Bacha Khan Medical Complex/Medical Teaching Institution Gajju
Khan Swabi. (RCC Pad for Oxygen Tank in BKMC/GKMC-MTI,Swabi)

Issued to:	
Date:	

Jan.

# **Bidding Documents for**

# RCC Pad for Oxygen Tank in BKMC/GKMC-MTI, Swabi

## **Instructions To Bidders:**

Scope of Bid: Hospital Director BKMC/GKMC MTI Swabi Invites sealed bid from eligible firms registered with Pakistan Engineering Council in relevant categories & having updated registration certificate issued by PEC for the work "RCC Pad for Oxygen Tank in BKMC/GKMC-MTI, Swabi" as mentioned in Bill of quantities attached.

Method of Selection: Single stage single envelops procedure as per KPPRA.

**Eligible Bidders:** This invitation for bid is open for all bidders meeting following requirements

- Duly Licensed by Pakistan Engineering Council in relevant category & having codes, CE-10.
- Registered with Federal Board of revenue & having valid NTN No.
- Registered with KPRA.

One Bid per Bidder: Each bidder shall submit only one bid.

**Cost of Bid:** The bidder shall bear all cost associated with preparation & submission of bid & employer will not be responsible for any cost.

**Site Visit:** The bidders are advised to visit the site & examine the site of work & its surroundings & obtain all necessary information required for preparation of bid.

Clarification of Bidding Documents: Any perspective bidders who required clarification of bidding documents may notify the employer in writing on the address as mentioned in bidding documents at least 5 days prior to last date of submission of bid. The employer will respond all clarifications in writing received within due time.

Amendments in Bidding Documents At any time prior to the deadline of submission of bid the employer may for any reason whether at his own initiative or in response in clarification requested by perspective bidder modify the bidding documents by issuing an addendum. Any addendum thus issued will be considered as part of bidding documents.

**Taxes & Duties**: All government taxes i.e. income tax, stamp duty & professional tax or any other government tax will be charged as per rules.

Validity of Bid: The bid shall be valid for 90 days.

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Employer authority to accept or reject all bids: The competent authority has the right to reject all bids under Rule 47 of KPPRA procurement rules 2014 after assigning valid reasons.

## Preparation of Bid:

Language of Bid: The bid & all associated documents with it will be prepared in English.

**Currency of Bid**: The unit rates & prices shall be quoted by the bidders in Pakistani Rupees. Payment to successful bidder may be made in Pakistani rupees irrespective of variation in its exchange rate with international currency.

#### **Bid Security:**

All the bidders must submit with their financial bids, bid security/CDR as per KPPRA notification No S.R.O (13) Vol: 1-21/2021-22 dated 15-09-2021. Otherwise the bid shall be considered as non-responsive. An affidavit is mandatory in technical bid that bid security is placed in financial bid.

The award will be based on above/below basis on engineer estimate.

Financial Bid: The financial Bid will be comprises of the following documents:

- 1) Engineer Estimate for the work duly signed by authorized representative of the firm with his quoted rate i.e. above/below on engineer estimate.
- 2) Bid security/CDR in the name of Hospital Director BKMC/GKMC MTI Swabi.

**Sealing & Marking of Bid**: The bid shall be sealed in envelop, Name of the firm shall be clearly marked on envelope & addressed to Hospital Director BKMC/GKMC MTI Swabi. If the name of firm was found missing on envelope the bid will be considered as non-responsive& will be returned unopened.

**Dead Line for Submission of Bid**: The bids must be received by the employer not later than date & time as specified in bidding documents and shall be dropped in the Tender Box placed in the Administration dept. BKMC Swabi-MTI.

Late Bids: Any bid received by the employer after the deadline for submission of bids will be returned unopened to such bidder.

Modification Substitution & Withdrawal of Bids: Any bidder can modify, substitute or withdraw his bid after bid submission provided that the modification, substitution or withdraw notices received by employer prior to the deadline of submission of bid.

Opening of Bids: The employer will open the bid in the presence of bidders on the date & time as specified in bidding documents.



## **Technical Qualification Criteria**

### Mandatory Requirements:

- 1) Registration with Pakistan Engineering Council in relevant category& codes. The registration must be renewed for the current year.
- 2) Registration with FBR & valid NTN No.
- 3) Registration with KPRA.
- 4) Proposed Construction Schedule signed by authorized representative of the firm in accordance with time of completion as mentioned in special stipulations.
- 5) Affidavit on stamp paper duly attested by notary public that the firm has never been black listed.
- 6) Affidavit on stamp paper duly attested by notary public that the firm will execute the works as per specifications mentioned in bidding documents & as per instructions of engineer in charge.

## Form of Bid (To be Filled & signed by Bidders)

To
The Hospital Director
BKMC/GKMC MTI Swabi

Subject: Form of Bid for RCC Pad for the Oxygen tank in BKMC/GKMC-MTI, Swabi.

Dear Sir,

- 2. We understand that all the Appendices attached hereto form part of this Bid.
- 3. As security for due performance of the undertakings and obligations of this Bid, we submit herewith a Bid Security in the amount of Rupees 2% of the Engineer Estimate drawn in your favor or made payable to you and valid for a period up to 27<sup>th</sup> Sep 2024 beginning from the date Bids are opened.
- 4. We undertake, if our Bid is accepted, to commence the Works and to complete the whole of the Works comprised in the Contract within the time stated in special stipulations.
- 5. We agree to abide by this Bid for the period up to 27<sup>th</sup> Sep 2024 from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- 6. Unless and until a formal Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
- 7. We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other bidder for the Works.
- 8. We understand that you are not bound to accept the lowest or any Bid you may

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Signature:				
to the control of				
in the capacity of	duly author	rized to sign B	Bids for and	on behalf of
of Bidder in Block Capitals) w				

## **General Specifications**

## 1.1 Quality/ Quantity of Materials

BKMC/GKMC MTI Engineer shall check the quality of all materials delivered to site. Any materials which do not meet the minimum standards shall be rejected. Such materials shall be removed from site and replaced at the Contractors expense with materials of the required quality. The approved quantities of material mobilized to site are the core responsibility of contractor.

#### 1.2 Quality of Workmanship

Contractor is responsible to mobilize the skilled and unskilled persons according to work need. BKMC/GKMC MTI Engineer will reject any works which have not been executed to the required standard. The Contractor shall redo any rejected works at his own expense and with no time delays to the overall scheme.

#### 1.3 Layout

Contractor will carry out the layout with the help of BKMC/GKMC MTI Engineers for excavations and set the required bench marks as directed by the BKMC/GKMC MTI engineer. Before starting the excavations, it should be checked and got approval by the BKMC/GKMC MTI engineer.

#### 1.4 Preparatory works for main works.

No extra payment will be made for works which are not specifically mentioned in the bill of quantities but are generally required. Such works will be carried out the contractor's expense. Such works include, but are not limited to, Layout, formwork, curing, testing, fittings and joints for pipes, clamping of pipes to walls, excavation for PVC pipes, embedment of G.I pipes in walls etc.

**1.6** Unless otherwise specifically mentioned in the, BOQ or these specifications, all international codes like ACI, ASTM will govern the minimum standards required for the workmanship, materials, testing etc.

#### 2 Structures and materials

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#### 2.1 Excavations

Excavations shall be clean and free of water. All excavations shall be inspected by BKMC/GKMC MTI Engineer before work proceeds.

Excavations are dangerous and liable to collapse, particularly in wet weather or waterlogged ground. The Contractor shall take all necessary precautions to ensure that all excavations are properly protected to prevent accidental or un authorized entry. The Contractor shall be responsible for safety, mention standards and be liable for any accidents which may occur.

#### 2.2 Sand

Sand shall be clean and free from contaminants such as oil, silt, soil, wood, metal or vegetable matter.

Coarse sand, fine sand used according to their respective places such like concrete, plaster etc or as per the approval of engineer. Sand used for plaster and concrete work should be approved from BKMC/GKMC MTI Engineer

### 2.3 Aggregate

Aggregate used for concrete shall be angular crushed rocks, and able to create bonding. It shall be clean and free from contaminants such as oil, silt, clay, wood, metal or vegetable matter. Smooth, soft and silky aggregates will not be allowed for use.

Aggregates used for concrete work should be approved by the engineer.

#### 2.4 Cement

Ordinary Portland cement shall be used and delivered in sealed bags to the site. It shall be kept clean and dry until usage.

The cement should be fresh and satisfy all the engineering requirements as specified in International codes of practices.

#### 2.5 Water

Water used for mixing concrete, mortar, plaster and other construction materials shall be potable, clean and free from organic materials.

#### 2.6 Concrete Mixes

Concrete shall be mixed in the following proportions by volume:

Class A Concrete:

1:11/2:3

cement : sand : aggregate

Class B Concrete:

1:2:4

cement: sand: aggregate

Class C Concrete:

1:4:8

cement: sand: aggregate

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The water cement ratio shall be by weight. Too much water improves the workability but reduces the strength creates segregation of concrete. Concrete which has too much water added shall be rejected. The slump in freshly made concrete should be 3'' - 4'' according to the standard slump test on 12'' high concrete samples.

Concrete should have generally a smooth surface when formwork is removed.

The 7 days compressive strength of 1:1 1/2:3 concrete (6" dia and 12" high cylinders) shall not be less than 2000 pounds per square inch (psi) and the 28 days strength should not be less than 3000 psi.

If desired, the engineer can ask for the cylinder tests of concrete. The cost of such tests should be borne by the contractor.

#### 2.7 Mixing Concrete

Concrete mixed on site shall be mixed on a clean dry platform of level boards. Concrete shall not be mixed on the bare ground. Mixing by hand shall be carried out in the following way:

First the cement and sand shall be thoroughly mixed. Second, this mixture shall be thoroughly mixed with the aggregate which has been slightly wetted. When the mixture is completely mixed and uniform in color, the correct quantity of water shall be added, and the concrete thoroughly mixed.

Hand mixing will only be allowed if engineer on site is satisfied with the quality of workmanship and 10% extra cement will be added, otherwise the concrete will be required to be machine mixed.

Concrete for roof will be mixed only by the machine and hand-mixing will not be allowed.

#### 2.8 Placing Concrete

Once mixed, concrete shall be used immediately. Any concrete which had been allowed to achieve its initial set shall not be placed. Concrete should be compacted by the use of vibrator or steel rods as directed by the engineer

Concrete should not be thrown from height. The steel pan should be lowered and the concrete dropped from it for its placement when done manually.

Arrangements should be made at the contractor's expense to protect the freshly poured concrete from rain for 24 hours. Any concrete damaged by rain will be rejected and the contractor will have to do the concreting again at his own cost. No extra time will be given for redoing the job.

#### 2.9 Formwork

Formwork shall be adequately braced and have a capacity to support the wet concrete after its placed. The faces of the formwork shall be smooth and clean. Mobil oil may be used to prevent the concrete adhering to the formwork.

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Steel formwork should be used for the concrete placement. Wooden forms will be allowed only the engineer if smooth surfaces for concrete are ensured by the contractor.

All form work and shuttering shall be approved by the Engineer before binding and placing the reinforcement.

#### 2.10 Reinforcement

Steel reinforcement shall be the correct diameter as shown on the drawings or as directed by the engineer. The bars shall be clean and free from rust. They shall be securely fixed by binding wire at every joint before placing the concrete. The minimum cover to reinforcement shall be ¼ inch. Clear covers will be specified by the engineer if not explicitly mentioned in the drawings.

The steel used for reinforcement should be of good quality and should not break when bend at 180 degrees. Engineer can ask for the standard tests of steel if unsatisfied with the quality of the steel.

Weight, Día, yield strength, tensile strength and bend tests must be carried out by the contractor and will bear the lab cost.

#### 2.11 Curing Concrete

Sufficient water is required for concrete curing. Poorly cured concrete will shrink or crack, and not achieve its full strength. The contractor shall ensure that all concrete is properly cured.

The concrete shall be kept continuously wet by the application of water for a minimum period of fourteen days after the concrete has been placed. Cotton mats, carpets or sand blankets, may be used as a curing medium to retain the moisture.

Roof concrete should be cured by water ponding on its surface.

#### 2.12 Concreting in Cold/ Hot Weather

The contractor is responsible to take necessary action according to weather condition or as per the approval of engineer.

#### 2.13 Concrete Finishing

Concrete shall be finished to a smooth uniform surface and finished using a metal or wooden float.

#### 2.14 Mortar

Mortar for brick work and floors shall be mixed in the proportion 1 cement: 4 sand by volume. Sufficient water shall be added to achieve the desired workability.

The surfaces of the bricks shall be wetted before placing. Mortar shall be placed on all horizontal and vertical faces between the Bricks, with no gaps.

#### 2.15 Plaster

Mortar for plastering of internal walls and external rendering shall be mixed in the proportion 1 cement: 4 sands by volume. Sufficient water shall be added to achieve the desired workability.

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Cement water slurry should be thoroughly applied on the wetted walls before applying the mortar.

Wire mesh must be fixed at all brick and concrete joints in order to avoid cracks in plaster.

The walls shall be thoroughly (as required) wetted before applying the plaster. The plaster shall be ½ inch to ¾" inch thick, and shall have a uniform flat finish. At corners and between walls and ceilings, the finish shall be clean and precise in a straight line.

Plastered surfaces should be cured for at least 7 days.

## 2.16 Brickwork and Brick walls

Before the construction of walls the contractor should get approval of the BKMC/GKMC-MTI Engineer.

Walls shall be straight, perpendicular and dimensionally correct, constructed as shown on the drawings. The faces of walls shall be regular with no irregular bricks.

The thickness of mortar used for brickwork should be about 1/2 inches.

Bricks shall be of uniform size, shape, color and free from chips, cracks, nodules of lime and such defects which render it unfit for the building works. The size of bricks used should be 9"\*41/2"\*3".

Bricks should be kept immersed in water for 24 hours before using or as directed by the engineer. Dry bricks or half wet bricks will not be allowed in brickwork.

The minimum compressive strength of bricks should be 1500 psi.

The water absorption by bricks should be 15% to 20% by weight when kept immersed in water for 24 hours.

Bricks should produce a clear ringing sound when stuck together.

Bricks should not under-burnt or over-burnt. Engineer will reject the bricks if unsatisfied with their quality. Engineer can also ask for the compressive, water absorption or other tests to make sure that the bricks satisfy the minimum quality requirements.

Brickwork should be cured for at least 7 days after its construction or as directed by the engineer.

The compressive strength, absorption, size check tests must be carried out by the contractor and will bear the cost of lab.

#### 2.17 Paint Work

Distempering should be applied on smooth surface for which sand paper should be used for this purpose. Enamel and weather shield should be used as specified in BoQ specification in their respective places.

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Payment Schedule: Payment shall be made for the work done on the basis of IPCs.

Measurements shall be made jointly by the contractor's Engineer and BKMC/GKMC-MTI Swabi Engineer/UNICEF Engineer and invoice shall be made accordingly.

**Retention Money**: 10% retention money shall be retained from the invoice which shall be released upon successful completion of defects liability period.

Defects Liability Period: Defects liability period shall be 60 days.

**Time for completion**: 30 days will be the completion time for the work, starting from the commencement of work on site.

**Liquidated Damages**: In case of delay in completion, the liquidated damages shall be applied 0.05% per day of the contract value.

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# CONSTRUCTION OF OXYGEN STORAGE TANK FOUNDATION IN BACHA KHAN MEDICAL COMPLEX SWABI

S. No.	Description	Schedule Items Amount (Rs.)	Non-Schedule Items Amount (Rs.)	Total Amount (Rs.)
1	Civil Works	2,337,600		2,337,600
2	Plumbing Works	37,611		37,611
	Total An	nount		2,375,211
	Engineer Esti	mated Cost		2.37M
	Contracto	r,s Rate		<b>3</b>

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## CONSTRUCTION OF OXYGEN STORAGE TANK FOUNDATION IN BACHA KHAN MEDICAL COMPLEX SWABI

# (CIVIL WORK)

S.N	DESCRIPTION	Ref. #	Qty	Unit	Unit Rate (Rs)	Total Amount (Rs)
1	Excavation in foundation of building, bridges etc complete : in ordinary soil	03-25-b	61.46	M <sup>3</sup>	312.82	19,226.50
2	Transportation of earth all types for every 1 km extra lead or part thereof beyond 8 km.	03-20-d	49.90	M <sup>3</sup>	24.62	1,228.54
3	Structural backfill using Common Material available at site.	03-67-c	9.08	M <sup>3</sup>	413.21	3,749.90
4	Plain Cement Concrete in foundations including placing, compacting, finishing & curing (Ratio 1:4:8).	06-05-i	9.79	M <sup>3</sup>	9,237.44	90,473.70
5	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	06-5-f	3.64	M <sup>3</sup>	12,745.86	46,343.17
6	1st class brick work in foundation and plinth in Cement , sand mortar 1:5	07-04-a- 04	8.46	M <sup>3</sup>	13,201.04	111,632.12
7	Damp proof course of cem. conc. 1:2:4 including bitumen coat, 1 layer polythene & 1 coat bitumen (2" thick)	06-26-a- 02	9.24	M <sup>2</sup>	1,192.36	11,019.36
8	1st class brick work in ground floor Cement, sand mortar 1:5	07-05-a- 04	16.08	M <sup>3</sup>	14,089.41	226,627.62
9	RCC in raft foundation slab, base slab of column & ret.wall etc, not including in 06-07-a-02 (1:1.5:3)	06-07-b- 02	55.31	M <sup>3</sup>	16,726.29	925,069.60
10	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60).	06-08-b	2.30	Т	303,740.41	698,602.94
11	Cement Plaster 1:5, upto 20' height 3/4" thick	11-11-c	65.43	M <sup>2</sup>	531.24	34,757.71
12	Preparing surface & painting with snowcem / weathershield paint : First coat	13-25-a	83.64	M <sup>2</sup>	243.39	20,357.90

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# CONSTRUCTION OF OXYGEN STORAGE TANK FOUNDATION IN BACHA KHAN MEDICAL COMPLEX SWABI

# (CIVIL WORK)

S.N	DESCRIPTION	Ref. #	Qty	Unit	Unit Rate (Rs)	Total Amount (Rs)
13	Preparing surface & painting with snowcem / weathershield paint : 2nd & subsequent coats	13-25-b	40.89	M <sup>2</sup>	124.83	5,104.57
14	Supply and fixing razor wire (1'-6" dia) consisting of 1-1/2"X1-1/2"X3/16" angle iron Y post 2'-6" long 6' to 8' center to center embedded in concrete block of size 3"X9"X6" (PCC 1:2:4), at top of boundary wall including painting posts etc. Complete in all respects.	25-60-b	21.33	m	873.81	18,642.70
15	Cement pointing struck joints, on walls, upto 20' height : Ratio 1:3	11-18-b	83.64	M <sup>2</sup>	419.14	35,058.18
16	Erection and removal of Form work with Wood Surface Finshing for RCC or Plain cement Concrete in any shape - Position / Horizontal	06-46-a	4.09	M <sup>2</sup>	684.42	2,798.74
17	Erection and removal of Form work with Wood Surface Finshing for RCC or Plain cement Concrete in any shape - Position / Vertical	06-46-b	13.66	M <sup>2</sup>	710.56	9,707.46
18	Providing and fixing steel gate of 16-18 SWG MS Sheet Gate with angle iron frame (2"x2"x3/16") with side window, lock, painting etc M.S. sheet covering including hold fast, with or without rollers and track arrangement including providing wicket shutter of required size with all accessories and locking arrangement complete	25-56	8.92	M <sup>2</sup>	8,652.80	77,199.70
	TOTAL SCHEDULE ITEMS				1	2,337,600.42

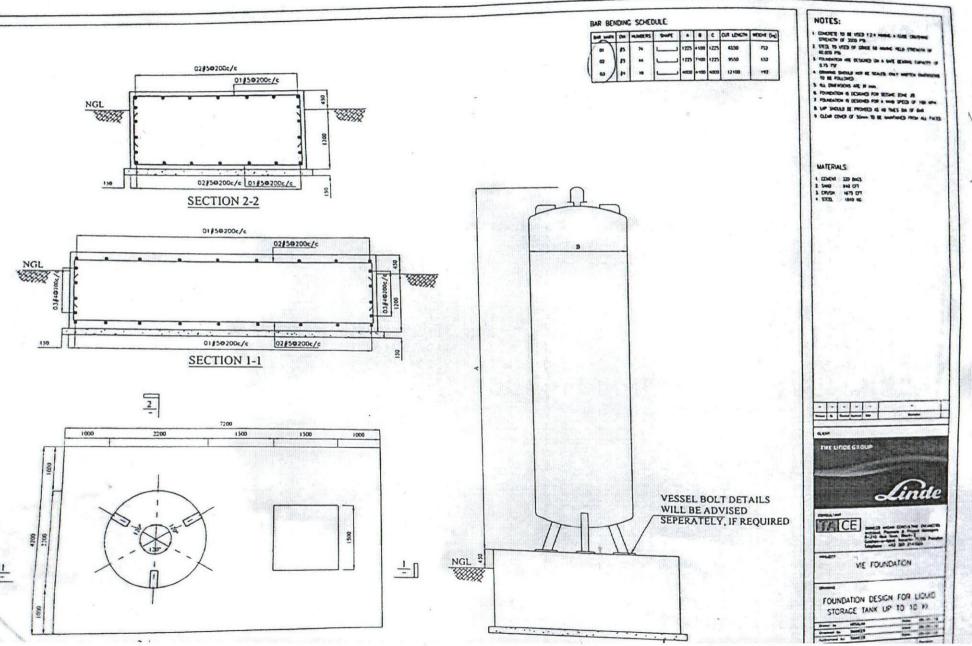
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# CONSTRUCTION OF OXYGEN STORAGE TANK FOUNDATION &MISCELLANEOUS PCC WORK IN BACHA KHAN MEDICAL COMPLEX SWABI

(PLUMBING WORK)

S.N o	DESCRIPTION	Ref. #	Qty	Unit	Unit Rate (Rs)	Total Amount (Rs)
1	Providing and Fixing of polydex high pressure PPR (green including testing ect complete 25 mm(including all special etc)	14-71-a	30.00	m	440.93	13,227.90
2	Providing and Fixing of polydex high pressure PPR (green including testing ect complete 20mm(including all special etc)		25.00	m	352.38	8,809.50
3	Providing and Fixing of pipe type B nikasi system including testing in all respect 110 mm (using dadex, or eq)	14-70-a	3.00	m	2,535.52	7,606.56
4	Providing and Fixing of pipe type B nikasi system including testing in all respect 75 mm (using dadex, or eq)	14-70-b	3.00	m	1,430.62	4,291.86
5	Providing and fixing chromium plated CP stop-cock, heavy type: 2 cm (3/4"	14-22-a	1.00	Each	913.77	913.77
6	Providing and fixing chromium plated (CP) bib-cock heavy duty of approved quality : 1.5 cm 1/2"	14-24-a	1.00	Each	1,565.01	1,565.01
7	Providing and Fixing brass ball float valve of approved quality: 1/2" (13 mm) dia	14-48-a	1.00	Each	437.19	437.19
8	Providing and Fixing brass ball float valve of approved quality: 1" (25 mm) dia	14-48-c	1.00	Each	758.98	758.98
	TOTAL SCHEDULE ITEM					37,610.77

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- Oygen Room Foundation For Oxygen Tank Boundry Wall of Hight PCC.Contrete
For balance
standing of
Tanker Main Road Value Khan Id College & Creu