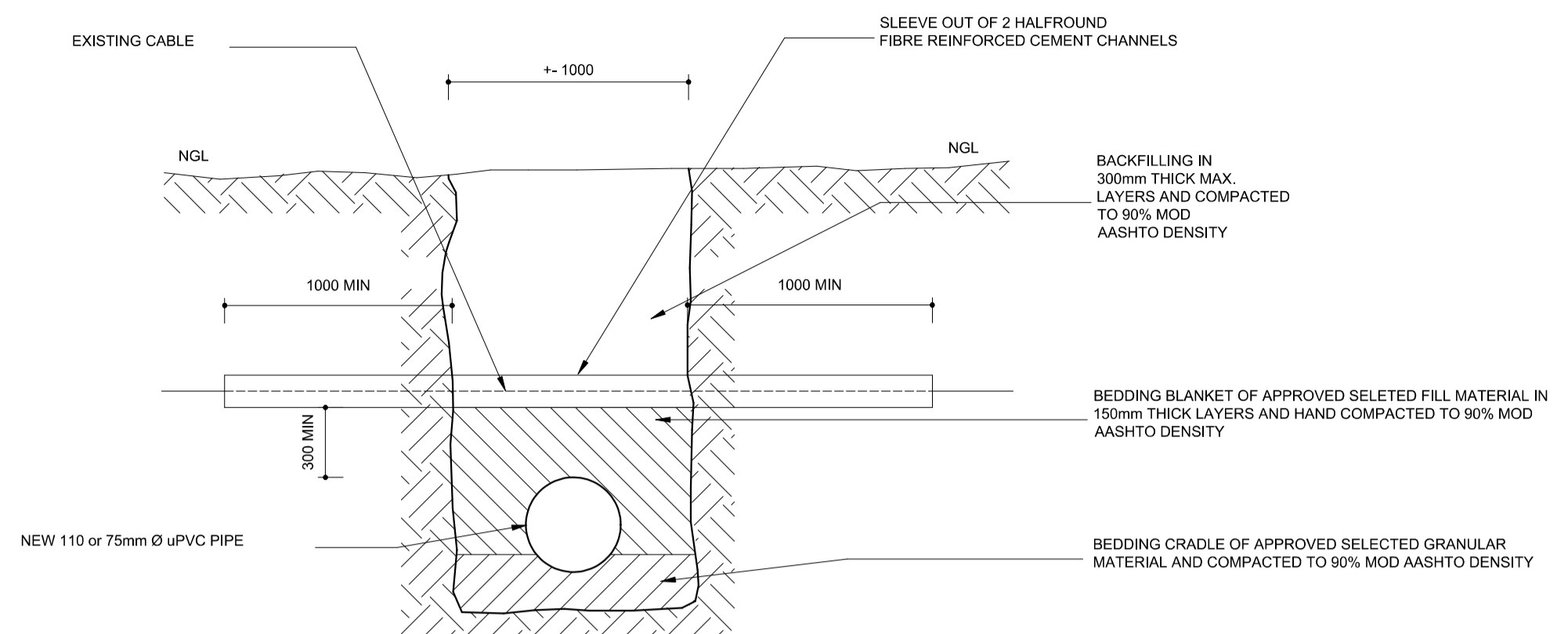
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NW404/15/13-19/2/PT1/6

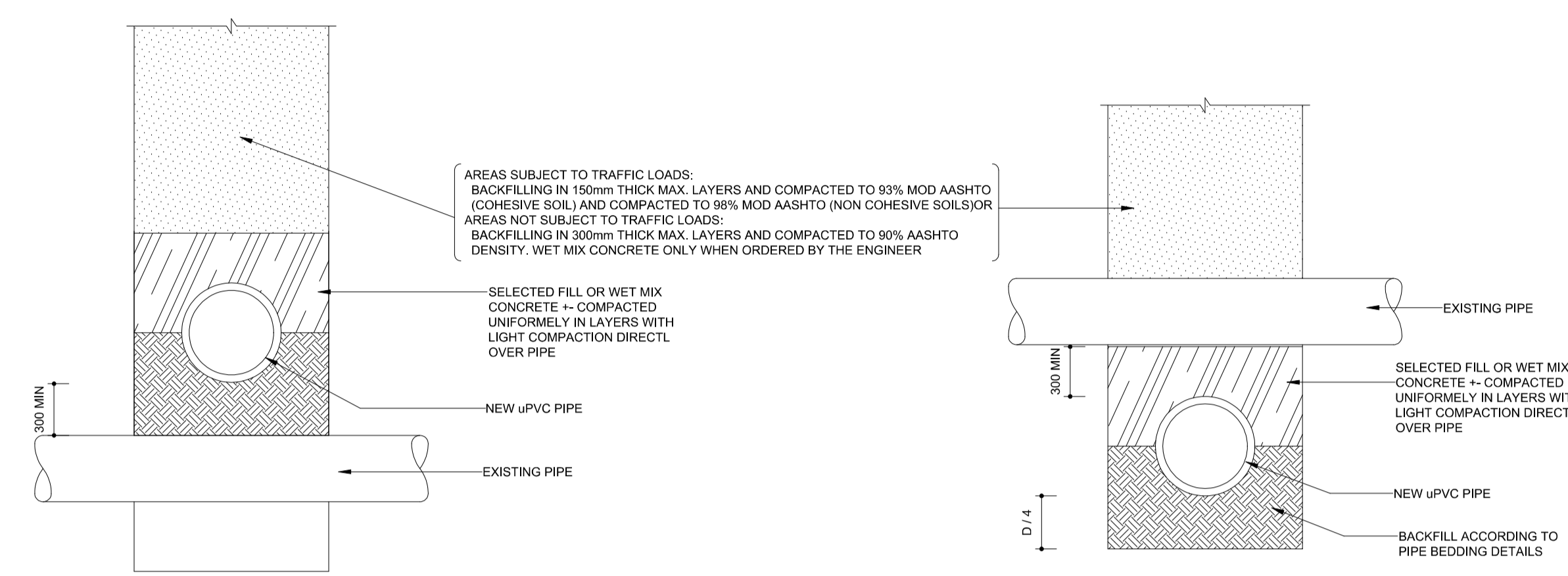
AMENDMENT No.

EXTERNAL DIAMETER OF PIPE BARREL	SIDE ALLOWANCE ON EACH SIDE (mm)	
	OVER	UP TO AND INCL.
-	125	300
125	700	300
700	1000	400
1000	2000	500
2000	-	600

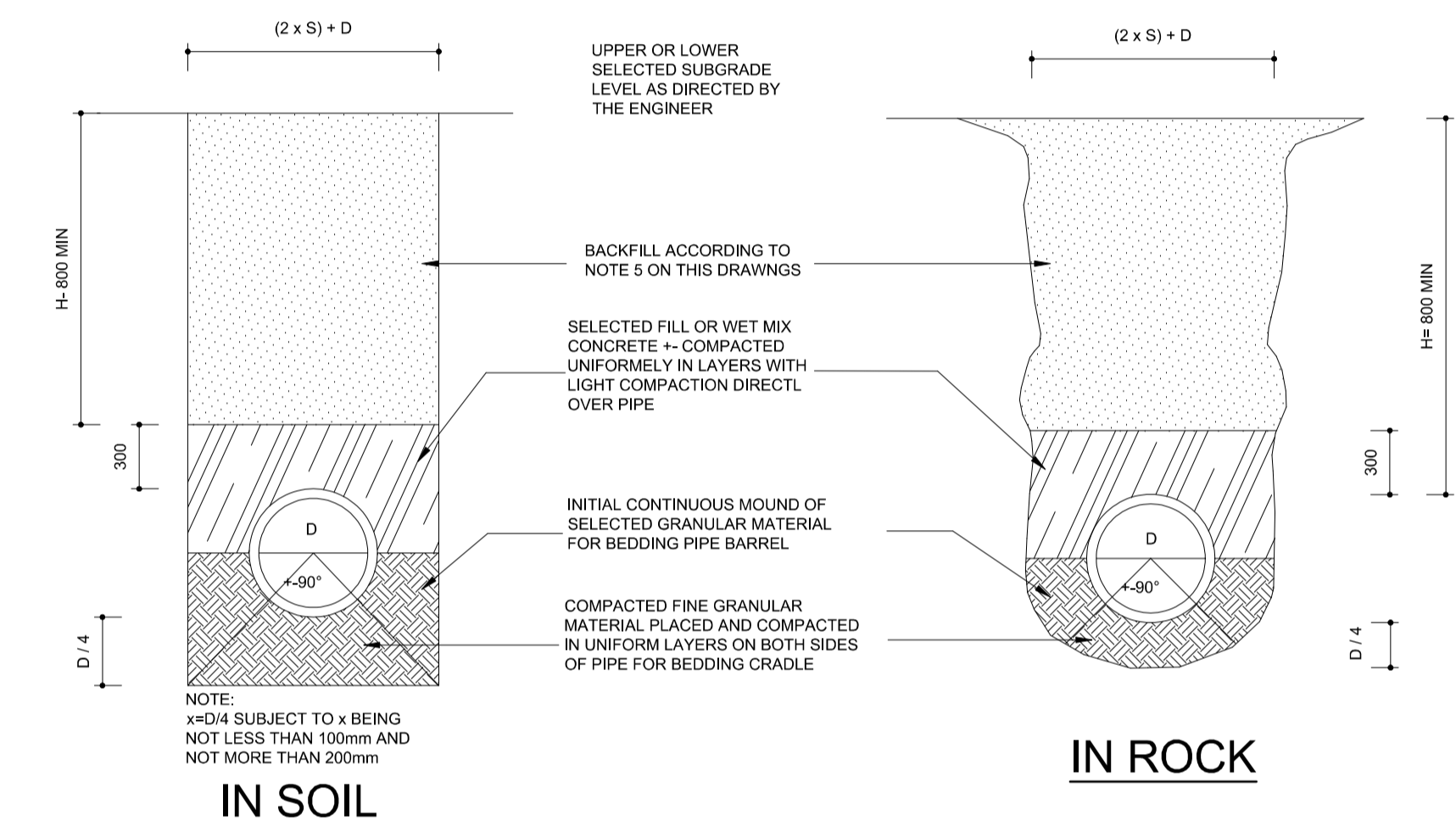
- NOTES: PIPE CULVERT**
- BEDDING BLANKET OF APPROVED SELECTED FILL MATERIAL IN 150mm LAYERS AND HAND COMPACTED TO 90% MOD AASHTO DENSITY
 - ALL PIPE CULVERT TO BE INTERLOCKING JOINT PIPES-SANS 677 (SC TYPE)
 - ALL PIPE CULVERT ROAD CROSSING SHALL BE CLASS 75D PIPES
 - ALL OTHER STORMWATER PIPES SHALL BE CLASS 50D UNLESS OTHERWISE SPECIFIED
 - AREAS SUBJECT TO TRAFFIC LOADS:
BACKFILLING IN 150mm THICK MAX. LAYERS AND COMPACTED TO 93% MOD AASHTO (COHESIVE SOIL) AND COMPACTED TO 98% MOD AASHTO (NON COHESIVE SOILS) OR AREAS NOT SUBJECT TO TRAFFIC LOADS:
BACKFILLING IN 300mm THICK MAX. LAYERS AND COMPACTED TO 90% AASHTO DENSITY. WET MIX CONCRETE ONLY WHEN ORDERED BY THE ENGINEER
 - S= SIDE ALLOWANCE D= NOMINAL DIAMETER



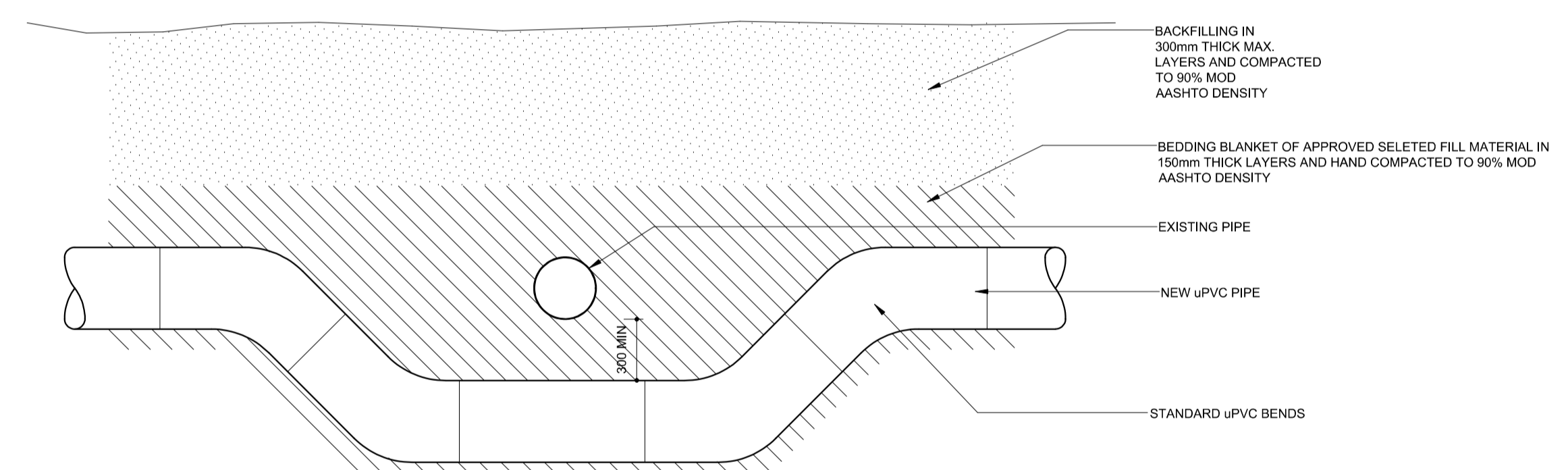
TYPICAL UNDERGROUND CABLE CROSSING DETAIL
1 : 30



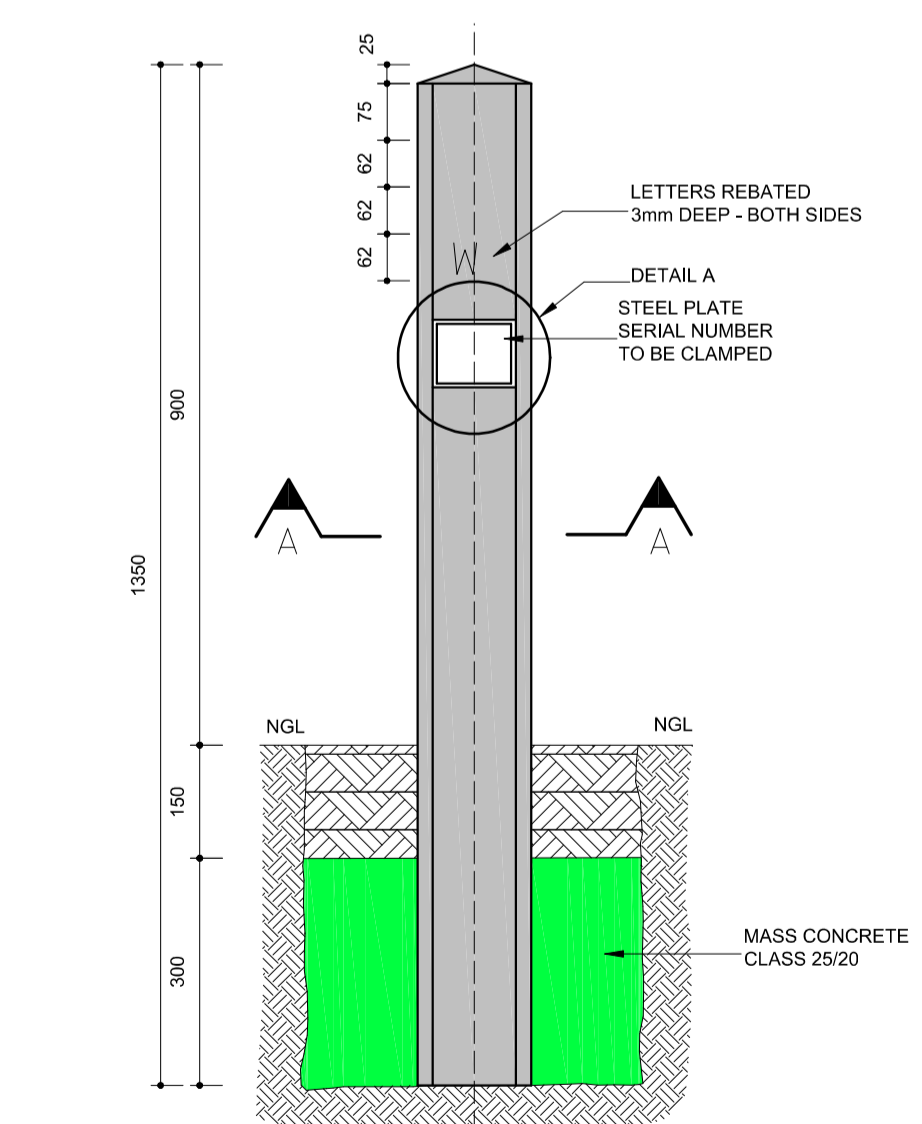
TYPICAL UNDERGROUND PIPE CROSSING DETAILS
1 : 30



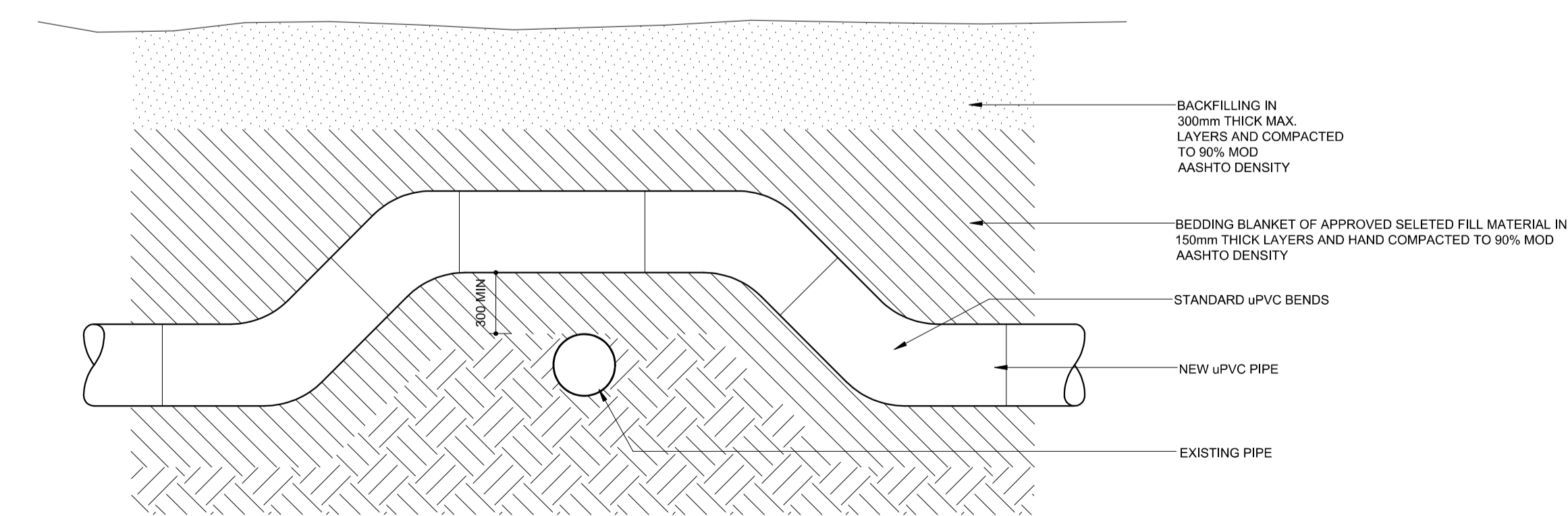
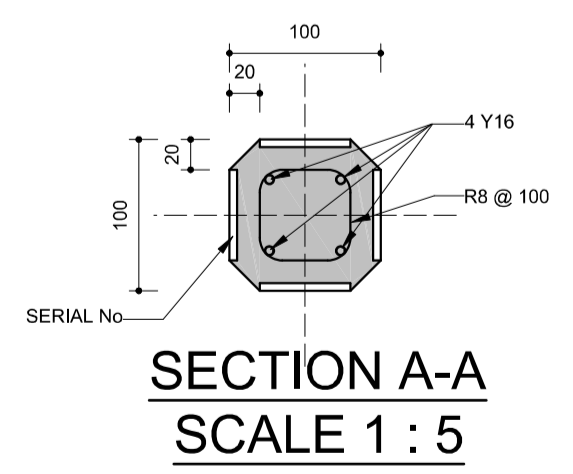
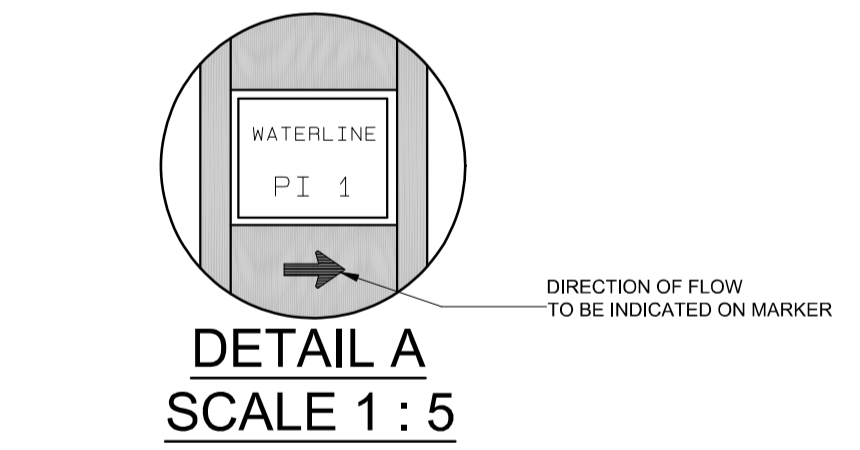
CLASS B BEDDING
1:30



**TYPICAL UNDERGROUND PIPE CROSSING
DETAILS IF ON SAME LEVEL OPTION 1**
1 : 25



**PIPELINE PRECAST CONCRETE
MARKER POST**
SCALE 1 : 10



**TYPICAL UNDERGROUND PIPE CROSSING
DETAILS IF ON SAME LEVEL OPTION 2**
1 : 25

Z:\NW\DC40 - DR KENETH KAUNDA\NW404 MAQUASSI HILLS 2023\Emergency Water Supply Augmentation\Wol Ext 13 to 19 E - TENDER DRAWINGS\Portion 2\NW404-15-13-19-2-PT1-6.dwg



AMENDMENTS			
No.	DATE	BY	DESCRIPTION

NOTES

REFERENCE DRAWINGS	
PLAN No.	DESCRIPTION

NEP CONSULTING ENGINEERS
 PR. ENG: P.F.ERNST
 PR.NR: 740593

SIGNATURE: _____
 PRINT ISSUED ON _____

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 Head Office situated between
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 At Bona Bona

RESULT DRIVEN

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MAQUASSI HILLS LOCAL MUNICIPALITY

PROJECT

EMERGENCY WATER SUPPLY AUGMENTATION PROJECT FOR WOLMARANSSTAD EXT 13,17,18 & 19 (PORTION 1)

IMPLEMENTING AGENT:

MAQUASSI HILLS LOCAL MUNICIPALITY

DRAWING TITLE

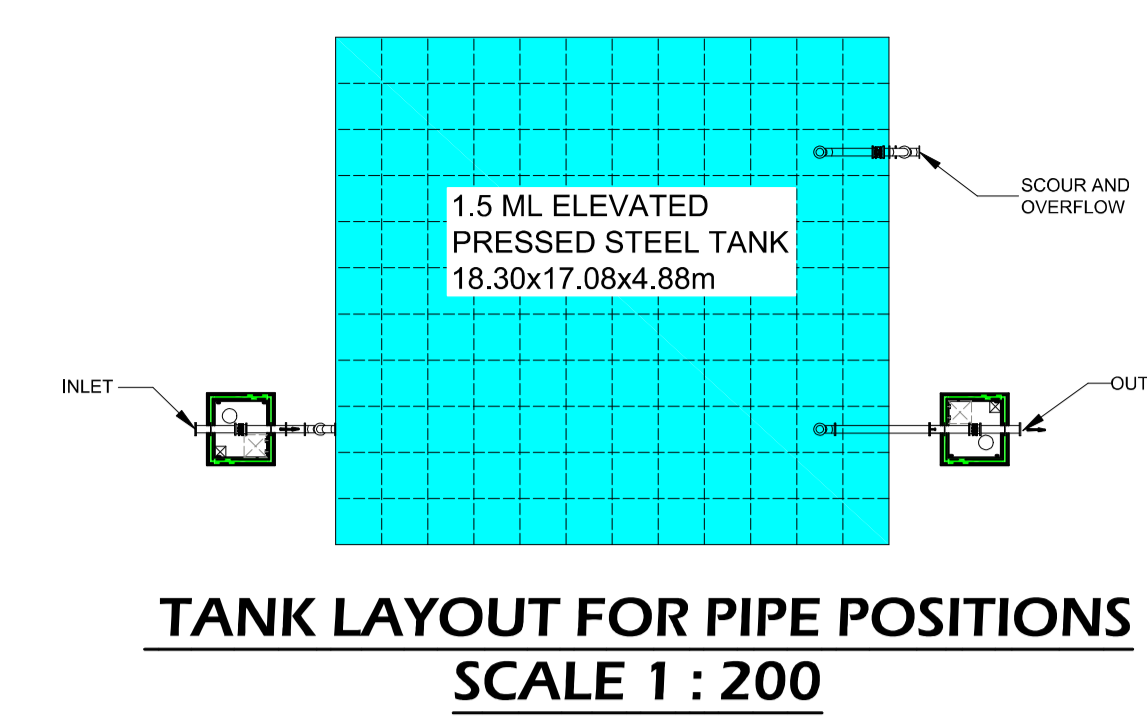
1.5 KL RESERVOIR DETAILS, PLAN & SECTIONS

DESIGN	DATE	DRAWN	DATE
PM	10-2023	T.M	10-2023
SURVEYED	DATE	CHECKED	DATE
		PF. ERNST	10-2023

SCALE as shown

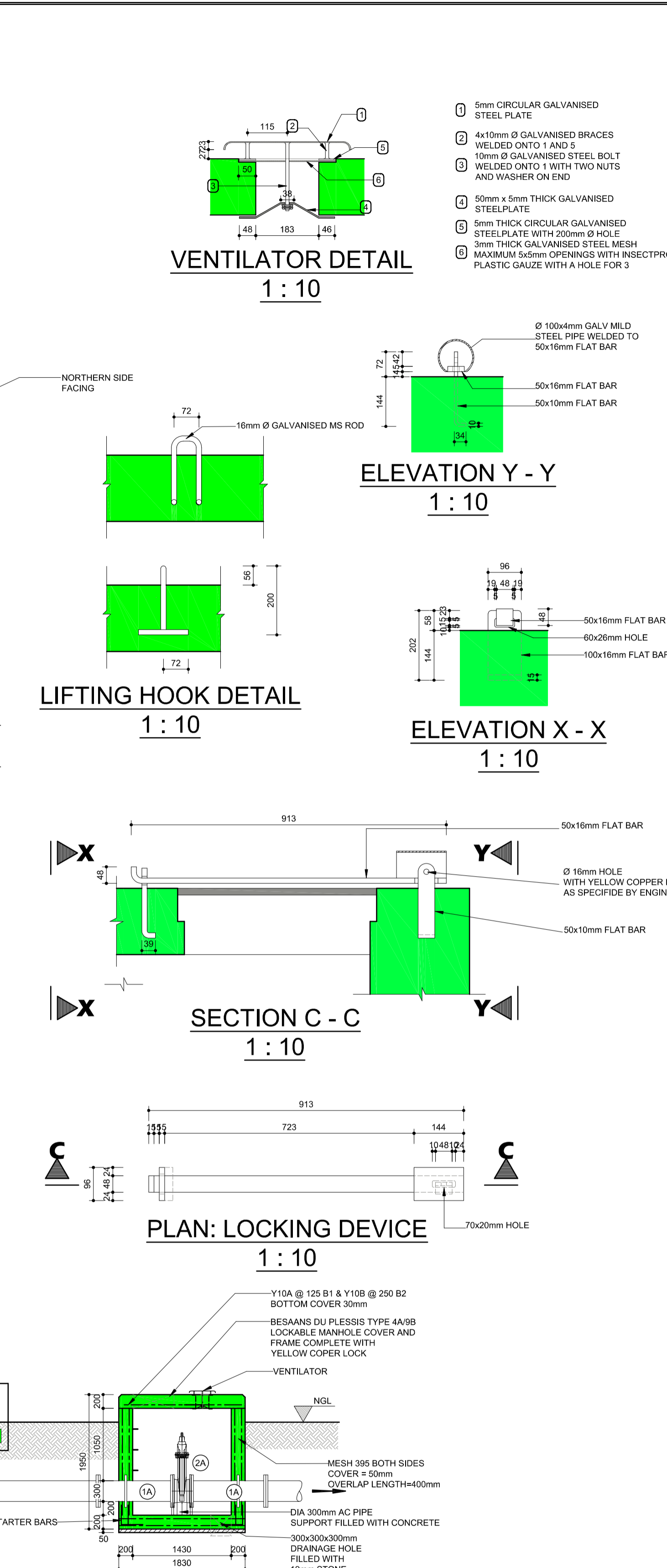
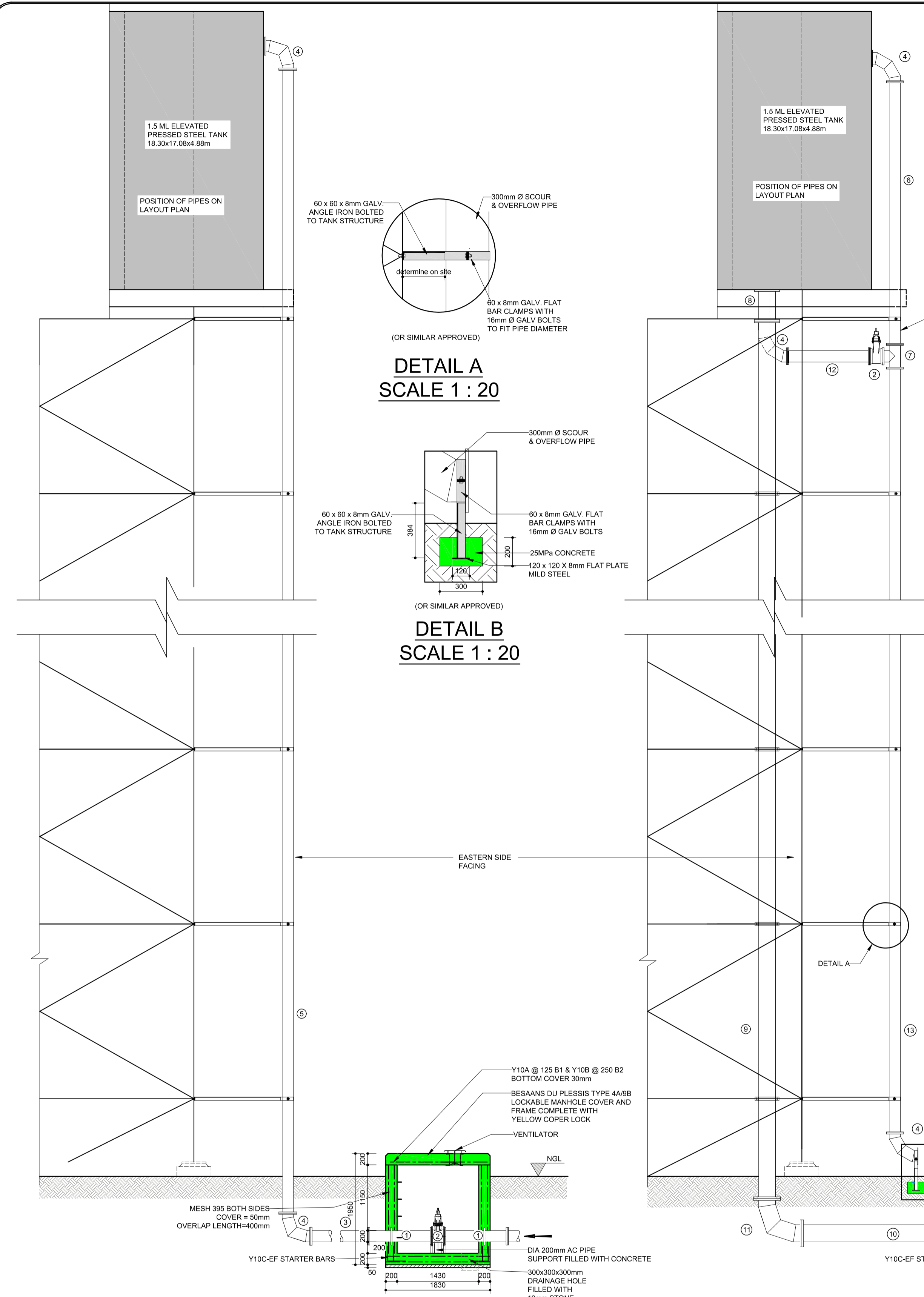
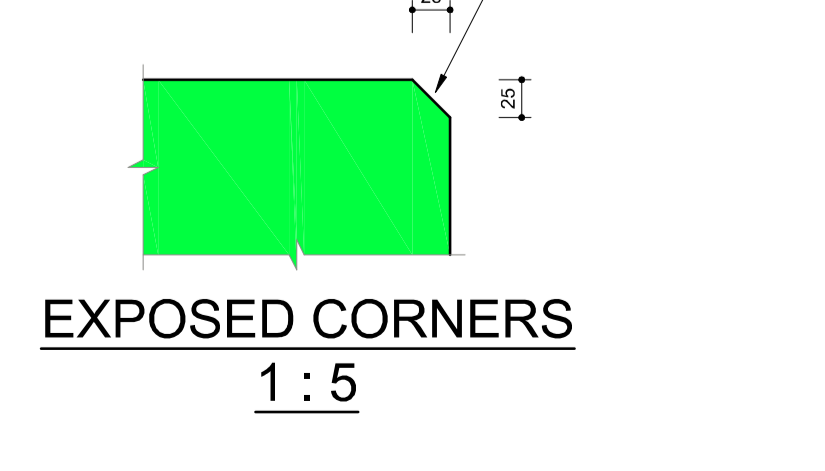
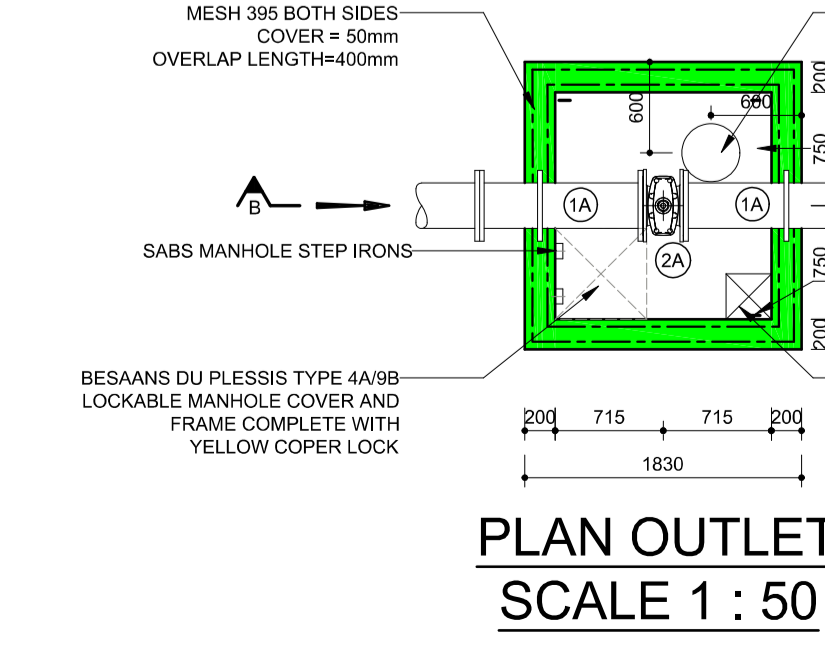
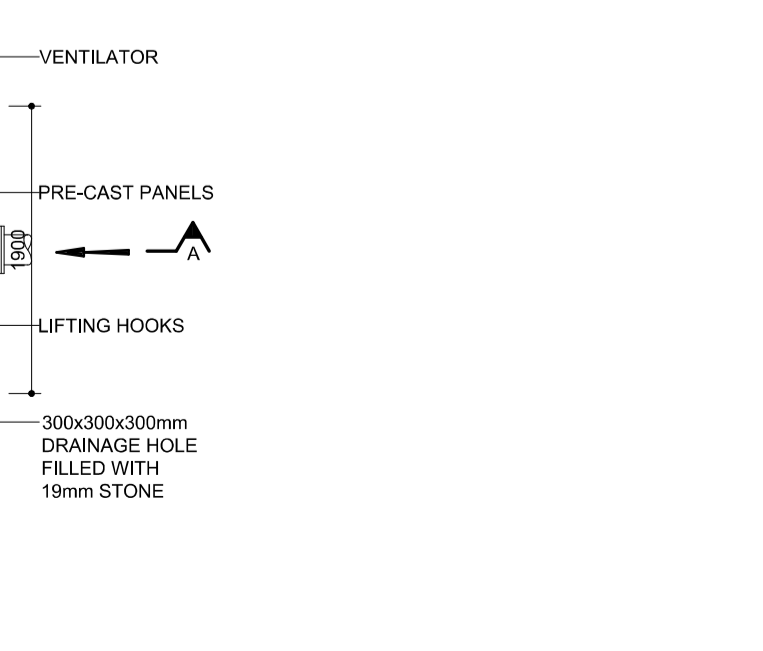
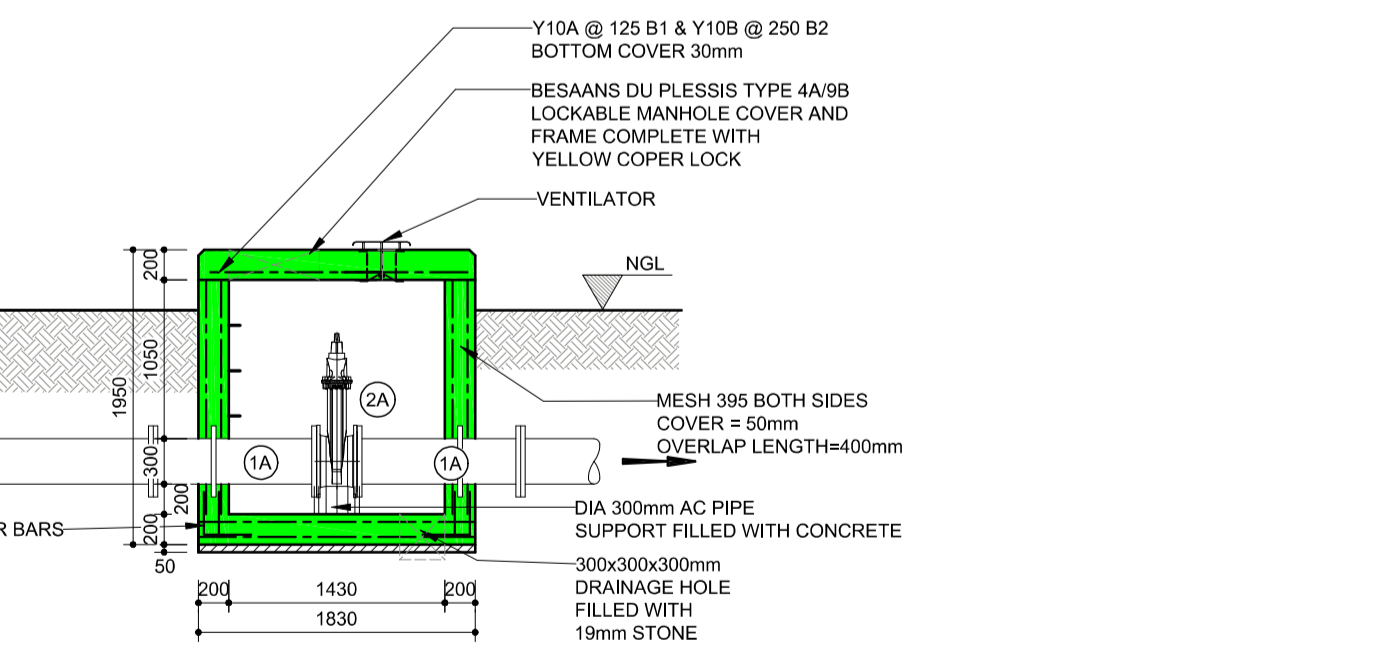
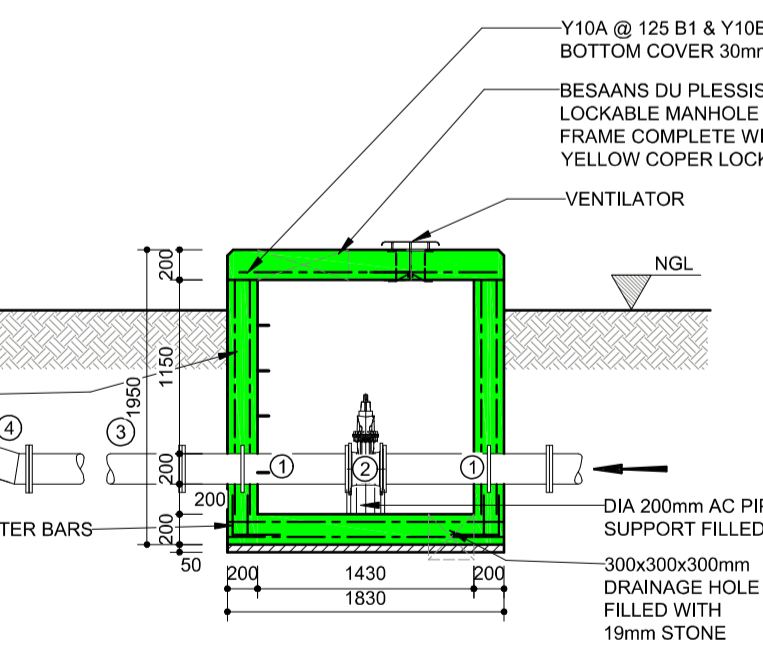
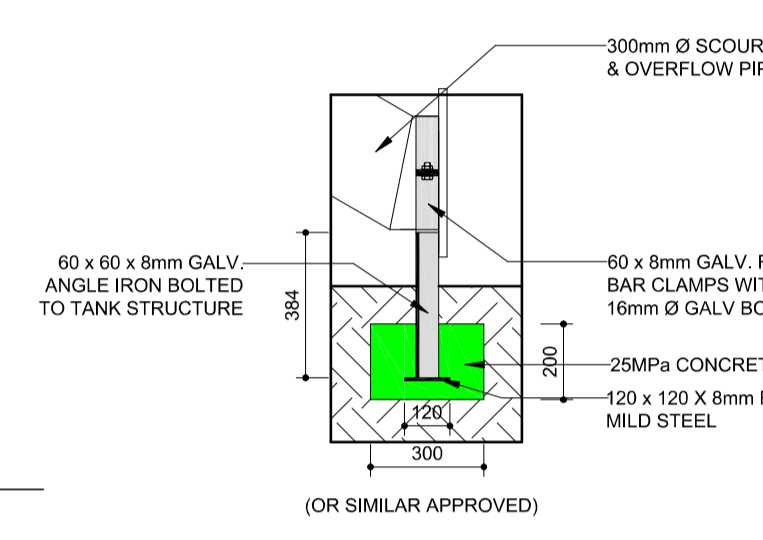
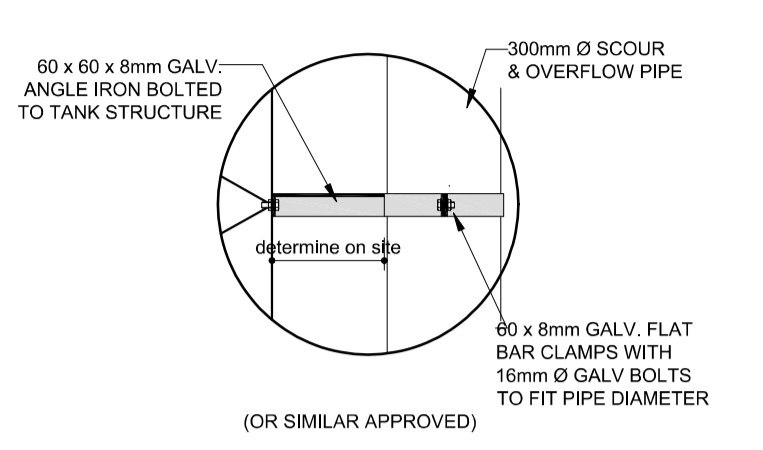
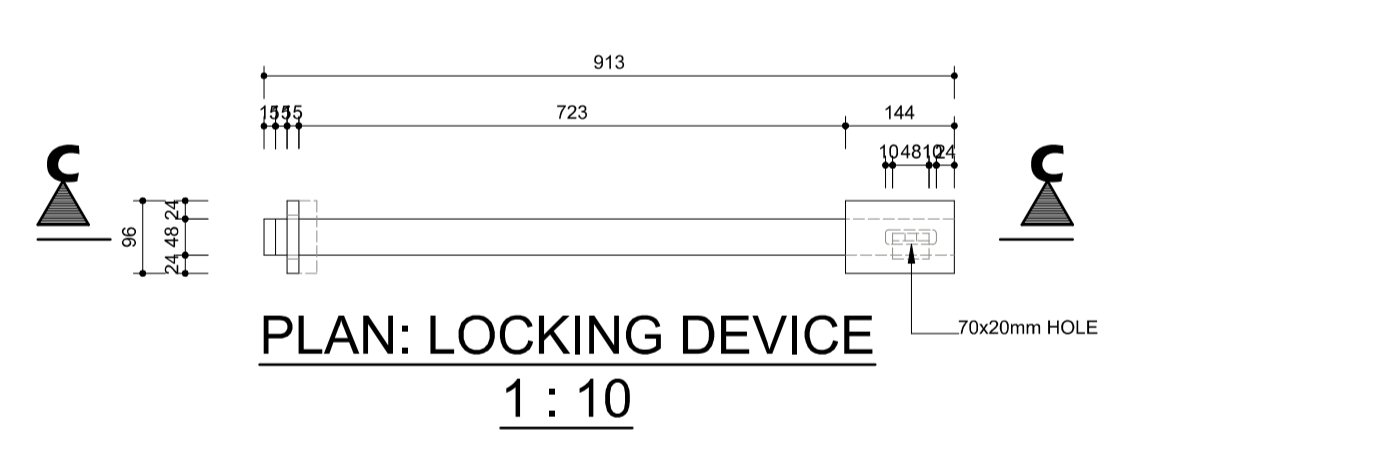
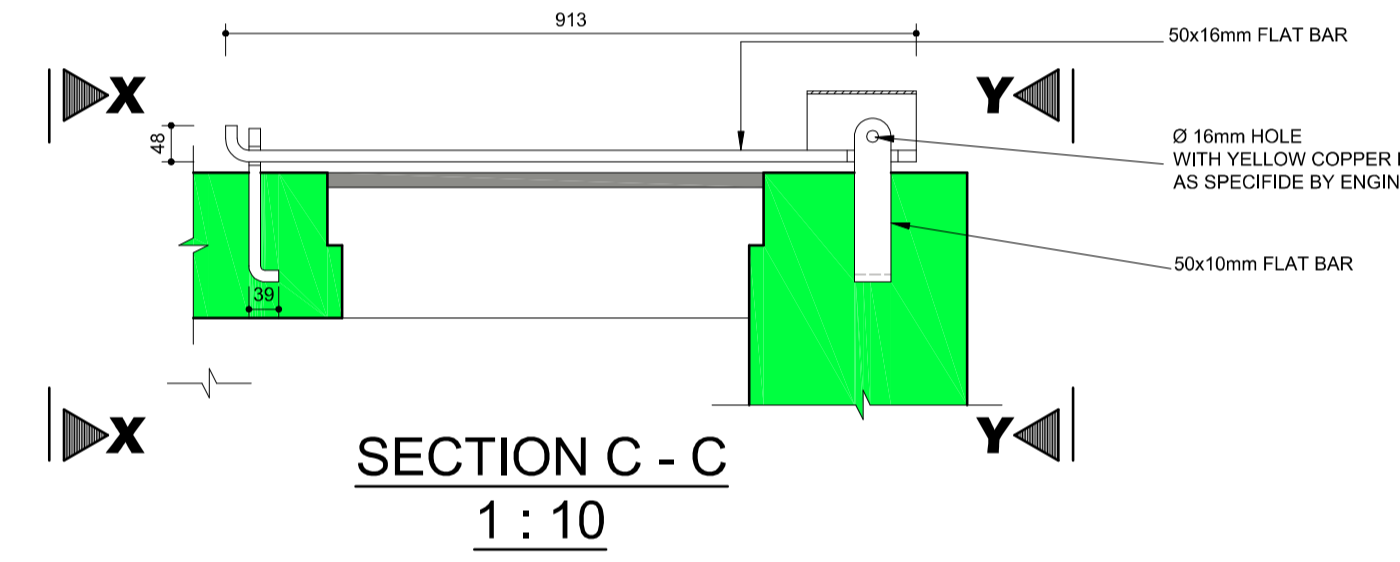
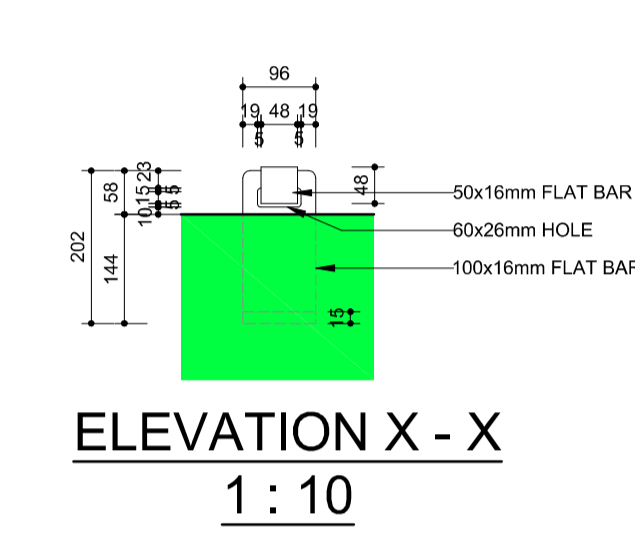
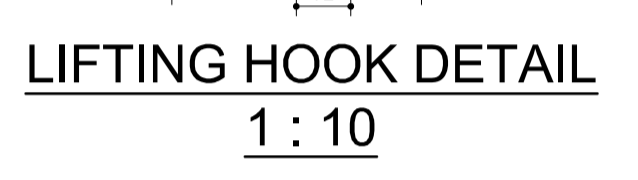
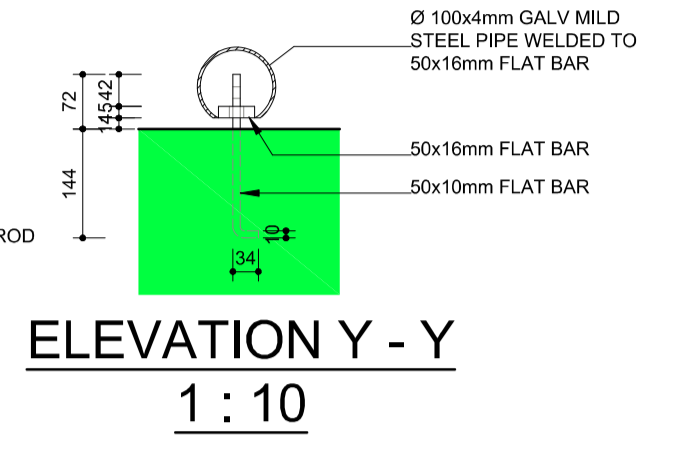
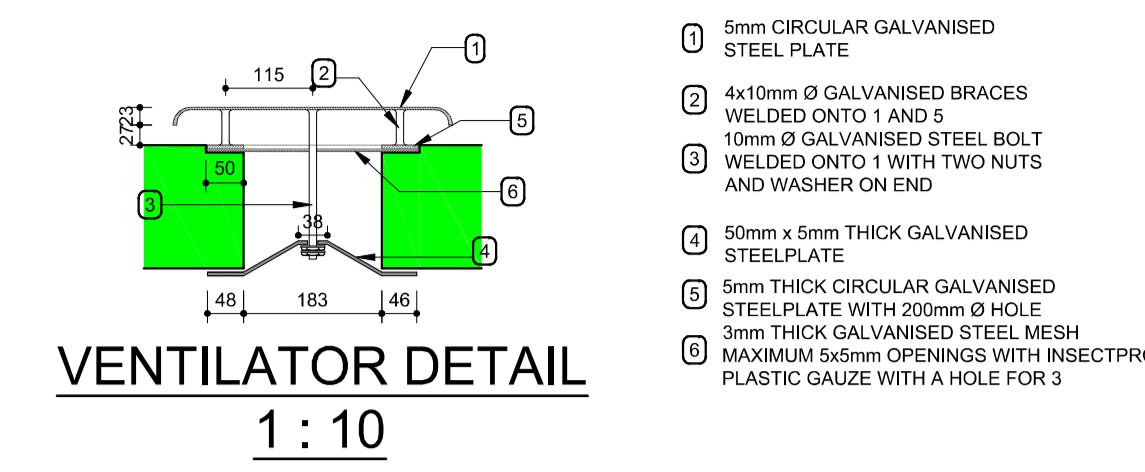
DRAWING No. **NW404/15/13-19/2/PT1/7**

AMENDMENT No. _____



CONTROL CHAMBER No2 & INLET PIPE SCHEDULE

ITEM No.	QUANTITY	DESCRIPTION	DIMENSIONS
①	2	200mm DIA BOTH ENDS FLANGED PUDDLE PIPE. STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL.	400 700
①A	2	300mm DIA BOTH ENDS FLANGED PUDDLE PIPE. STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL.	400 680
②	2	200mm DIA AVK NON RISING SPINDLE GATE VALVE WITH HANDWHEEL FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. TWO HOLES TOP	230
②A	1	300mm DIA AVK NON RISING SPINDLE GATE VALVE WITH HANDWHEEL FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. TWO HOLES TOP	270
③	1	200mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL.	1000 to be finalized on site
④	5	200mm DIA BOTH ENDS FLANGED STANDARD 90° MEDIUM RADIUS BEND STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL.	405 405
⑤	1	200mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND HOT DIPPED GALV. EXTERNAL.	24513 to be finalized on site
⑥	1	200mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND HOT DIPPED GALV. EXTERNAL.	4453 to be finalized on site
⑦	1	200mm DIA ALL ENDS FLANGED STANDARD TEE STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL (1X HOT DIPPED GALV. EXTERNAL)	230 230
⑧	1	300mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND HOT DIPPED GALV. EXTERNAL.	550 to be finalized on site
⑨	1	300mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND HOT DIPPED GALV. EXTERNAL.	20759 to be finalized on site
⑩	1	300mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL.	3.478m to be finalized on site
⑪	1	300mm DIA BOTH ENDS FLANGED STANDARD 90° MEDIUM RADIUS BEND STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL.	610 610
⑫	1	200mm DIA BOTH ENDS FLANGED PUDDLE PIPE. STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL.	1163 to be finalized on site
⑬	1	200mm DIA BOTH ENDS FLANGED PUDDLE PIPE. STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL.	17857 to be finalized on site





AMENDMENTS			
No.	DATE	BY	DESCRIPTION

NOTES

TENDER DRAWING

REFERENCE DRAWINGS	
PLAN No.	DESCRIPTION

NEP CONSULTING ENGINEERS
 PR. ENG: P.F.ERNST
 PR.NR: 740593

SIGNATURE:

PRINT ISSUED ON

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 Head Office situated between
 Klerksdorp and Wolmaransstad
 At Bone Bone

nepgroup.co.za **RESULTDRIVEN**

CLIENT
**MAQUASSI HILLS
 LOCAL MUNICIPALITY**

PROJECT
**EMERGENCY WATER SUPPLY
 AUGMENTATION PROJECT FOR
 WOLMARANSSTAD
 EXT 13,17,18 & 19 (PORTION 1)**

IMPLEMENTING AGENT:
MAQUASSI HILLS LOCAL MUNICIPALITY

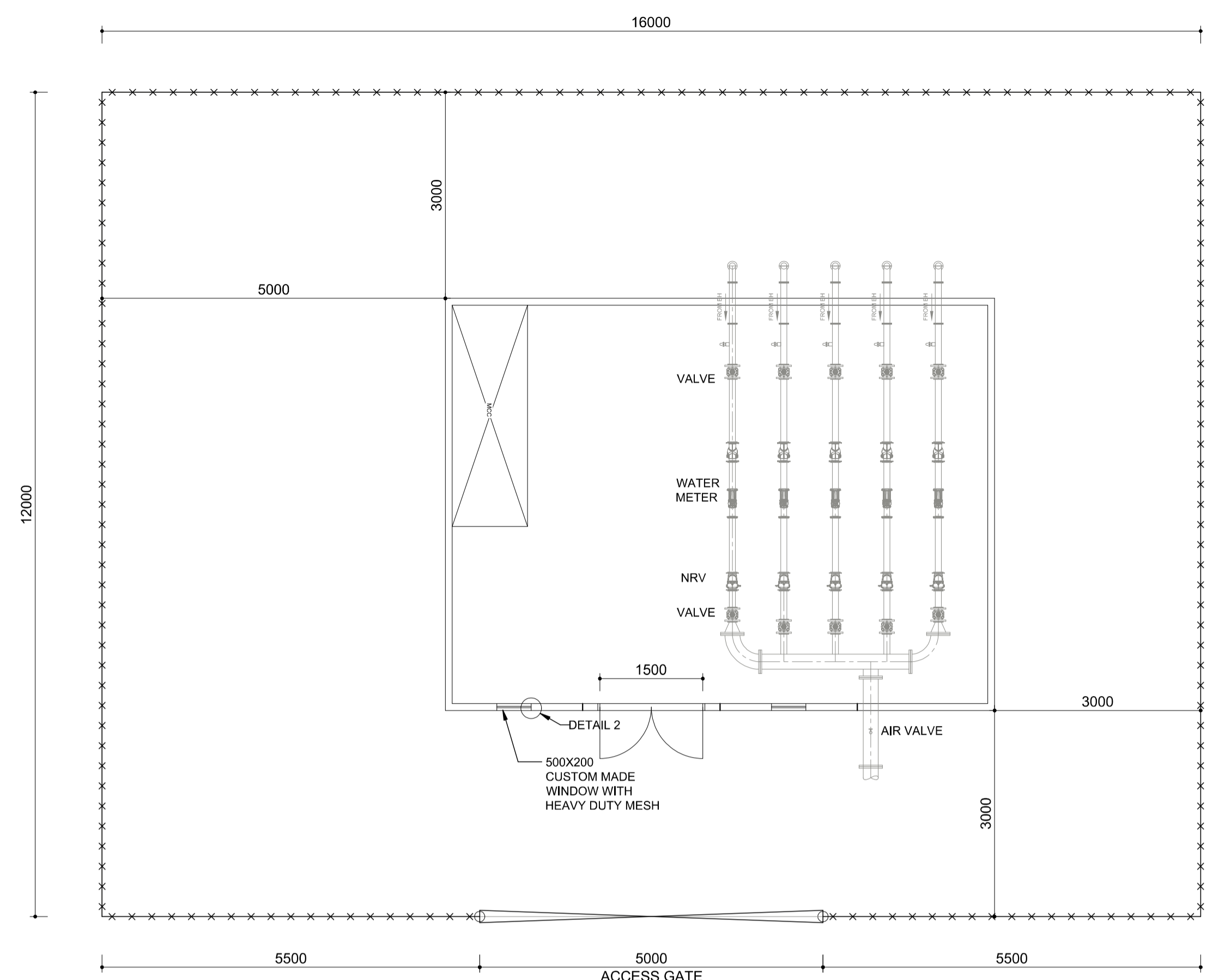
DRAWING TITLE
**CONCRETE PUMP HOUSE
 LAYOUT PLAN AND
 FENCE DETAILS**

DESIGN	DATE	DRAWN	DATE
PM	10-2023	T.M	10-2023
SURVEYED	DATE	CHECKED	DATE
		PF. ERENST	10-2023

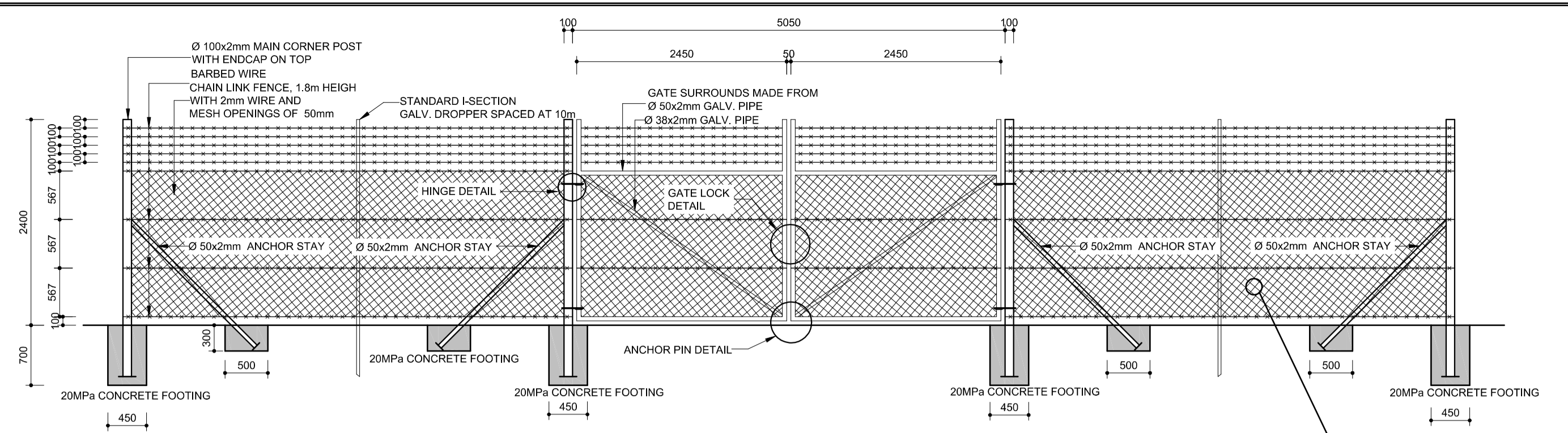
SCALE as shown

DRAWING No.
NW404/15/13-19/2/PT1/8

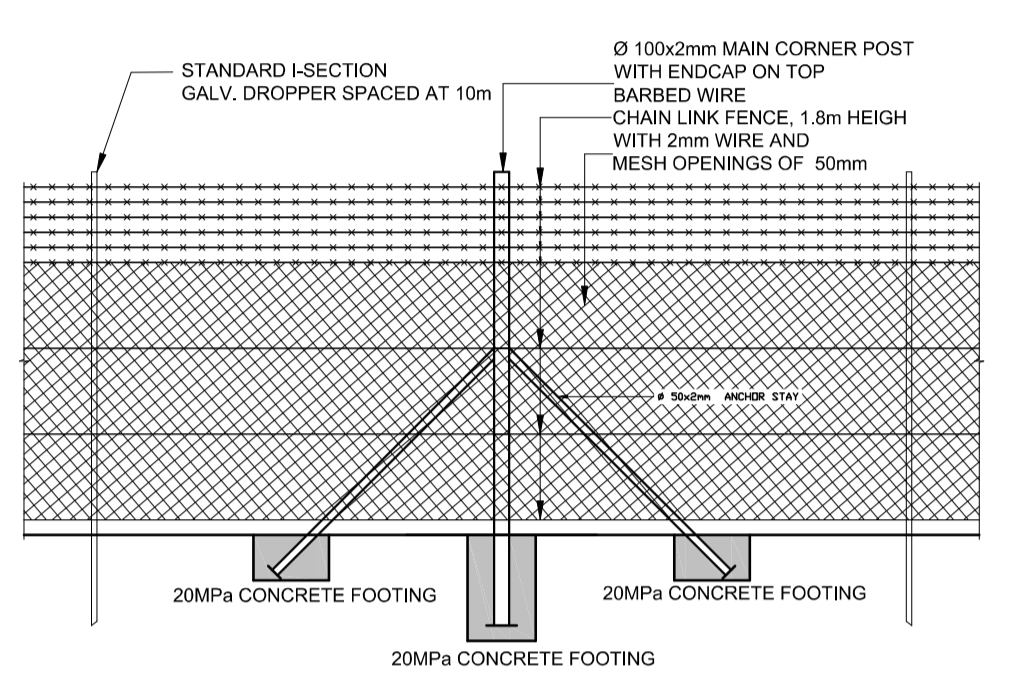
AMENDMENT No.



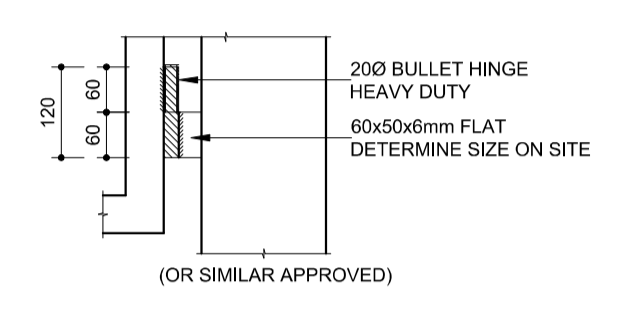
LAYOUT PLAN
SCALE 1:60



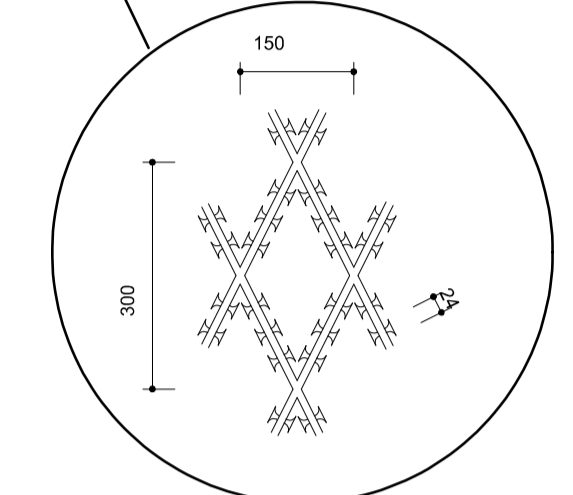
WIRE SECURITY FENCE: ELEVATION
1:25



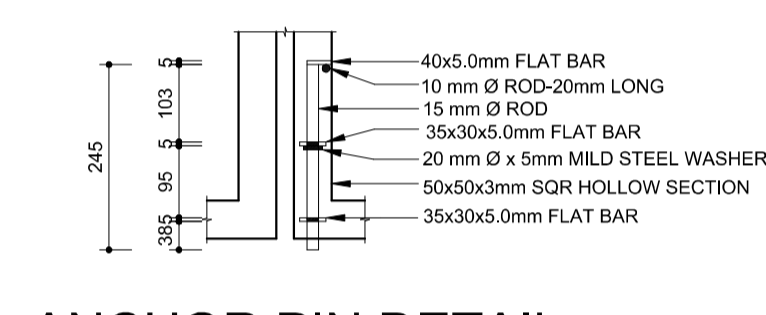
WIRE SECURITY FENCE: ELEVATION ANCHOR DETAIL
1:25



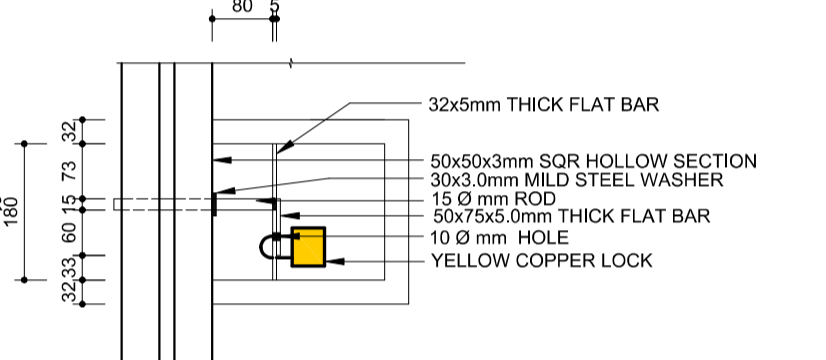
GATE HINGE DETAIL
1:10



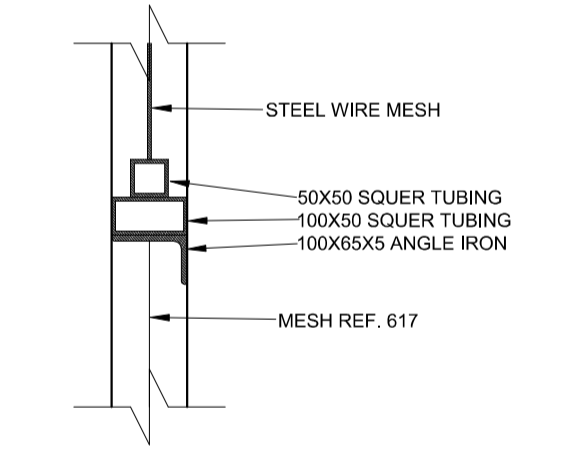
RIPPER RAZER MESH DETAIL
1:10



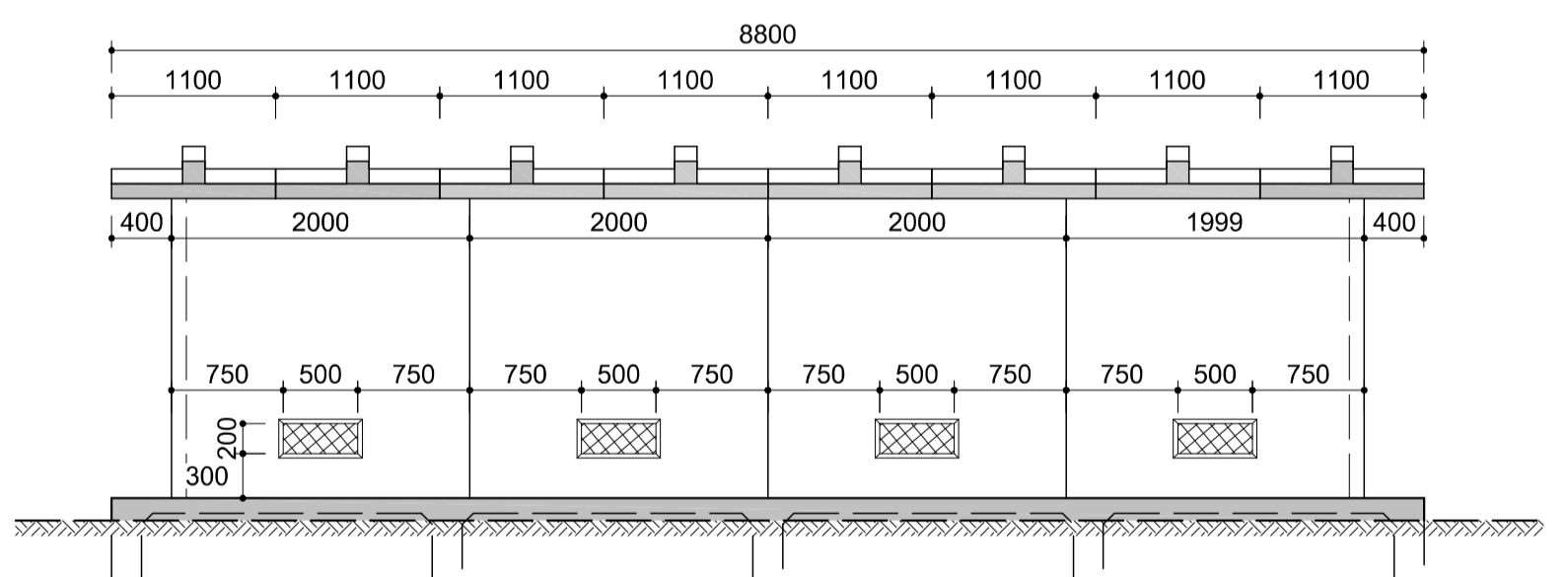
ANCHOR PIN DETAIL
1:10



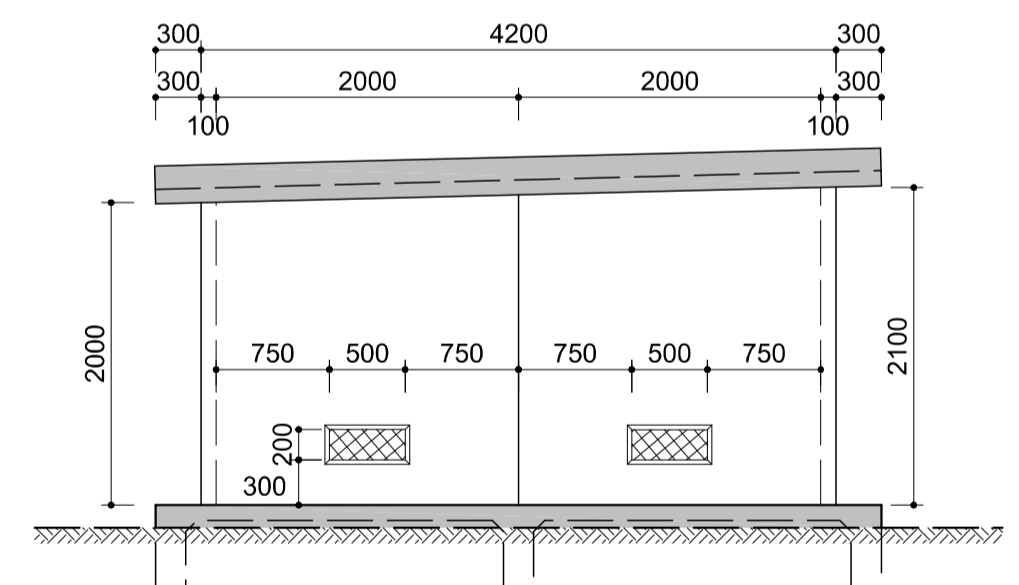
GATE LOCK DETAIL
1:10



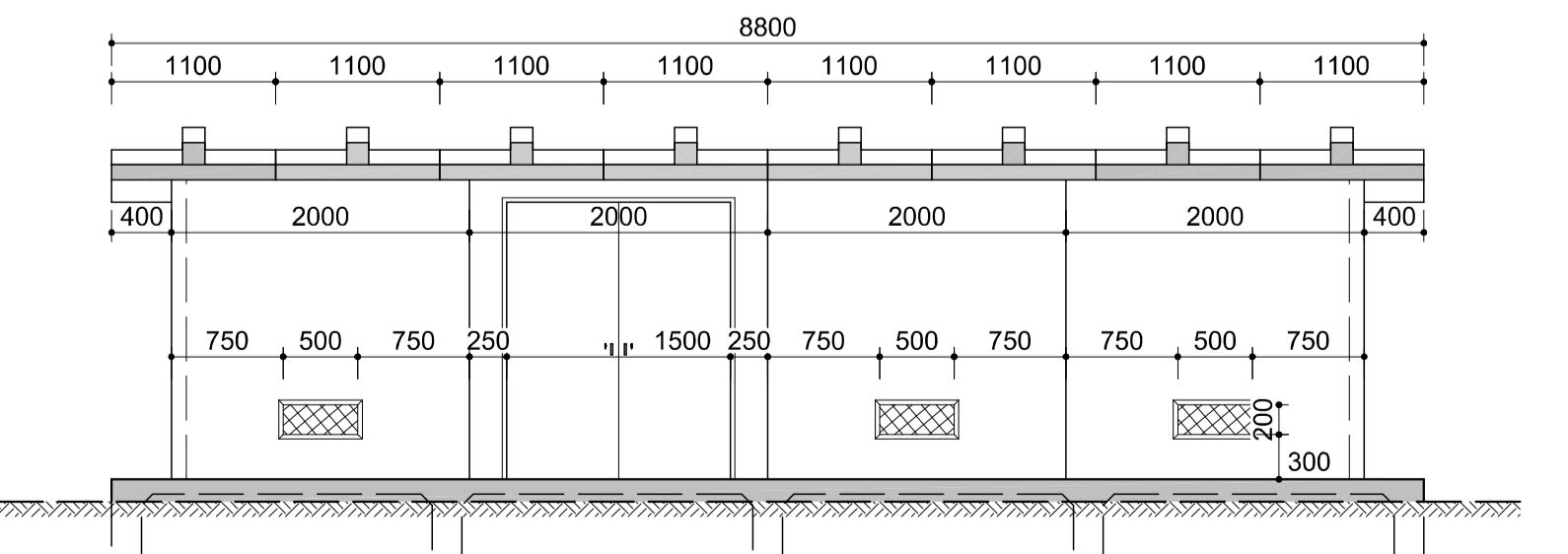
DETAIL 2
1:10



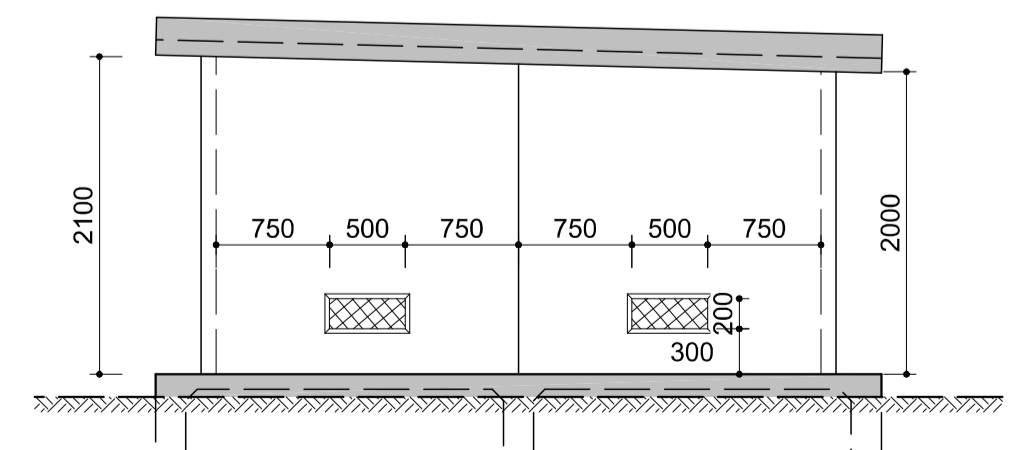
REAR ELEVATION
SCALE 1:50



SIDE ELEVATION
SCALE 1:50



FRONT ELEVATION
SCALE 1:50



SIDE ELEVATION
SCALE 1:50

**CJC PRECAST
 PUMP HOUSE**



AMENDMENTS

No.	DATE	BY	DESCRIPTION

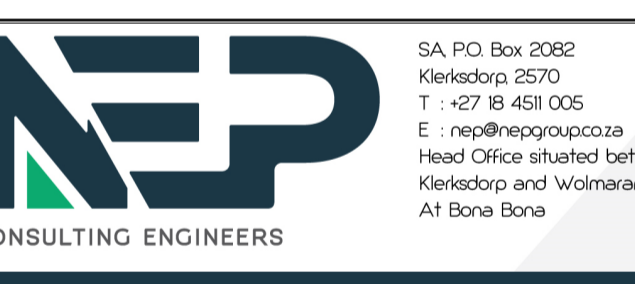
NOTES

TENDER DRAWING

REFERENCE DRAWINGS	
PLAN No.	DESCRIPTION

NEP CONSULTING ENGINEERS
 PR. ENG: P.F.ERNST
 PR.NR: 740593

SIGNATURE:



nepgroup.co.za **RESULTDRIVEN**



PROJECT
EMERGENCY WATER SUPPLY AUGMENTATION PROJECT FOR WOLMARANSSTAD EXT 13,17,18 & 19 (PORTION 1)

IMPLEMENTING AGENT:
 MAQUASSI HILLS LOCAL MUNICIPALITY

DRAWING TITLE
TYPICAL BOREHOLE PUMP ARRANGEMENT

DESIGN	DATE	DRAWN	DATE
PM	10-2023	T.M	10-2023
SURVEYED	DATE	CHECKED	DATE
		PF. ERNST	10-2023

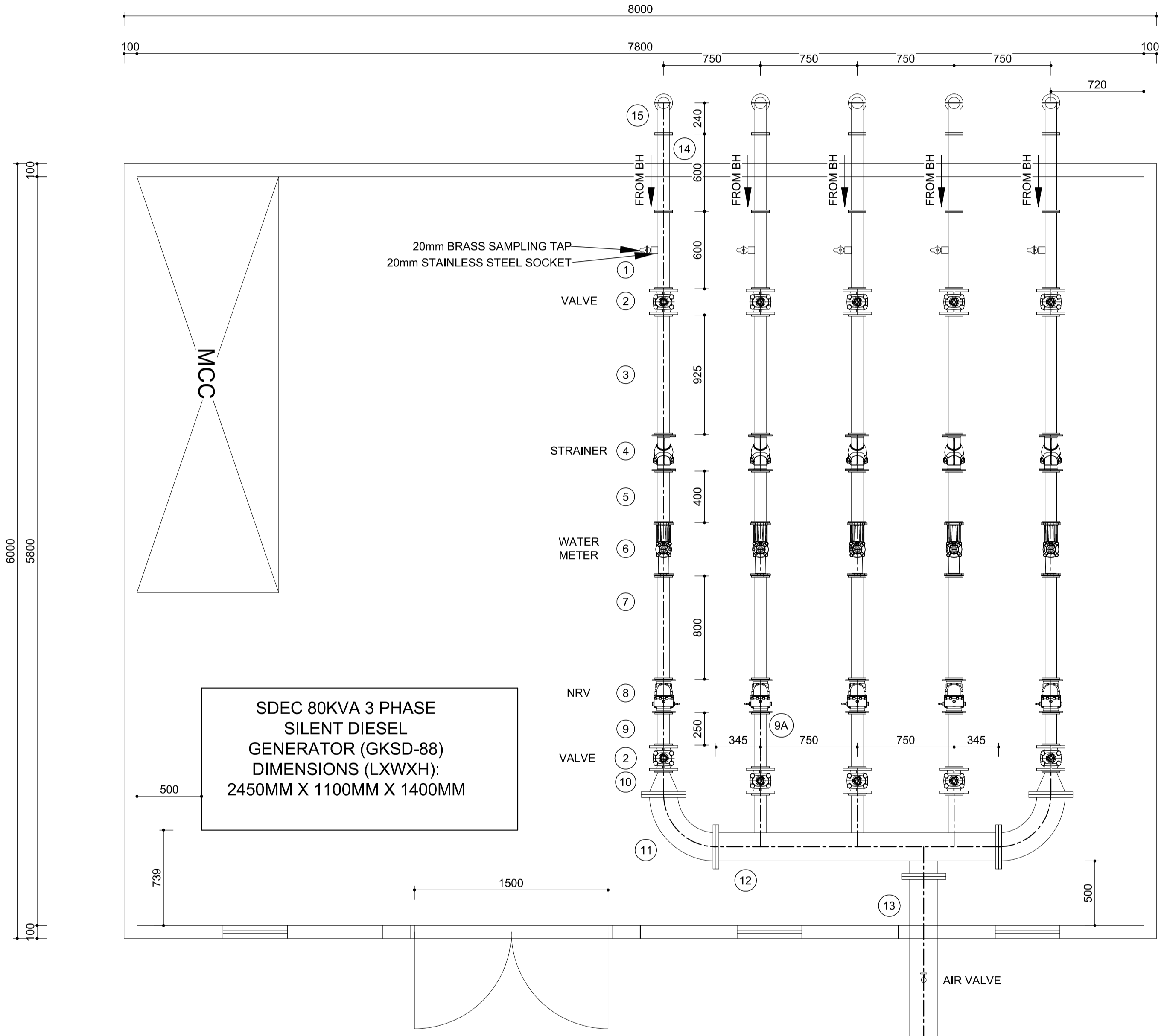
SCALE as shown

DRAWING No.
NW404/15/13-19/2/PT1/9

AMENDMENT No.

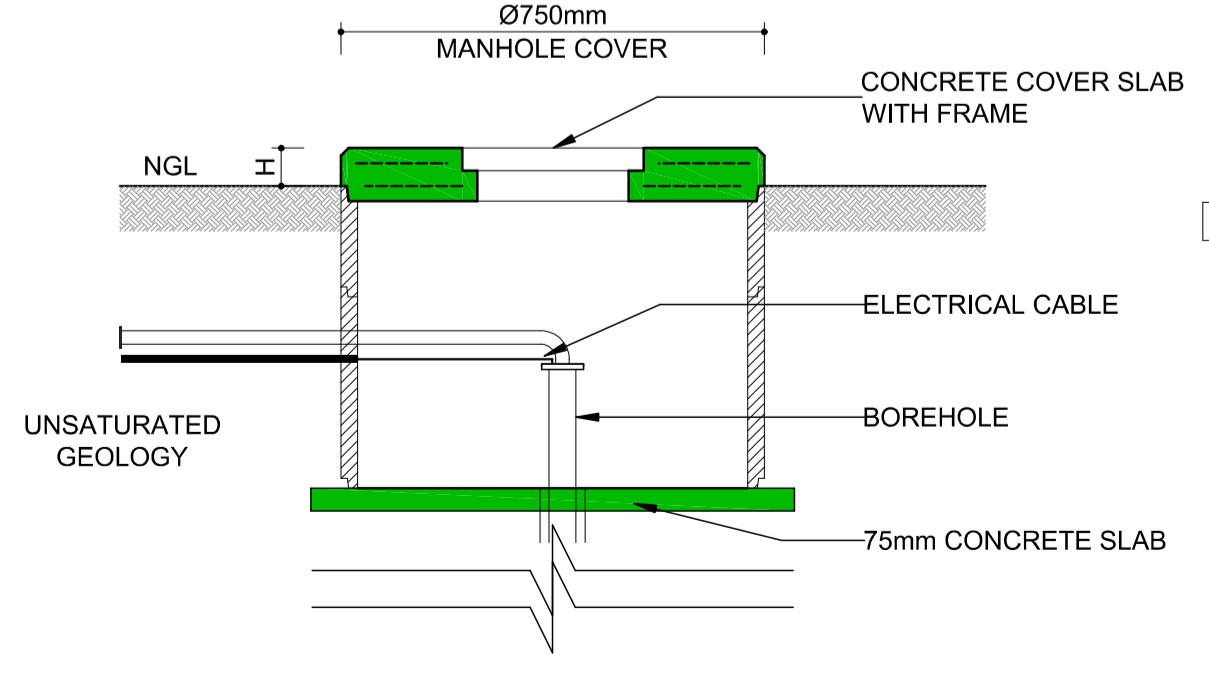
CONTROL CHAMBER No2 & INLET PIPE SCHEDULE

ITEM No.	QUANTITY	DESCRIPTION	DIMENSIONS
①	5	80mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL WITH 20mm SAMPLE TAP	
②	10	80mm DIA AVK. NON RISING SPINDLE GATE VALVE WITH HANDWHEEL FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. TWO HOLES TOP	
③		80mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL	
④	5	Ø80mm DN STRAINER	
⑤	5	80mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL	
⑥	5	Ø80mm DN SENSUS WATER METER OR SIMILAR APPROVED	
⑦	5	80mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL	
⑧	5	Ø80mm DN NON RETURN VALVE	
⑨	2	80mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL	
⑨A	3		
⑩	5	Ø80-200mm CONCENTRIC REDUCER	
⑪	3	Ø200mm DIA BOTH ENDS FLANGED STANDARD 90° MEDIUM RADIUS BEND STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL	
⑫	1	200X80mm DIA ALL ENDS FLANGED SPECIAL TEE STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL (1XHOT DIPPED GALV. EXTERNAL)	
⑬	1	200mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL	
⑭	1	80mm DIA PIPE BOTH ENDS FLANGED STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL	
⑮	5	Ø80mm DIA BOTH ENDS FLANGED STANDARD 90° MEDIUM RADIUS BEND STEEL TO SANS 719 GRADE B. 4.5mm WALL THICKNESS. FLANGES TO SANS 1123 TABLE 1600/3 FLAT FACED. WITH FUSION BONDED EPOXY COATING TO 250 MICRON INTERNAL AND EXTERNAL	

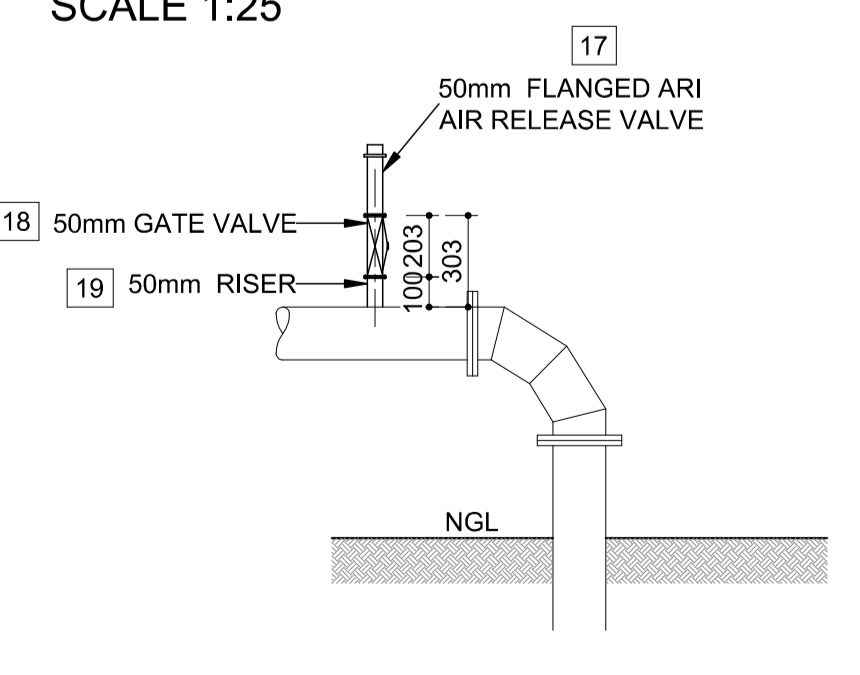


SDEC 80KVA 3 PHASE SILENT DIESEL GENERATOR (GKSD-88) DIMENSIONS (LXWXH): 2450MM X 1100MM X 1400MM

LAYOUT PLAN SCALE 1:25



BOREHOLE ENCASING SCALE 1:25



AIR VALVE 90° BEND SCALE 1:25

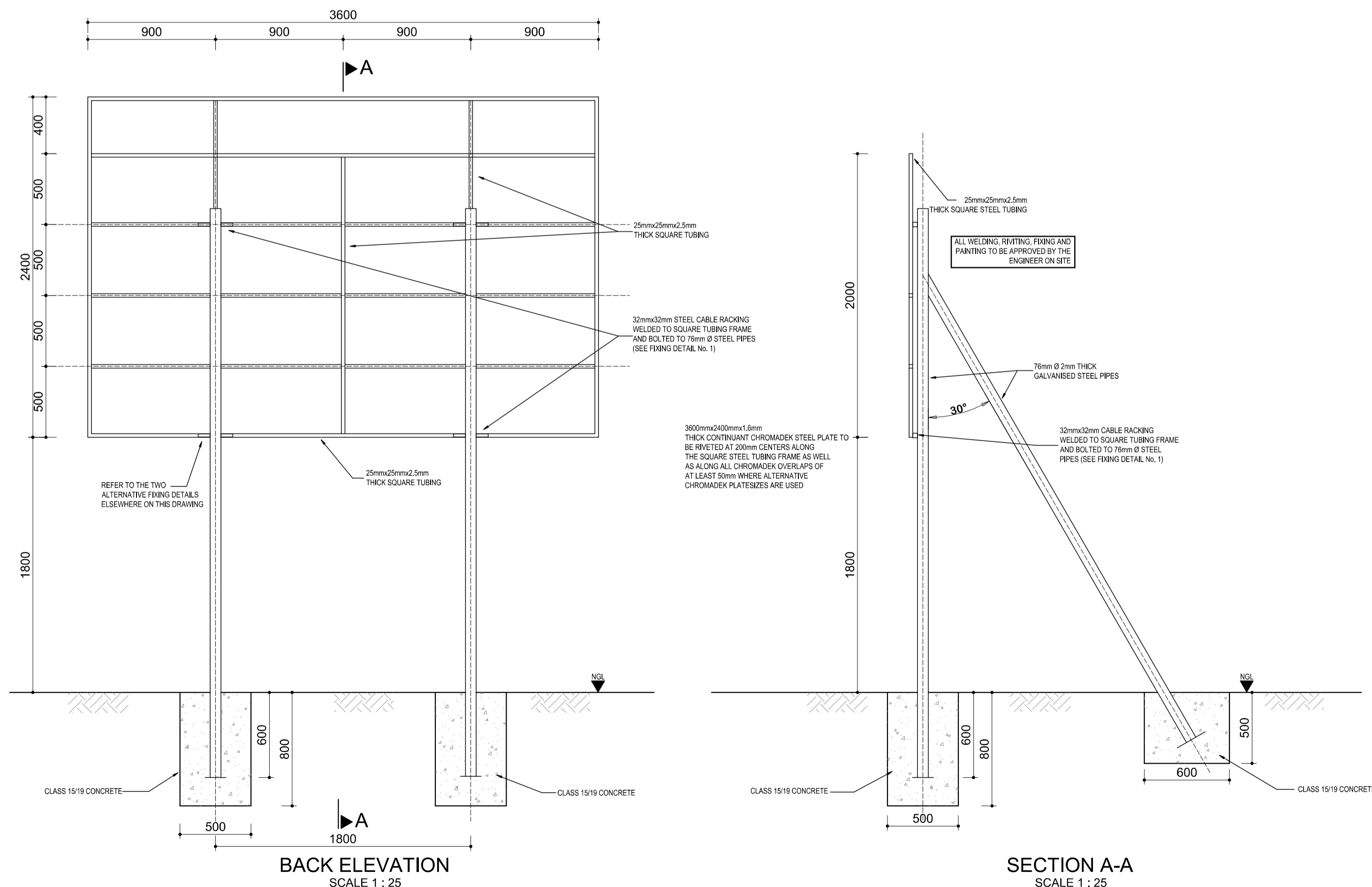
	MUNICIPAL INFRASTRUCTURE GRANT	NORTH WEST PROVINCE		
		MUNICIPAL INFRASTRUCTURE GRANT		
<p>MIG PROJECT NUMBER:</p> <p>MIG PROJECT NAME: EMERGENCY WATER SUPPLY AUGMENTATION PROJECT FOR WOLMARANSSTAD EXT 13,17,18 & 19</p> <p>MIG PROJECT AMOUNT:</p>				
		IMPLEMENTING AGENT		
		MAQUASSI HILLS LOCAL MUNICIPALITY		
		PROJECT MANAGERS CONSULTANT		
		NEP CONSULTING ENGINEERS		
CONTRACTOR (LOGO)		CONTRACTOR		
		CONTRACTOR NAME		

40 1160 40 630 1690 40

NOTES:

1. Discription in Italics must be adjusted to suite project details
2. Type face to be used shall be Helvetica Medium
Colour of lettering AS INDICATED
3. LETTERS TO BE CAPITALISED

4. Background of board to be WHITE
ALL borders & lines to be MIDDLE BLUE
Colour for logos to be AS PER RESPECTIVE
5. All paint used should match Ref. 290 Acrylic Road Sign Paint.
6. For details of structure refer to consultants specifications.
7. All lettering to be painted on. Stick-on labels will NOT be permitted.



AMENDMENTS

No.	DATE	BY	DESCRIPTION

NOTES

TENDER DRAWING

REFERENCE DRAWINGS

PLAN Nr.	DESCRIPTION

NEP CONSULTING ENGINEERS
PR. ENG: P.F.ERNST
PR.NR: 740593

SIGNATURE: _____
PRINT ISSUED ON _____



nepgroup.co.za RESULT DRIVEN



PROJECT
EMERGENCY WATER SUPPLY AUGMENTATION PROJECT FOR WOLMARANSSTAD EXT 13,17,18 & 19 (PORTION 1)

IMPLEMENTING AGENT:
MAQUASSI HILLS LOCAL MUNICIPALITY

DRAWING TITLE
PROJECT NAME BOARD

DESIGN	DATE	DRAWN	DATE
PM	10-2023	TM	10-2023
SURVEYED	DATE	CHECKED	DATE
		PF. ERENST	10-2023

SCALE as shown

DRAWING No.
NW404/15/13-19/2/PT1/10

AMENDMENT No.



AMENDMENTS

No.	DATE	BY	DESCRIPTION

NOTES

TENDER DRAWING

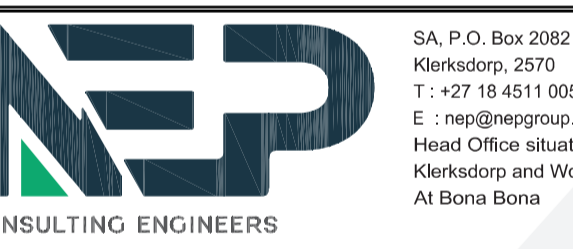
REFERENCE DRAWINGS

PLAN No.	DESCRIPTION

NEP CONSULTING ENGINEERS
 PR. ENG: P.F.ERNST
 PR.NR: 740593

SIGNATURE:

PRINT ISSUED ON



nepgroup.co.za RESULTDRIVEN

CLIENT
MAQUASSI HILLS LOCAL MUNICIPALITY

PROJECT
EMERGENCY WATER SUPPLY AUGMENTATION PROJECT FOR WOLMARANSSTAD EXT 13,17,18 & 19 (PORTION 1)

IMPLEMENTING AGENT:
 MAQUASSI HILLS LOCAL MUNICIPALITY

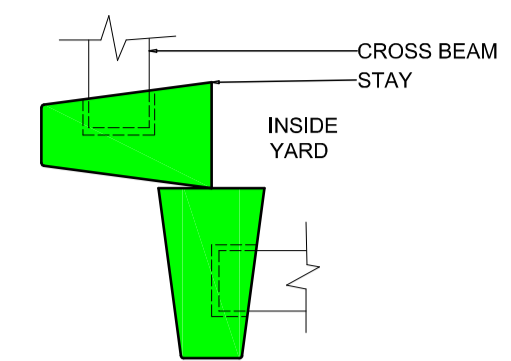
DRAWING TITLE
TYPICAL FENCING DETAILS

DESIGN	DATE	DRAWN	DATE
PM	10-2023	TM	10-2023
SURVEYED	DATE	CHECKED	DATE
		PF. ERNST	10-2023

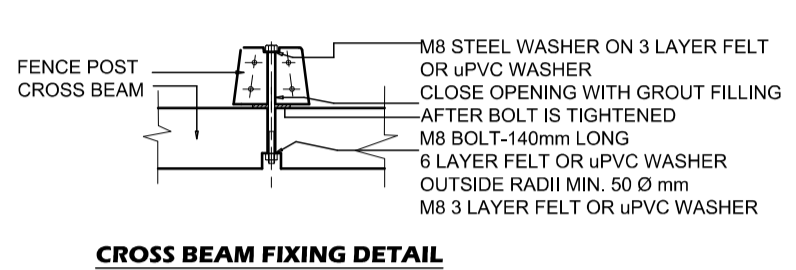
SCALE as shown

DRAWING No.
NW404/15/13-19/2/PT1/11

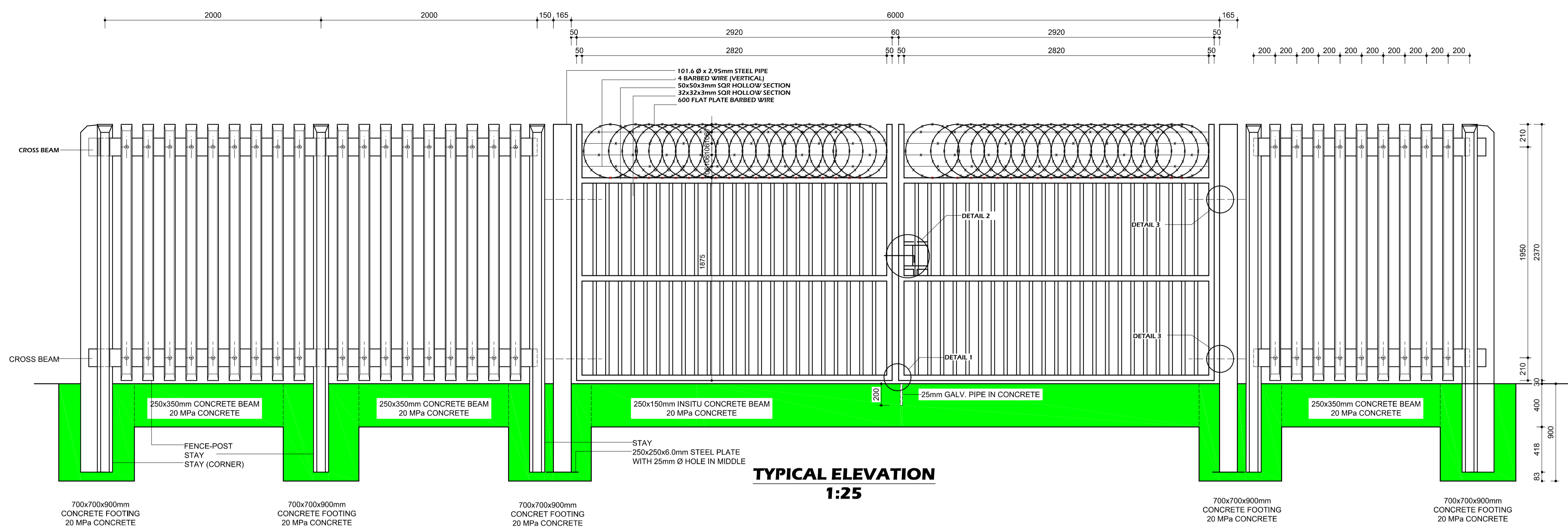
AMENDMENT No.



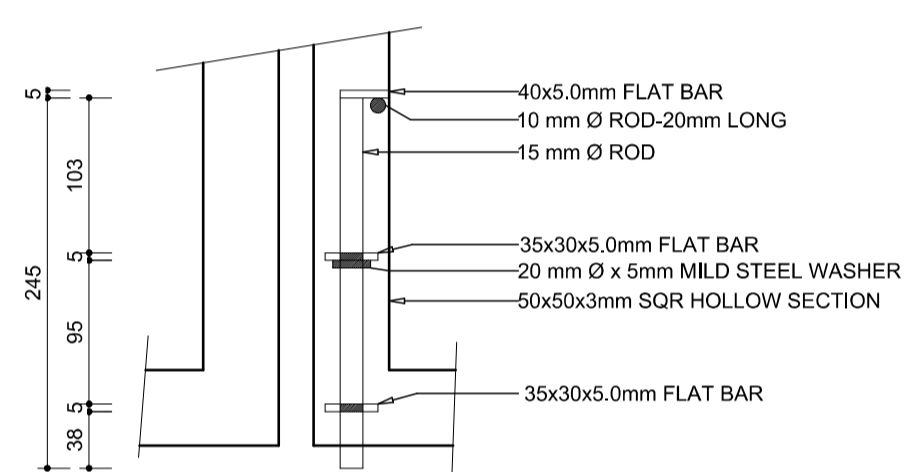
PLAN: CORNER STAYS 1:10



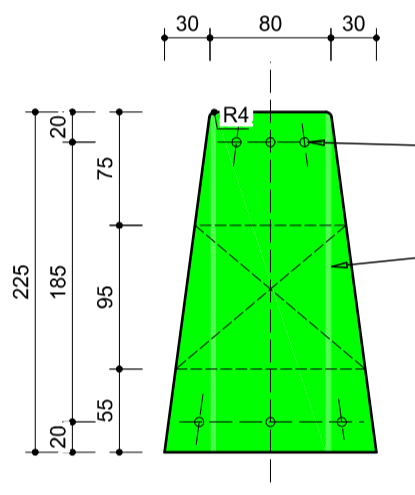
CROSS BEAM FIXING DETAIL 1:10



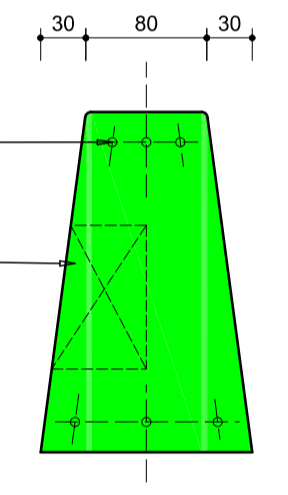
TYPICAL ELEVATION 1:25



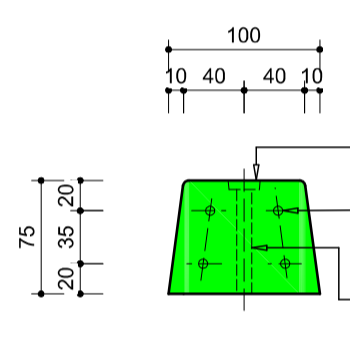
DETAIL 1 1:5



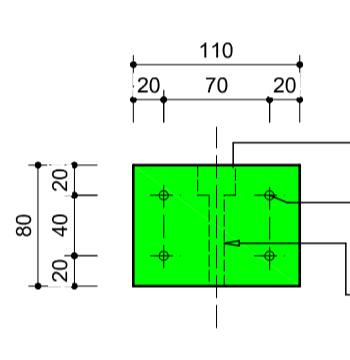
SECTION B-B 1:5



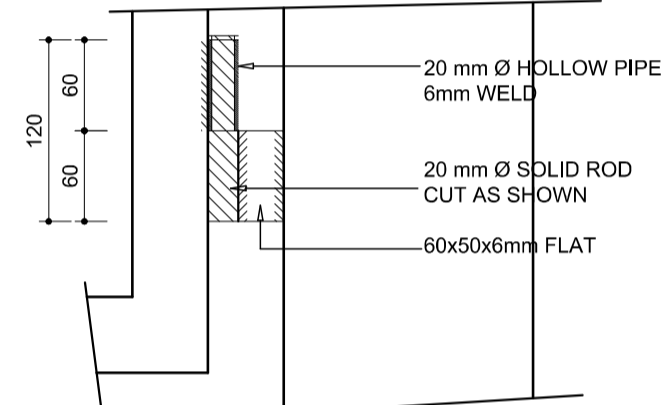
SECTION C-C 1:5



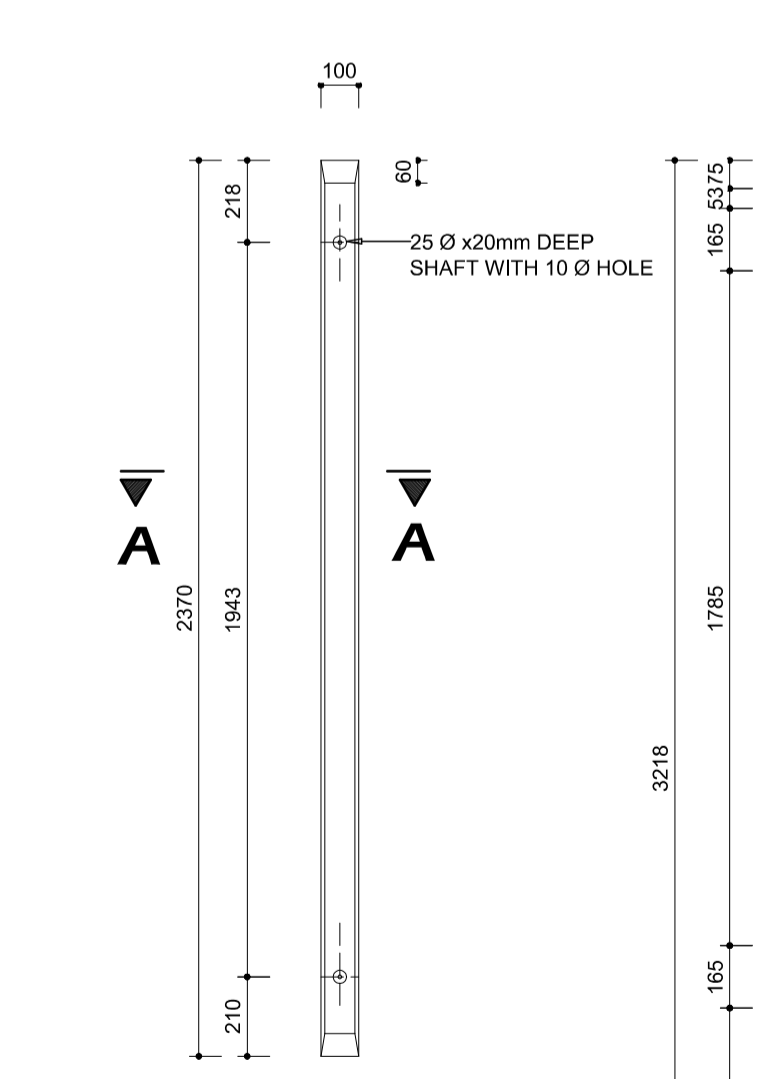
SECTION A-A 1:5



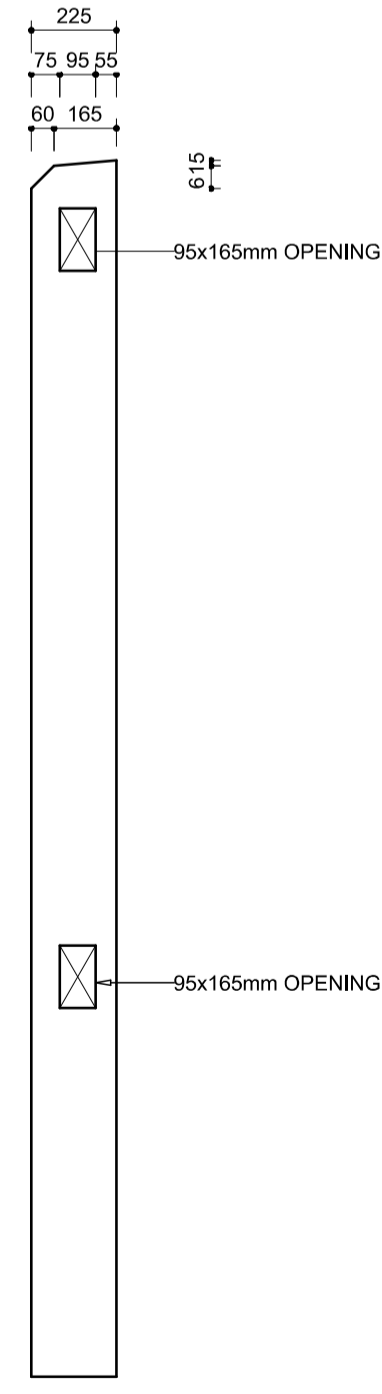
SECTION D-D 1:5



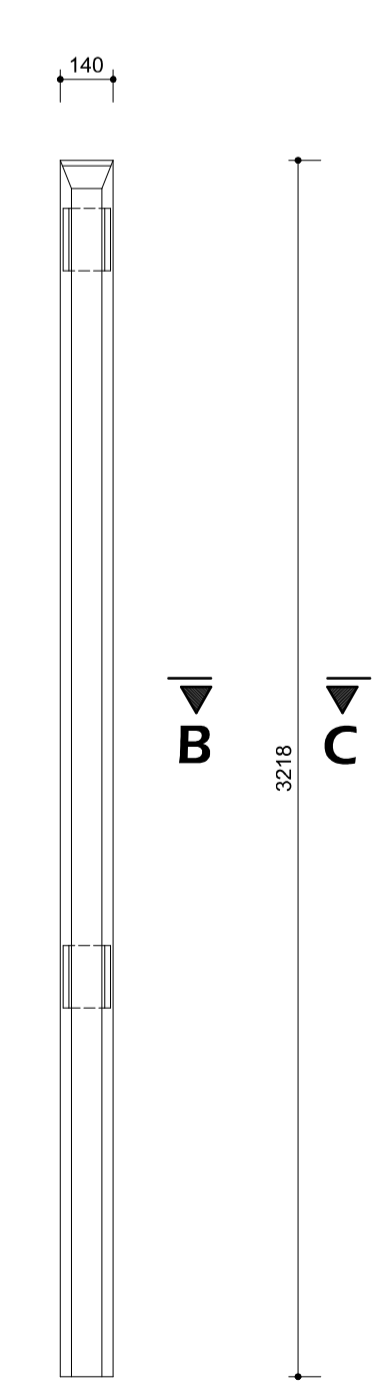
DETAIL 3 1:5



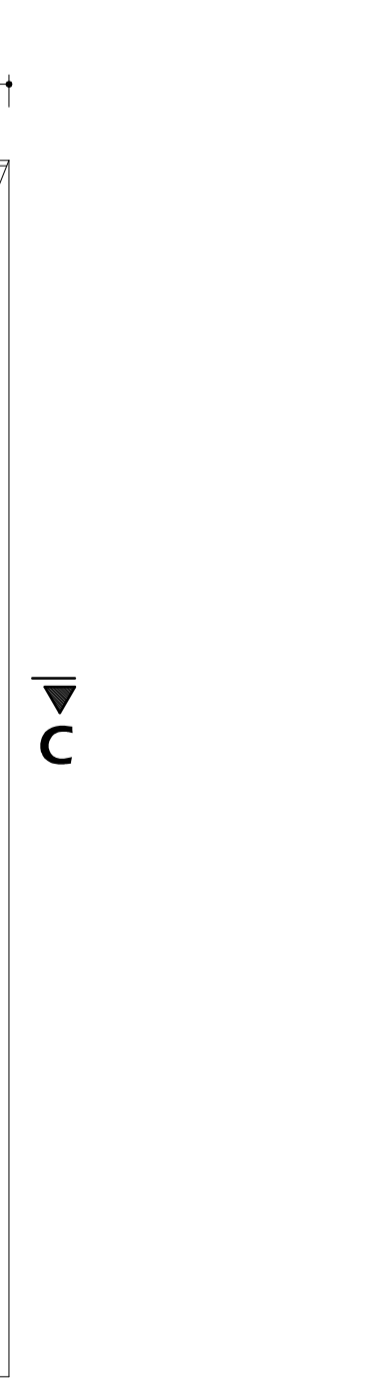
FENCE POST 1:20



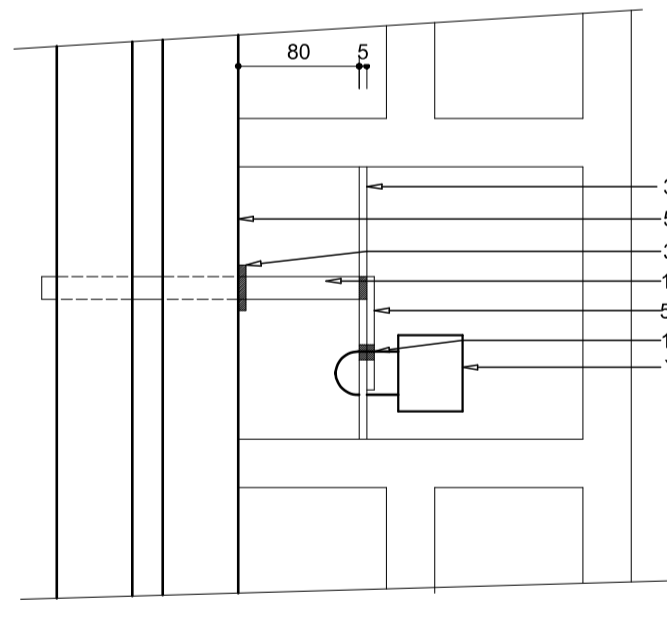
SIDE ELEVATION STAY TYPICAL 1:20



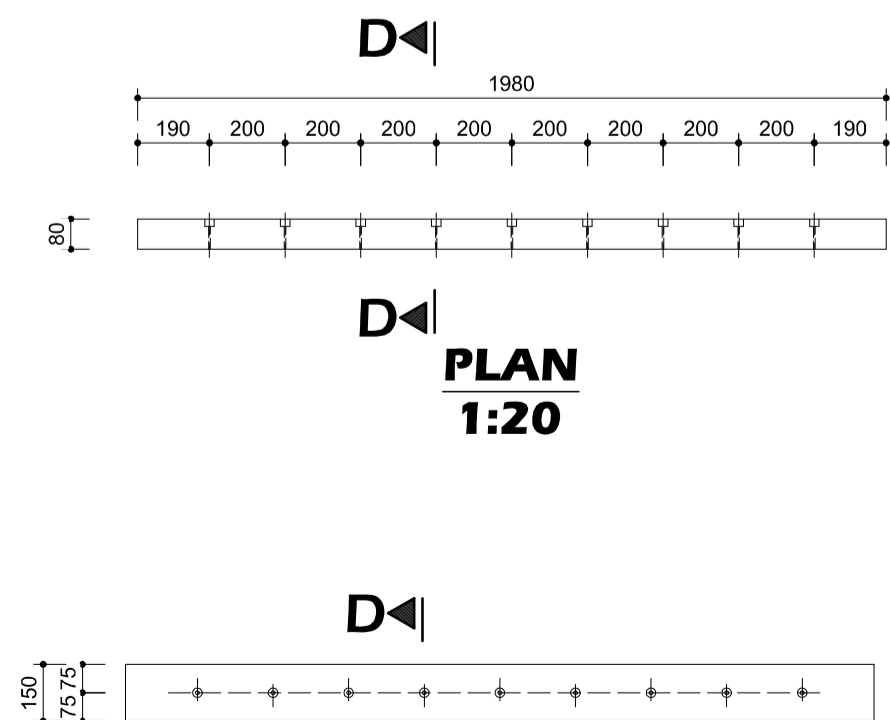
FRONT ELEVATION STAY (IN-BETWEEN) 1:20



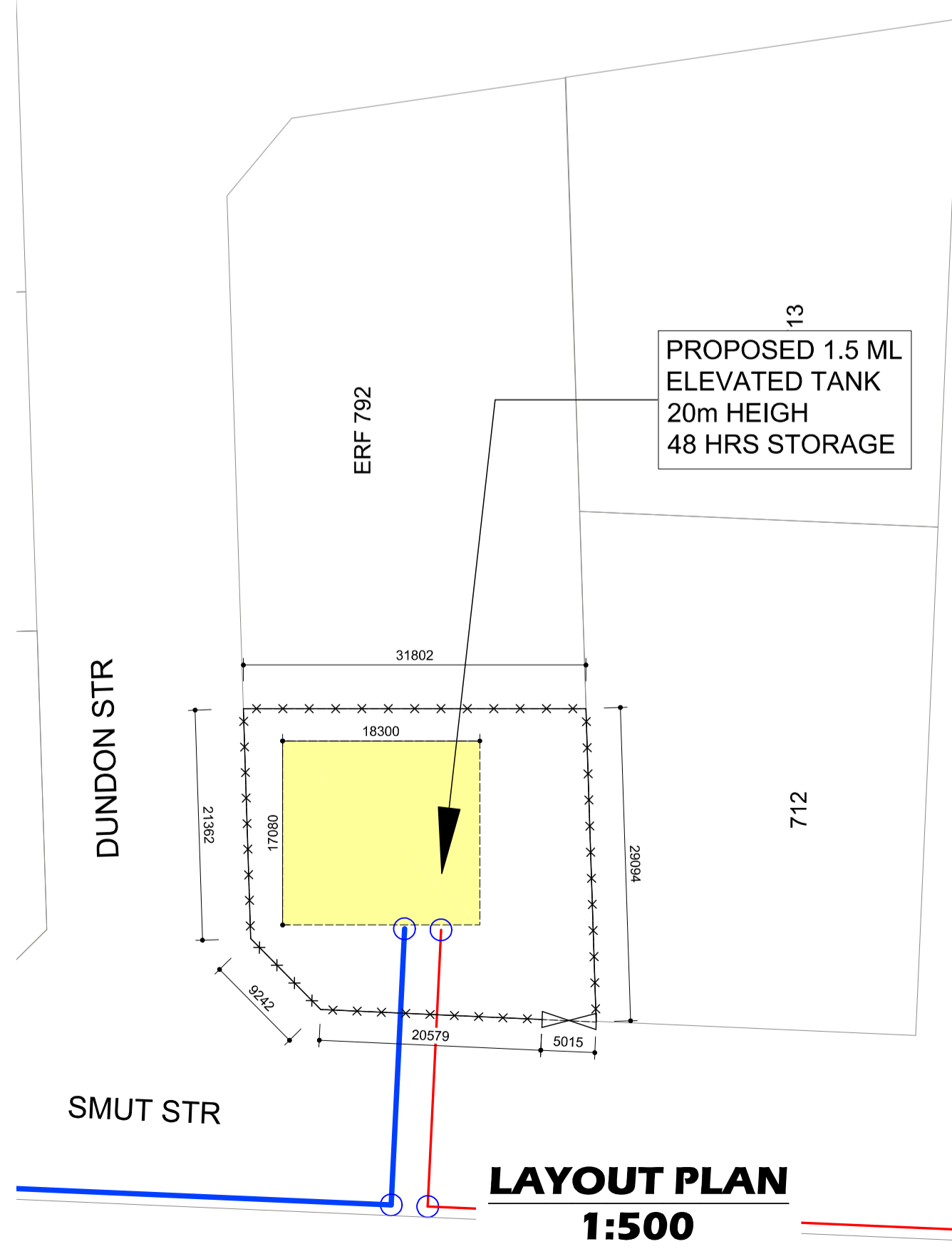
FRONT ELEVATION STAY (CORNER) 1:20



DETAIL 2 1:5



ELEVATION CROSS BEAM 1:20



LAYOUT PLAN 1:500