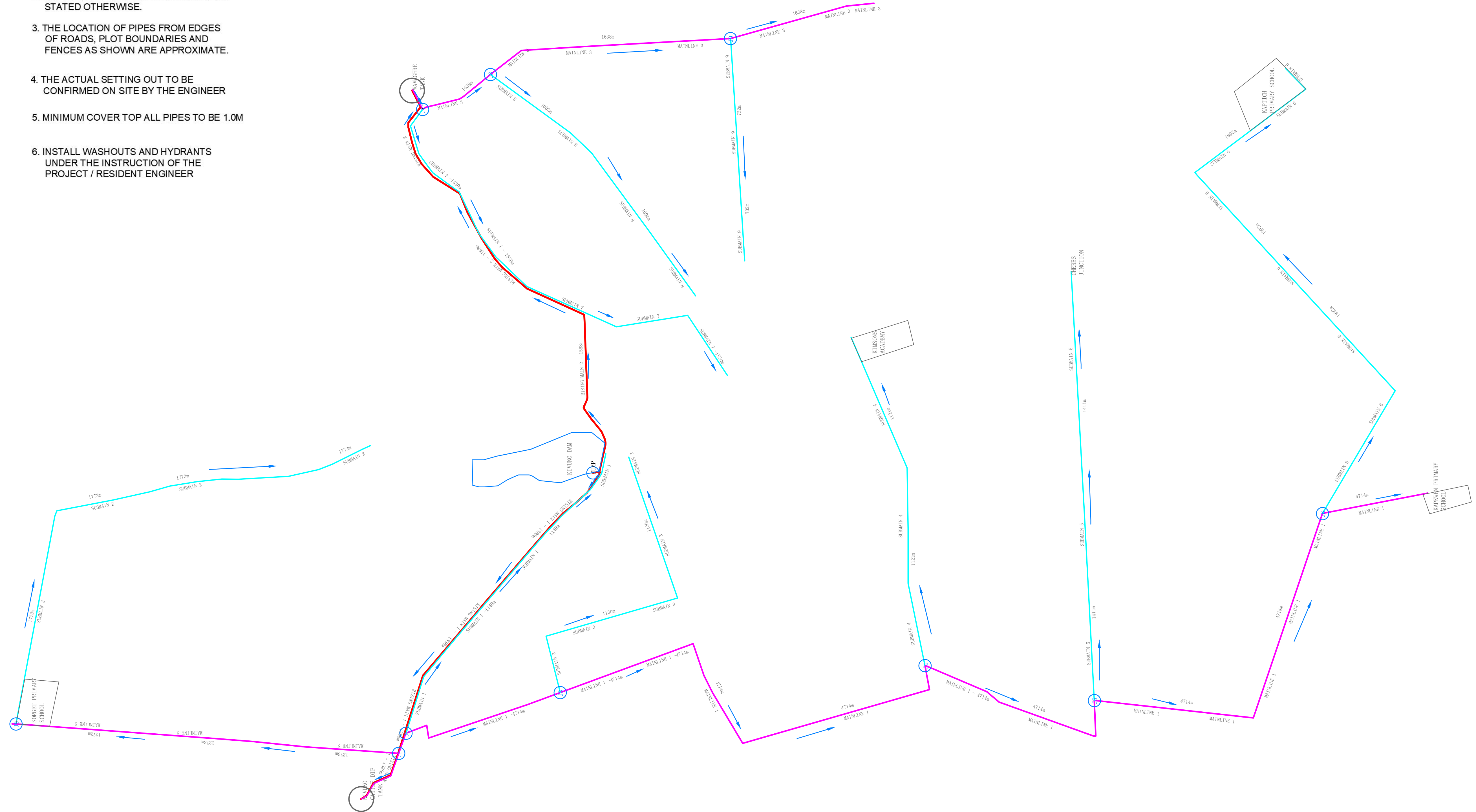
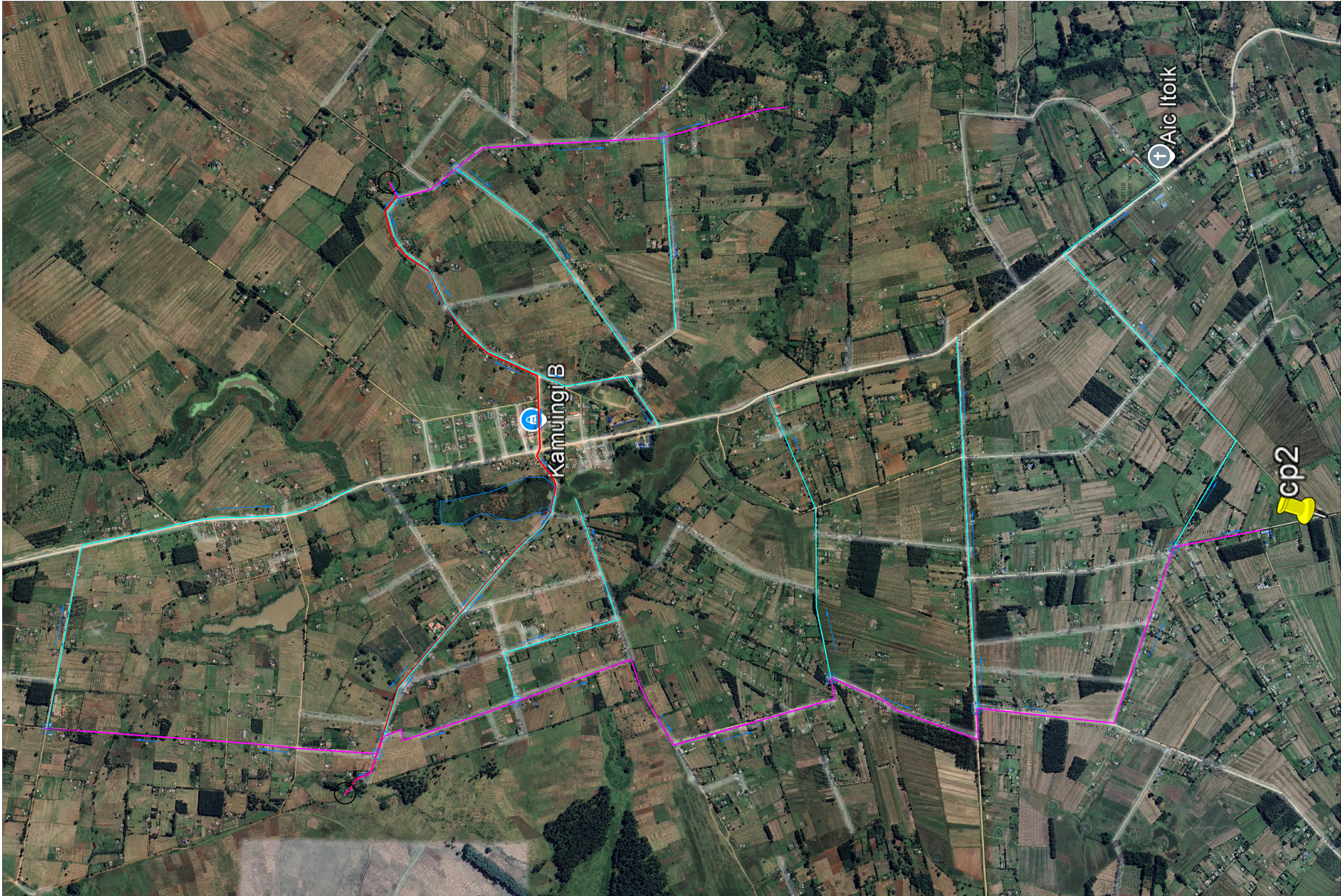


1. ALL LEVELS ARE IN METRES BASED ON NATIONAL DATUM.
2. ALL DISTANCES ARE IN METRES UNLESS STATED OTHERWISE.
3. THE LOCATION OF PIPES FROM EDGES OF ROADS, PLOT BOUNDARIES AND FENCES AS SHOWN ARE APPROXIMATE.
4. THE ACTUAL SETTING OUT TO BE CONFIRMED ON SITE BY THE ENGINEER
5. MINIMUM COVER TOP ALL PIPES TO BE 1.0M
6. INSTALL WASHOUTS AND HYDRANTS UNDER THE INSTRUCTION OF THE PROJECT / RESIDENT ENGINEER

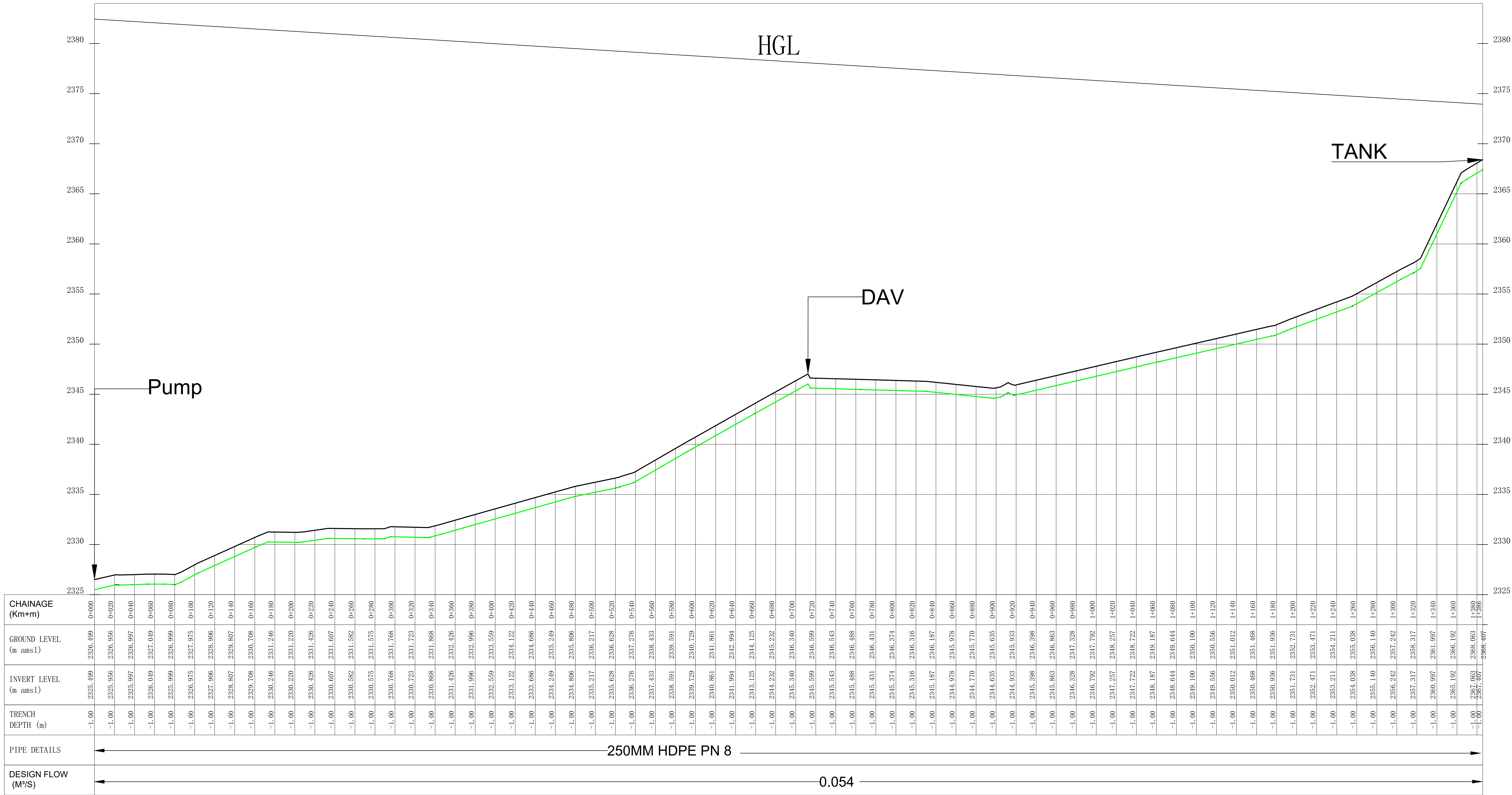


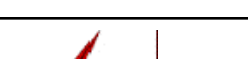
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Description	Date	 GOVERNMENT OF KENYA STATE DEPARTMENT FOR AGRICULTURE P.O. BOX 30028 – 00100, NAIROBI, KENYA	_____ _____ _____ _____	PROPOSED KIVUNO IRRIGATION PROJECT	
				KERICHO COUNTY	
				SURVEYED BY: _____	
				DRAWN & DESIGNED BY: _____	
				CHECKED BY: _____	
				DRAWING TITLE: KIVUNO IRRIGATION SCHEME LAYOUT	
				APPROVED BY: _____	
				Stage : FEASIBILITY DESIGN Date : NOV 2025 Description : Drawing Version 1.0 Scale : 1:7500 Sheet No. : 1 OF 2 Index No. :	
				Sheet Size : A1	



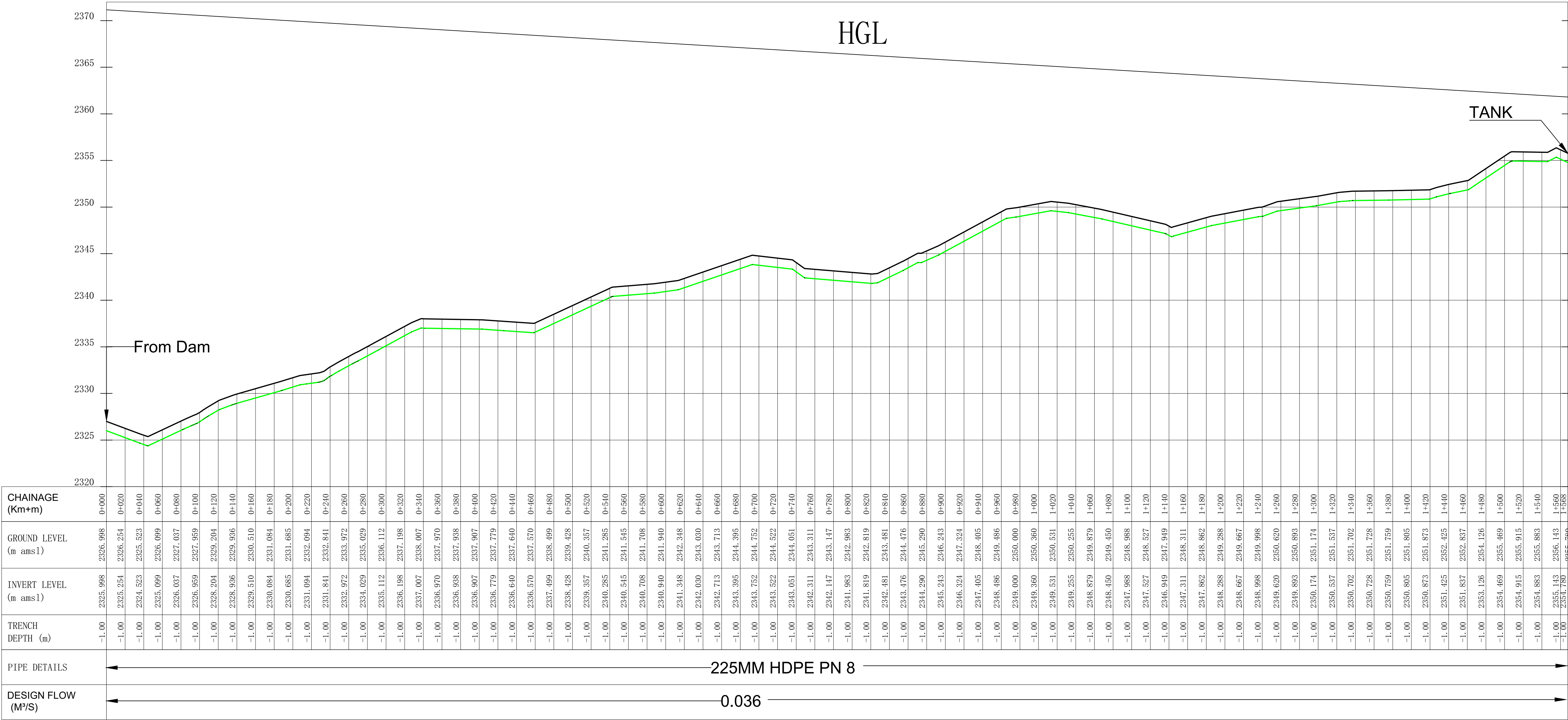
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				APPROVED BY:		Index No. :	
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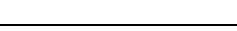
RISING MAIN 1 (KIVUNO CATTLE DIP) PROFILE KM 0+000 TO KM 1+386



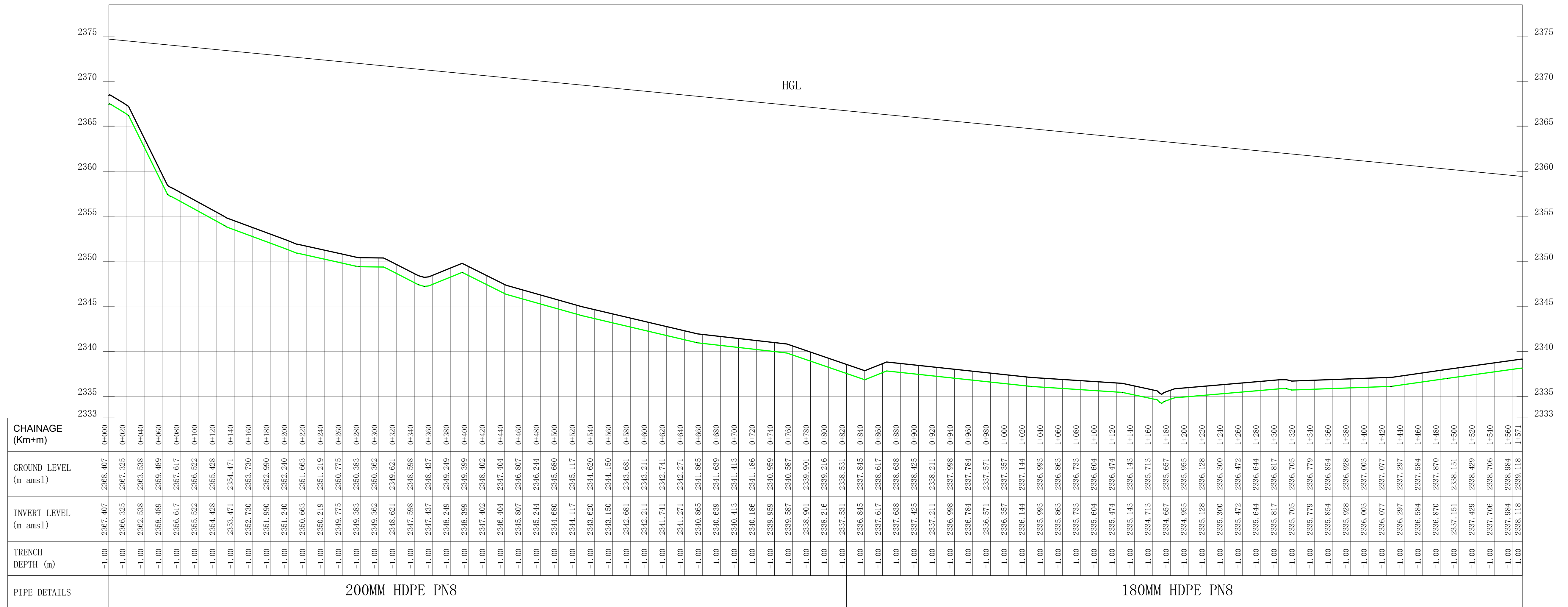
Revisions		Client	 GOVERNMENT OF KENYA STATE DEPARTMENT FOR AGRICULTURE P.O. BOX 30028 – 00100, NAIROBI, KENYA	Consultants	SURVEYED BY: _____ DRAWN & DESIGNED BY: _____ CHECKED BY: _____ APPROVED BY: _____	Project: PROPOSED KIVUNO IRRIGATION PROJECT KERICHO COUNTY	Stage : FEASIBILITY DESIGN			
Description	Date						Date :	NOV 2025		
							Description : Drawing Version 1.0			
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							Sheet No. :	1 OF 1		
							Index No. :			
Drawing Title: RISING MAIN 1 TO CATTLE TROUGH TANK										

RISING MAIN 2 (WAMAGERE TANK) PROFILE KM 0+000 TO KM 1+568



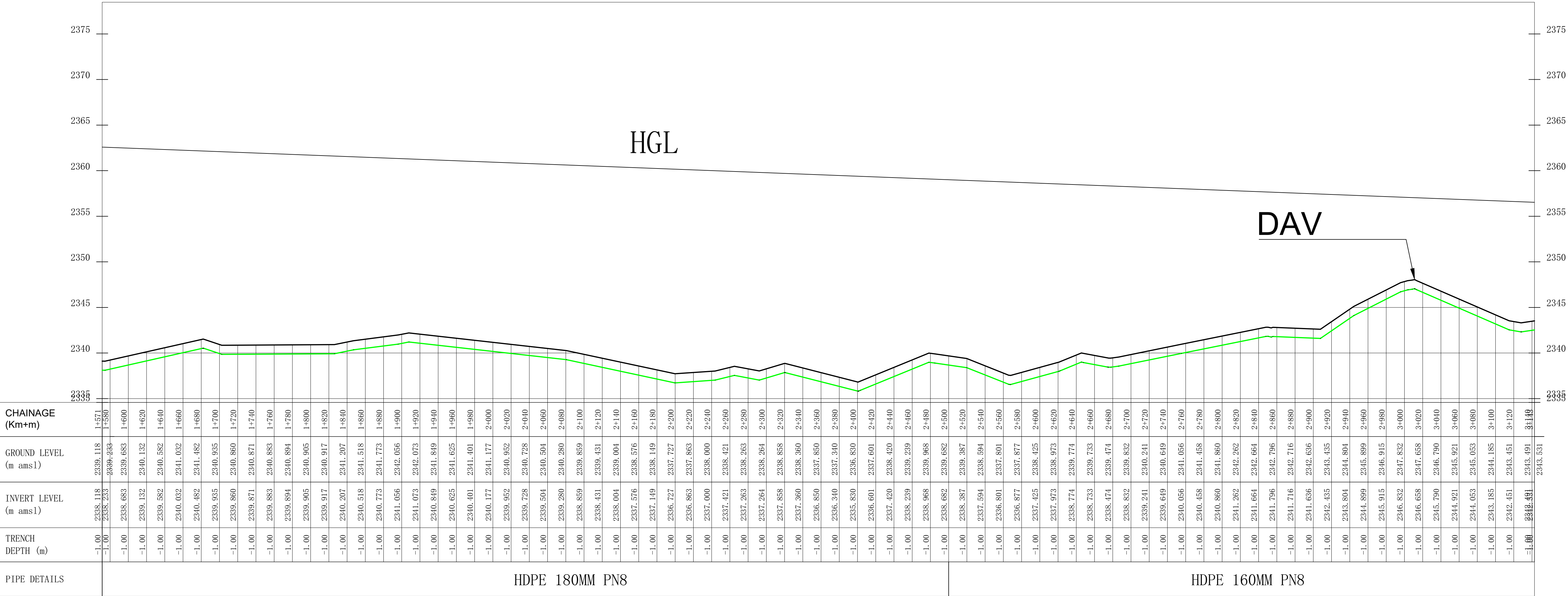
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					Sheet No. : 1 OF 1		
					Index No. :		
			GOVERNMENT OF KENYA STATE DEPARTMENT FOR AGRICULTURE P.O. BOX 30028 – 00100, NAIROBI, KENYA	_____ _____ _____ _____ _____	SURVEYED BY: _____	Drawing Title: RISING MAIN 2 TO WAMAGERE TANK	
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					CHECKED BY: _____		
					APPROVED BY: _____		

MAINLINE 1 PROFILE KM 0+000 TO KM 1+571



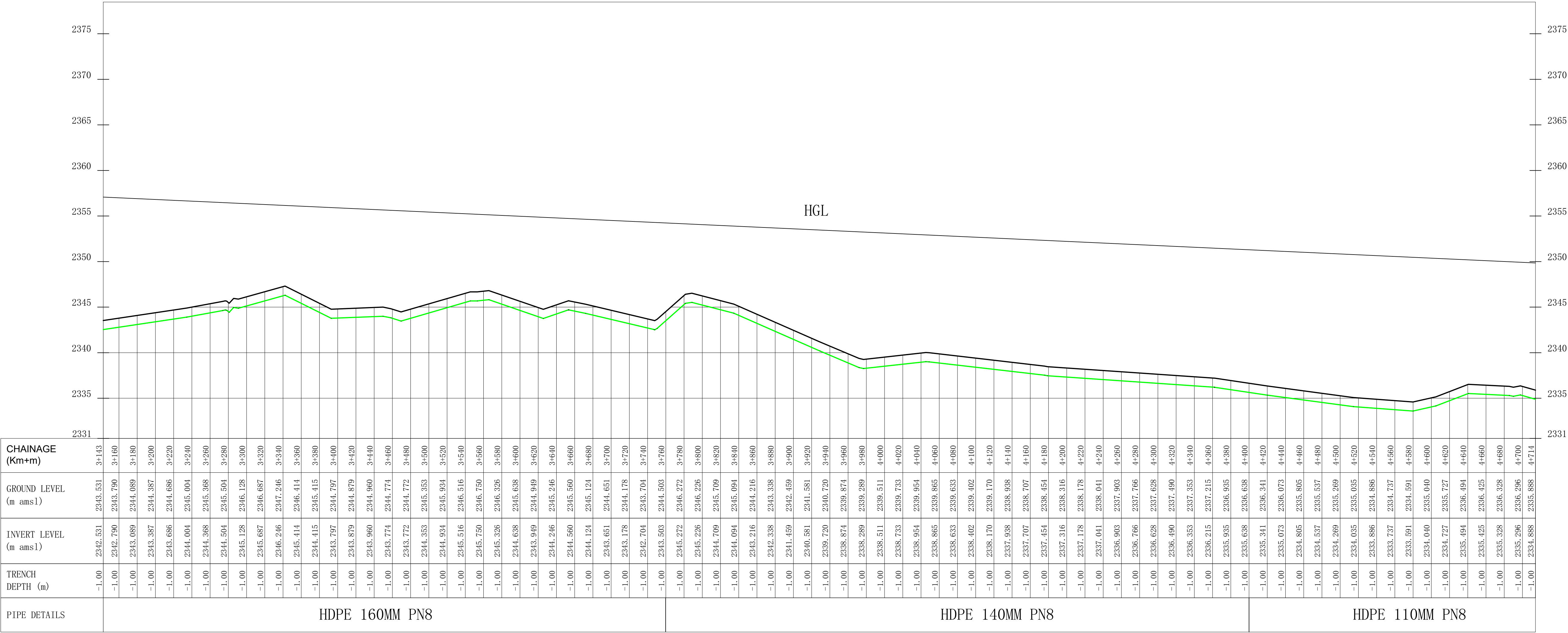
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MAINLINE 1 PROFILE KM 1+571 TO KM 3+143



Revisions		Client	Consultants	SURVEYED BY: _____		Project: PROPOSED KIVUNO IRRIGATION PROJECT KERICHO COUNTY	Stage : FEASIBILITY DESIGN	
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			GOVERNMENT OF KENYA STATE DEPARTMENT FOR AGRICULTURE P.O. BOX 30028 – 00100, NAIROBI, KENYA			Drawing Title: MAINLINE 1		

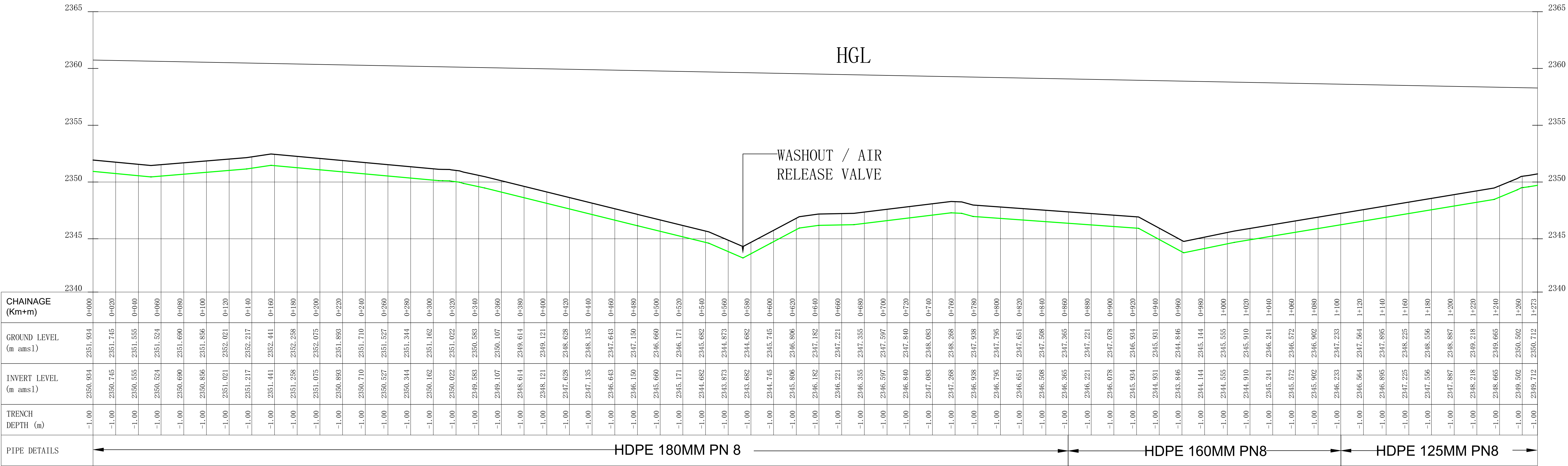
MAINLINE 1 PROFILE KM 3+143 TO KM 4+714



Revisions		Client	Consultants	SURVEYED BY: -----		Project: PROPOSED KIVUNO IRRIGATION PROJECT KERICHO COUNTY	Stage : FEASIBILITY DESIGN	
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APPROVED BY: -----								

	GOVERNMENT OF KENYA STATE DEPARTMENT FOR AGRICULTURE P.O. BOX 30028 – 00100, NAIROBI, KENYA
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MAINLINE 2 PROFILE KM 0+000 TO KM 1+273



Revisions		Client  GOVERNMENT OF KENYA STATE DEPARTMENT FOR AGRICULTURE P.O. BOX 30028 – 00100, NAIROBI, KENYA	Consultants	SURVEYED BY: ----- DRAWN & DESIGNED BY: ----- CHECKED BY: ----- APPROVED BY: -----		Project: PROPOSED KIVUNO IRRIGATION PROJECT KERICHO COUNTY Drawing Title: MAINLINE 2		Stage : FEASIBILITY DESIGN	
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								Sheet No. : 1 OF 1	

MAINLINE 3 PROFILE KM 0+000 TO KM 1+628



GOVERNMENT OF KENYA
STATE DEPARTMENT FOR AGRICULTURE
P.O. BOX 30028 – 00100, NAIROBI, KENYA

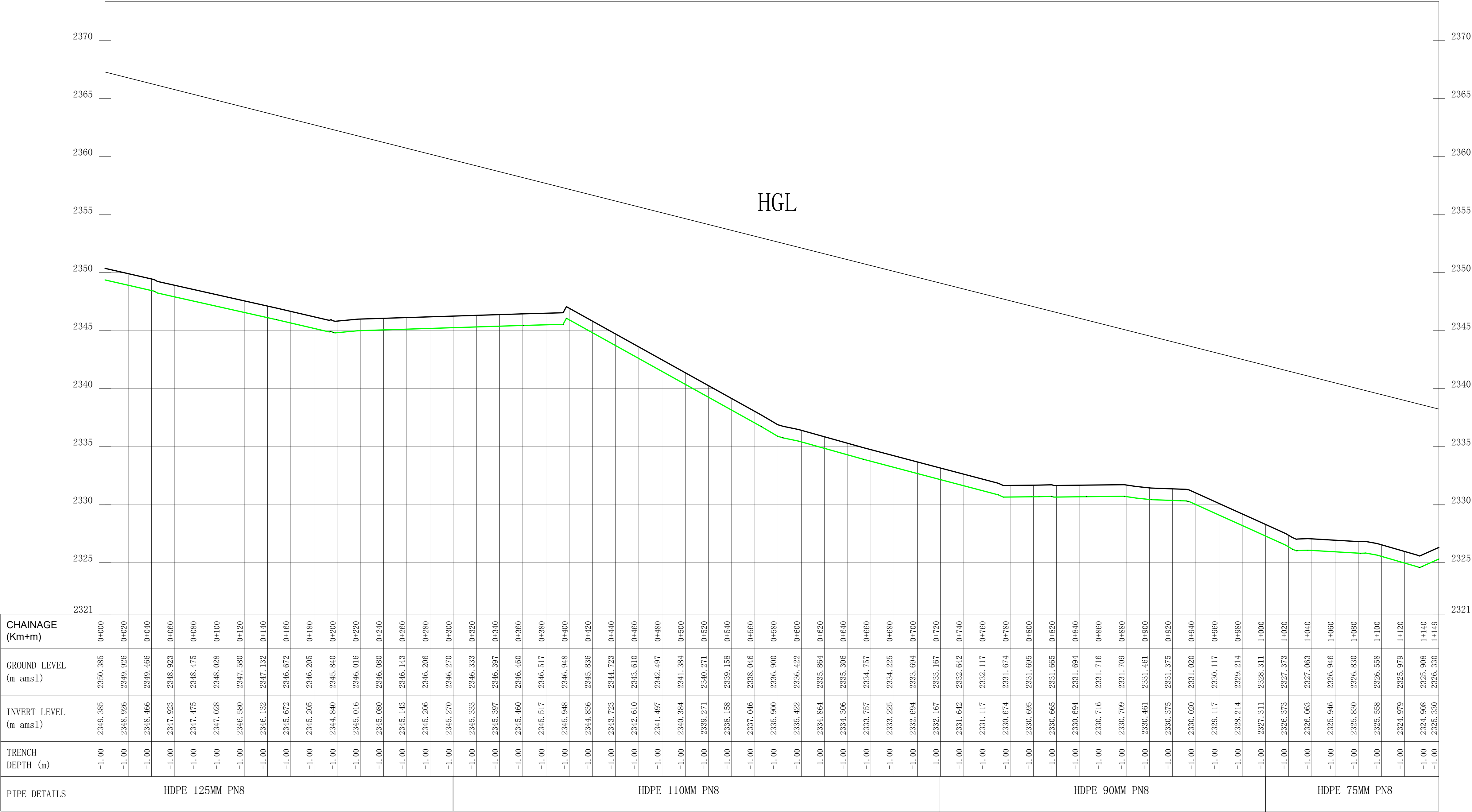
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DRAWN & DESIGNED BY: _____
CHECKED BY: _____
APPROVED BY: _____

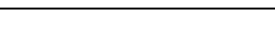
Project: PROPOSED KIVUNO IRRIGATION PROJECT
KERICHO COUNTY
Drawing Title: MAINLINE 3

Stage : FEASIBILITY DESIGN
Date : NOV 2025
Description : Drawing Version 1.0

Scale : NTS
Sheet No. : 1 OF 1
Sheet Size : A1

SUBMAIN 1 PROFILE KM 0+000 TO KM 1+149



 GOVERNMENT OF KENYA STATE DEPARTMENT FOR AGRICULTURE P.O. BOX 30028 – 00100, NAIROBI, KENYA	Consultants	SURVEYED BY: _____		Project: PROPOSED KIVUNO IRRIGATION PROJECT KERICHO COUNTY	Stage : FEASIBILITY DESIGN	
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SUBMAIN 2 PROFILE KM 0+000 TO KM 1+773

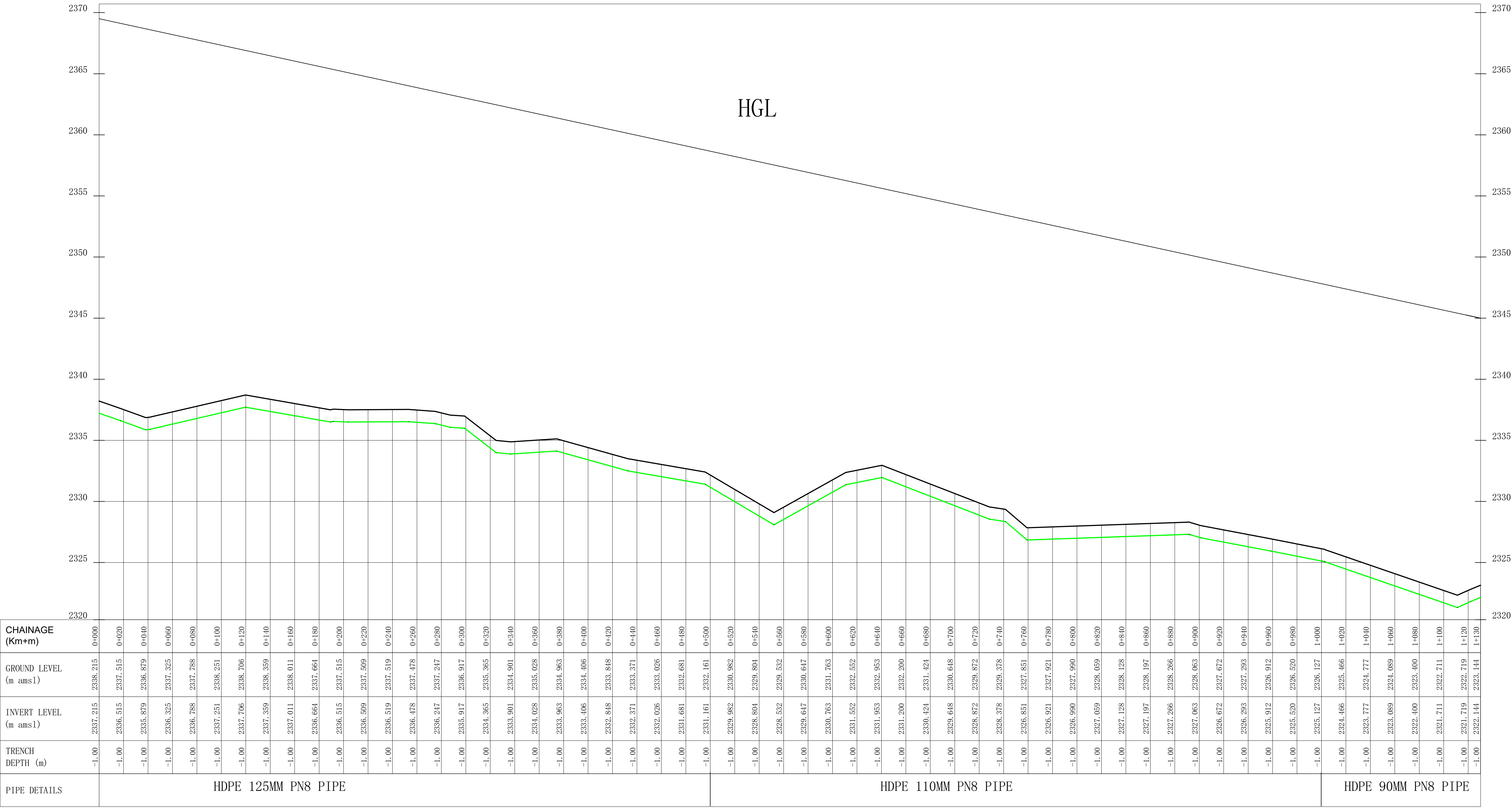


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				APPROVED BY: _____						Scale : NTS		Sheet Size : A1	
									Sheet No. : 1 OF 1				



GOVERNMENT OF KENYA
STATE DEPARTMENT FOR AGRICULTURE
P.O. BOX 30028 – 00100, NAIROBI, KENYA

SUBMAIN 3 PROFILE KM 0+000 TO KM 1+130



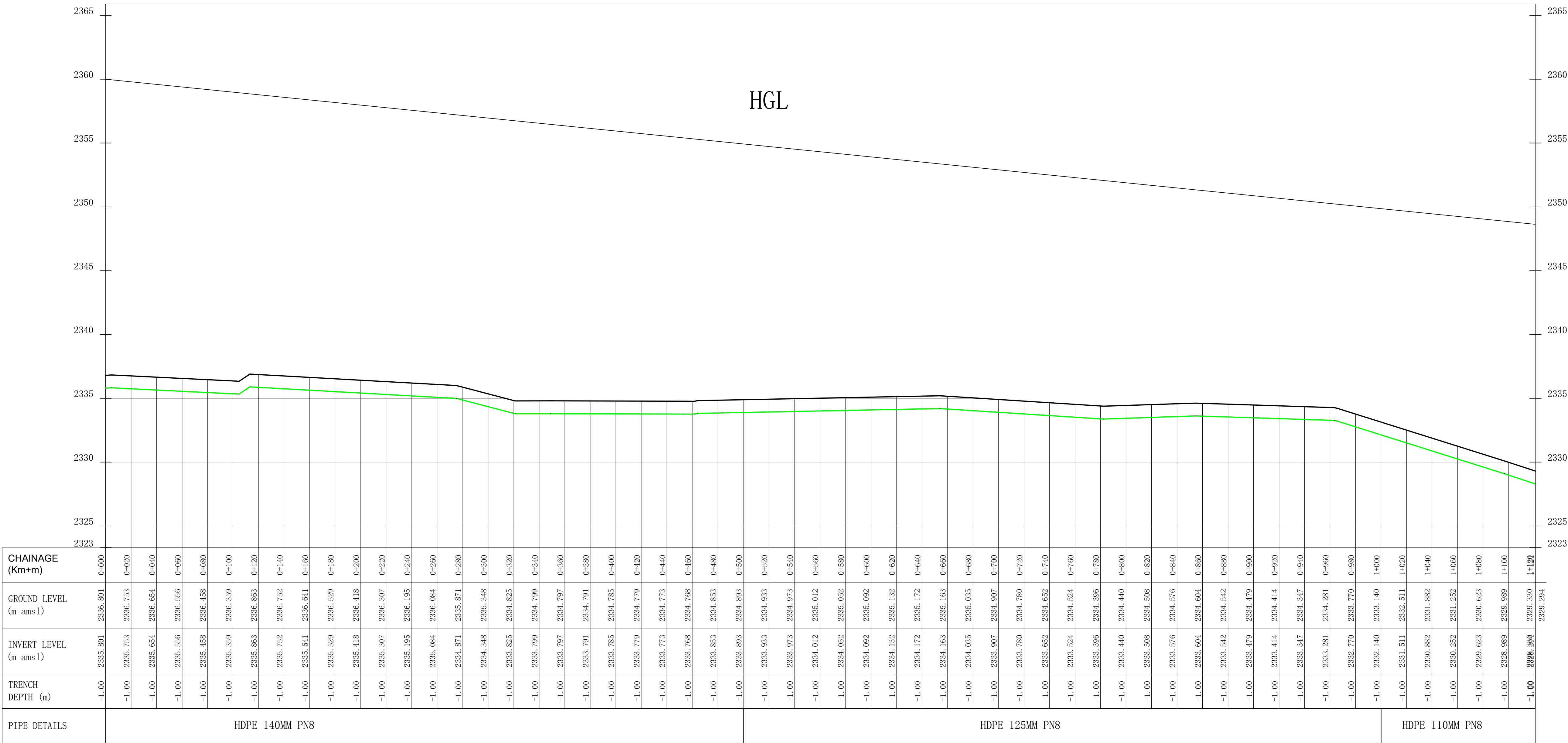
GOVERNMENT OF KENYA
STATE DEPARTMENT FOR AGRICULTURE
P.O. BOX 30028 – 00100, NAIROBI, KENYA

SURVEYED BY: _____
DRAWN & DESIGNED BY: _____
CHECKED BY: _____
APPROVED BY: _____

Project: PROPOSED KIVUNO IRRIGATION PROJECT
KERICHO COUNTY
Drawing Title: SUBMAIN 3

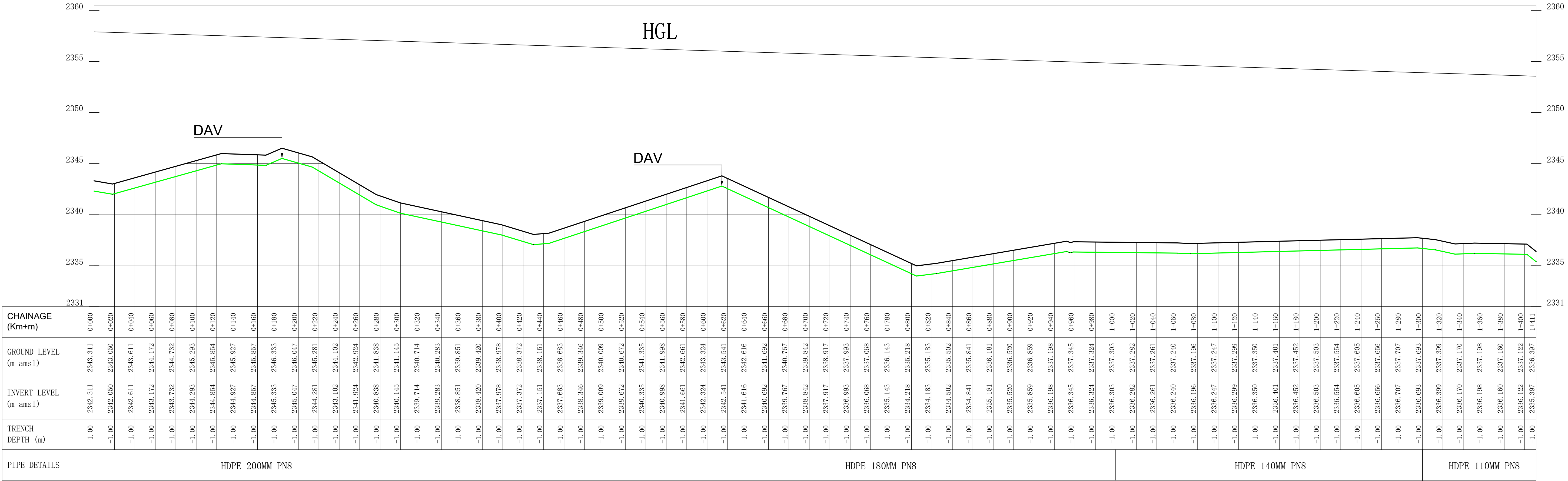
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SUBMAIN 4 PROFILE KM 0+000 TO KM 1+121



Revisions		Client	Consultants	SURVEYED BY: _____		Project:	PROPOSED KIVUNO IRRIGATION PROJECT KERICHO COUNTY		Stage : FEASIBILITY DESIGN				
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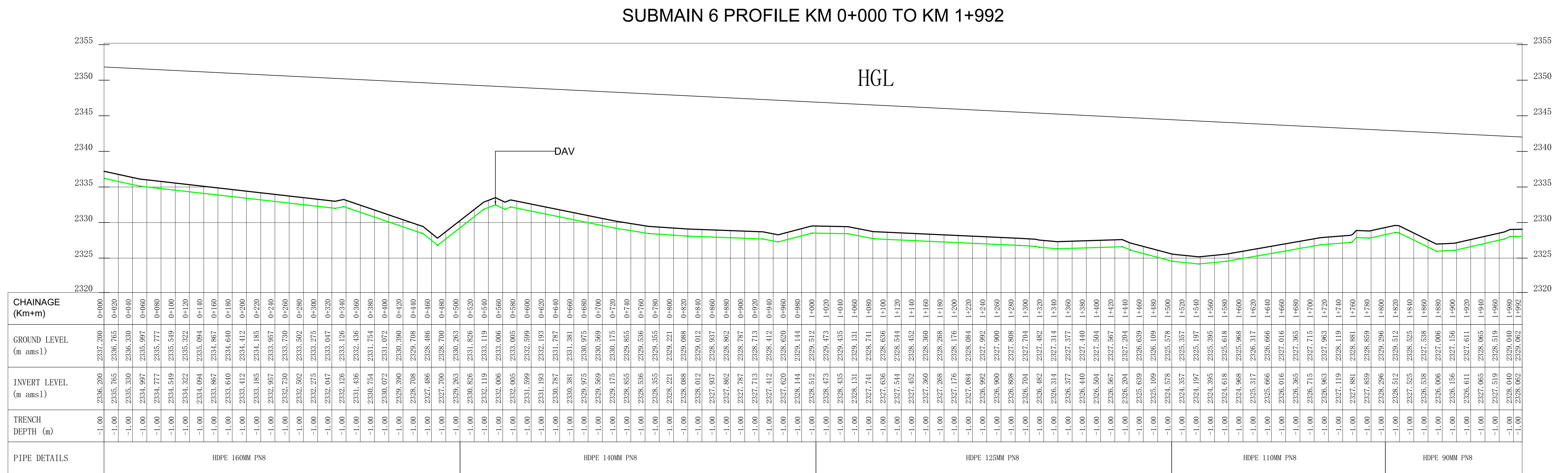
SUBMAIN 5 PROFILE KM 0+000 TO KM 1+411



Revisions		Client	Consultants	SURVEYED BY: ----- DRAWN & DESIGNED BY: ----- CHECKED BY: ----- APPROVED BY: -----	Project: PROPOSED KIVUNO IRRIGATION PROJECT KERICHO COUNTY	Stage : FEASIBILITY DESIGN	
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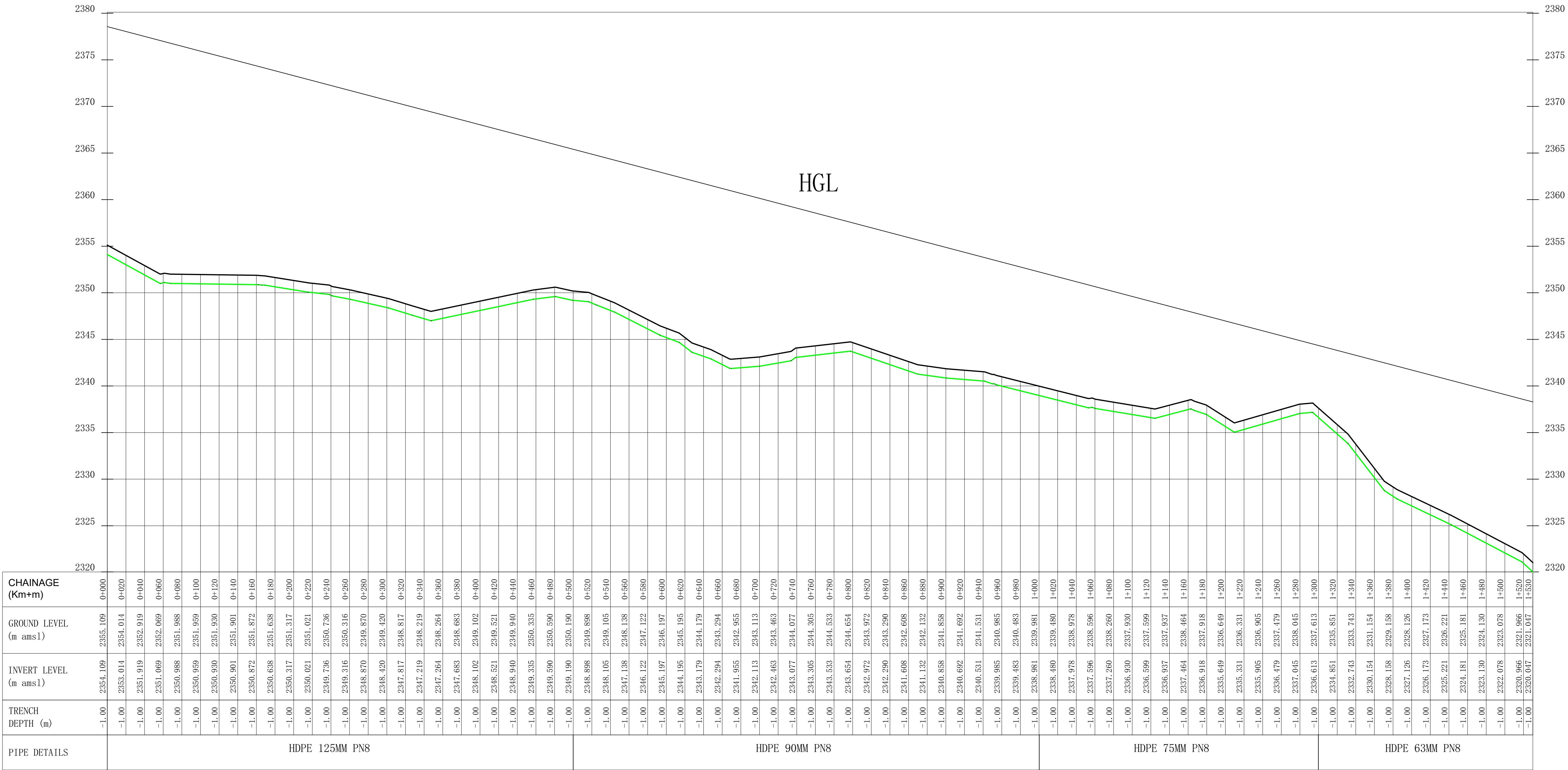
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Drawing Title: SUBMAIN 5	-----



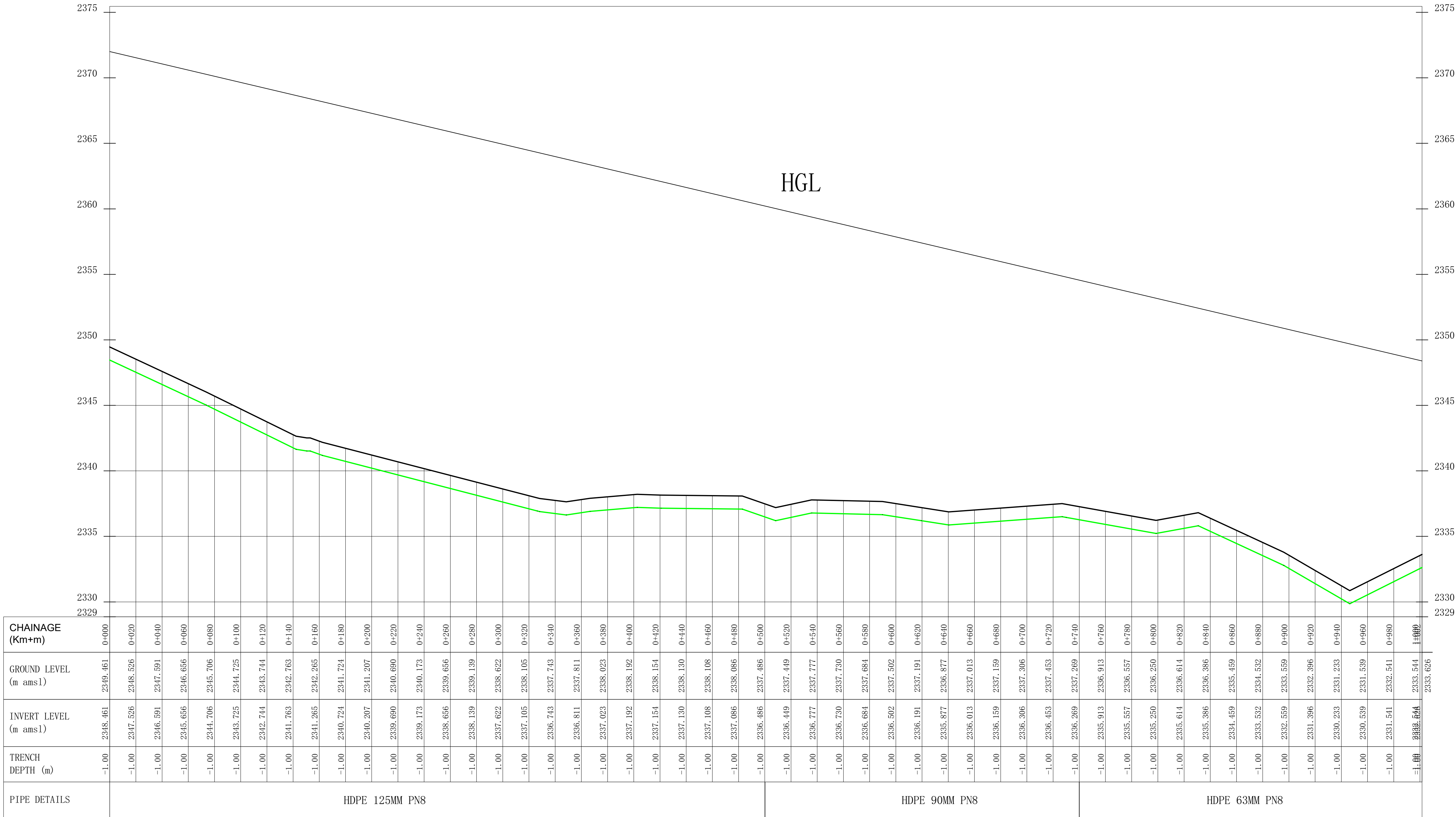
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Description	Date			PROPOSED KIVUNO IRRIGATION PROJECT		Date : NOV 2025	
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SUBMAIN 7 PROFILE KM 0+000 TO KM 1+530



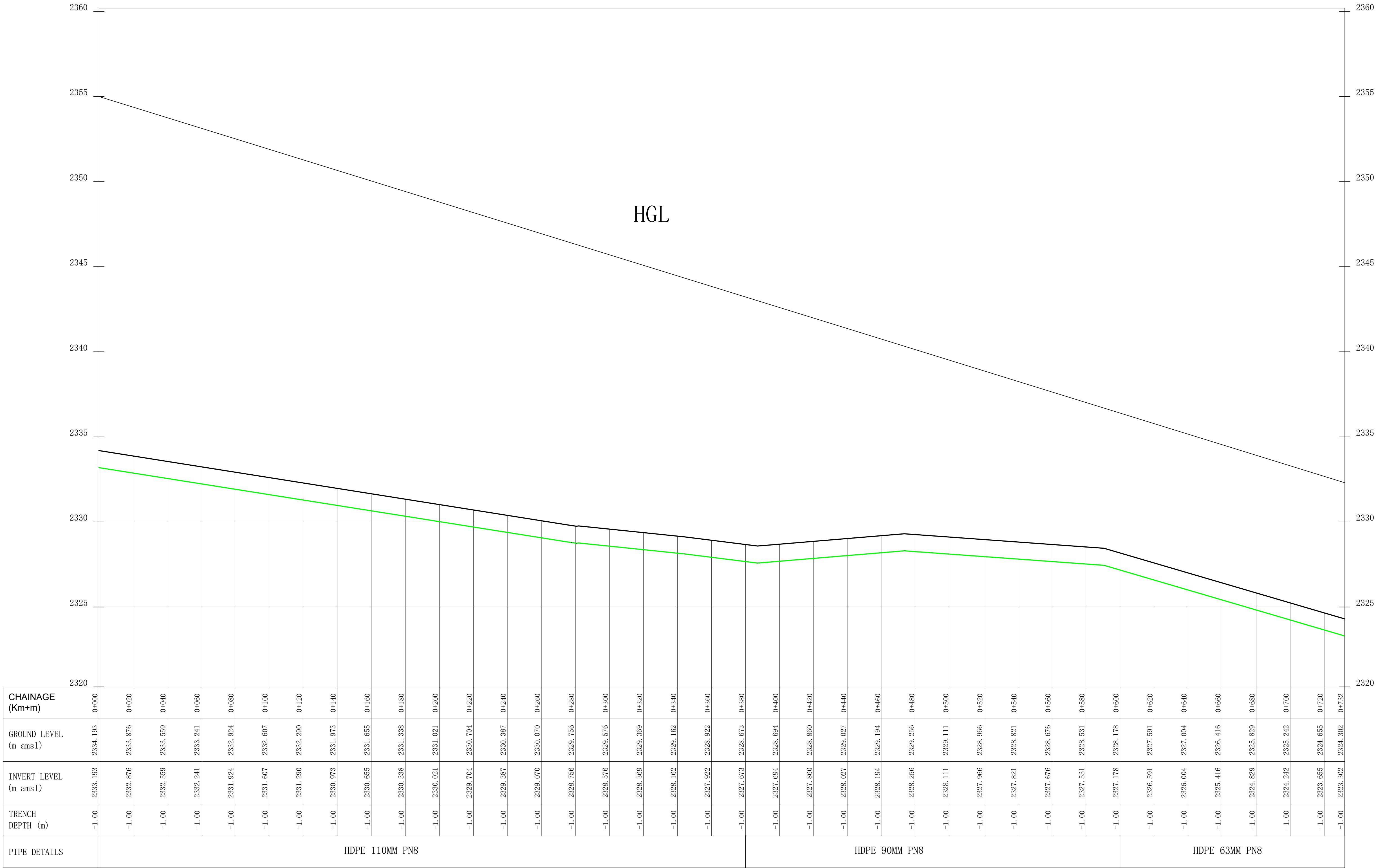
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			GOVERNMENT OF KENYA STATE DEPARTMENT FOR AGRICULTURE P.O. BOX 30028 – 00100, NAIROBI, KENYA					

SUBMAIN 8 PROFILE KM 0+000 TO KM 1+002



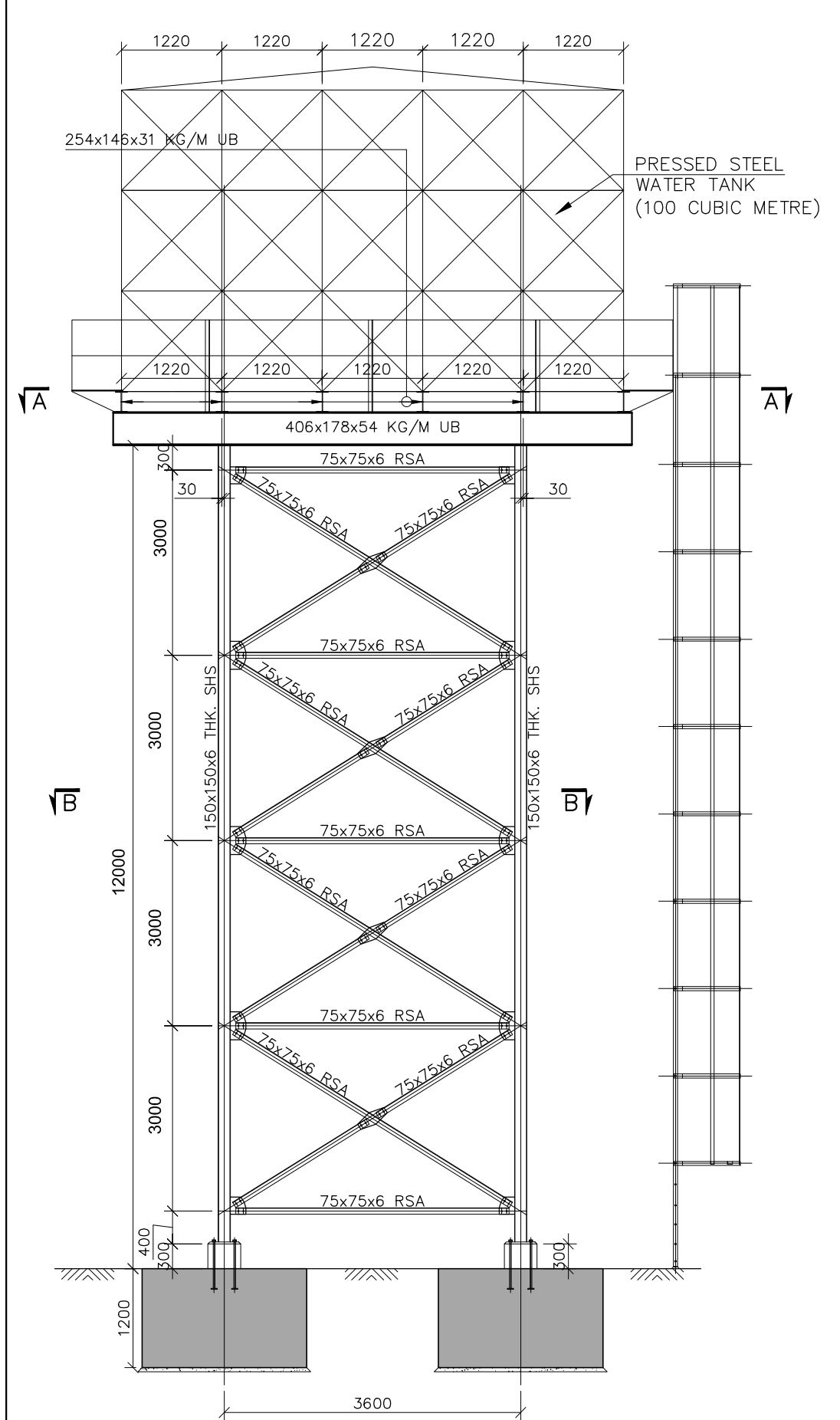
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Description	Date			PROPOSED KIVUNO IRRIGATION PROJECT		Date : NOV 2025	
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SUBMAIN 9 PROFILE KM 0+000 TO KM 0+732

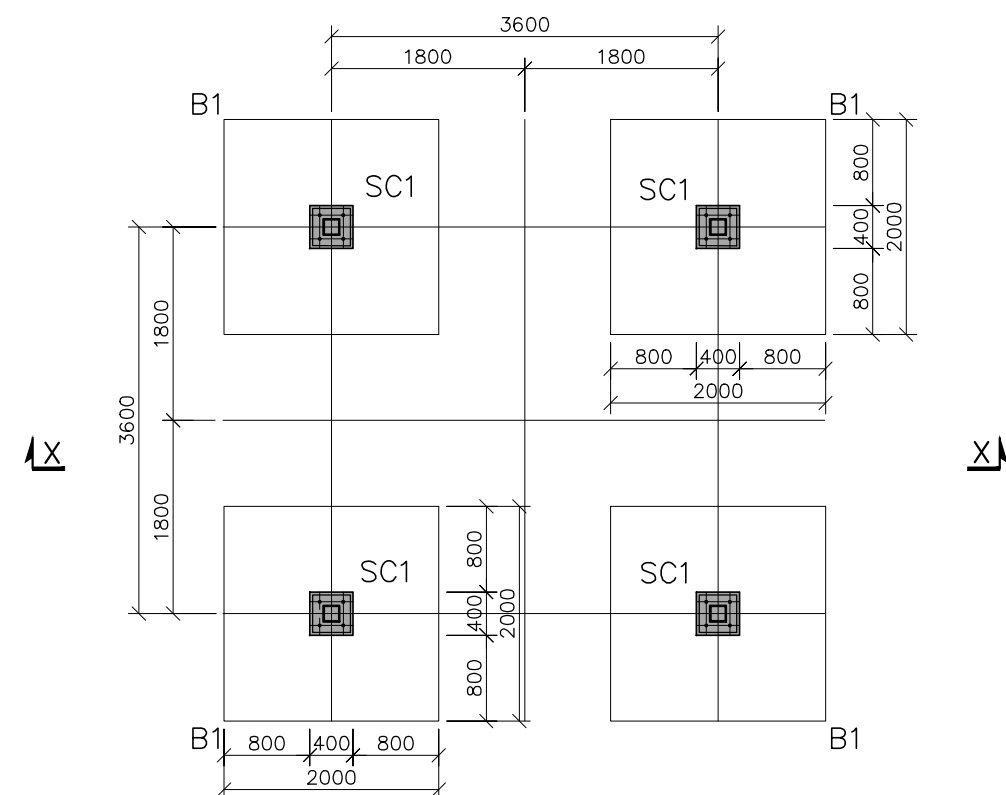


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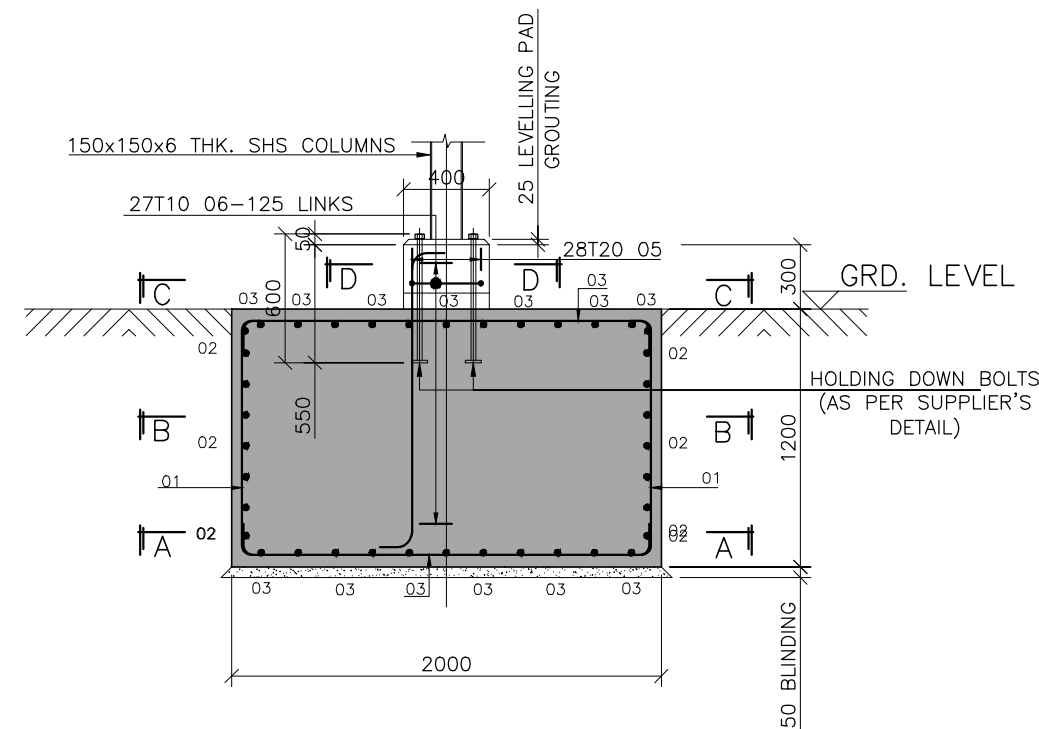
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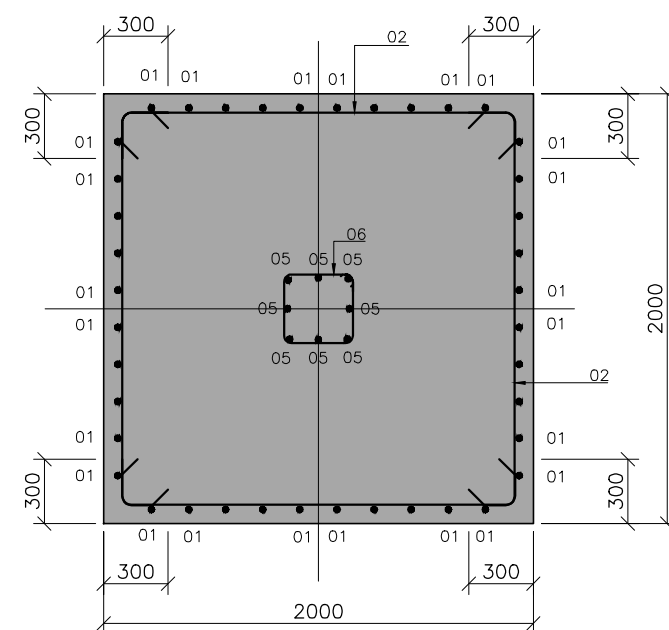
SECTION X-X
SCALE 1:50



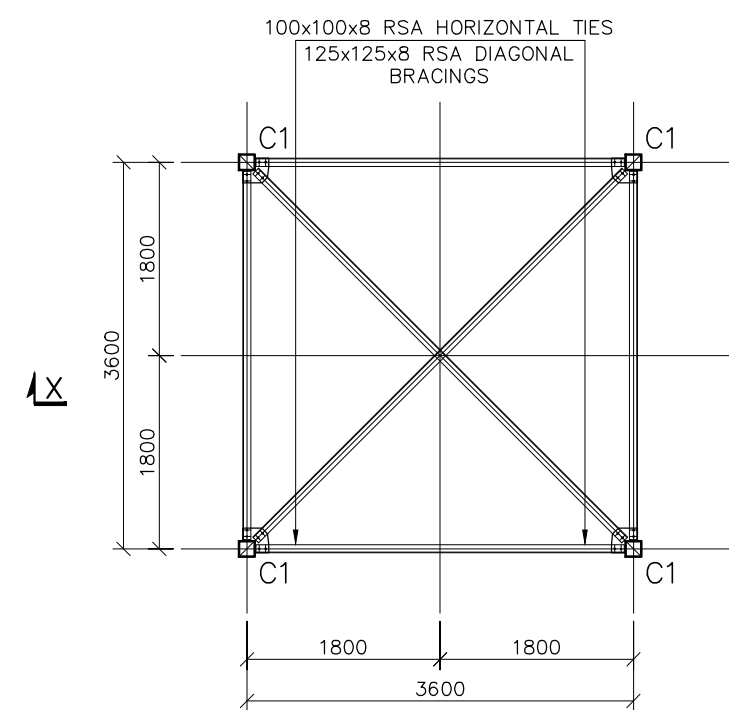
FOUNDATION LAYOUT
SCALE 1:50



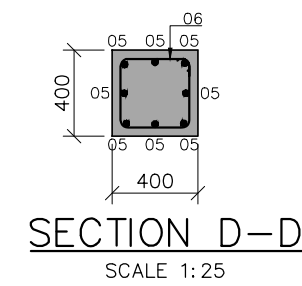
TYPICAL FOUNDATION BASE TYPE 'P1'
R.C. DETAIL
(4 No.)
SCALE 1:25



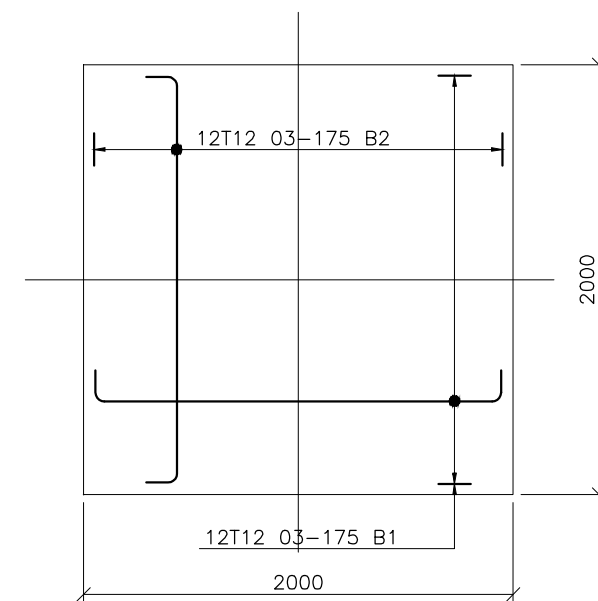
BASE R.C. DETAIL
SECTION B-B - SIDE BARS
SCALE 1:25



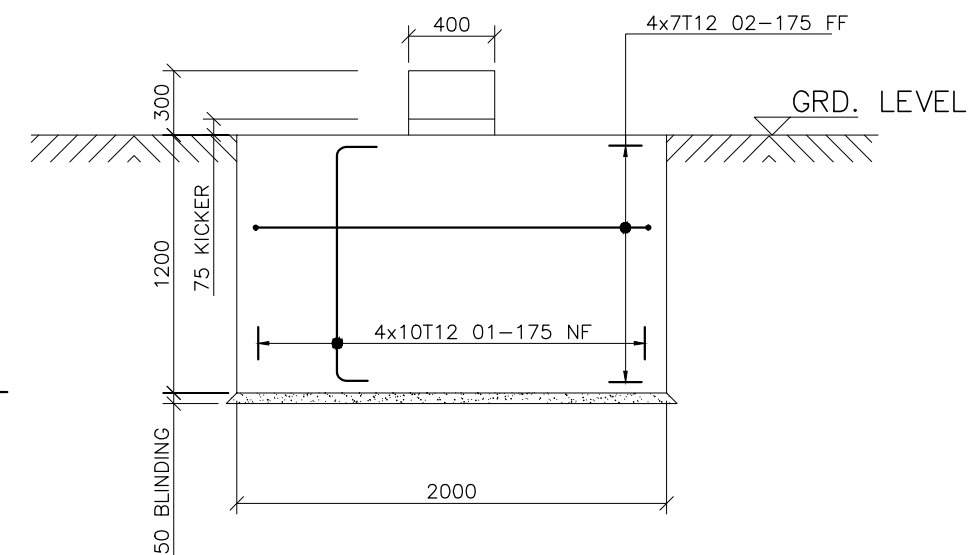
SECTIONAL PLAN B-B
SCALE 1:50



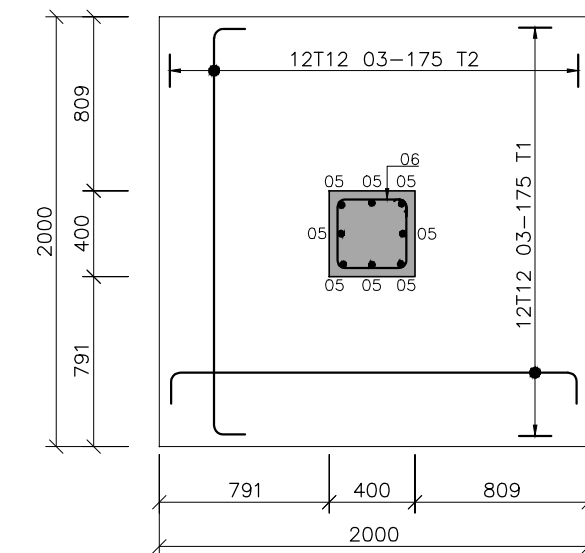
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SCALE 1:25



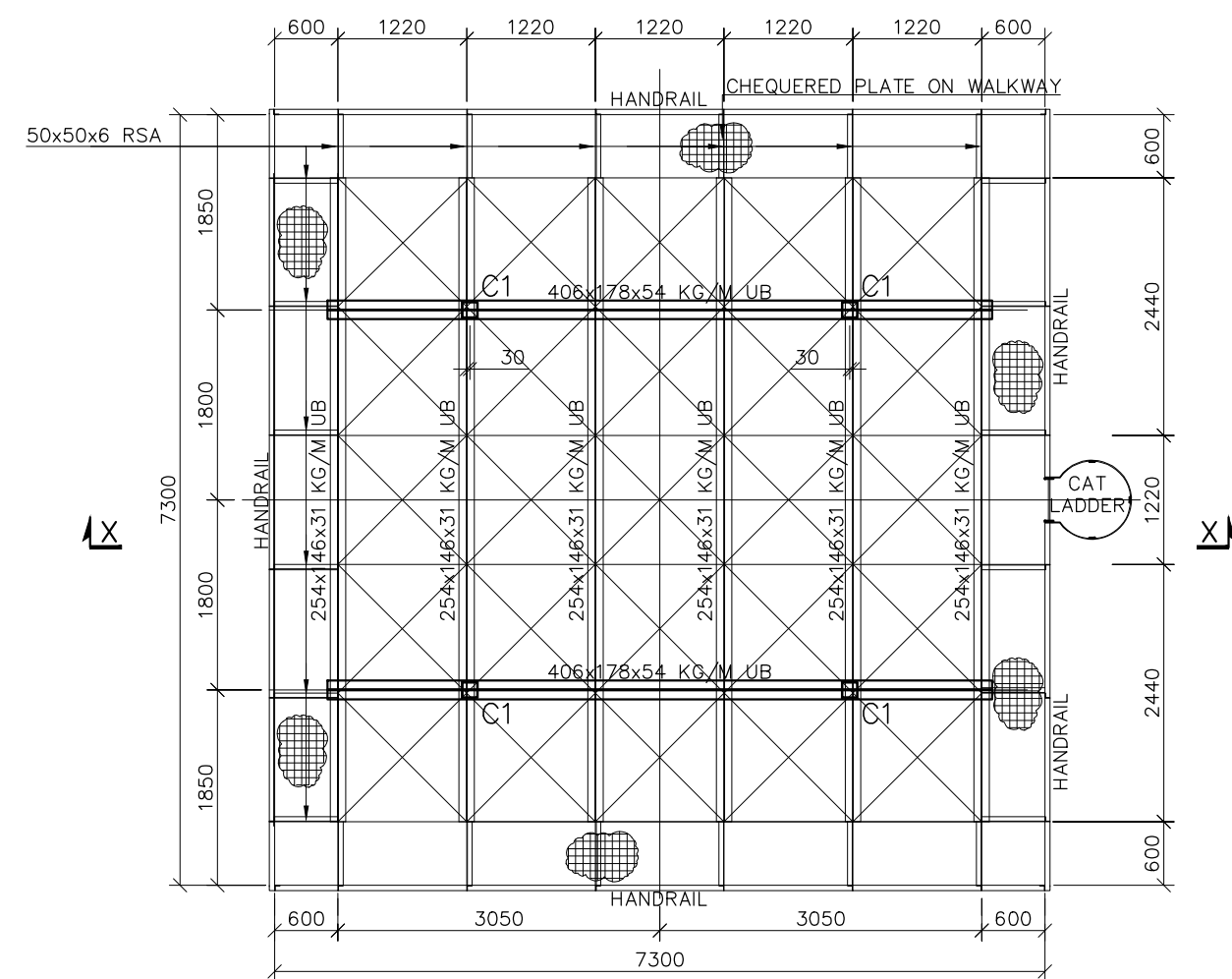
BASE R.C. DETAIL
SECTION A-A - BOTTOM BARS
SCALE 1:25



TYPICAL SIDE ELEVATION
R.C. DETAIL
SCALE 1:25



BASE R.C. DETAIL
SECTION C-C - TOP BARS
SCALE 1:25



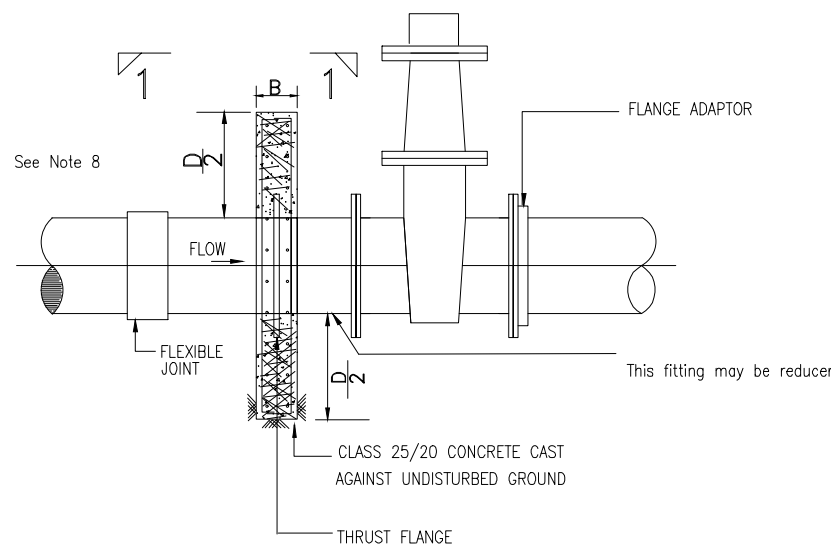
PLAN VIEW A-A
SCALE 1:50

NOTES

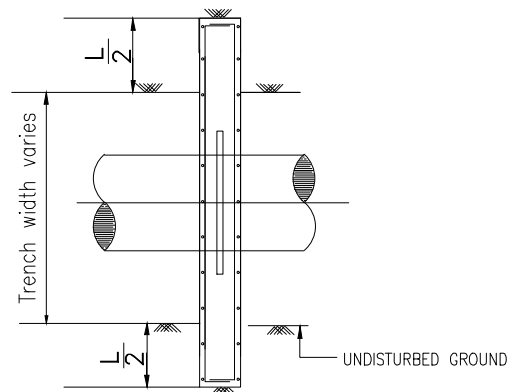
1. ALL DIMENSIONS ARE IN MILLIMETRES
2. THE CONTRACTOR TO ENSURE THAT THE COLUMN BASE PLATES ARE AT ONE PLANE AND LEVEL, COLUMN MEMBERS ARE STRAIGHTENED TO ENSURE PLUMBNESS AND ALL KINKS AT JOINTS CORRECTED TO APPROVAL.
3. MAXIMUM TOLERANCE FOR VERTICALITY TO BE 40mm.
4. ALL BOLTS SHALL BE GALVANIZED BOLTS OR PAINTED FOR ANTIRUST TO ENGINEER'S APPROVAL.
5. SUPPLY AND INSTALL NEW 'WATER LEVEL' INDICATOR TO APPROVAL OF THE ENGINEER.
6. UNLESS OTHERWISE STATED ALL WELDS TO BE 6mm FILLET WELDS.
7. ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON SITE BY STEEL FABRICATOR BEFORE COMMENCEMENT OF ANY WORK.
8. DEFECTS LIABILITY PERIOD TO RUN FOR SIX MONTHS AFTER COMMISSIONING AND ACCEPTANCE OF TANK TOWER BY THE CLIENT.

Drawing Title
ELEVATED STEEL TANK
DETAILS
(100 CUBIC METRE)

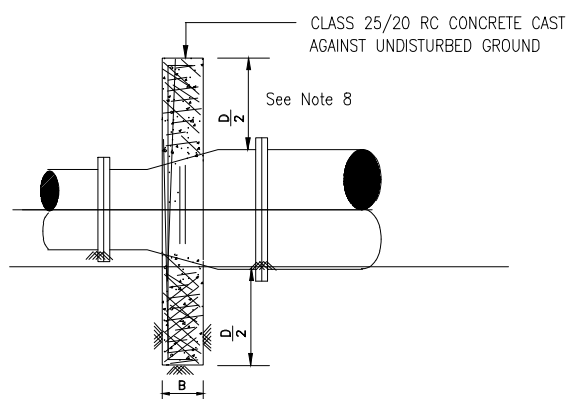




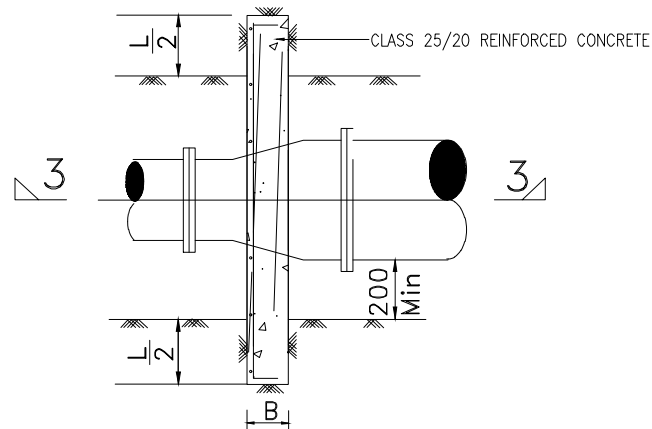
ELEVATION
ANCHOR BLOCK
FOR GATE VALVES



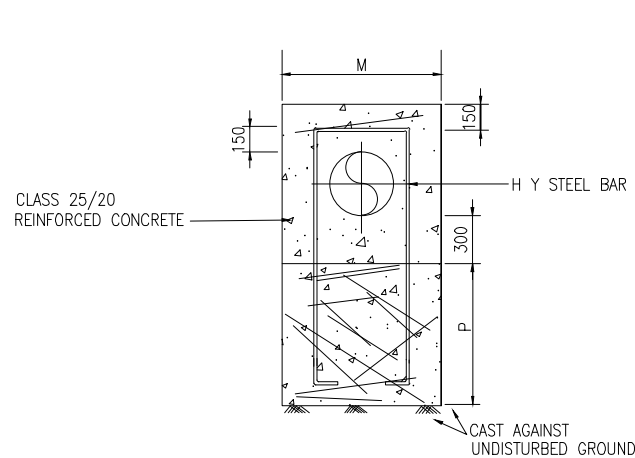
SECTION 1 - 1



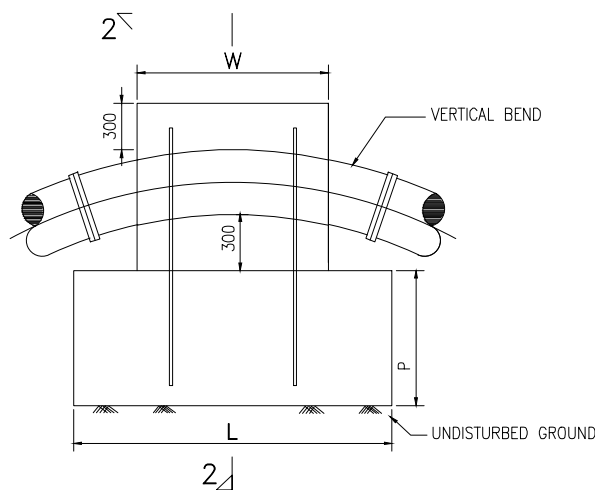
SECTION 3 - 3
THRUST BLOCKS FOR TAPERS



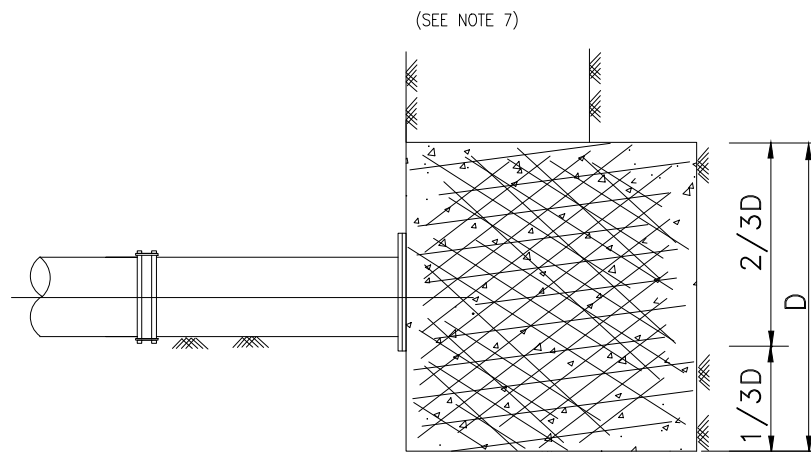
PLAN



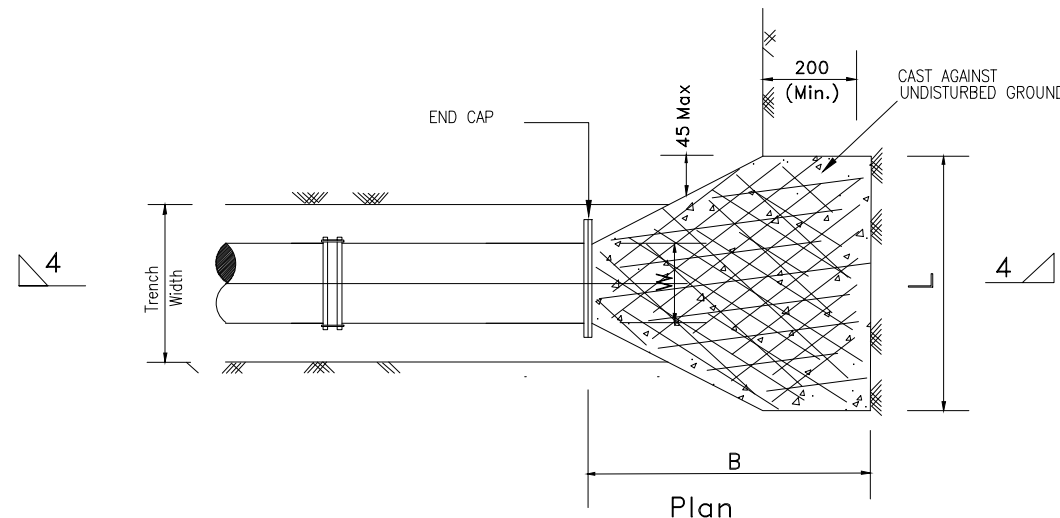
SECTION 2 - 2
UPTHRUST THRUST
UPVERTICAL BENDS - TYPICAL



ELEVATION



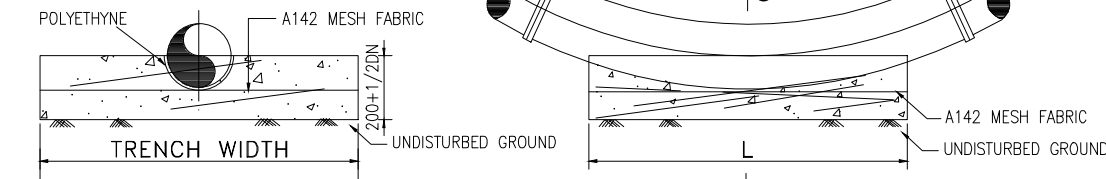
Section 4 - 4



Thrust Block for Blank Ends

TABLE 1		
MAIN SIZE (mm)	BLOCK TYPE	
	100m Head	160m Head
600	E	E
500	D	E
450	D	D
400	C	D
350	C	C
300	B	C
250	B	B
200	A	A
150	A	A
100	A	A

Table of Anchor Blocks
For Gate Valves



SECTION 3 - 3

DOWNTHRUST VERTICAL
BENDS - TYPICAL

TEST HEAD (m)	(SEE NOTE 7)				
	PIPE DIA (mm)	D (m)	L (m)	B (m)	CONCRETE VOL m3
100	600	1.6	2.6	1.2	3.1
	500	1.4	2.2	1.1	2.1
	450	1.2	2.0	1.0	1.5
	400	1.2	1.6	0.8	1.0
	350	1.0	1.5	0.8	0.7
	300	1.0	1.2	0.7	0.5
	250	0.8	1.0	0.5	0.3
	200	0.6	0.8	0.5	0.2
	150	0.5	0.6	0.5	0.1
	100	0.5	0.6	0.5	0.1

TABLE OF ANCHOR BLOCKS FOR BLANK ENDS

TABLE 4					
BLOCK TYPE	D (m)	L (m)	B (mm)	MAIN STEEL	DISTRIBUTION STEEL
A	0.6	1.4	200	Y10 - 150	Y10 - 150
B	0.8	1.6	300	Y10 - 150	Y10 - 150
C	1.0	1.8	300	Y12 - 150	Y10 - 150
D	1.2	2.0	400	Y12 - 150	Y12 - 150
E	1.4	2.6	500	Y12 - 150	Y12 - 150
F	1.6	3.2	500	Y12 - 150	Y12 - 150

DETAILS OF ANCHOR BLOCKS FOR GATE VALVES AND TAPERS
(CLASS '25/20' CONCRETE)

TABLE OF THRUST BLOCKS FOR TAPERS												
MAIN SIZE (mm)	TAPER (SMALLER SIZE) mm											
	100 m HEAD TEST PRESSURE											
	800	700	600	500	450	400	350	300	250	200	150	100
800	—	D	E	F	—	F	—	E	—	—	—	—
700	—	—	D	E	—	F	F	E	—	—	—	—
600	—	D	D	C	D	D	E	E	—	—	—	—
500	—	B	C	—	B	C	C	D	—	—	—	—
450	—	—	B	—	—	B	C	C	D	—	—	—
400	—	—	—	—	—	—	A	B	C	C	—	—
350	—	—	—	—	—	—	—	A	B	B	C	—
300	—	—	—	—	—	—	—	—	A	B	B	—
250	—	—	—	—	—	—	—	—	—	A	A	B
200	—	—	—	—	—	—	—	—	—	—	A	A
150	—	—	—	—	—	—	—	—	—	—	—	A

TABLE OF ANCHOR BLOCKS FOR GATE VALVES AND TAPERS
(CLASS '25' CONCRETE)
FOR DIMENSIONS (See table 4)

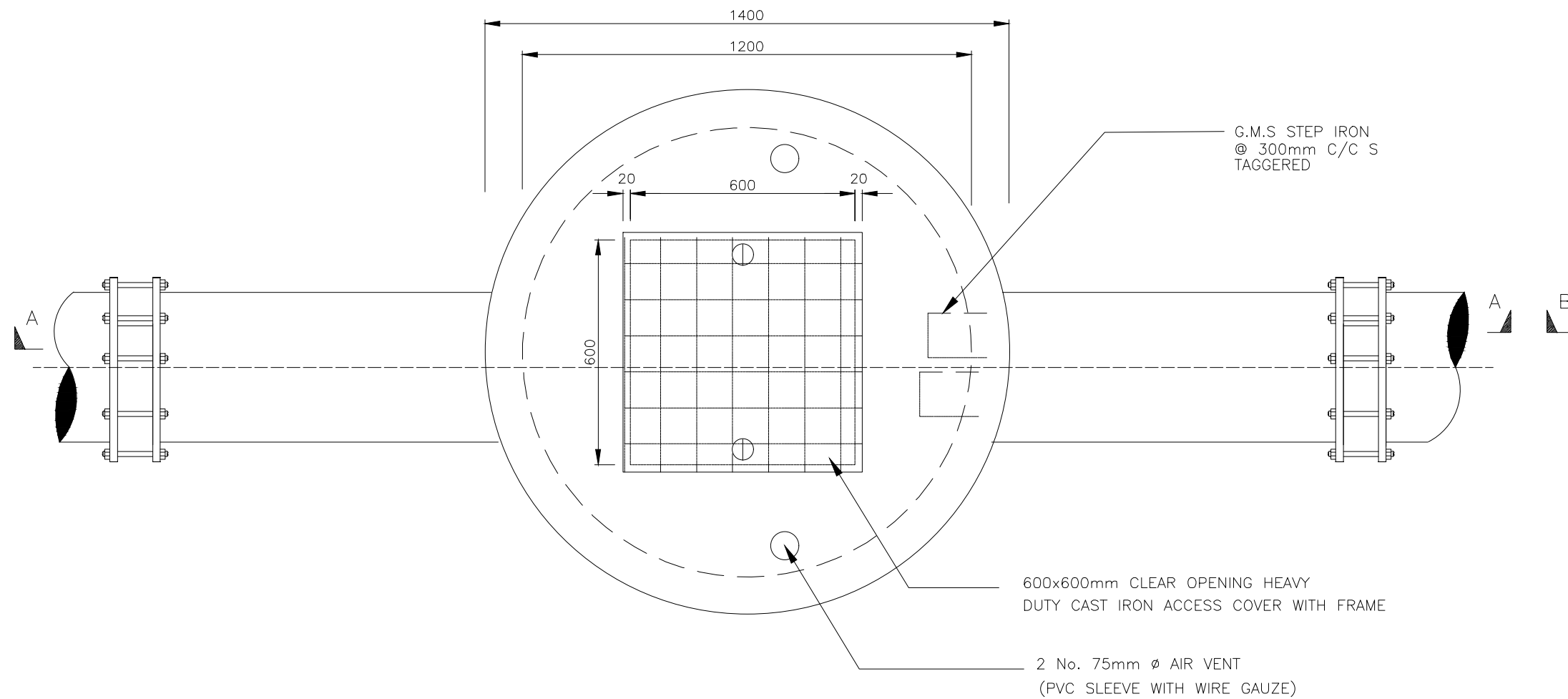
- NOTES**
1. All dimensions are in mm, unless otherwise stated
 2. All concrete thrust blocks shall be constructed on and against firm ground directly. The thrust or anchor blocks shall not be cast against black cotton soil and reference shall be made to the Engineer's Representative for further instructions.
 3. The concrete thrust blocks are designed to bear on the original earth surface with bearing pressure of 100KN/m
 4. Concrete to be Class '20/20' unless otherwise stated.
 5. Concrete in thrust and anchor blocks must be cast clear of joints
 6. Dimensions 'W' for thrust blocks on vertical bends to suit the size of bend and clearance required for joints.
 7. The steel anchoring reinforcement and the dimensions L, P and M are to be decided by the Engineer's Representative to suit each individual bend.
 8. Where D/2 exceeds the cover, increase the depth below the pipe to make the total = D.

LEGEND

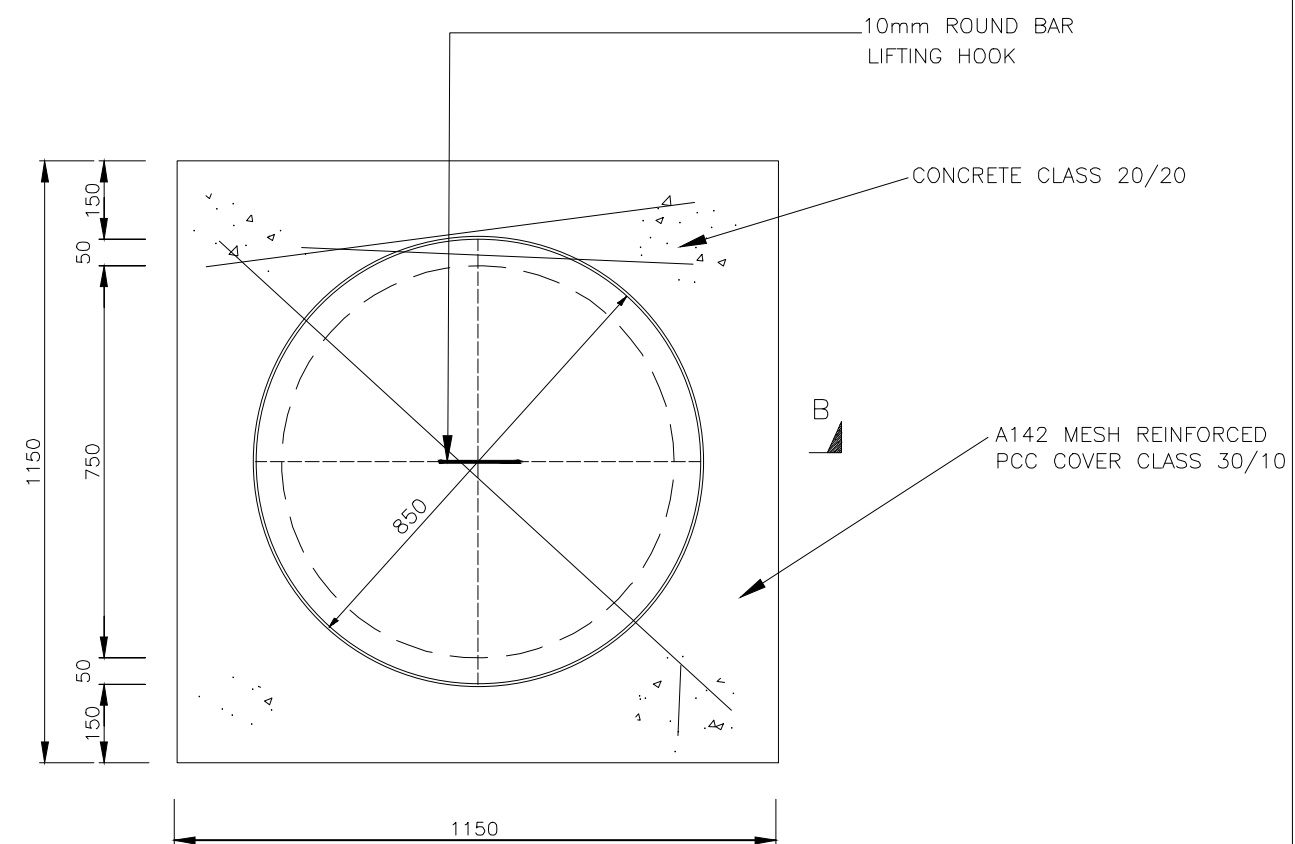
- DN - Nominal diameter
BF - Blank Flange
FA - Flange Adaptor

DRAWING TO SCALE IN A2 SIZE

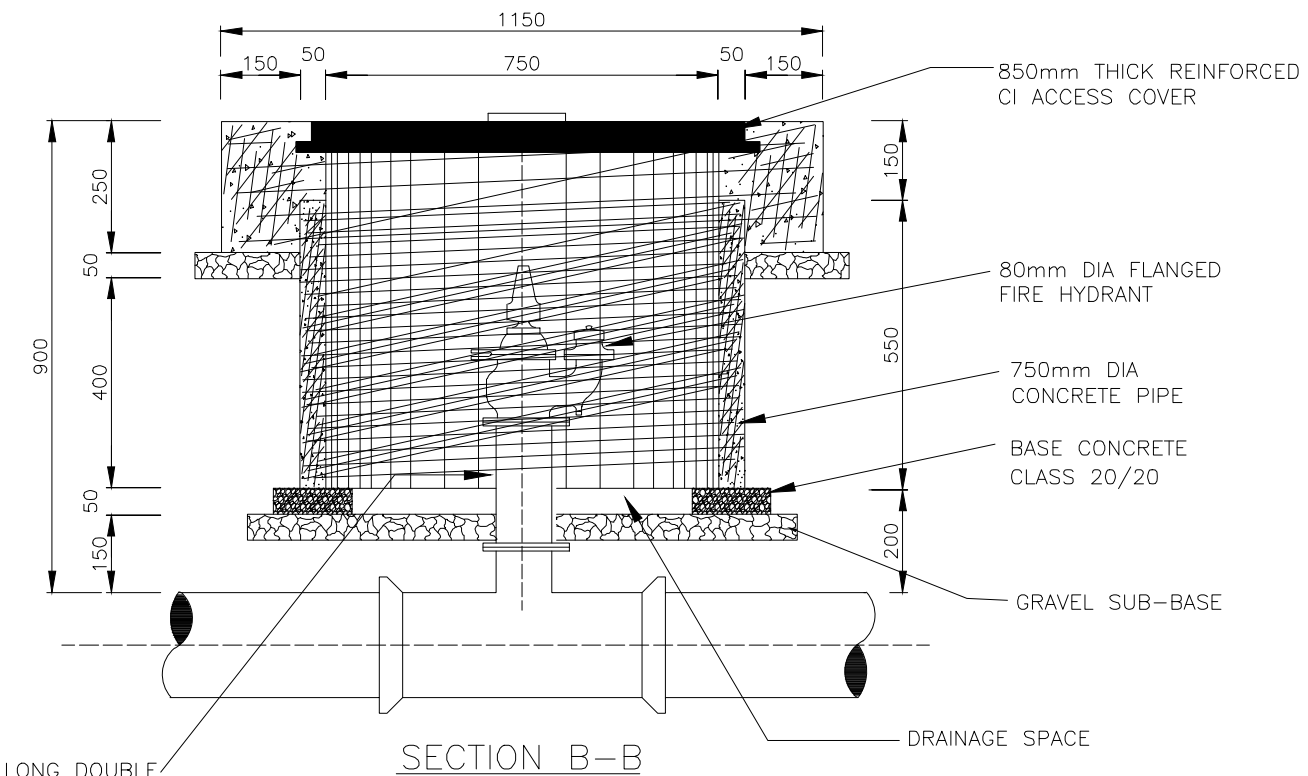
GOVERNMENT OF KENYA 	No.	REVISION	APPROVAL	DATE	REFERENCE	DWG No.	PROJECT NAME: PROPOSED KIVUNO IRRIGATION PROJECT	TITLE OF DRAWING: TRUNK DISTRIBUTION MAINS THRUST BLOCKS FOR VERTICAL BENDS, TAPERS GATE VALVES AND BLANK ENDS		Designed:	Date:
										Drawn: J.K.W	Date:
										Checked:	Date:
										Approved:	Date:
							DWG No.		Sheet No.	1 of 1	



PLAN OF AIR VALVE CHAMBER



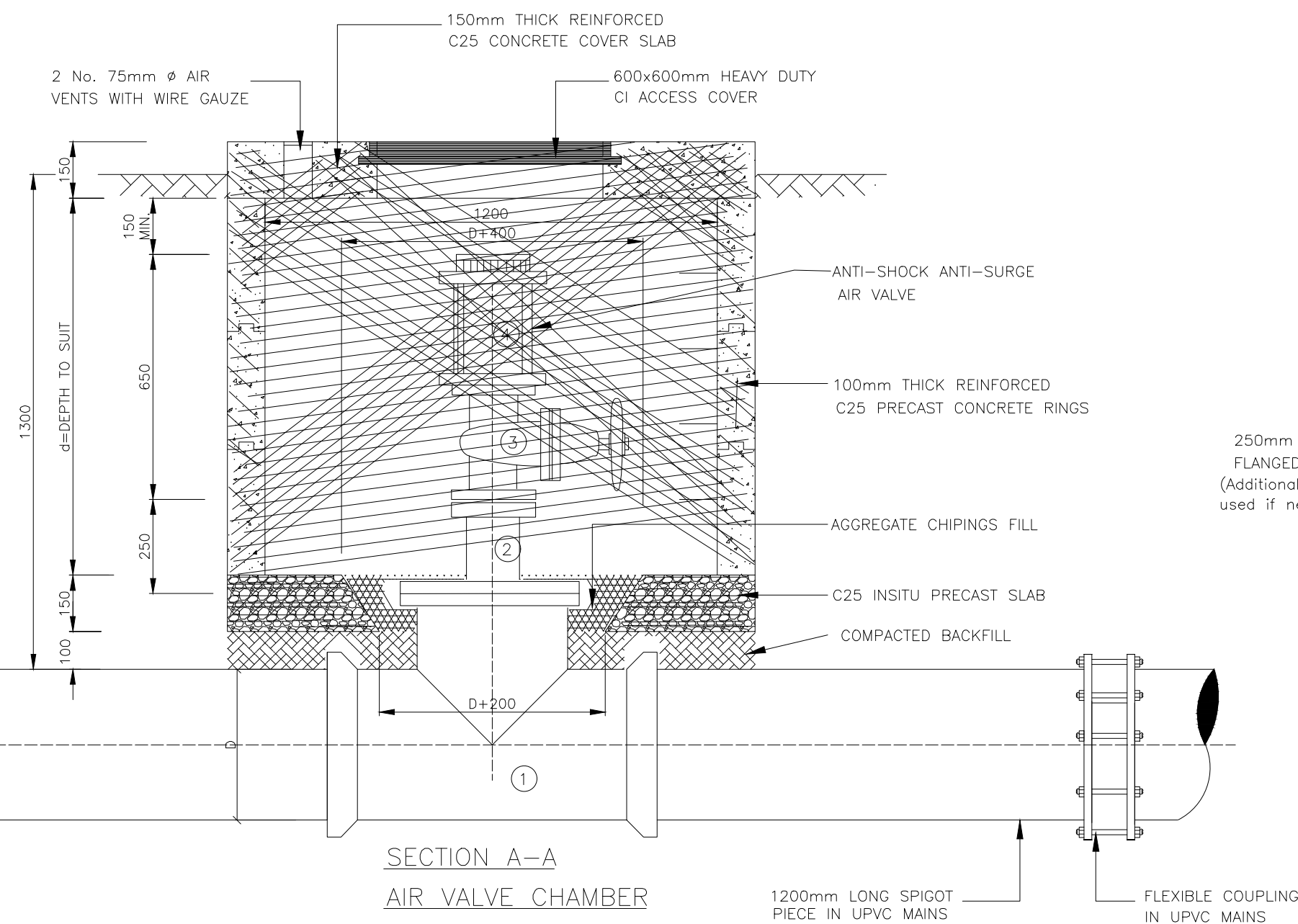
PLAN OF COVER



SECTION B-B
FIRE HYDRANT CHAMBER TYPE 2C

TABLE OF AIR VALVE BRANCH AND FITTINGS

MAIN SIZE (mm)	AIR VALVE BRANCH ϕ (mm)	AIR VALVE TEE (1)	FLANGED REDUCER (2)	VALVE (3)	AIR VALVE (4)
100	25	100X50	50X25	25	25
150	50	150X50	50X50	50	50
200	50	200X100	100X50	50	50
250	80	250X150	150X80	80	80
300	80	300X150	150X80	80	80
350	80	350X150	150X80	80	80
400	100	400X200	200X100	100	100
450	100	450X200	200X100	100	100
500	100	500X250	250X100	100	100
600	150	600X300	300X150	150	150
700	150	700X350	350X150	150	150
800	200	800X400	400X200	200	200
900	200	900X450	450X200	200	200



SECTION A-A
AIR VALVE CHAMBER

NOTES

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED
2. ALL MESH REINFORCEMENT SHOULD CONFORM TO BS 4453
3. ALL FITTINGS TO BE DUCTILE IRON TO PN10 AND FLANGES TO BS 4504 PN10
4. STEP IRONS ARE ONLY REQUIRED WHERE CHAMBER IS GREATER THAN 1000mm DEEP
5. CHAMBER TO BE BACKFILLED WITH 300mm THICK GRANULAR FILL
6. ACCESS COVERS TO BE CAST IRON
7. PRECAST CONCRETE TO BE CLASS 30/10

DRAWING TO SCALE IN A2 SIZE

GOVERNMENT OF KENYA



No.	REVISION	APPROVAL	DATE	REFERENCE	DWG No.

PROJECT NAME:

PROPOSED KIVUNO IRRIGATION PROJECT

TITLE OF DRAWING:

FIRE HYDRANT AND AIR VALVE CHAMBER

DWG No.

Sheet No.

1 of 1

Designed:

Drawn:

Checked:

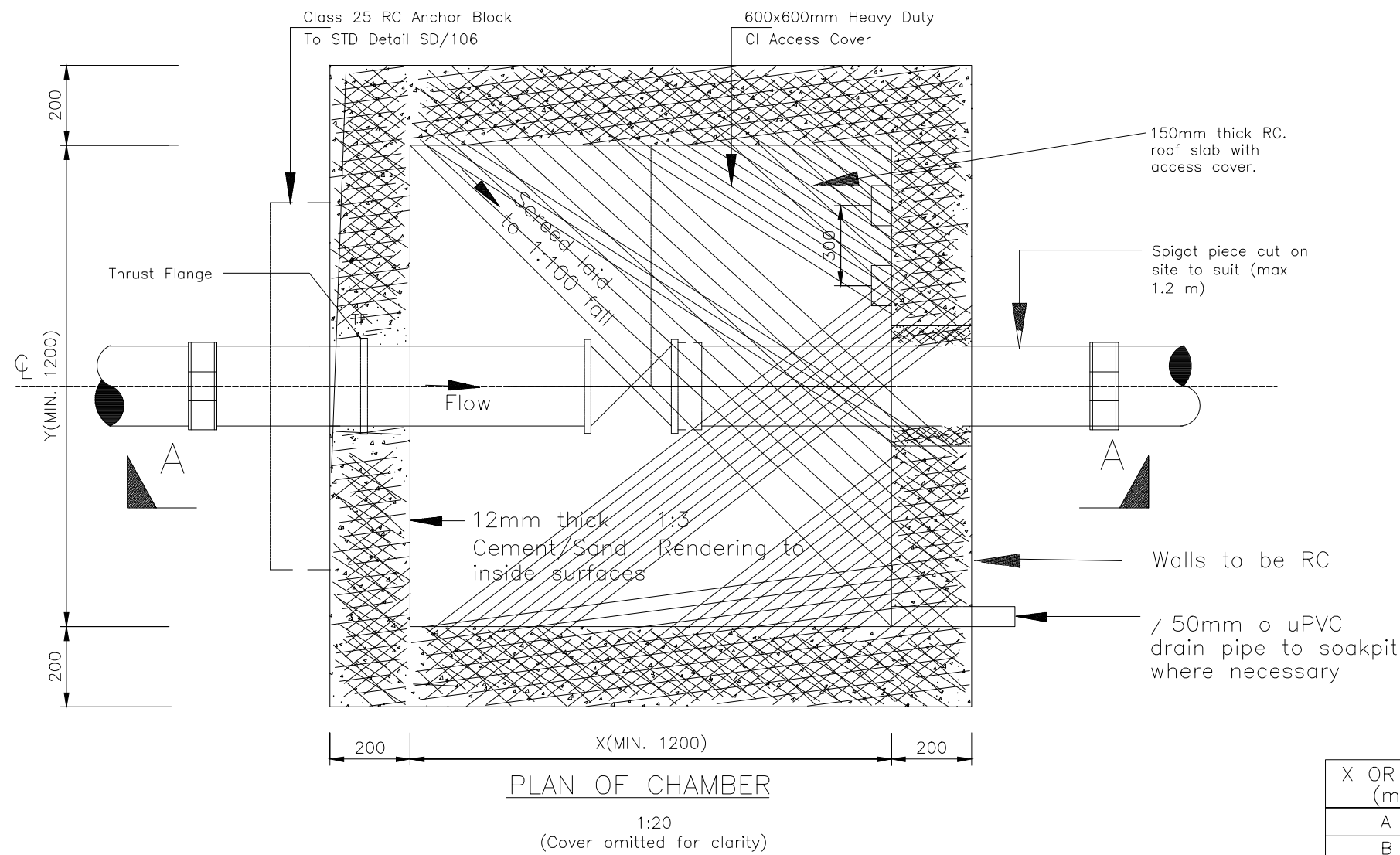
Approved:

Date:

Date:

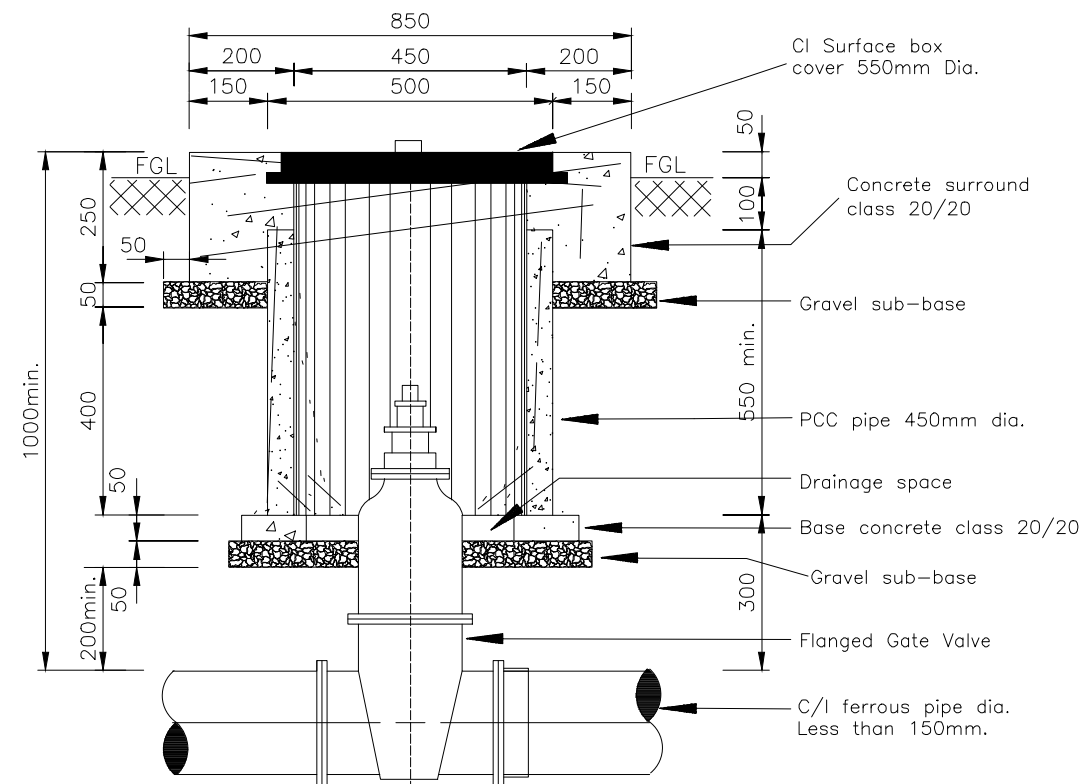
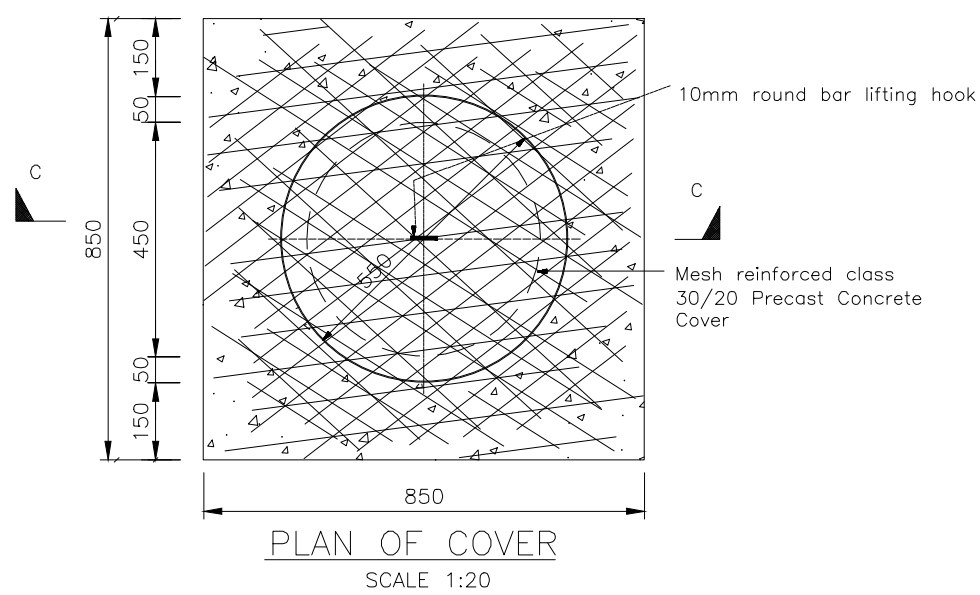
Date:

Date:



X OR Y (mm)	(mm)
A	1200
B	1500
C	1800
D	2100
E	2500
F	3000

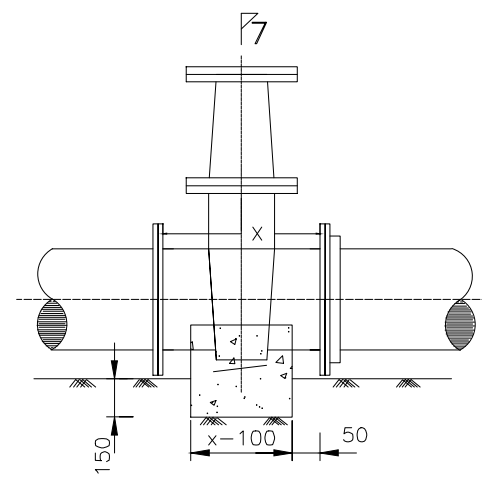
CHAMBER DIMENSIONS



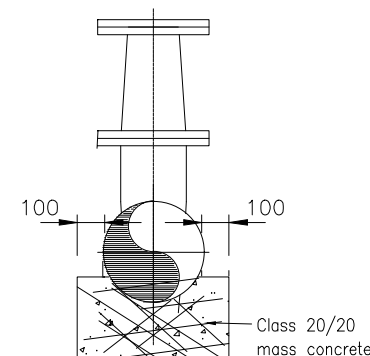
GATE VALVE SURFACE BOX
SECTION C-C
SCALE 1:20

MAIN SIZE (mm)	GATE VALVE DIAMETER (mm)
100	100
150	150
200	200
250	250
300	300
350	300
400	300
500	400
600	500
700	600
800	600

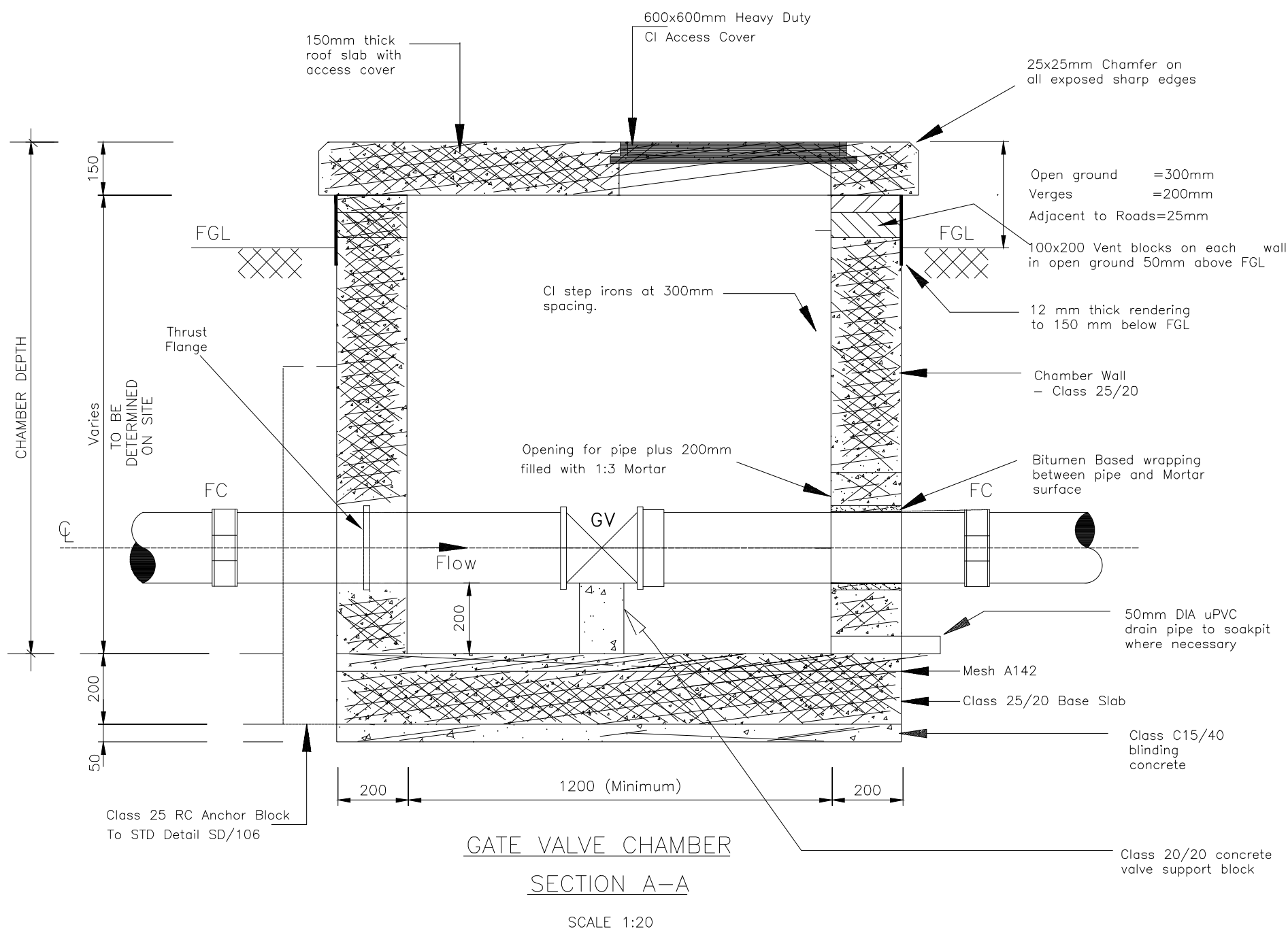
GATE VALVE DIAMETER



ELEVATION
Gate Valve Support Block



Section 7 - 7



NOTES

1. All dimensions are in mm unless otherwise stated
2. Where the Chamber wall is used for anchorage, the restraining to be according to Drawing SD/06.
3. Chamber wall to be backfilled wall thickness with 300mm thick granular fill around walls
4. Where the chamber is along footpath in built up areas, the cover may be flushed with the footpath

DRAWING TO SCALE IN A2 SIZE

GOVERNMENT OF KENYA



No.	REVISION	APPROVAL	DATE	REFERENCE	DWG No.

PROJECT NAME:
PROPOSED KIVUNO IRRIGATION PROJECT

TITLE OF DRAWING:

GATE VALVE CHAMBERS

DWG No.

Sheet No.

1 of 1

Designed:

Date:

Drawn:

J.K.W

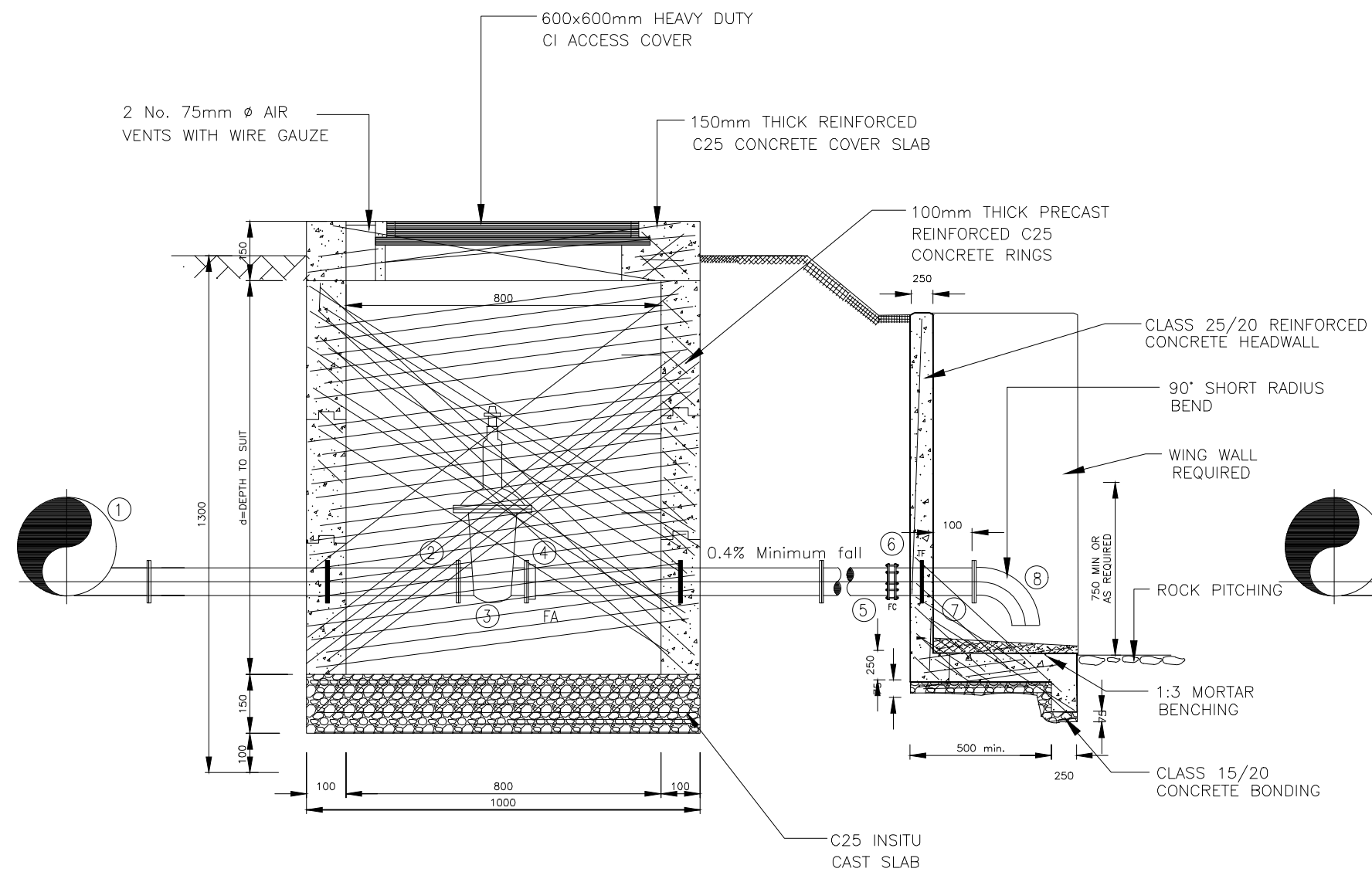
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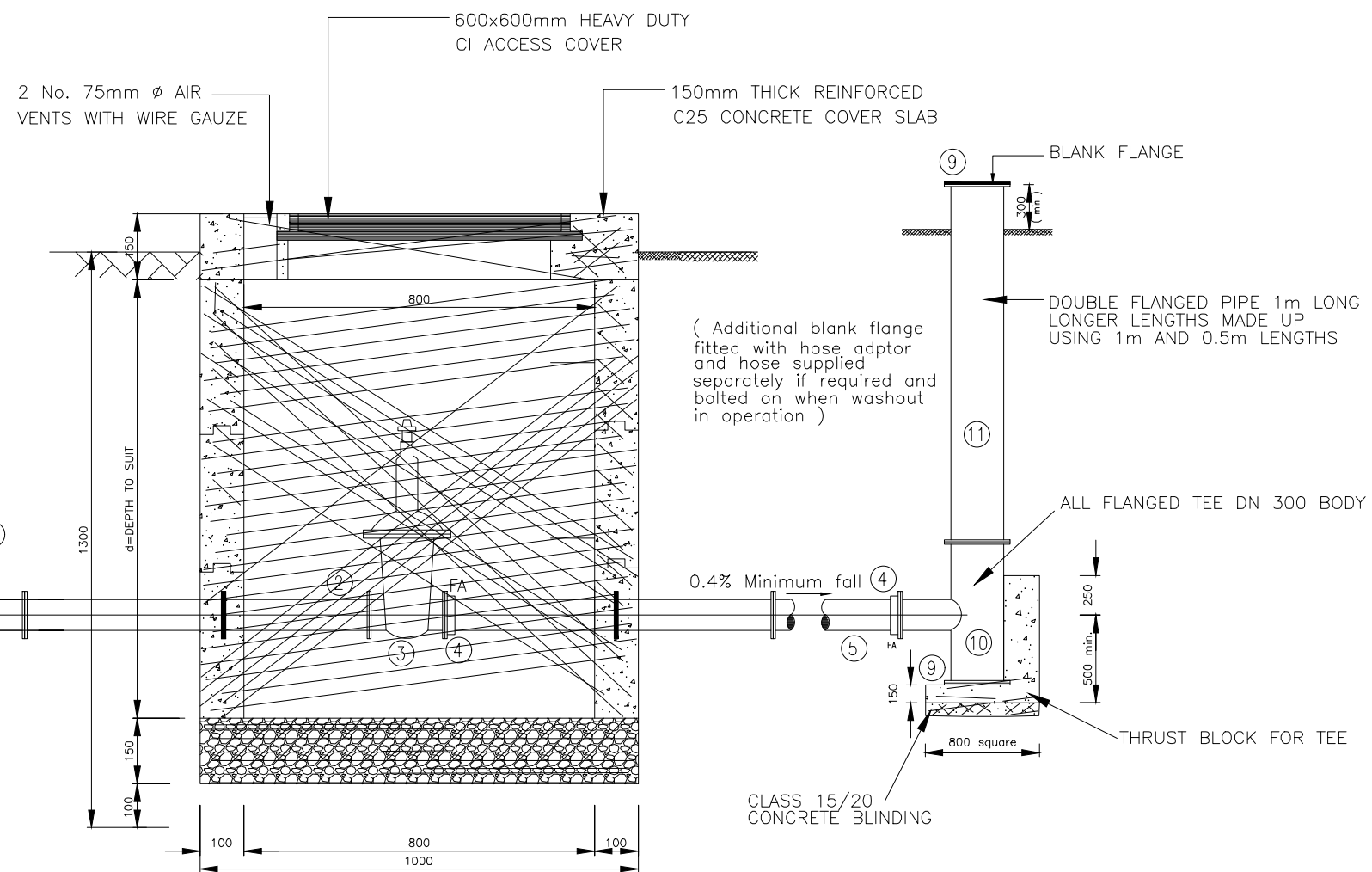
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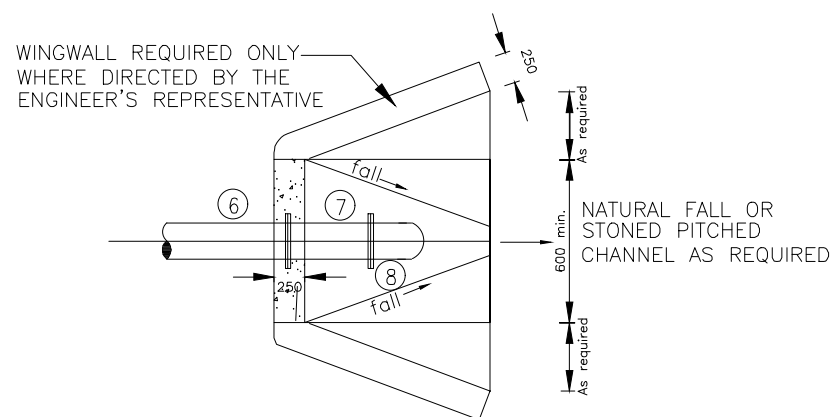
Date:



WASHOUT TYPE 1
ARRANGEMENT WITH NATURAL DRAINAGE



WASHOUT TYPE 2
ARRANGEMENT WITHOUT NATURAL DRAINAGE

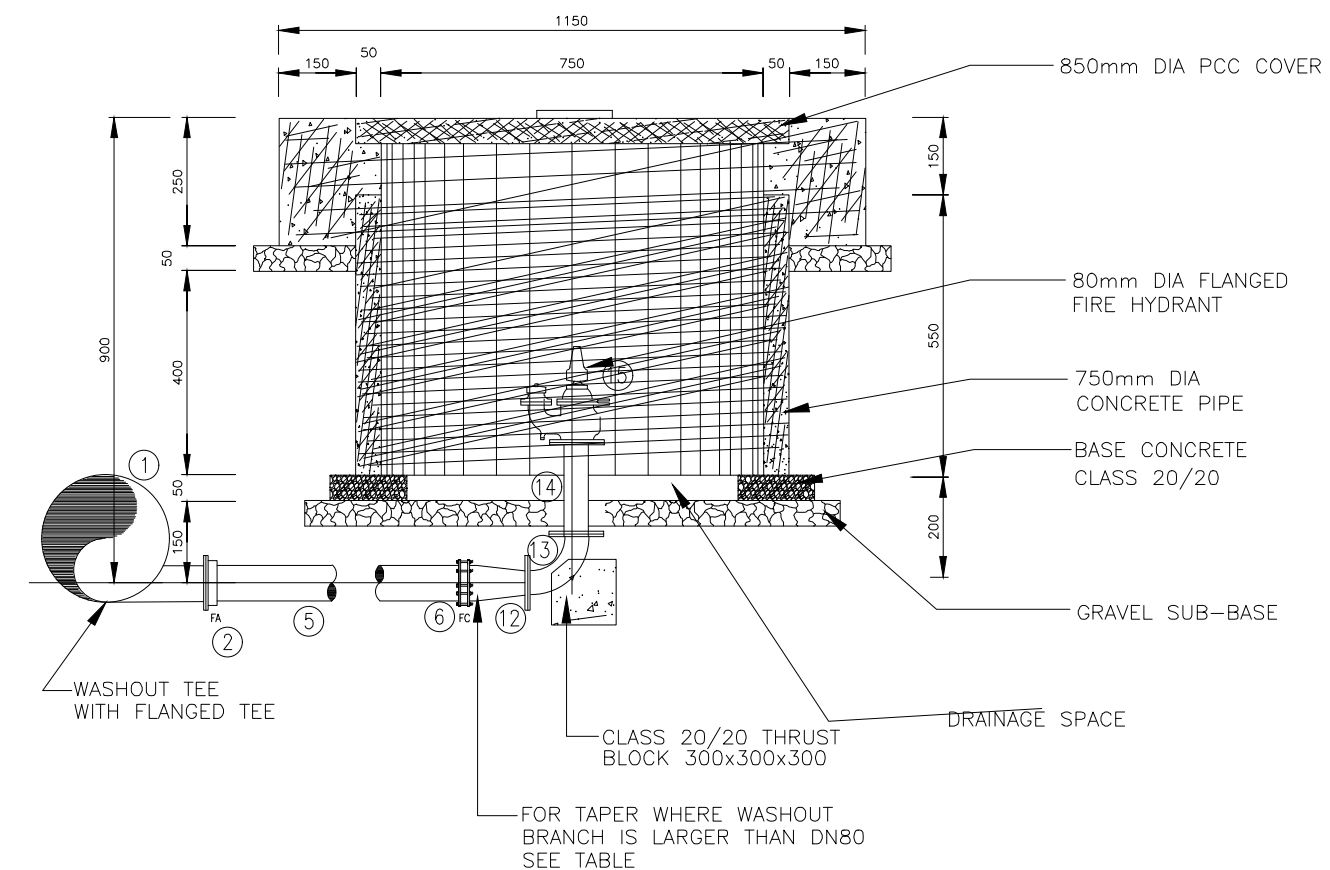


PLAN OF OUTFALL
Washout Type 1
(ARRANGEMENT WHERE NATURAL DRAINAGE IS POSSIBLE)

SCHEDULE OF FITTINGS	
FITTING REF. NO.	DESCRIPTION
1	INVERT LEVEL DOUBLE SOCKETED BRANCH TEE
2	DOUBLE FLANGED SPIGOT 0.8m LONG
3	DOUBLE FLANGED GATE VALVE
4	FLANGE ADAPTOR
5	SOCKETED PIPE - 2NO.
6	FLANGED COUPLING
7	600mm LONG FLANGE SPIGOT WITH CENTRAL FLANGE
8	ONE END FLANGED 90° SHORT RADIUS BEND
9	DN300 BLANK FLANGE
10	DN300 ALL FLANGED TEE
11	DN300 DOUBLE FLANGED SPIGOT 1.0m LONG
12	ONE END FLANGED TAPER
13	DN80 DOUBLE FLANGED 90° BEND
14	DN80 DOUBLE FLANGED SPIGOT 0.5m LONG
15	DN80 FLANGED FIRE HYDRANT
UPVC MAINS ONLY	2NO. 0.8m LONG SPIGOT PIECE
	2NO. STEPPED COUPLINGS

TABLE OF WASHOUT BRANCH SIZES.

MAIN DIAMETER (MM)	WASHOUT BRANCH SIZE (MM)	
100 - 300	80	
350 - 500	100	
600 - 700	150	
ABOVE 700	200	



WASHOUT TYPE 3
WHERE NATURAL DRAINAGE IS NOT POSSIBLE AND THEN WASHOUT LOCATED IN BUILT UP AREAS WHERE IT COULD BE USED FOR FIRE FIGHTING) FOR MAIN SIZES LESS THAN 500 DN

NOTES

1. All dimensions are in mm unless otherwise stated
2. Surface boxes to chambers to be of cast iron
3. All external edges to be chamfered (25x25mm)
4. Precast Concrete to Class 30/10

DRAWING TO SCALE IN A2 SIZE

GOVERNMENT OF KENYA



No.	REVISION	APPROVAL	DATE	REFERENCE	DWG No.

PROJECT NAME:

PROPOSED KIVUNO IRRIGATION PROJECT

TITLE OF DRAWING:

WASHOUT DETAILS

DWG No.

Sheet No.

1 of 1

Designed:

Drawn: JKW

Checked:

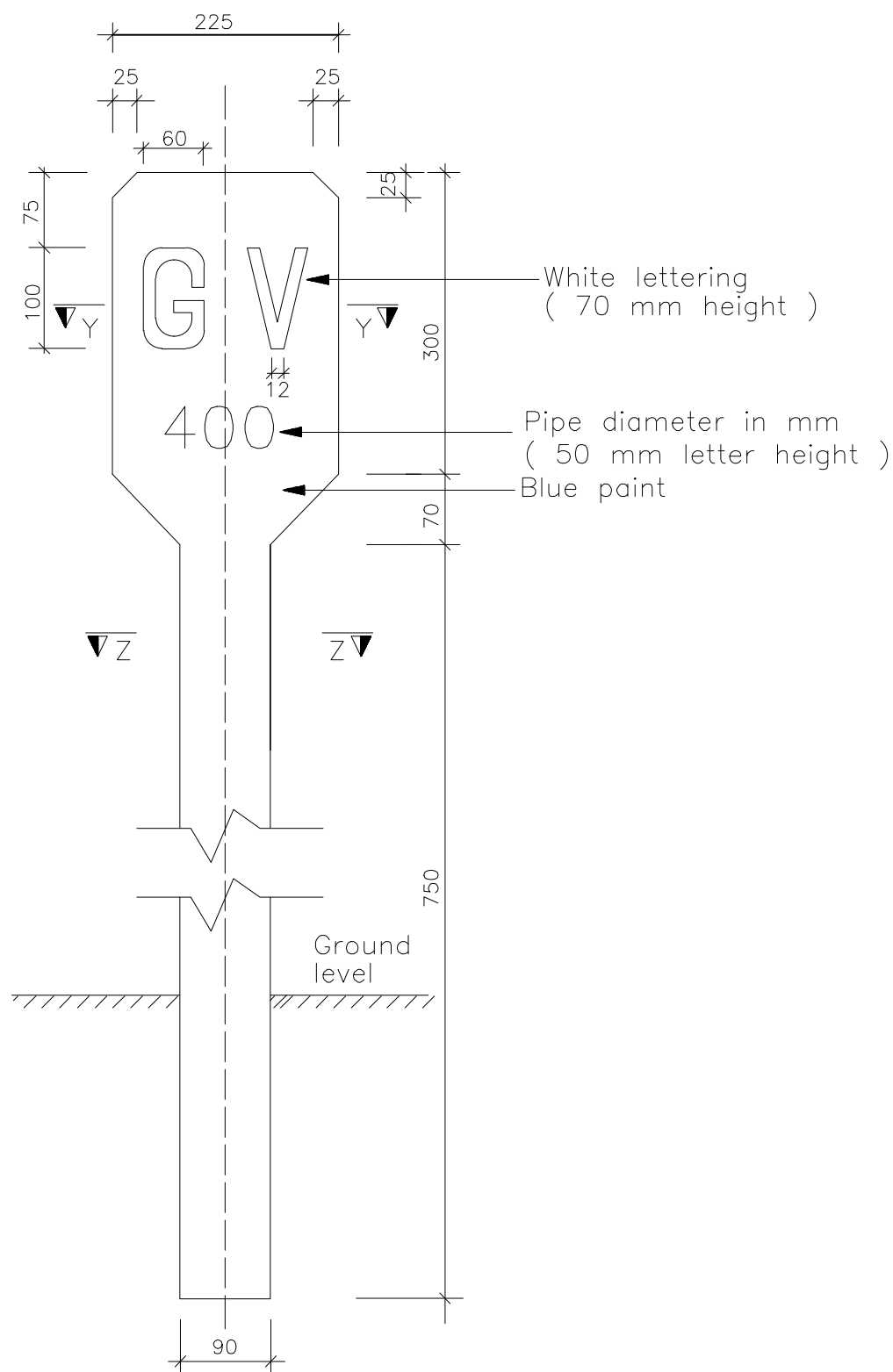
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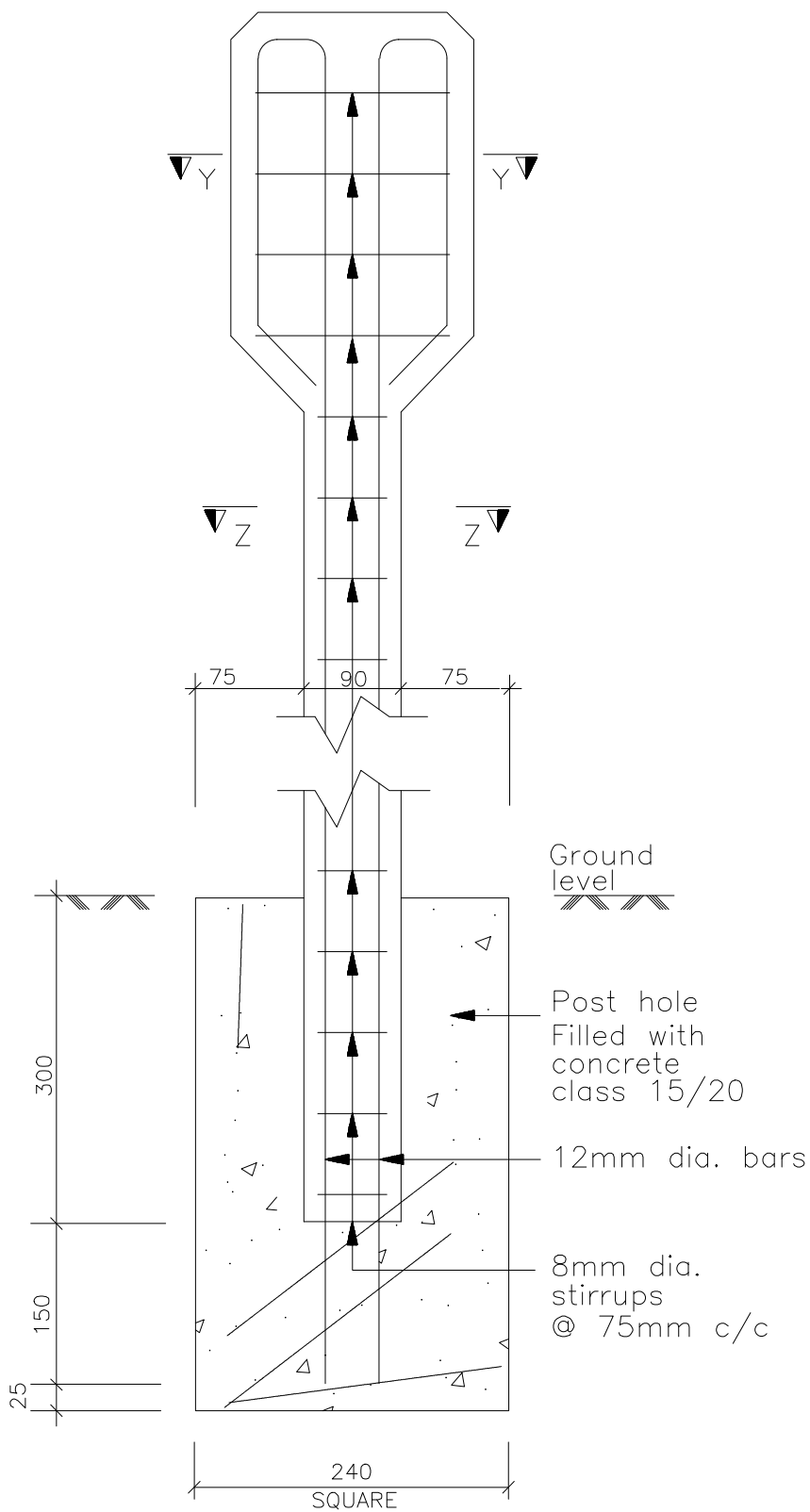
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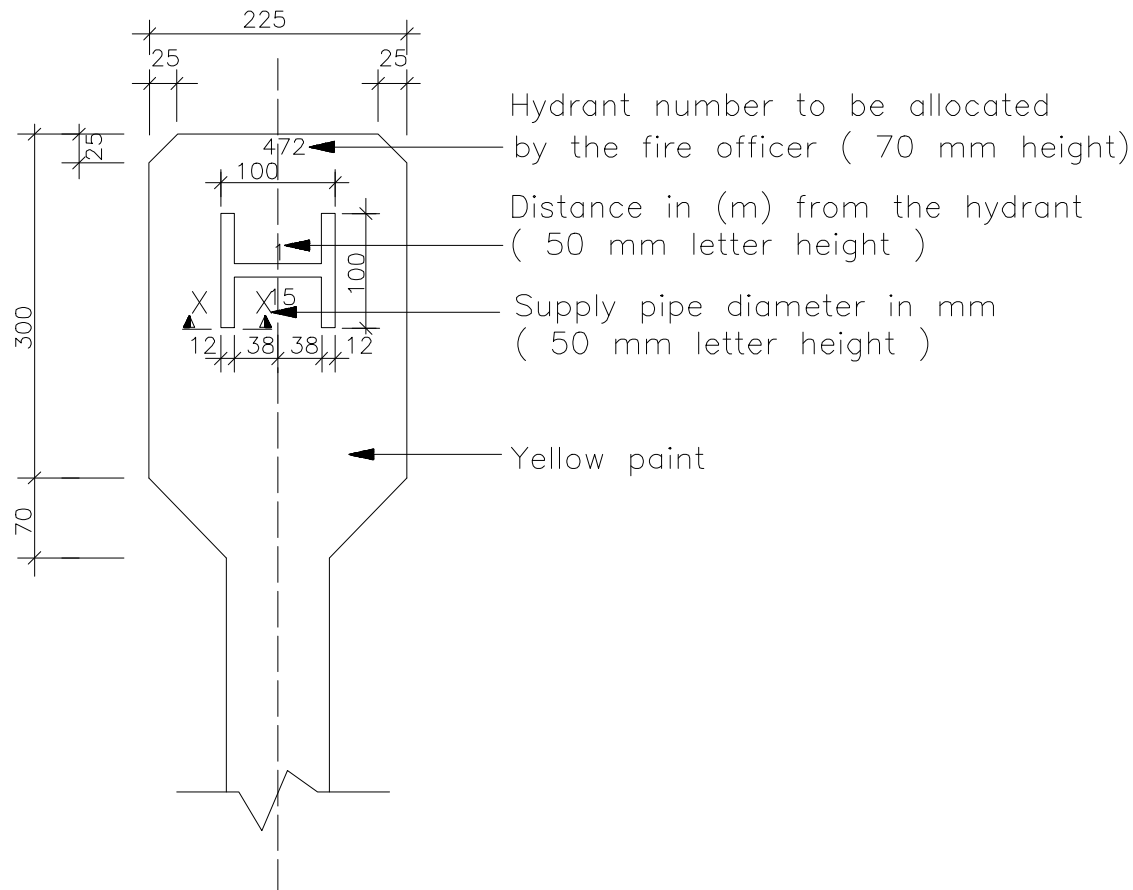
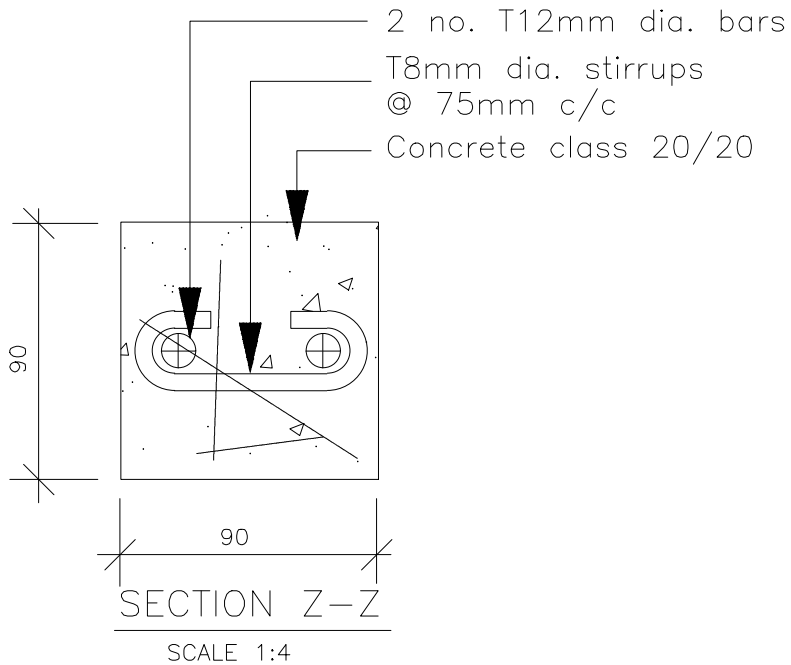
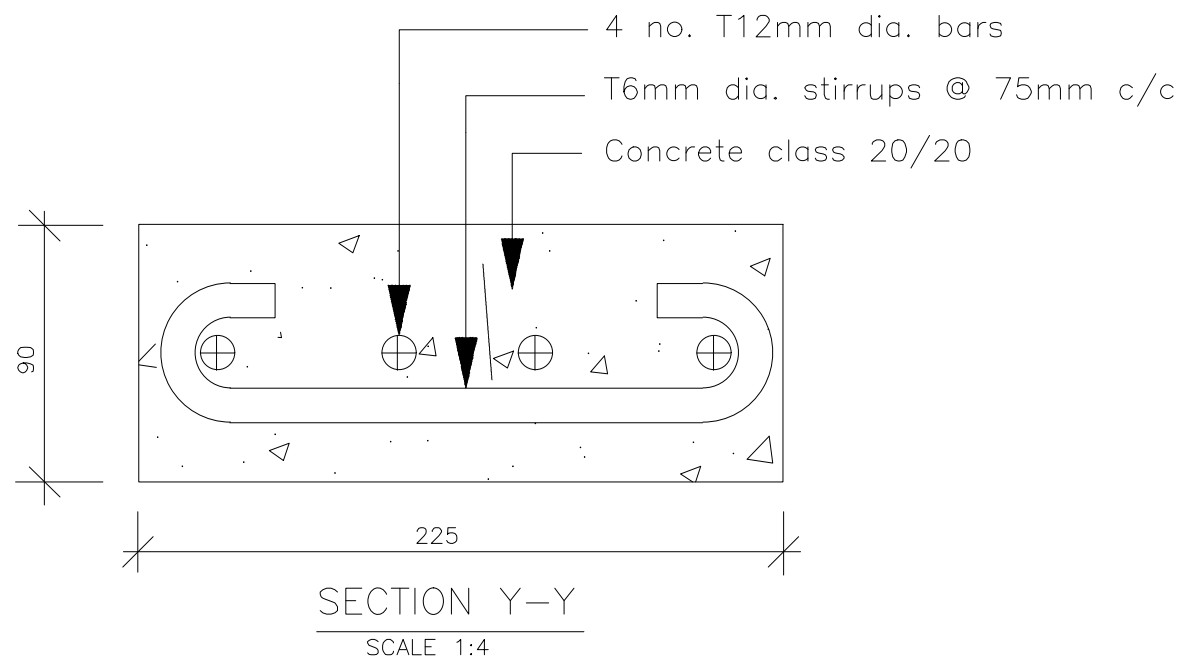
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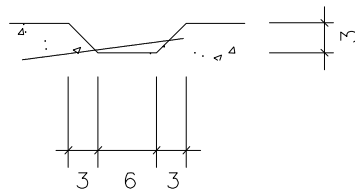
GATE VALVE INDICATOR POST
SCALE 1:10



INDICATOR POST REINFORCEMENT
DETAILS
SCALE 1:10



FIRE HYDRANT POST
SCALE 1:10



SECTION X-X
N.T.S.

NOTES

- All dimensions are in mm unless otherwise stated.
- Details for indicator posts to be as for gate valve but lettering to be as follows

FOR	USE
gate valve	GV
air valve	AV
washout	WO
fire hydrant	H
water main	WM
bulk meter	M
- All indicator posts except fire Hydrant posts to be painted with 2 coats blue oil based paint and lettering to engineer's approval.
- Maker posts to be positioned in safe locations where possible against boundary of road reserve

DRAWING TO SCALE IN A2 SIZE

GOVERNMENT OF KENYA



No.	REVISION	APPROVAL	DATE	REFERENCE	DWG No.

PROJECT NAME:

PROPOSED KIVUNO IRRIGATION PROJECT

TITLE OF DRAWING:

STANDARD DETAILS – MARKER POSTS

DWG No.

Sheet No.

1 of 1

Designed:

Drawn:

Checked:

Approved:

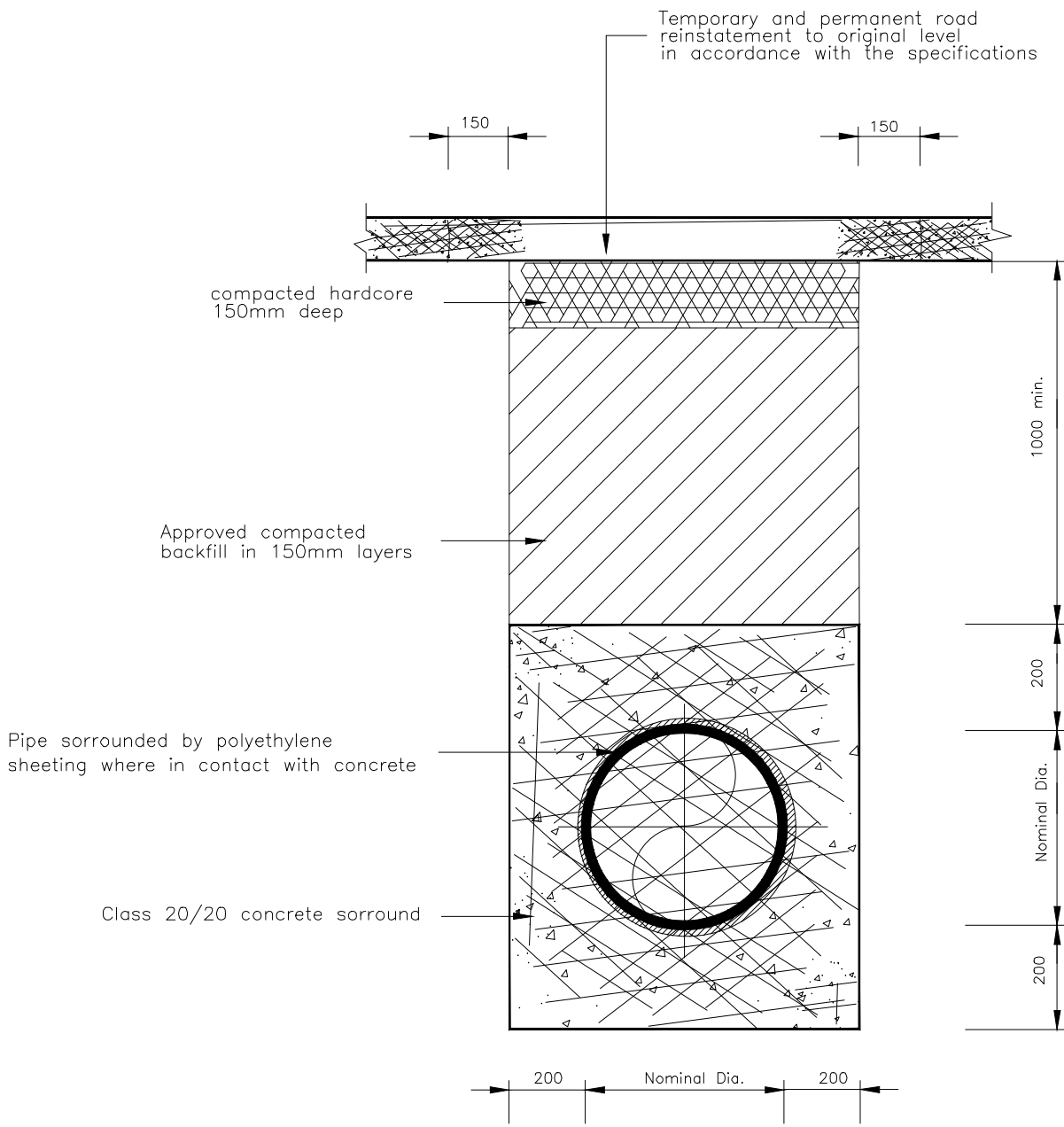
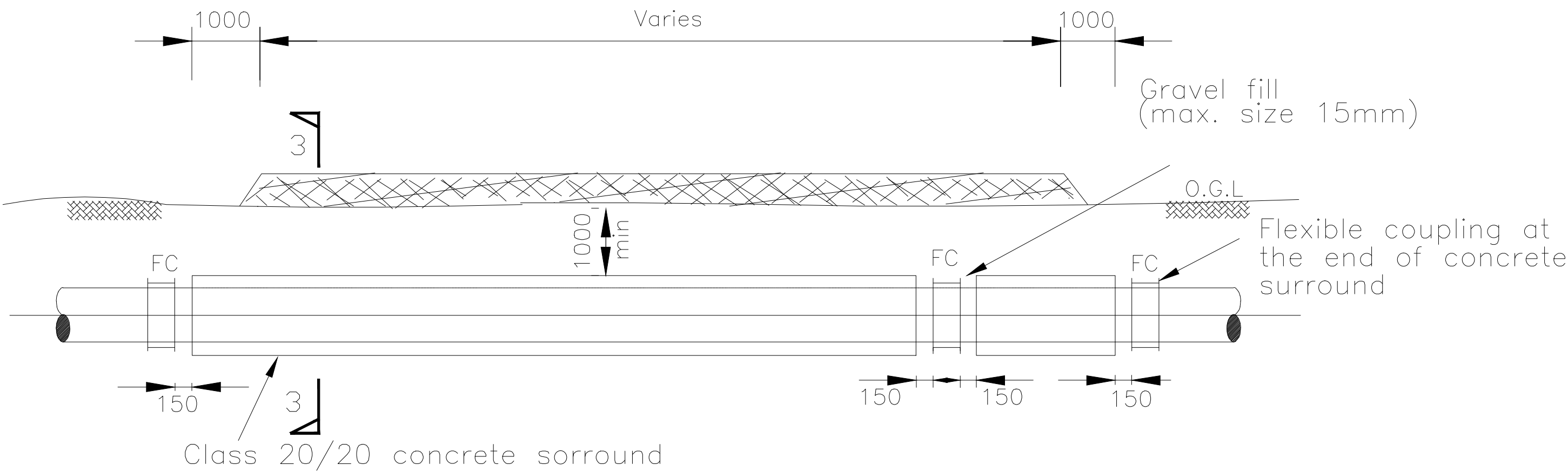
Date:

Date:

Date:

Date:

TYPICAL ROAD CROSSING



SECTION 3 - 3
N.T.S

NOTES

1. All dimensions are in mm unless otherwise stated.
2. All railway crossings shall be constructed on approval and in accordance with the requirements of Kenya Railways.
3. Steel pipes to be used under all rail and road crossings.

LEGEND

OGL - Original ground level
FC - Flexible coupling

DRAWING NOT TO SCALE

GOVERNMENT OF KENYA



No.	REVISION	APPROVAL	DATE	REFERENCE	DWG No.

PROJECT NAME:
PROPOSED KIVUNO IRRIGATION
PROJECT

TITLE OF DRAWING:

ROAD CROSSINGS

DWG No.

Sheet No.

1 of 1

Designed:

Date:

Drawn:

JKW

Date:

Checked:

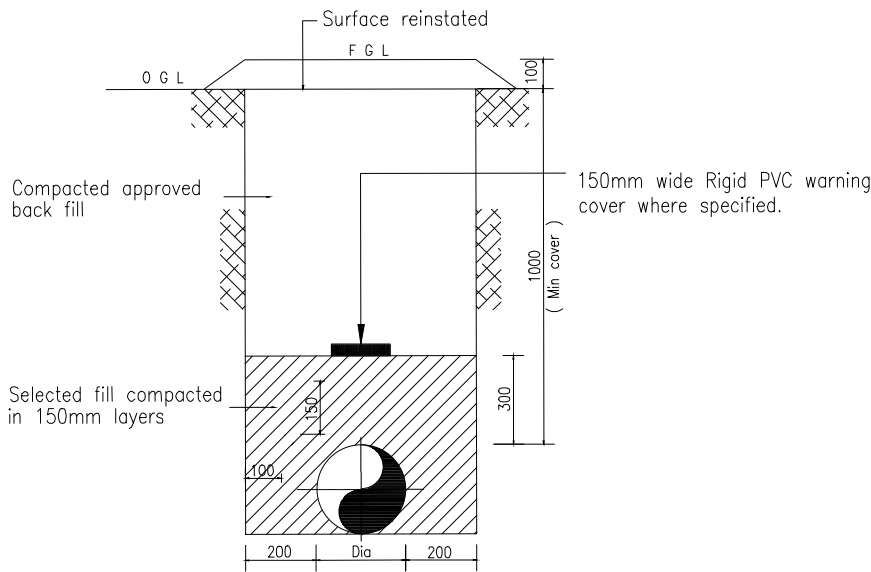
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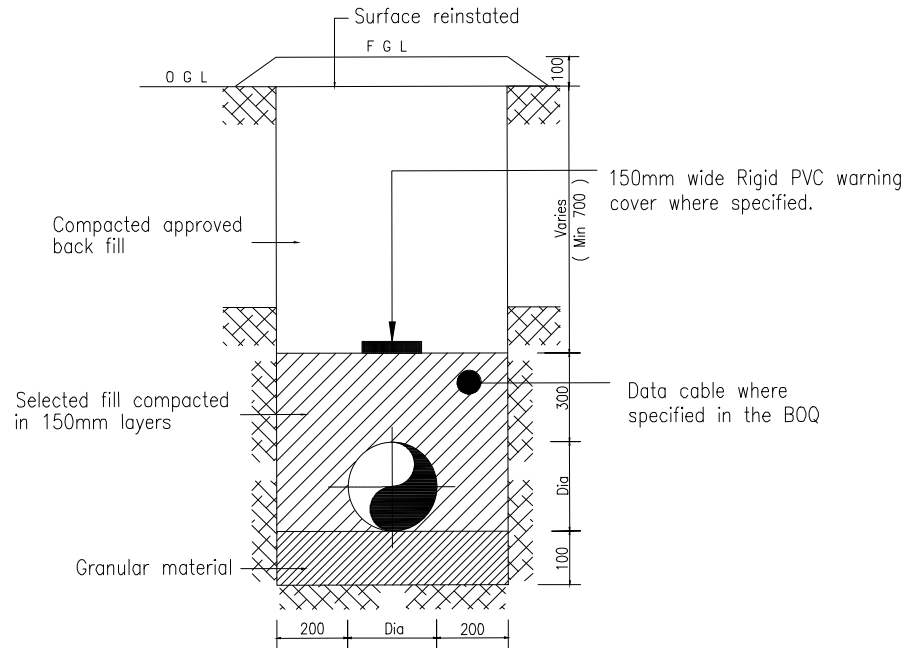
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NOTES

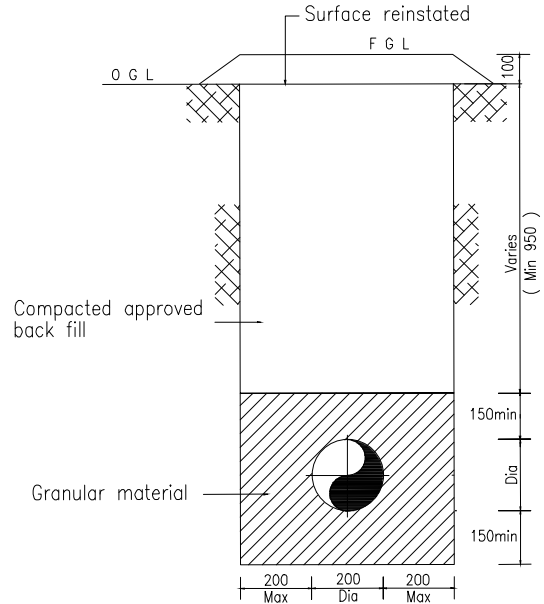
1. All dimensions are in mm unless otherwise stated
2. All pipes to be laid with a minimum cover of 1m and minimum slope of 1: 500.
3. Trench side slope to be at contractors discretion depending on stability of excavated surfaces and ensuring safety of labour at work. However site to be measured based on nominal trench width.
4. Granular material to be approved by the engineer and shall not have any grains of size greater than 10mm and fines less than 0.05mm
5. For purposes of trench Backfilling all excavated trenches with coral material at the bed shall be considered as rock



Typical Trench
1 : 20

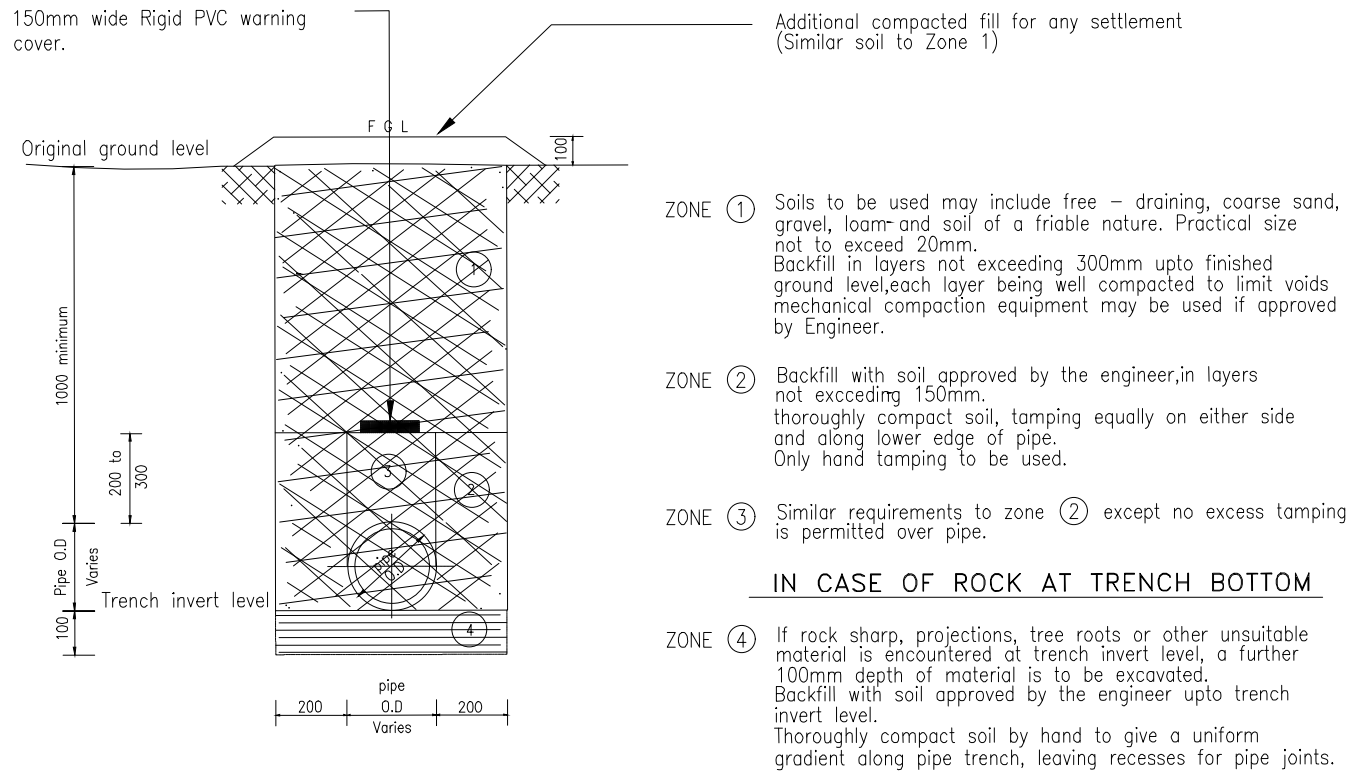


Trench in Rock
1 : 20



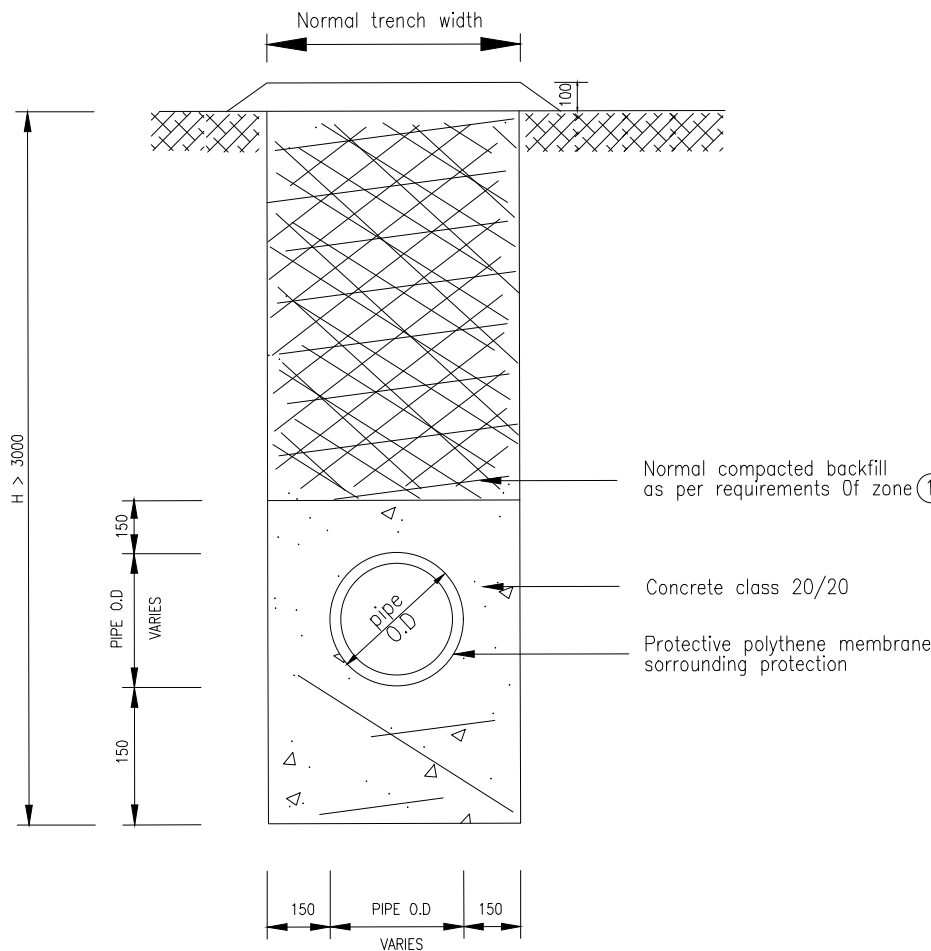
Pipe Bedding Detail in Soil
1 : 20

STEEL MAIN TRENCH DETAILS



Typical Trench for Pipes

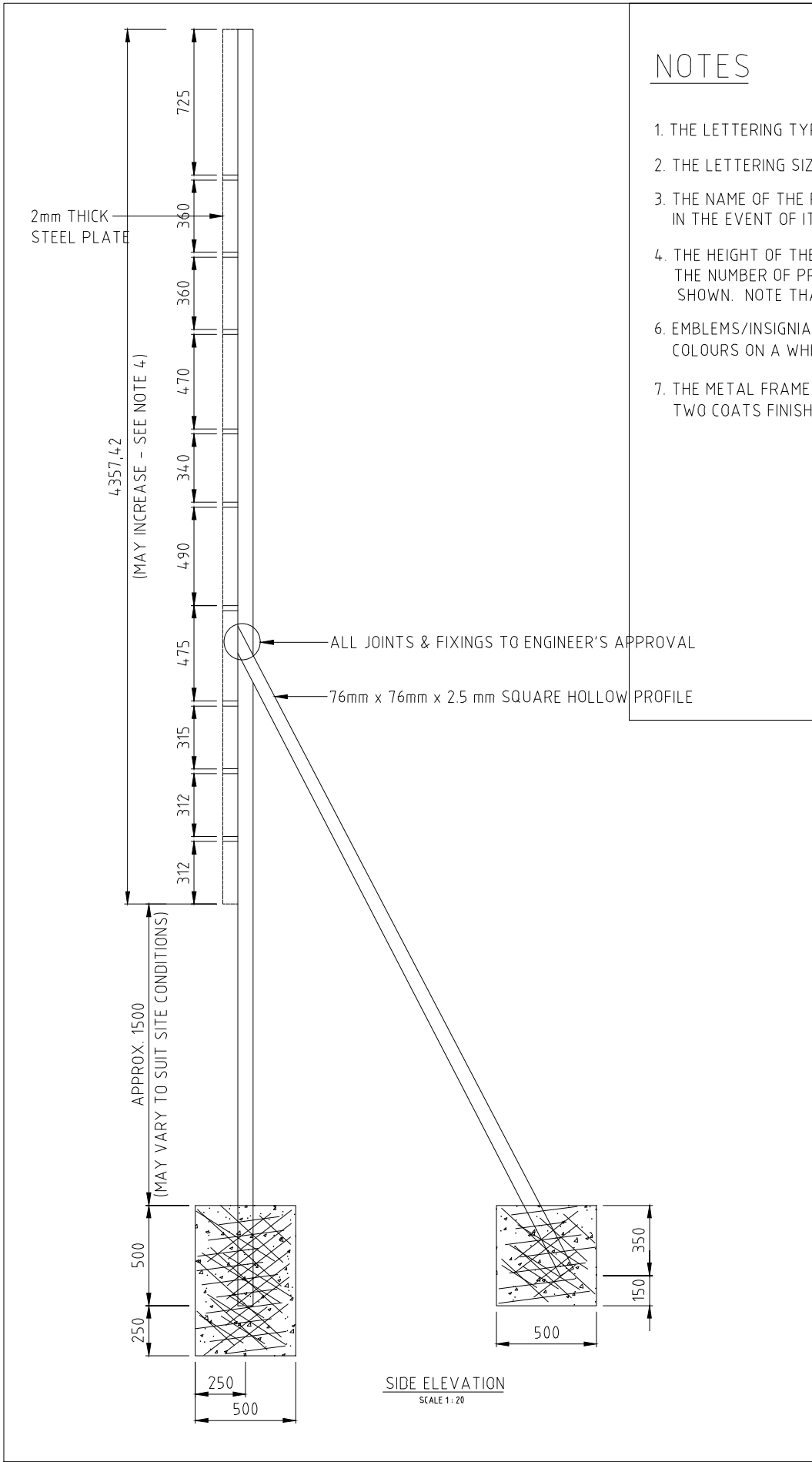
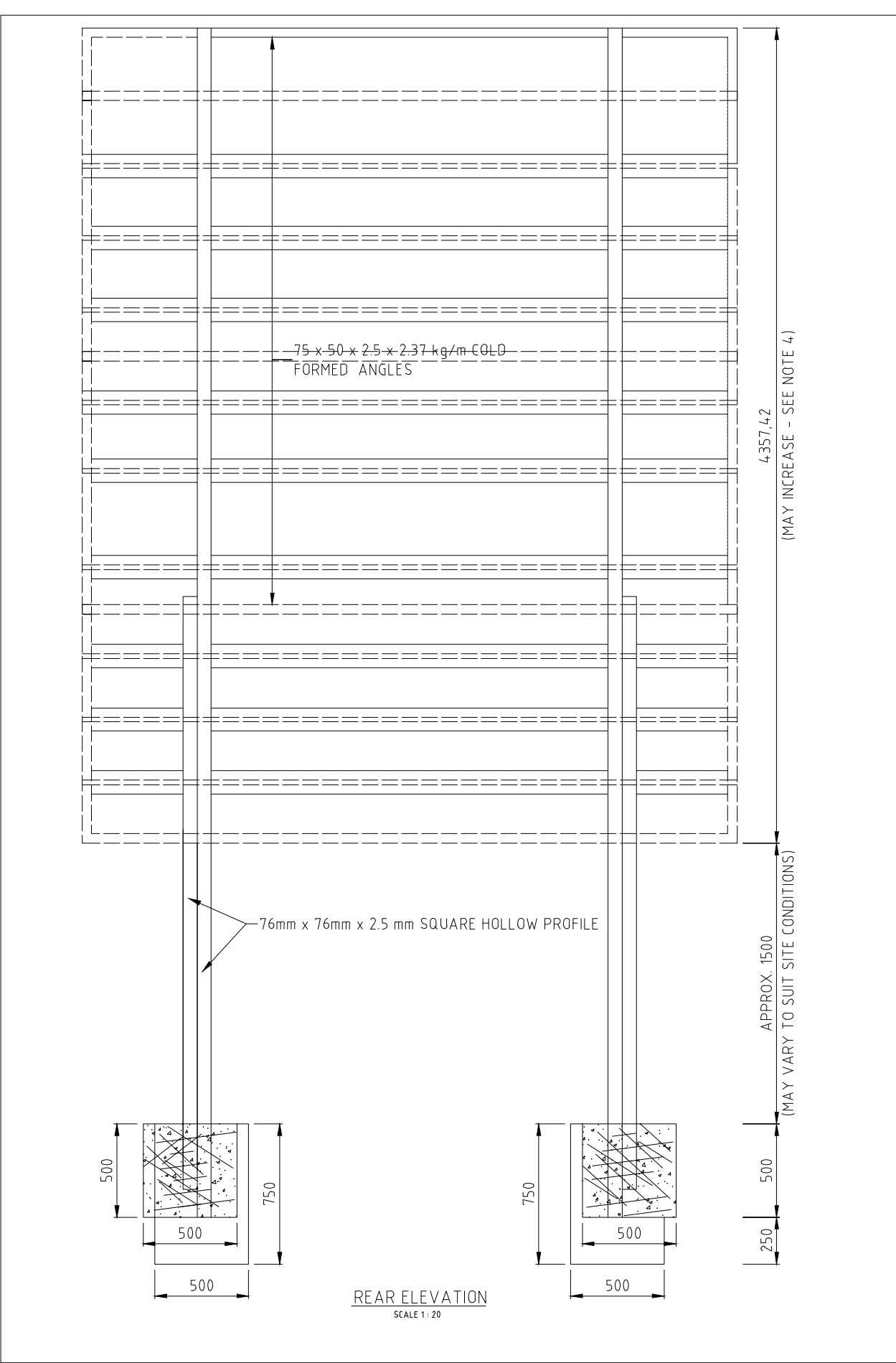
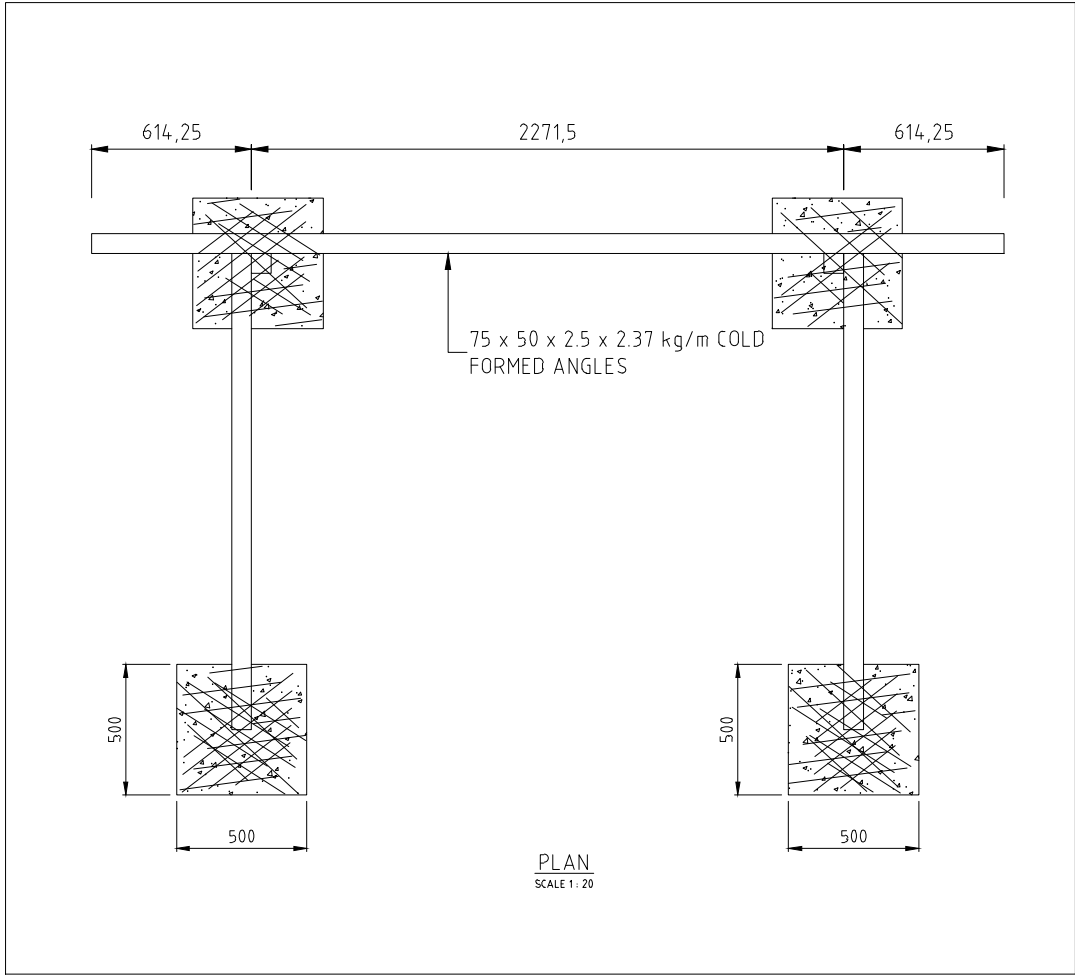
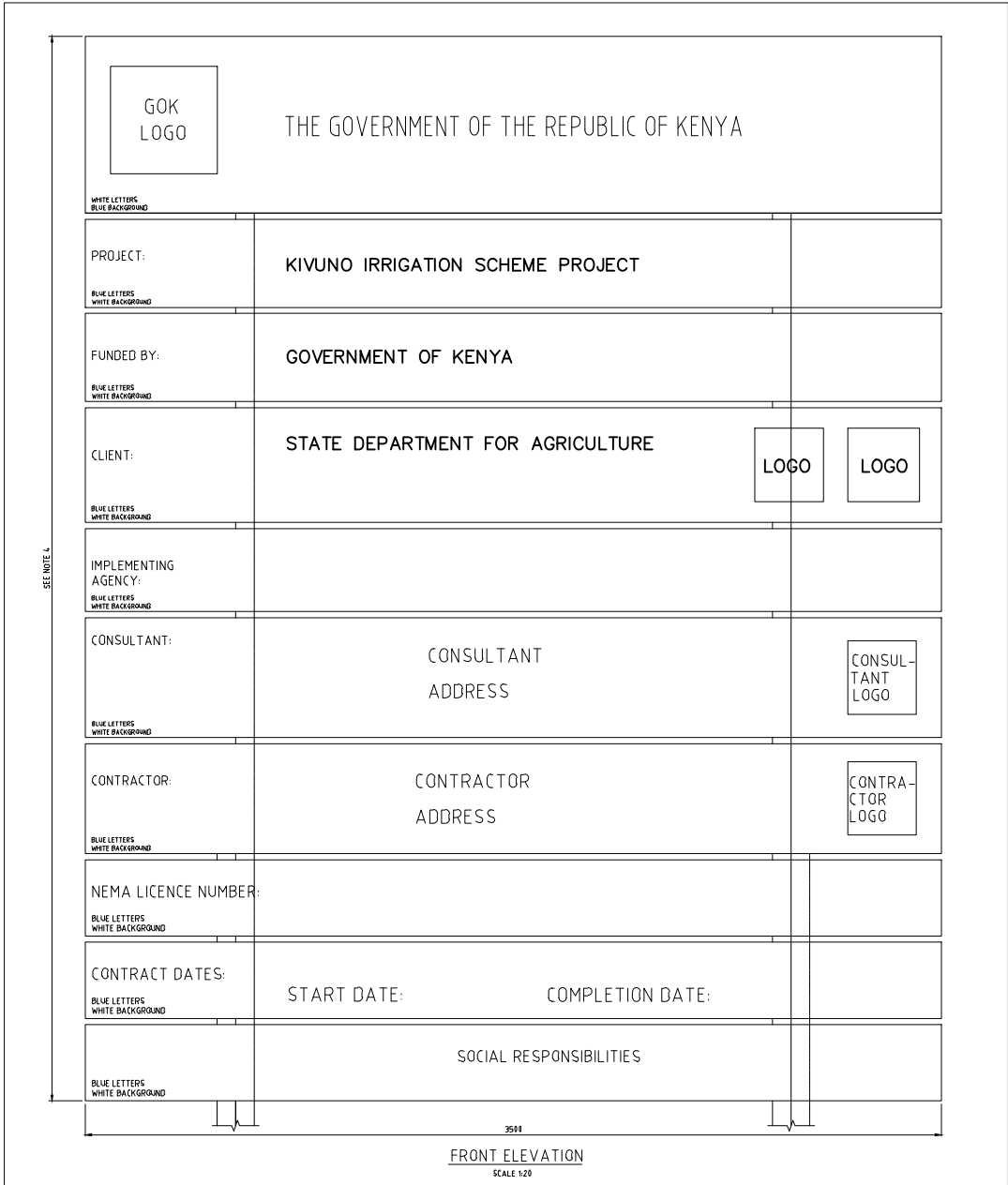
MAIN TRENCH DETAILS



CONCRETE PROTECTION TO PIPES
LAID AT DEPTHS GREATER THAN 3.0m

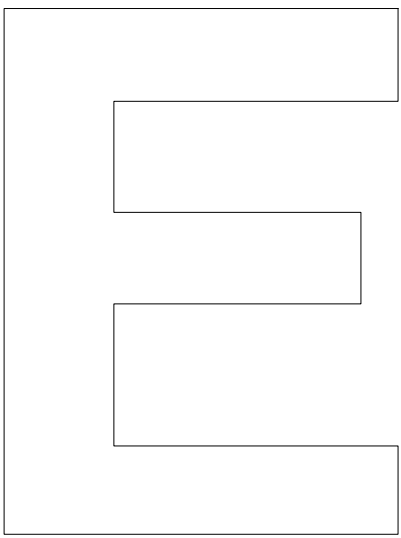
DRAWING TO SCALE IN A2 SIZE

CLIENT: GOVERNMENT OF TRANS NZOIA	No.	REVISION	APPROVAL	DATE	REFERENCE	DWG No.	PROJECT NAME: PROPOSED KIVUNO IRRIGATION PROJECT	TITLE OF DRAWING: TYPICAL PIPE TRENCH BACKFILLING DETAILS		Designed:	Date:
										Drawn: JKW	Date:
										Checked:	Date:
								DWG No.	Sheet No.	Approved:	Date:
									1 of 1		

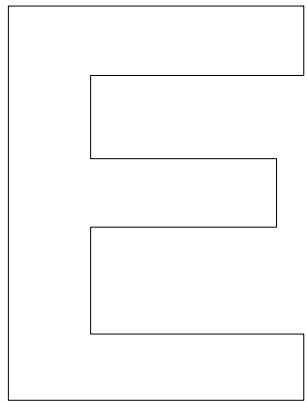


NOTES

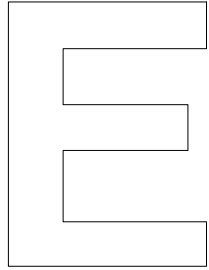
1. THE LETTERING TYPE TO BE USED IS HELVETICA MEDIUM.
2. THE LETTERING SIZE AND DIMENSIONS ARE AS SHOWN.
3. THE NAME OF THE PROJECT AND CLIENT MAY BE RE-SIZED PROPORTIONATELY IN THE EVENT OF IT BEING TOO LONG.
4. THE HEIGHT OF THE SIGN BOARD MAY VARY DEPENDING ON THE NUMBER OF PROFESSIONAL SERVICES THAT ARE TO BE SHOWN. NOTE THAT ALL THE PROFESSIONAL SERVICES ARE TO BE SHOWN.
5. EMBLEMS/INSIGNIA/COMPANY LOGOS ARE TO BE IN THEIR CORRECT RESPECTIVE COLOURS ON A WHITE BACKGROUND AND ARE TO BE PLACED AS SHOWN.
6. THE METAL FRAME AND SUPPORTS TO BE PAINTED WITH ONE COAT PRIMER AND TWO COATS FINISH PAINT TO THE ENGINEER'S APPROVAL.



HELVETICA MEDIUM 100mm MAIN LETTERS FOR PROJECT NAME AND 150mm MAIN LETTERS FOR CLIENT'S NAME



HELVETICA MEDIUM 75mm MAIN LETTERS FOR CONSULTANTS AND CONTRACTOR



HELVETICA MEDIUM 50mm MAIN LETTERS FOR OTHER PROFESSIONAL FIRMS

DRAWING TO SCALE IN A2 SIZE

GOVERNMENT OF KENYA



No.	REVISION	APPROVAL	DATE	REFERENCE	DWG No.

PROJECT NAME:

PROPOSED KIVUNO IRRIGATION PROJECT

TITLE OF DRAWING:

SIGN BOARD

DWG No.

Sheet No.

1 of 1

Designed:

Drawn:

Checked:

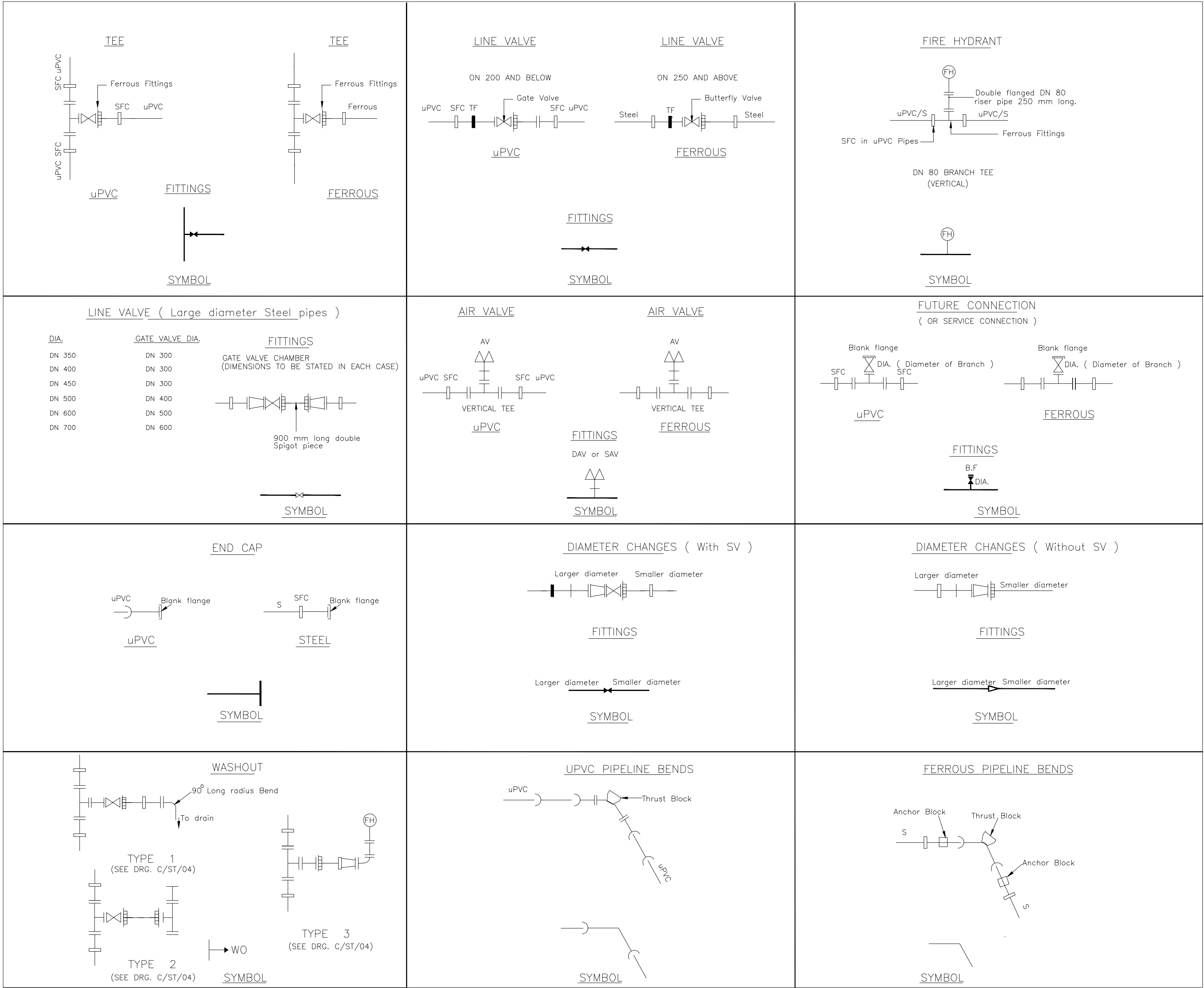
Approved:

Date:

Date:

Date:

Date:



- NOTES**
- All drawings have been prepared in accordance with details for DI pipework. Tenderers offering Steel pipework should ensure that the pipes and fittings offered comply with the design requirements related to anchorage of the pipes and flexibility at and within structures
 - All fittings are ferrous unless otherwise stated. Along uPVC pipelines, uPVC/S stepped couplings or flanged sockets to be used to connect the two pipeline materials.
- LEGEND**
- Flexible Coupling (FC) (SFC-Stepped FC)
 - Flange Adaptor
 - Flange Spigot
 - Sluice Valve
 - Flange Socket Adaptor
 - Thrust Flange
 - All flanged taper
 - Blank Flange
 - DAV Double Air Valve
 - FH Fire Hydrant
 - uPVC Unplasticised Polyvinyl Chloride
 - S Steel
 - DI Ductile Iron
 - SFC Stepped Flexible Coupling

GOVERNMENT OF KENYA



No.	REVISION	APPROVAL	DATE	REFERENCE	DWG No.

PROJECT NAME:

PROPOSED KIVUNO IRRIGATION PROJECT

TITLE OF DRAWING:

PIPE FITTINGS

DWG No.

Sheet No.

1 of 1

Designed:

Date:

Drawn: JKW

Date:

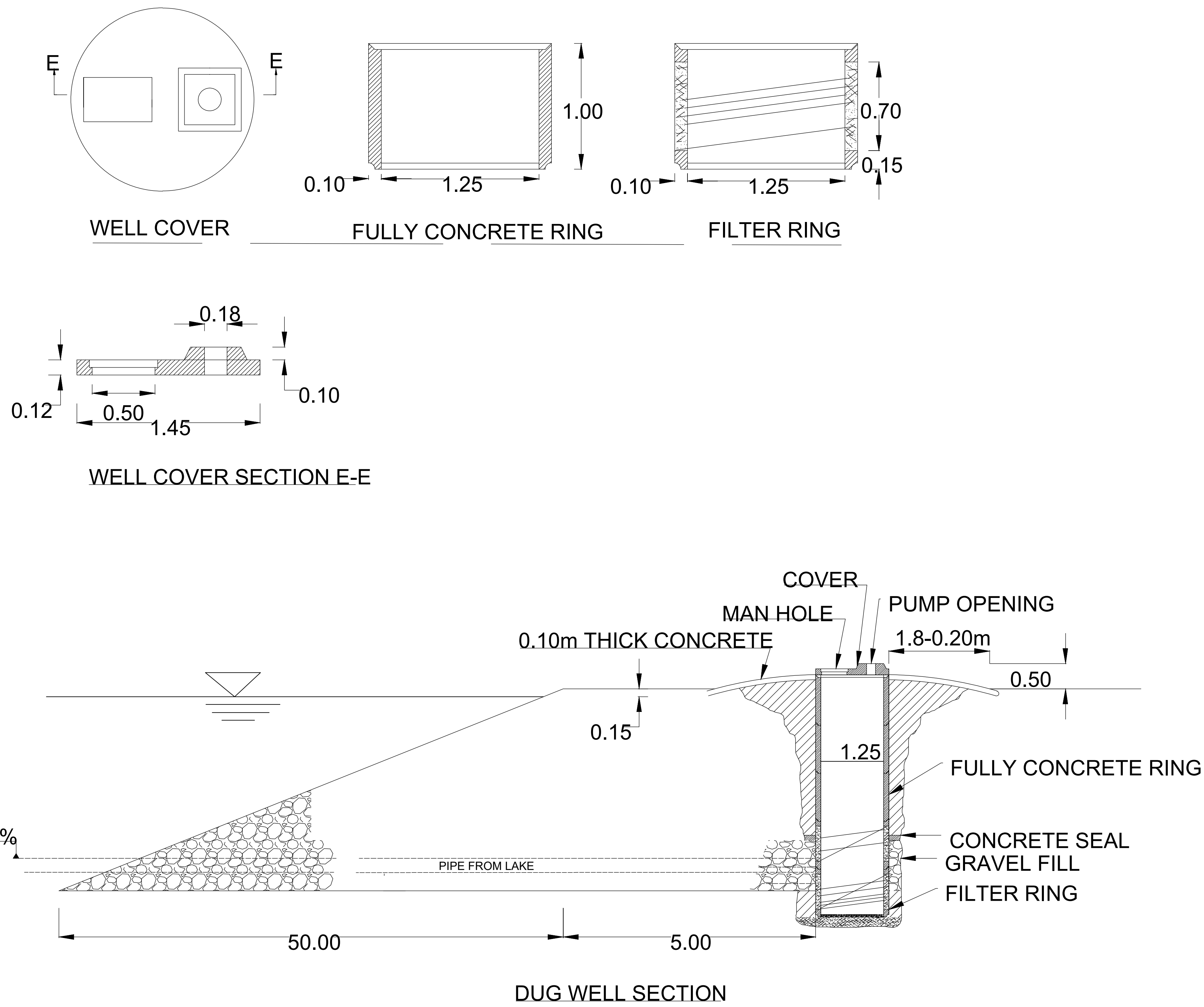
Checked:

Date:

Approved:

Date:

- GENERAL NOTES
- Shallow well to accommodate 4No . Submersible Pumps as per the bills if not possible install 2No. Shallow Wells.
 - Drawings to be read together with the shallow well layout provided in the book of drawings



Client: MINISTRY OF AGRICULTURE AND LIVESTOCK DEVELOPMENT			Location: KERICHO COUNTY	
Surveyed By:			File Name:	Scale: NTS
Drawn By:			Project:	KIVUNO IRRIGATION SCHEME PROJECT
Designed By:			Drawing Title:	DUG WELL AND FILTER
Checked By:			Drawing No:	Rev:
Approved By:				Sheet: 1 of 1

