

**RESPONSE TO PRE-BID QUERIES FOR SUPPLY AND INSTALLATION OF FRP FENCING FOR 11KV DISTRIBUTION SUB-STATION IN TP CENTRAL**  
**ODISHA DISTRIBUTION LIMITED AGAINST TENDER NUMBER- TPCODL/P&S/54/2020-21**

Sr. No.	Description as per Bid Document	Remarks - Query / Clarification	TPCODL RESPONSE
1	There is two no's drawing available in technical specification in page 49 & 50. Page no 49 drawing as per the FRP fencing specification.	However, page 50 drawing specification is not as per FRP fencing arrangement as it is showing GI chain link fencing with M.S Pipe, Barbed wire etc. Therefore please advise the correct drawing .	Revised drawing No. 1 for FRP, drawing No.TPD-S-208-C-013 for Civil foundation work where only civil work to be referred and Drawing 3 explaining customization required in FRP fencing is attached as Annexure to this response
2	Annexure-I ,Page no-14- It has mentioned FRP fencing as per specification	In the specified drawing, nowhere FRP has mentioned, Please advise accordingly	Fencing has to be of FRP as per specification requirements.
3	There is two no's drawing available in technical specification in page 49 & 50. Page no 49 drawing as per the FRP fencing specification.	However, page 50 drawing specification is not as per FRP fencing arrangement as it is showing GI chain link fencing with M.S Pipe, Barbed wire etc. Therefore please advise the correct drawing .	Refer response to Sl. No.1
4	Annexure-I ,Page no-14- It has mentioned FRP fencing as per specification	In the specified drawing, nowhere FRP has mentioned, Please advise accordingly	Refer response to Sl. No.2
5	Pg. 47 and 48 of Tender Document- We are considering the specification of FRP fencing kit as per enclosed dimension (1a & 1b)	Please advise the specification if any Accordingly the Rate can be considered.	Fencing overall dimensions shall be as per specification and the components list we have submitted are the minimum components to be provided in fencing. Further the components can be more as per manufacturer design to meet the required strength of fencing. The bidder has to show the demo fencing during presentation at the time of technical evaluation. The material should meet the specification requirements. ( Refer Revised drawing No. 1 for FRP, drawing No.TPD-S-208-C-013 for Civil foundation work where only civil work to be referred and Drawing 3 explaining customization required in FRP fencing is attached as Annexure to this response)
6	Technical Specifications	Please specify the Size of FRP. We are considering as per given Size. You are	1. Fencing overall dimensions shall be as per specification and the components list we have submitted are the

Sr. No.	Description as per Bid Document	Remarks - Query / Clarification	TPCODL RESPONSE
		requested to kindly clear. Item- Picket/ Vertical Flats Profile- Flats Dimension-40 X 5 MM	<p>minimum components to be provided in fencing. Further the components can be more as per manufacturer design to meet the required strength of fencing. The bidder has to show the demo fencing during presentation at the time of technical evaluation. The material should meet the specification requirements.</p> <p>2. Revised drawing No. 1 for FRP, drawing No.TPD-S-208-C-013 for Civil foundation work where only civil work to be referred and Drawing 3 explaining customization required in FRP fencing is attached as Annexure to this response. This shall answer all queries related to items and its dimension.</p>
7	Technical Specifications	Please specify the Size of FRP. We are considering as per given Size.You are requested to kindly clear. Item- Vertical Posts SQ. Profile- Pipe Dimension-50 X 50 X 5 MM	
8	Technical Specifications	Please specify the Size of FRP. We are considering as per given Size.You are requested to kindly clear. Item- Vertical Pipe (frame) Profile- Rect. Pipe Dimension-50.8 X 25.4 X 3.2 MM	
9	Technical Specifications	Please specify the Size of FRP. We are considering as per given Size.You are requested to kindly clear. Item- Horizontal pipe (frame) Profile- Rect. Pipe Dimension-50.8 X 25.4 X 3.2 MM	
10	Technical Specifications	Please specify the Size of FRP. We are considering as per given Size.You are requested to kindly clear. Item- Horizontal pipe ( Gate frame) Profile- Rect. Pipe Dimension-50.8 X 25.4 X 3.2 MM	
11	Technical Specifications	Please specify the Size of FRP. We are considering as per given Size.You are requested to kindly clear. Item- Rail	

Sr. No.	Description as per Bid Document	Remarks - Query / Clarification	TPCODL RESPONSE
		Profile- Notch & groove bar Dimension-12 MM	
12	Technical Specifications	Please specify the Size of FRP. We are considering as per given Size.You are requested to kindly clear. Item- Horizontal Pipe Support Dimension-40 X 5	
13	Technical Specifications	Please specify the Size of FRP. We are considering as per given Size.You are requested to kindly clear. Item- Door Stopper (Vertical) Dimension-ANGLE 50 X 50 X 6	
14	Technical Specifications	Please specify the Size of FRP. We are considering as per given Size.You are requested to kindly clear. Item- Door Stopper (Horizontal) Dimension-ANGLE 50 X 50 X 6	
15	Technical Specifications	Name Plate- We are considering SS/SMC. Please confirm	FRP material name plate is accepted.
16	Technical Specifications	Hinges- MS or Steel ? We are considering SS-SS 80 X 40 MM. Please confirm	The hinges shall be stainless steel only with adequate length and thickness to hold the doors for service life.
17	Technical Specifications	TPCODL Logo to be painted on FRP fencing. Please confirm	Logo on Name plate only
18	Technical Specifications	Danger Board- We are considering MS 25 X 20 cm. Please confirm	FRP material or MS material and content as per IS is accepted.
19	Technical Specifications	Nut – Bolt & Washer- We are considering SS M12 X 100. Please confirm	Bolt material shall be SS only and other details shall be suitable to offered design and SS washers to be provided.
20	Technical Specifications	Stud Bolts- MS or SS ? We are considering SS. Please confirm	Bolt material shall be SS only along with washers.

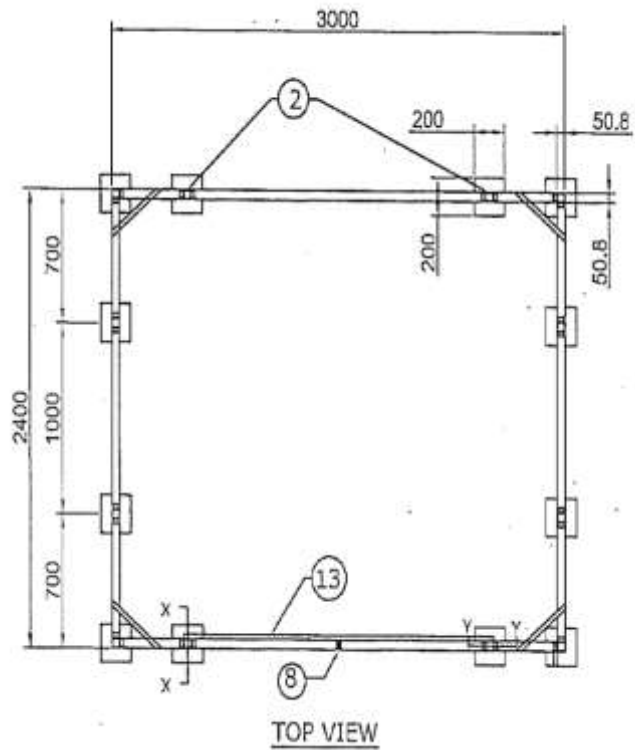
Sr. No.	Description as per Bid Document	Remarks - Query / Clarification	TPCODL RESPONSE
21	Technical Specifications	Bolts- MS or SS ? We are considering SS. Please confirm	Bolt material shall be SS only along with washers.
22	Annexure-1 BoQ. Page 14 of 39	1. For Qty (Page 14 of 39) : should all location have standard dimensions? 2. Unit for item 1 and 2 are reversely mentioned	1. No. Dimension at all location will vary, it is not standard. a) Door Size will be standard as per drawing i.e. 1mtr X 2.05 Mtr. (Length-1 Mtr, Height 2.05 Mtr) b) Standard Panel size will be (1mtr X 2.05 Mtr (Length-1Mtr, Height 2.05 Mtr) c) Customized panel size will be based on the layout drawing of location of Distribution Transformer(DT). d) To complete the fencing of DT, number of standard panel and number of customized panel depends on size of fencing required which will vary from Location to Location. (Refer Drawing-3 attached as annexure to this document) 2. Units in annexure 1 in bid document is correct.
23	Technical Specification: Point no.: 19.0	PL provide dimensions of component of FRP Fencing: 1.Danger Board: MS 25X20mm , Pl mention thickness of board 2.Door Stopper (Horizontal) pl mention size but we suggest FRP Stopper for betterment. 3. Florescent tape dimension and location in drawing required. 4. Color : Normally in FRP pultrusion Darg Grey color is preferred instead of Blue	1. Danger board on MS or FRP both shall be accepted content shall be as per IS and thickness shall be around 2-3mm is ok. 2. Stopper shall be as per design offered by bidder which shall have better operational ease. 3. Florescent tape should be fixed on top horizontal picket of fencing on external four sides and if fencing is near road side then on vertical pickets facing the roads on sides. 4. Color shall be blue only as per color code -Blue Pentone 300 C"
24	7.1- Type Test:	Confirm Remarks in enclosed Query Doc from Agni Fiber: 1. Type Test Sl. No.1- Glass content- As per standard ASTM D 2584 Required Value: Min 45 % . Confirm	1. The FRP material shall have Glass content and resin content as per specification only. Glass content in pultruded FRP should be (60 - 70 %) 2. Resin content should be (30-40%) as per our strength & hardness requirements.

Sr. No.	Description as per Bid Document	Remarks - Query / Clarification	TPCODL RESPONSE
		<p>2. Type Test Sl. No. 2- Resin Content- No standard</p> <p>3. Type Test Sl. No.10. Power Arc Resistance as per standard ASTM D 495 - It is only "ARC RESISTNCE". Confirm</p> <p>4. Type Test Sl. No.13-OXYGEN INDEX as per IS 13360-6-19 is EQUIVALENT ASTM D 2863. Confirm</p> <p>5. Type Test Sl. no.15- UV RESISTANCE as per ASTM G 154 .....(1000 Hrs.)</p> <p>6. Type Test Sl. no.16. Ignitability Evalution for Materials BS 476 ( PART 5)- Classification: "P" Not Easily Ignitable.</p> <p>7. Type Test Sl. No. 17- Fire Propagation Index BS 476 (PART 6) Less than 15 as per BS 476 part 6. Confirm.</p> <p>8. Type Test Sl. No. 18- Surface Spread of Flame as per stanard-BS 476 (PART 7) Classification: Class - Spread of Flame at Termination / 10 Min. Confirm.</p>	<p>2. Power Arc resistance can be read as Arc resistance as well</p> <p>3. Type Test Sl. No.13-OXYGEN INDEX as per IS 13360-6-19 and ASTM .D 2863 both are accepted.</p> <p>4. Type Test Sl. no.15- UV RESISTANCE as per ASTM G 154 for 200 Hrs and above are accepted.</p> <p>5. For points mentioned in 6,7,8 any addition tests are also accepted but not mandatory. All the Test mentioned in specifications are required. Fire resistance test as per ATM also accepted.</p>
25	7.1- Type Test: Point 2	There is no standard for sl no. 2 resin content and you have mentioned required value which is content part in percentage.	The FRP material shall have Glass content and resin content as per specification only. Glass content in pultruded FRP should be more than 60 % & resin content shall be between 30-40% as per our strength requirements. Kindly note that no other material to be used in this mix and both contents % has to be met.
26	Drawings	For CIVIL Work drg is not as per describe in qty. pl provide correct drg	Kindly refer revised drawing No.TPD-S-208-C-013 attached as Annexure to this document for Civil foundation work where only civil work to be referred as mentioned in the item no 2 in Annexure 1 of bid document. Fencing, Angle, Channel is not part of this drawing.

Sr. No.	Description as per Bid Document	Remarks - Query / Clarification	TPCODL RESPONSE
27	Technical Specification. Tender Document Page 40-50	<p>Kindly provide missing Specifications of various component</p> <p>Provide missing details in drawing</p> <p>The above has been highlighted in Red in Document 3 attached</p>	<p>Revised drawing No. 1 for FRP, drawing No.TPD-S-208-C-013 for Civil foundation work where only civil work to be referred and Drawing 3 explaining customization required in FRP fencing is attached as Annexure to this response</p> <p>Note- The components shall be as per manufacturer design and bidder to submit his own drawing of offered product to meet operational requirements. The drawing provided in specs are indicative drawing for overall size and look of the fencing.</p>

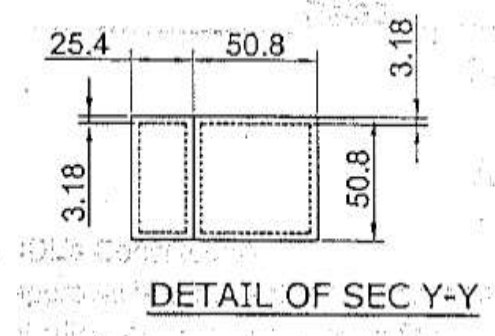
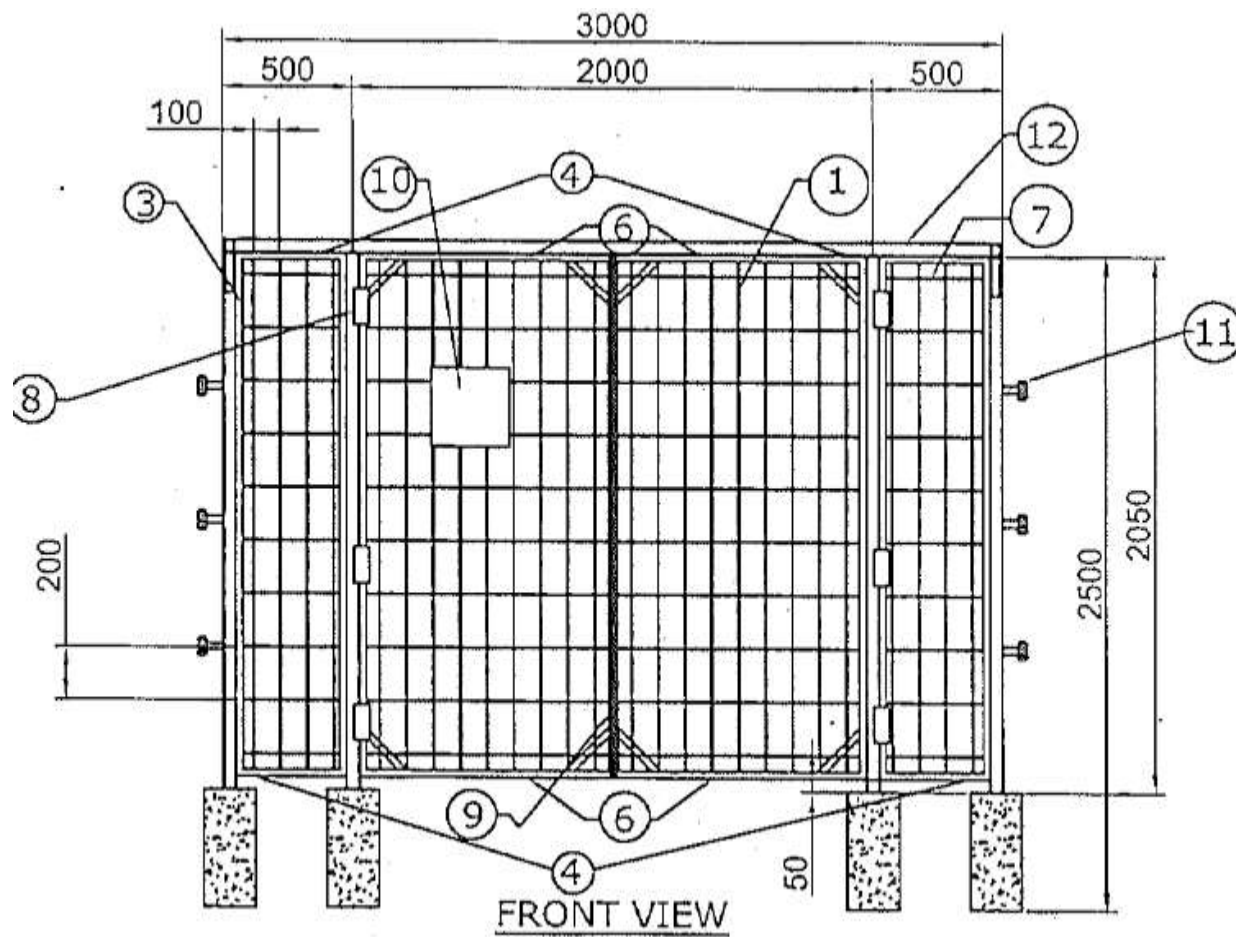
# **ANNEXURES**

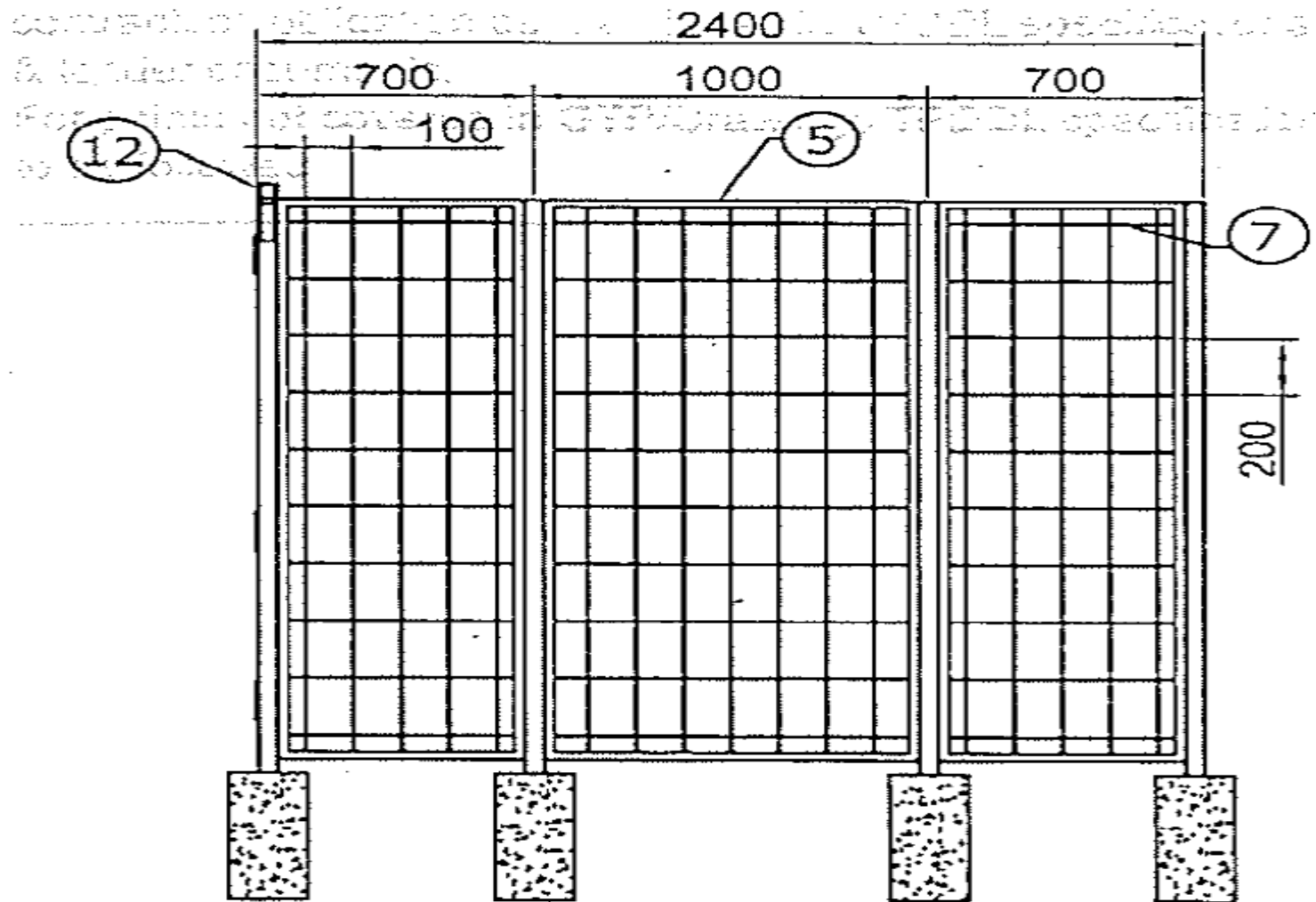
(Revised Drawing Number-1,  
Drawing Number- TPD-S-208-C-013 &  
Drawing-3)



No.	Item	Profile	Dimension	Qty.
1	Pickets/vertical flats	Flats	40 x 5mm Thk	101
2	vertical posts	SQ Pipe	50.8 x 50.8 x 3.175 mm	12
3	vertical pipe(frame)	Rect.Pipe	50.8 x 25.4 x 3.175 mm	26
4	Horizontal pipe(frame)	Rect. pipe	50.8 x 25.4 x 3.175 mm	16
5	Horizontal pipe(frame)	Rect.Pipe	50.4 x 25.4 x 3.175 mm	6
6	Horizontal pipe(gate frame)	Rect. pipe	50.8 x 25.4 x 3.175 mm	4
7	Rail	Notch & groove bar	Ø12 mm	111
8	Hinges		S.S material	6
9	Door Stopper (Vertical)		F.R.P	1
10	Danger Board		M.S. Material	1
11	Nut bolt & washer	M12 x 100	S.S. Material	30
12	Horizontal pipe(frame support)	SQ. Pipe	50.8 x 50.8 x 3.175 mm	1
13	Door Stopper (Horizontal)	Rect. Pipe	50.8 x 25.4 x 3.175 mm	1
14	Stud Bolt	M12X120	S.S. Material	18
15	Bolt	M6 X 100	S.S. Material	2

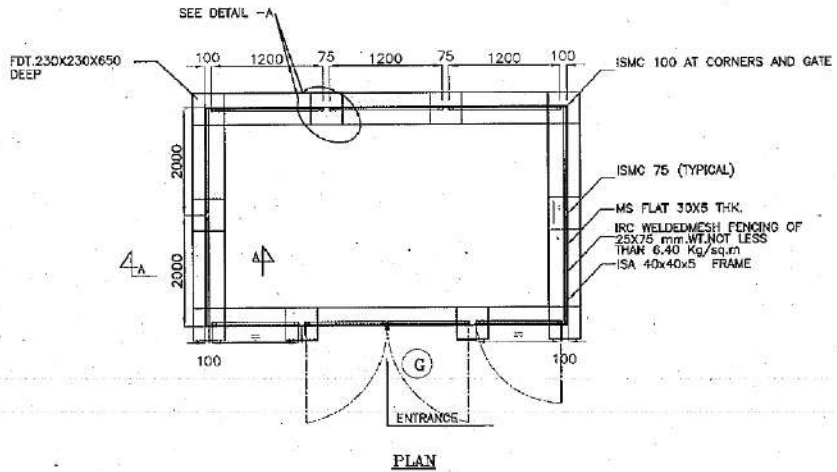






SIDE VIEW

**Drawing No-1 for FRP fencing**



LEGEND:-

NOTE:-

1. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
2. ALL STEEL SHALL CONFORM TO IS:2062 & SHALL BE PAINTED WITH A COAT OF STEEL PRIMER & TWO COATS OF SYNTHETIC CHAMEL PAINT AS PER SPECIFICATION.
3. FENCING AND GATES SIZES AND LOCATIONS SHALL BE AS PER SITE REQUIREMENT
4. POSITION OF GATE, MAY BE SHIFTED OR ADDITIONAL GATE MAY BE PROVIDED AS PER OPERATIONAL REQUIREMENT
5. WIDTH OF EACH FRAME MAY VARY AS PER SITE/SIZE OF PLOT/ AS PER I.E. RULE
6. 12/15 mm PLASTER ON EXPOSED BROCK WORK & NO PLASTER ON CC.
7. DO NOT SCALE THE DRG. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED

REFERENCE:-

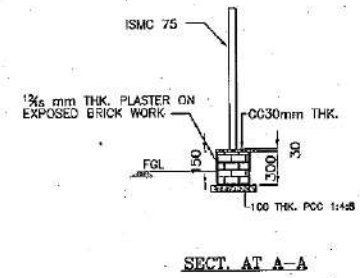
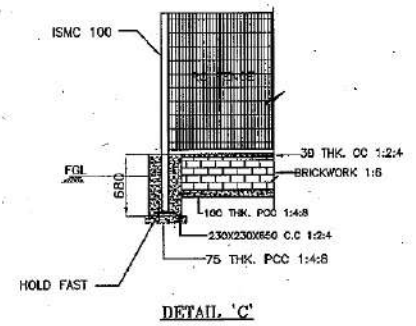
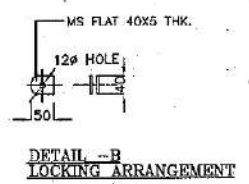
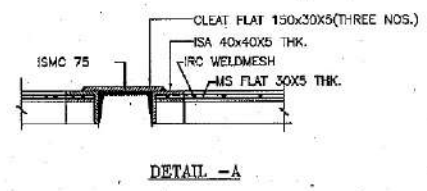
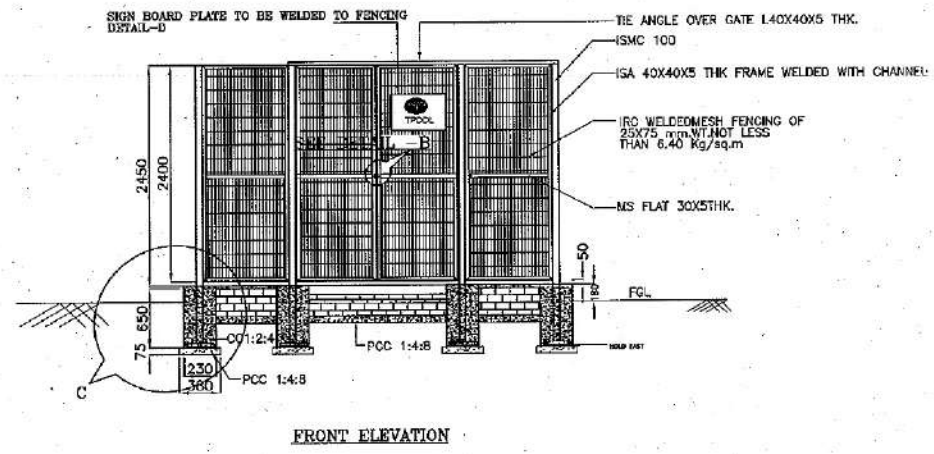
REVISION STATUS:-

DATE	REV. NO.	REVISION	ENR.	REV.	APPD.	ISSUED.

REFER THIS DRAWING FOR TOE WALL & CIVIL FOUNDATION WORK ONLY (DRAWING NUMBER- TPD-S-208-C-013)

PROJECT:-

DESIGN	DS	TITLE:-
DRAWN	RKP	
CHECKED	SS	
APPD.	SS	SHEET
SCALE	NTS	1 OF 1
		DRAWING NO.
		TPD-S-208-C-013
		REV.
		0



If Site location is like shown in graph, the no of FRP fencing panel an pit for fencing leg will be as given below.

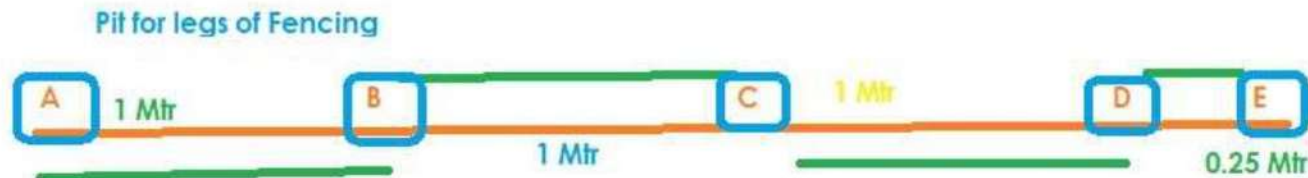


For example:-

1. If length of Fencing(AB & CD Branch) is 4.25 mtr and breadth of fencing(AD&BC branch) is 3.75 mtr. Then 4 No standard fencing pannel of 1mtr length and 2.05 mtr height & one pannel of .25mtr length and 2.05 height will be used for AB branch and seperate 4 No standard fencing pannel of 1mtr length and 2.05 mtr height & one pannel of .25mtr length and 2.05 heigh will be used for CD branch.

2. Similarly for branch of BC&AD,3 No standard fencing panel of 1 mtr length and 2.05 mtr height & one number of 0.75 mtr length & 2.05 mtr will be used for each branch(BC & AD).

3.Foundation will be done on at every four corner , every span of one meter and csutomised length as per site . Example is showhn bellwo



A,B,C,D and E are the location of Pit for FRP Fencing Legs