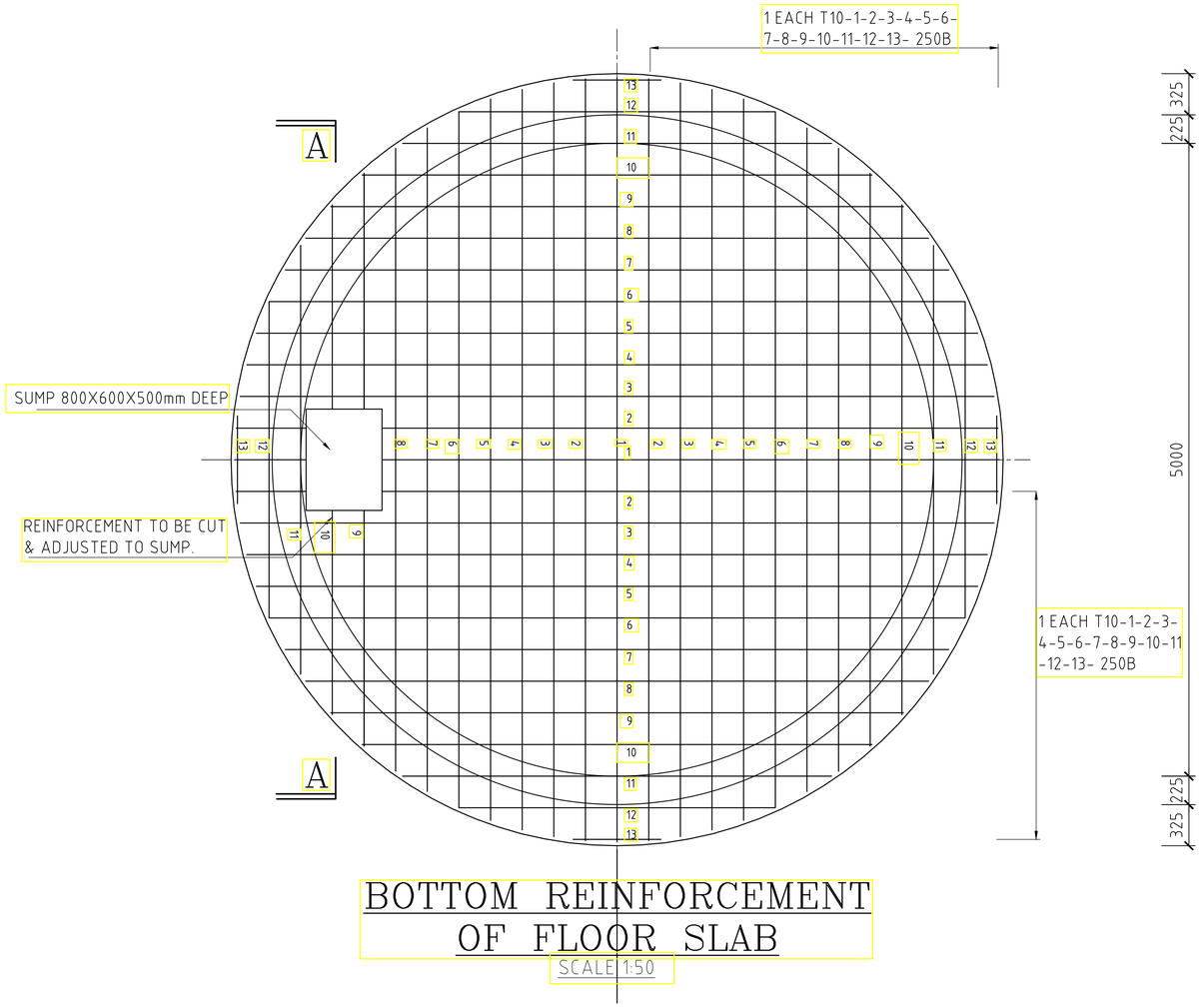
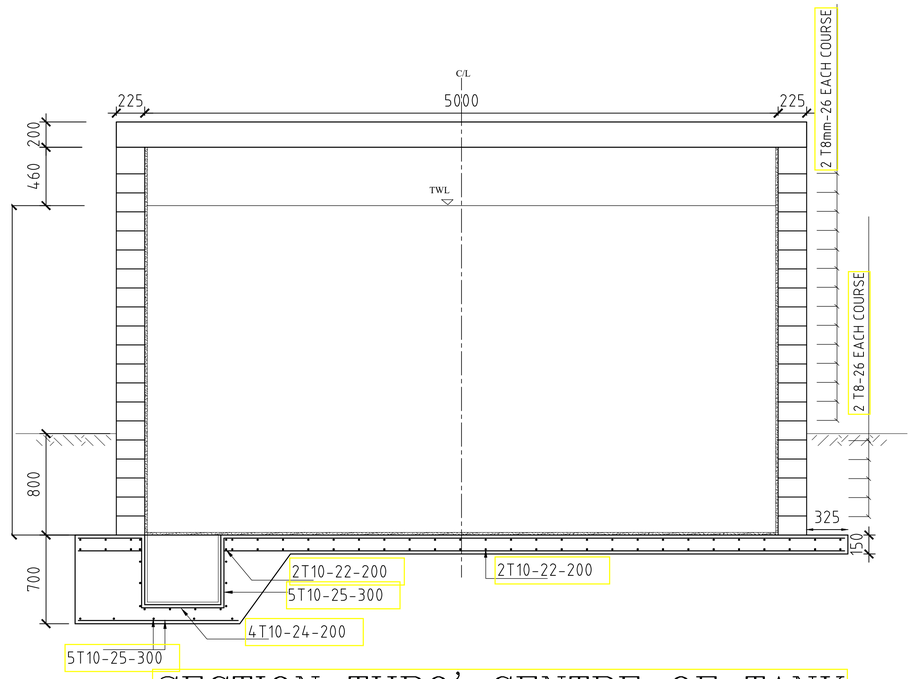


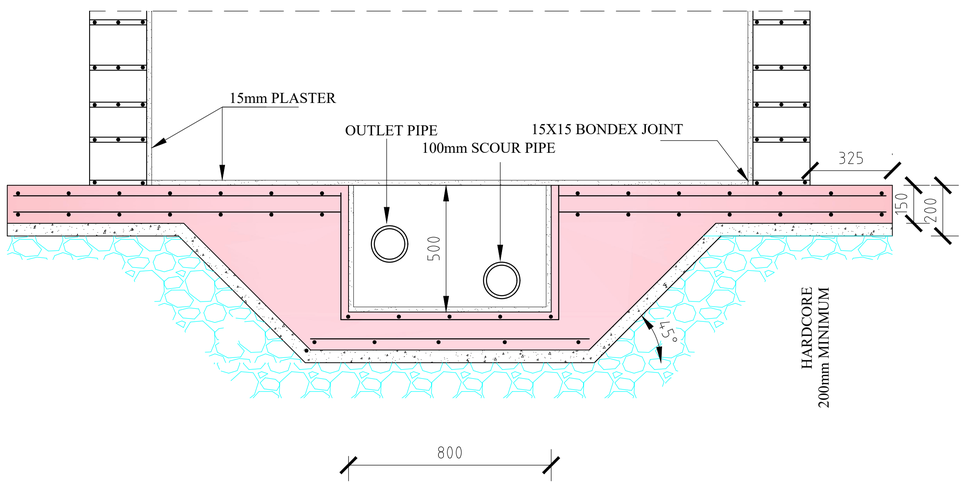
BOTTOM REINFORCEMENT OF FLOOR SLAB

SCALE 1:50



SECTION THRO' CENTRE OF TANK

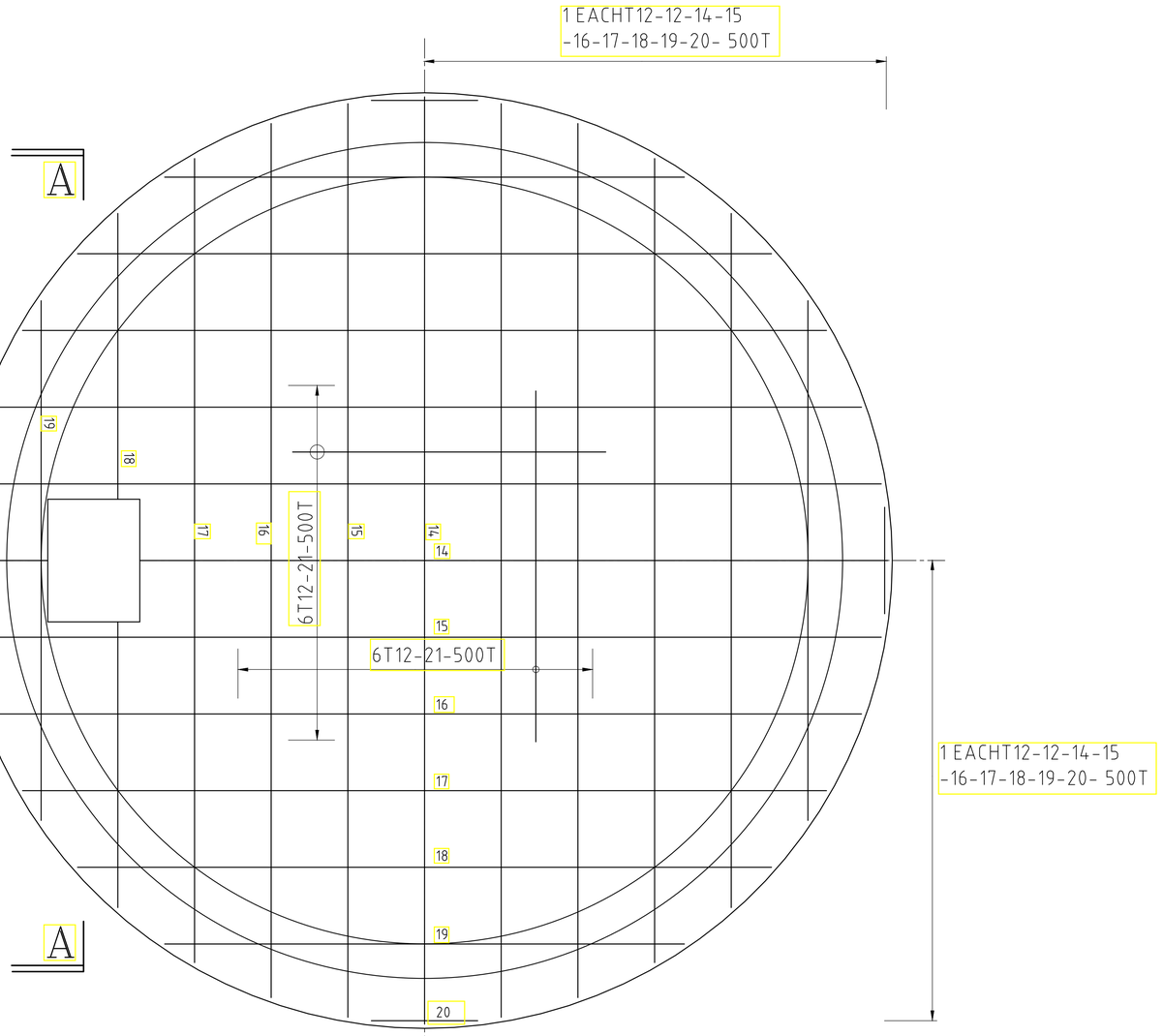
SCALE 1:50



KERIO VALLEY DEVELOPMENT AUTHORITY

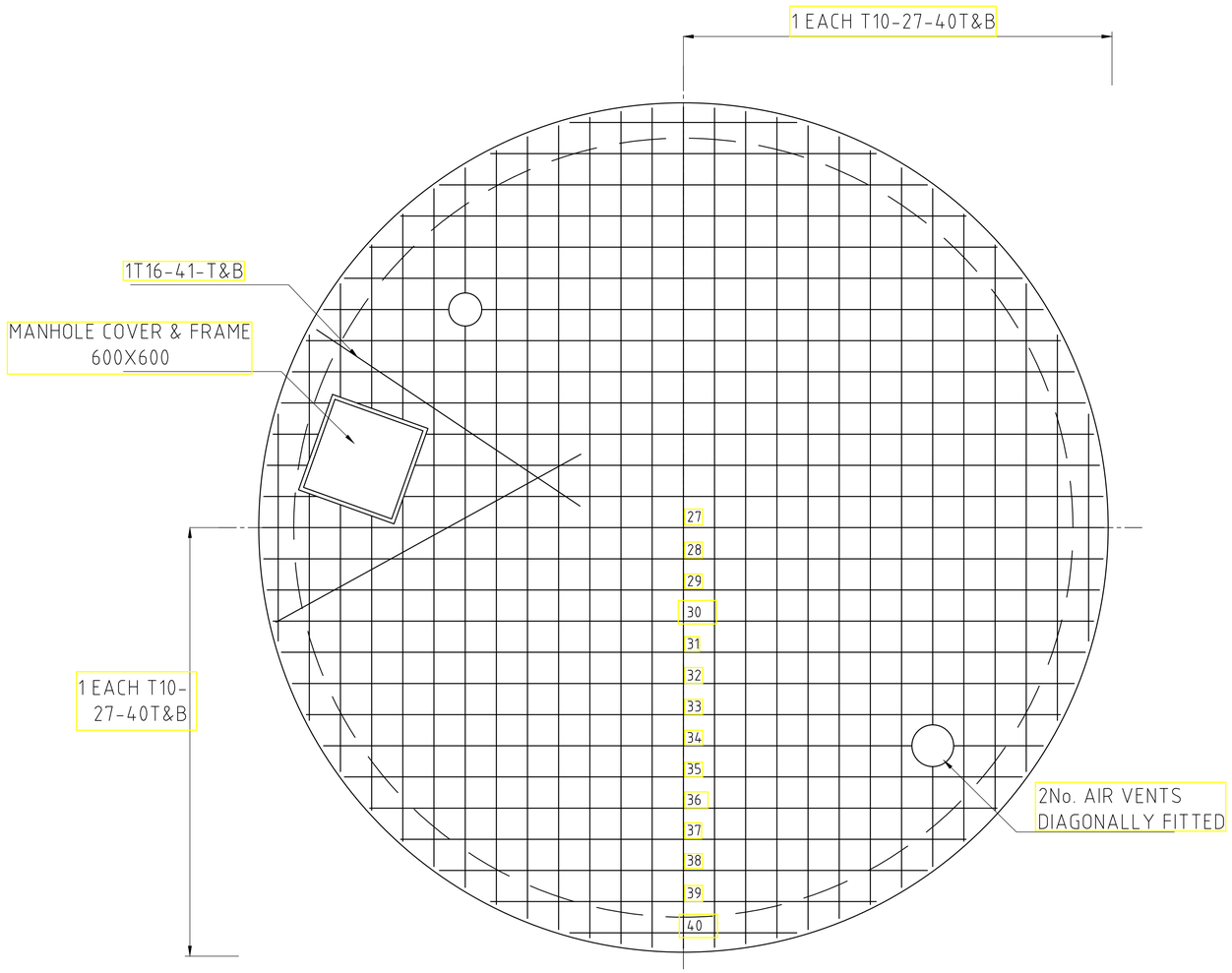
PROPOSED 50M3 MASONRY STORAGE TANK AT KATIMORIL SECONDARY SCHOOL WEST POKOT COUNTY.

DESIGNED	D.K.N	2 SEP 2021	SHEET 1 OF 3
DRAWN	T.O.M	2 SEP 2021	SCALE: AS SHOWN
CHECKED	B.NDUNDA	3 SEP 2021	DRG. NO. STR 01
APPROVED	ENG. D KIMUTAI	10 SEP 2021	



TOP REINFORCEMENT
OF FLOOR SLAB

SCALE 1:50



REINFORCEMENT OF ROOF SLAB

SCALE 1:50

KERIO VALLEY DEVELOPMENT AUTHORITY

PROPOSED 50M3 MASONRY STORAGE TANK AT KATIMORIL SECONDARY SCHOOL WEST POKOT COUNTY.

DESIGNED	D.K.N	2 SEP 2021	SHEET 2 OF 3
DRAWN	T.O.M	2 SEP 2021	SCALE: AS SHOWN
CHECKED	B.NDUNDA	3 SEP 2021	DRG. NO. STR 02
APPROVED	ENG. D KIMUTAI	10 SEP 2021	

BAR BENDING SCHEDULE

MEMBER	BAR MARK	TYPE & SIZE	No. OF MEMBERS	No. IN EACH	TOTAL No.	LENGTH OF EACH BAR	SHAPE	TOTAL MT8	TOTAL MT10	TOTAL MT12	TOTAL MT16
FLOOR SLAB	1	T10	1	2	2	6020	6020		12.04		
	2	T10	1	4	4	6000	6000		24.0		
	3	T10	1	4	4	5940	5940		23.76		
	4	T10	1	4	4	5830	5830		23.32		
	5	T10	1	4	4	5680	5680		22.72		
	6	T10	1	4	4	5480	5480		21.92		
	7	T10	1	4	4	5230	5230		20.94		
	8	T10	1	4	4	4920	4920		19.68		
	9	T10	1	4	4	4530	4530		18.12		
	10	T10	1	4	4	4040	4040		16.16		
	11	T10	1	4	4	3410	3410		13.64		
	12	T10	1	4	4	2560	2560		10.24		
	13	T10	1	4	4	1020	1020		4.08		
	14	T12	1	4	4	6020	6020			12.04	
	15	T12	1	2	2	5940	5940			23.76	
	16	T12	1	4	4	5680	5680			22.72	
	17	T12	1	4	4	5230	5230			20.94	
	18	T12	1	4	4	4530	4530			18.12	
	19	T12	1	4	4	3410	3410			13.64	
	20	T12	1	4	4	1020	1020			4.08	
	21	T12	1	12	12	2500	2500			30.0	
SUMP	22	T10	1	2	2	3400	900		6.8		
	23	T10	1	5	5	1700	500 500 700 500		8.5		
	24	T10	1	4	4	1900	500 500 900 500		7.6		
	25	T10	1	10	10	1210	1210		12.1		
WALLS	26	T8	1	3X40	120	6000	6000 126	720			
ROOF SLAB	27	T10	1	4	4	5370	5370		21.48		
	28	T10	1	8	8	5360	5360		42.88		
	29	T10	1	8	8	5310	5310		42.48		
	30	T10	1	8	8	5240	5240		41.92		
	31	T10	1	8	8	5130	5130		41.40		
	32	T10	1	8	8	4990	4990		39.92		
	33	T10	1	8	8	4810	4810		38.48		
	34	T10	1	8	8	4600	4600		36.80		
	35	T10	1	8	8	4330	4330		34.64		
	36	T10	1	8	8	4010	4010		32.08		
	37	T10	1	8	8	3620	3620		28.96		
	38	T10	1	8	8	3140	3140		25.12		
	39	T10	1	8	8	2500	2500		20.00		
	40	T10	1	8	8	1550	1550		12.4		
	41	T16	1	4	4	1950	1950				7.8
TOTAL LENGTH								720	723.82	145.3	7.8
WEIGHT PER M								0.395	0.616	0.888	1.579
SUB-TOTAL WT								284.4	445.87	129.03	12.32
TOTAL WEIGHT											871.62

NOTES:-

CONCRETE:-
ALL CONCRETE CLASS 25/20 THE AGGREGATES SHOULD COMPLY WITH THE FOLLOWING STANDARDS:- BS 882, BS 877, BS 1047,BS 3797, BS4619.THE CHLORIDE CONTENT OF THE AGGREGATES SHOULD BE CAREFULLY CONSIDERED.MINIMUM CEMENT CONTENT TO BE 290KG/M^3. IF THE CONCRETE I TO BE EXPOSED TO SULPHATE ATTACK,SULPHATE RESISTING OR SUPER SULPHATE CEMENT SHOULD BE USED.

ADMIXTURES:-
MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

REINFORECEMENTS:-
SPECIFIC REFERENCE IS MADE TO BS 4449 AND BS4461. CONCRETE NORMALY SPECIFIED AS 40MM.

CONSTRUCTION JOINTS:-
ONLY WHEN SHOWN,OTHERWISE NOT PERMITTED.

BLINDING LAYER:-
75MM IS RECOMMENDED,GRADE 15,BUT IF THERE ARE INJURIOUS SOILS OR EXCESSIVE GROUND WATER,GRADE 25 IS RECOMMENDED. IT IS RECOMMENDED THAT THE LAST FEW INCHES OF EXCAVATION BE REMOVED BY HAND

1.THE MASONRY WALL SHALL NOT BE CONNECTED TO EITHER THE FLOOR SLAB OR THE ROOF SLAB. THE WALL SUPPORTING AREA OF THE FLOOR SLAB AS WELL AS THE TOP OF THE WALL SHALL BE TROWEL FINISHED AND PAINTED WITH THREE COATS OF BITUMINOUS PAINT.

2.THE MASONRY WALL SHALL BE BUILT OF GOOD QUALITY LOCAL BUILDING STONES OR CONCRETE BLOCKS. THE SIZE OF THE STONES WILL BE
WIDTH: NOT LESS 225MM
LENGTH: BETWEEN 200MM - 300MM
HEIGHT: + NOT LESS THAN 150MM
THE STONES SHALL BE SOAKED IN WATER FPR 24HRS: BEFORE BEING BUILT INTO THE WALL.PARTICULAR CARE MUST BE TAKEN TO FILL THE JOINTS WITH MOTAR.
MOTAR RATIO 1:3 (CEMENT TO SAND) ALL JOINTS TO BE ABOUT 20MM.

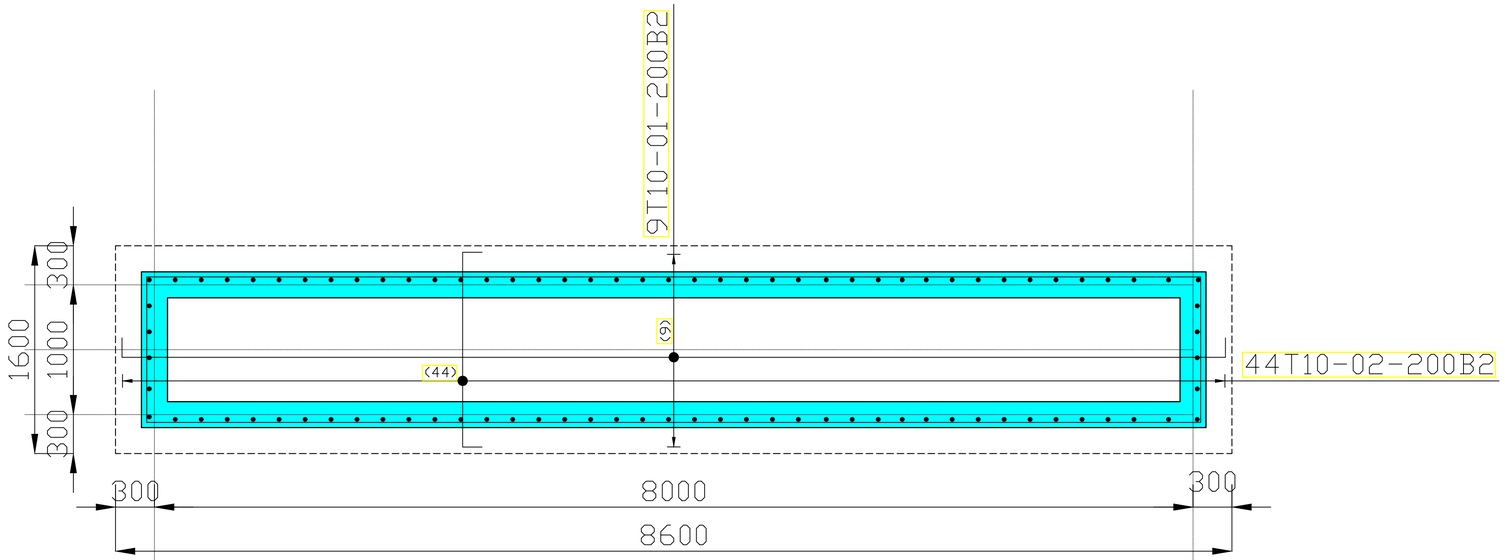
3. THE EXTERIOR SURFACE OF THE TANK SHALL RECEIVE ONE COAT OF CEMENT WASH.

4. THE INTERIOR SURFACE OF THE TANK SHALL BE PLASTERED. THICKNESS OF PLASTER 15MM WITH MOTAR ,MIX OF 1:2(CEMENT : SAND). TO OBTAIN A WATERPROOF PLASTERING,"PUDLO" CEMENT SHOULD BE ADDED.

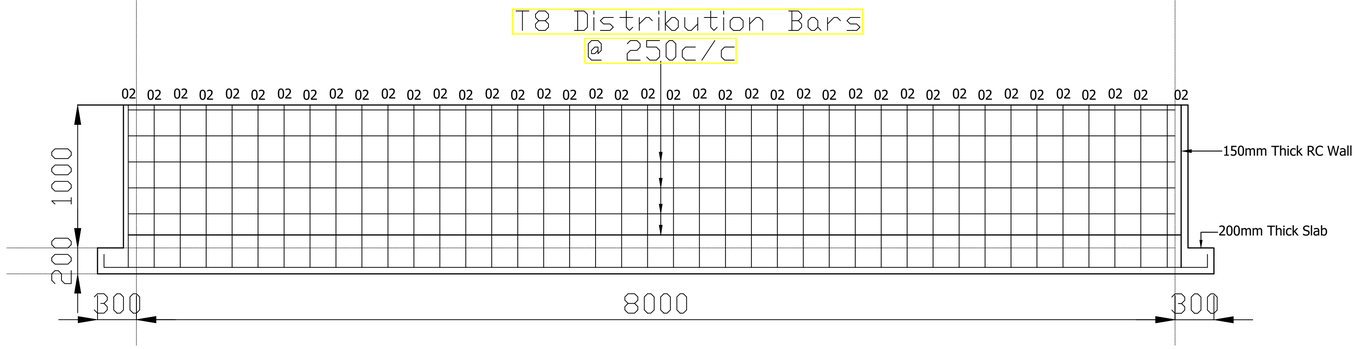
KERIO VALLEY DEVELOPMENT AUTHORITY

PROPOSED 50M3 MASONRY STORAGE TANK AT KATIMORIL SECONDARY SCHOOL WEST POKOT COUNTY.

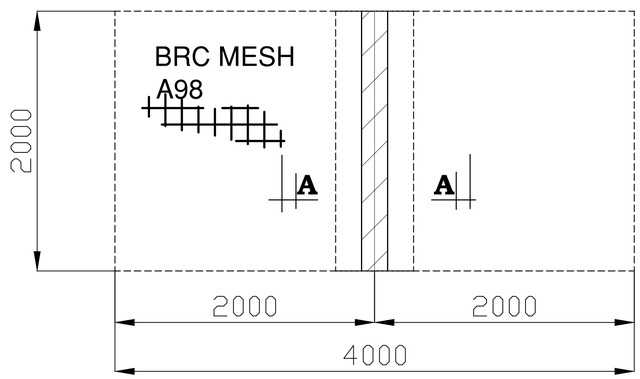
DESIGNED	D.K.N	2 SEP 2021	SHEET 3 OF 3
DRAWN	T.O.M	2 SEP 2021	SCALE: AS SHOWN
CHECKED	B.NDUNDA	3 SEP 2021	DRG. NO. STR 03
APPROVED	ENG. D KIMUTAI	10 SEP 2021	



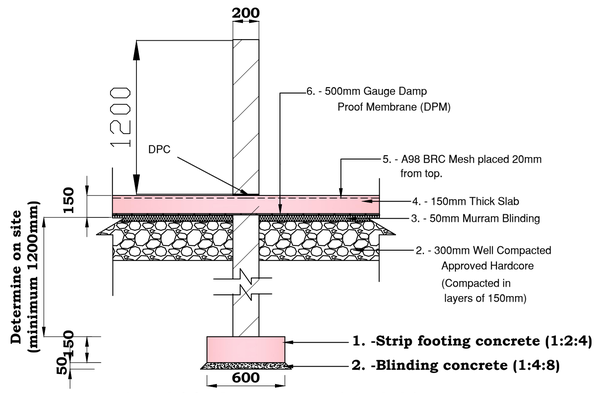
CATTLE TROUGH
FOUNDATION LAYOUT (SCALE 1:25)



CATTLE TROUGH
R.C WALL DETAILS (SCALE 1:25)



COMMUNAL WATER POINT
FOUNDATION LAYOUT



SECTION A-A (1:20)
STRIP FOOTING

NOTES

1. This drawing to be read in conjunction with other relevant structural drawings.
2. The Contractor to confirm all dimensions on site before commencing the works.
3. Figured dimensions only to be taken and all dimensions are in millimetres unless stated otherwise.
4. Structural concrete to be class 25/20 (1:1.5:3)
   concrete cover to reinforcement including links;
   Foundations =50mm
   RC Wall =50mm
5. Reinforcement steel to be ;
   T- Deformed threaded high yield bars to BS 4461.
6. Foundation depth to be determined on site but firm bearing strata with a minimum bearing capacity of 100 KN/M 2
7. All steel reinforcement and excavation works MUST be inspected and approved by the Structural Engineer before concreting is done.

ISSUES

DATE	TO	APPLICATION	

REVISIONS

	DATE	BY	DESCRIPTIONS		

REFERENCE DRAWINGS

No.	DESCRIPTIONS

CLIENT
KVDA

PROJECT TITLE
PROPOSED DRILLING AND EQUIPPING OF BOREHOLE

DRAWING TITLE
CATTLE TROUGH R.C DETAILS.
COMMUNAL WATER POINT DETAILS.

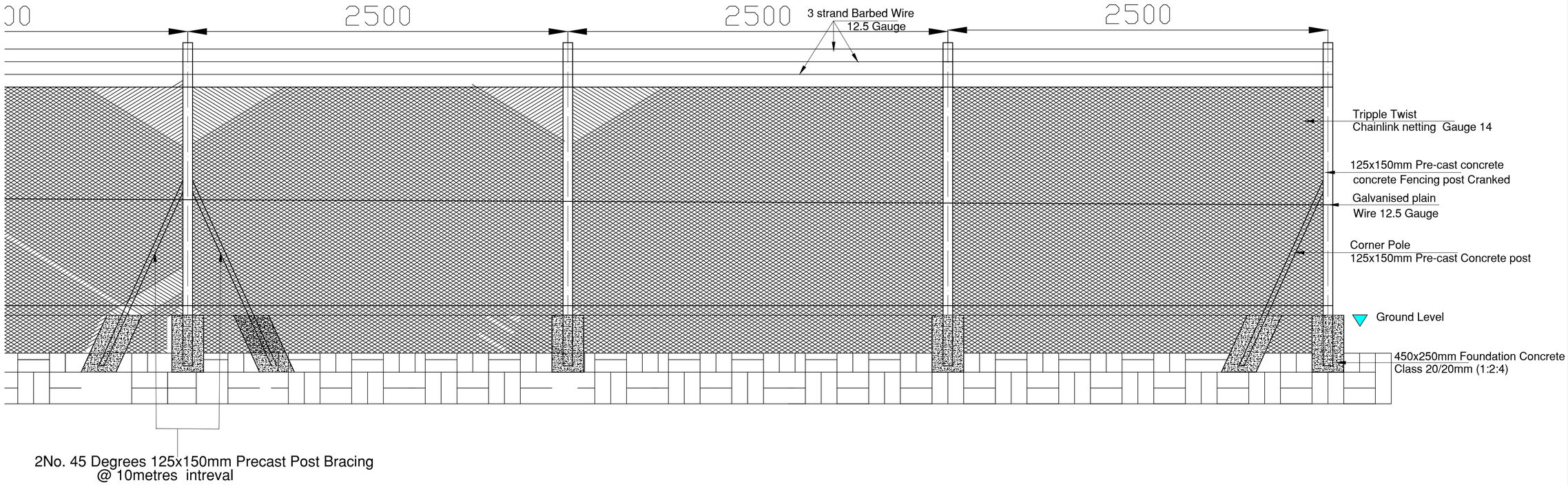
DRG No.
FILE No.

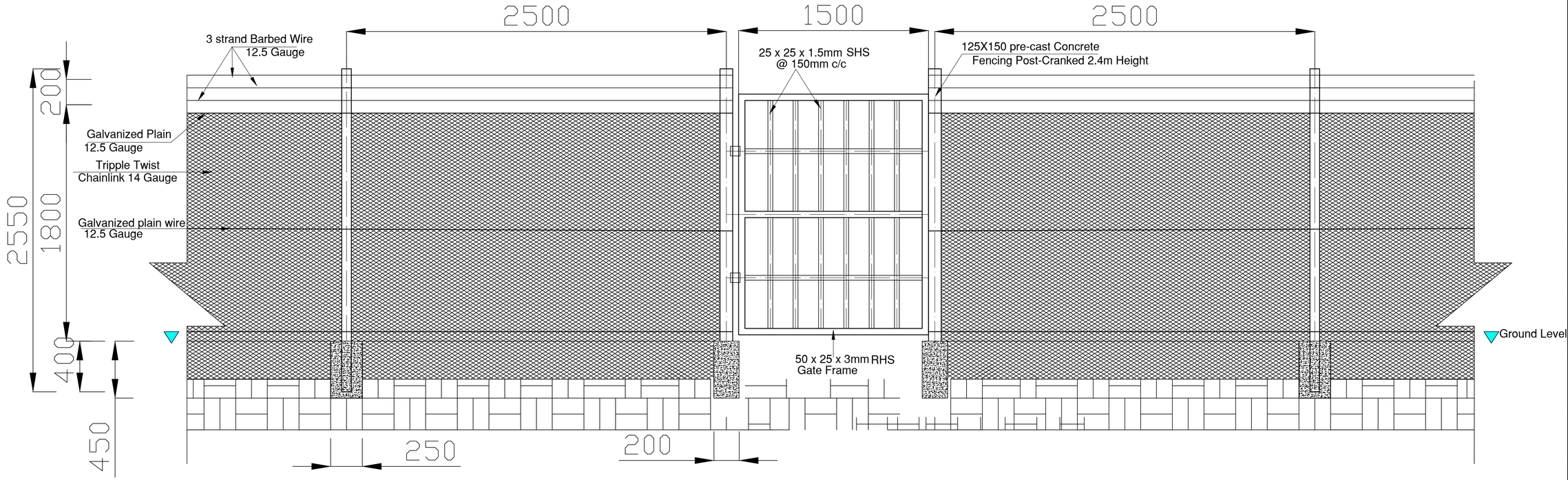
SCALE(S) 1:20

FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING

APPROVED BY

	NAME	SIGNATURE	DATE
DESIGN/DRAWN	T.O.M		2/09/2021
CHECKED BY	ENG. D KIMUTAI		2/09/2021





NOTES

1. This drawing to be read in conjunction with other relevant Architectural/structural drawings.
2. The Contractor to confirm all dimensions on site before commencing the works.
3. Figured dimensions only to be taken and all dimensions are in millimetres unless stated otherwise.
4. Structural concrete to be class 20/20 (1:2:4) concrete cover to reinforcement including links;
5. Foundation depth to be determined on site but firm bearing strata with a minimum bearing capacity of 100 KN/M 2
6. All steel reinforcement and excavation works MUST be inspected and approved by the Structural Engineer before concreting is done.
7. Minimum compressive strength for structural masonry to be 7KN/M2

ISSUES

DATE	TO	APPLICATION

REVISIONS

	DATE	BY	DESCRIPTIONS

REFERENCE DRAWINGS

No.	DESCRIPTIONS

CLIENT

KERIO VALLEY DEVELOPMENT AUTHORITY

PROJECT TITLE

PROPOSED DRILLING AND EQUIPPING OF BOREHOLE

DRAWING TITLE

FENCING DETAILS.

DRG No.

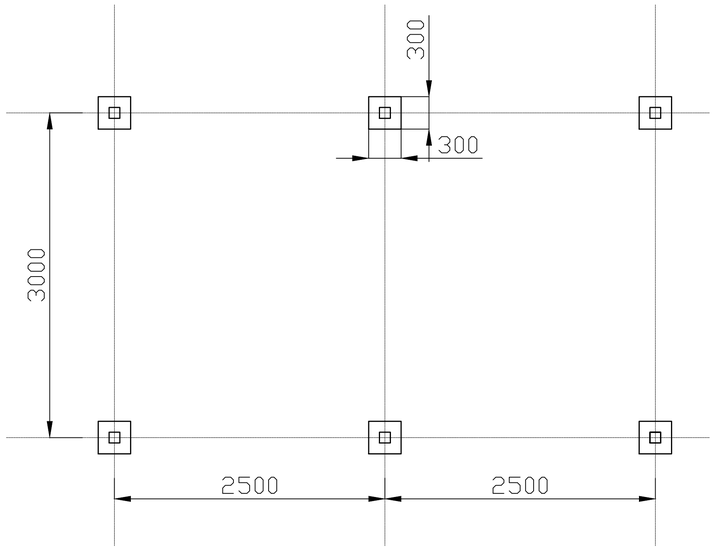
FILE No.

SCALE(S) 1:20

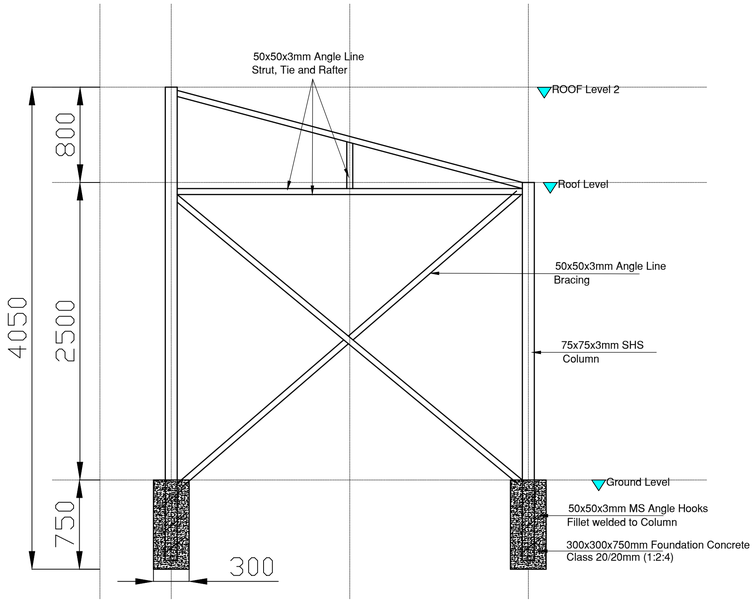
FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING

APPROVED BY

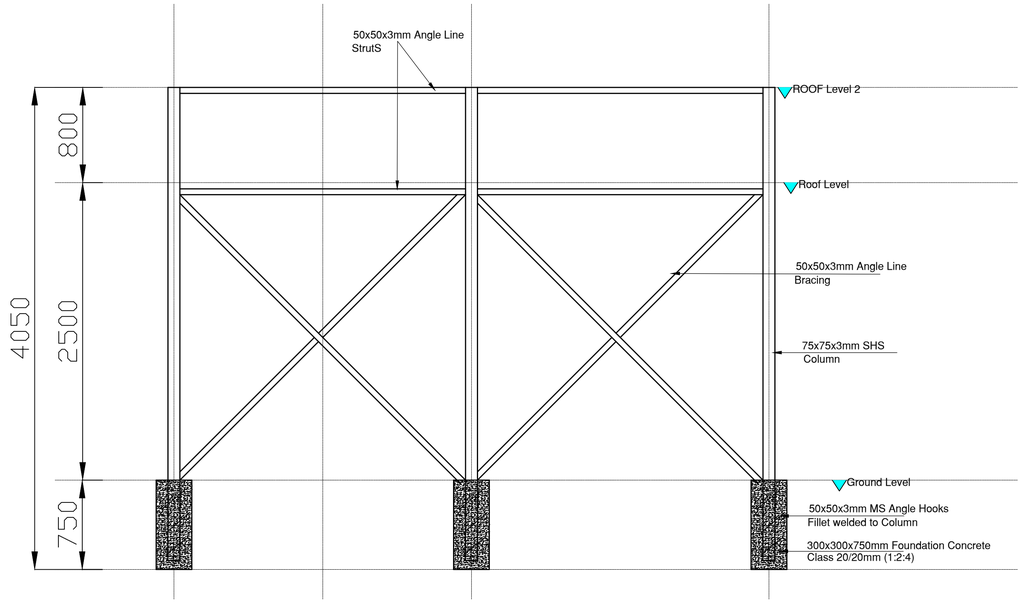
	NAME	SIGNATURE	DATE
DESIGN/DRAWN	T.O.M		3/09/2021
CHECKED BY	ENG.DANIEL KIMUTAI		3/09/2021



FOUNDATION LAYOUT (SCALE 1:20)



SIDE ELEVATION (SCALE 1:20)



REAR ELEVATION (SCALE 1:20)

NOTES

1. This drawing to be read in conjunction with other relevant structural drawings.
2. The Contractor to confirm all dimensions on site before commencing the works.
3. Figured dimensions only to be taken and all dimensions are in millimetres unless stated otherwise.
4. Structural concrete to be class 20/20 (1:2:4)
5. All steel works and excavation works MUST be inspected and approved by the Structural Engineer before concreting is done.

ISSUES

DATE	TO	APPLICATION

REVISIONS

	DATE	BY	DESCRIPTIONS		

REFERENCE DRAWINGS

No.	DESCRIPTIONS

CLIENT

KVDA

KERIO VALLEY DEVELOPMENT AUTHORITY

PROJECT TITLE

PROPOSED DRILLING AND EQUIPPING OF BOREHOLE

DRAWING TITLE

SOLAR STAND FOUNDATION LAYOUT
SOLAR STAND STEEL DETAILS.

DRG No.

FILE No.

SCALE(S) 1:20

FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING

APPROVED BY

	NAME	SIGNATURE	DATE
DESIGN/DRAWN	T.O.M		2/09/2021
CHECKED BY	ENG. D KIMUTAI		2/09/2021