

Name of Contractor _____
Date of application & receipt _____
Tender issued on _____ Cost of tender Rs. _____
Date of Opening of Tender _____
Tender issued at :- Vikas Minar/Vikas Sadan/ Divisional Office /CAU/

P.W.D. 8

PRESS TENDER NOTICE No 12/FOE/2008-09
DELHI DEVELOPMENT AUTHORITY

Item Rate Tender For Work

A-1 I/We hereby tender for the execution for the Delhi Development Authority of the work specified in underwritten memorandum within the time specified in such memorandum at an amount of Rs. 31400765=00 (Rupees) Three crore fourteen lacs seven hundred & sixty five only.

Item Rate Tender entered in the Schedule mentioned in rule 1 and in accordance in all respects with the specifications designs, drawings and instruction in writing referred to in rule 1 hereof and clause 11 of the conditions of contract and with such materials as are provided for, by and in all other respect in accordance with such conditions so far as applicable.

MEMORANDUM

(a) General Description/

Name of work

A-2. D/o 60 Hect Land at Bakkanwala (LOK Nayak Puram)
A-3. SH- c/o Command Tank & Pump House in LOK Nayak Puram.

(b) Estimated cost:

A-4. Rs. 31400765=00

(c) Earnest Money:

A-5. Rs. 628015=00

(d) Security Deposit:

As per Clause 1. 5% of Tender Value

(e) Time allowed for the work from the 10th day

after the date of written order to commence 18 (Eighteen) months

Should this tender be accepted, in whole or in part, I/We hereby agree:

(i) To abide by and fulfil all terms and provisions of the said conditions annexed hereto and all the terms and provisions contained in the Notice inviting Tender so far as applicable and/or in default thereof to forfeit and pay to the Delhi Development Authority or their successors the sum of money mentioned in the said conditions.

(ii) To execute all the works referred to in the tender documents up on the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered up to a maximum of 20% (Twenty percent) and here after terms as deviation limit of tender at the rates quoted in tender documents and those in excess of this limit at the rate to be determined in accordance with the provisions contained in Clause 12-A of the

A: 7 tender form.
C: one
CS: one
OW: one
D: one

A1

A sum of Rs. 62801500 has been deposited in cash/receipt Treasury Challan/ Deposits at Call receipt of a scheduled Bank/Fixed Deposit receipt of a schedule bank/demand draft of a scheduled bank/ bank guarantee as earnest money as per provisions laid down in para 4 above in favour of AO/CAU/ East Zone/DDA Division. If I/We fail to furnish the prescribed performance guarantee within the prescribed period I/We agree that the said DDA or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, I/We fail to commence work as specified, I/We agree that Chairman, DDA or his successor in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned else therein the tendered documents and those in excess of that limit at the rates to be determined in the accordance with the provisions contained in Clause 12 and 12A of the tender form I/We shall treat the tender documents, drawings and other records connected with the work as secret/confidential documents and shall not communicate information derived there from to any person other than the person to whom I/We am/are authorised to communicate the same of use the information in any manner prejudicial to the safety of the State.

A2
C1

REBATE CONDITIONS

It may please be carefully noted that no conditions whatsoever (beyond the tender documents placed below) shall be accepted by the Dept.. and the contractors are strictly prohibited from giving conditional tenders. If any contractor is not prepared to execute the work at the terms and conditions contained in the tender documents, he is requested not to tender for this work. It may be noted that if any contractor chooses to submit conditional tender, inspite of clear directions given above, his tender shall be liable to be rejected summarily and his full earnest money shall stand forfeited. He will also be liable for being debarred from tendering in DDA for a period of six months.

Dated the _____ day of _____ 200_____

Signature of Contractor before
Submission of tender

Witness.....

Address.....

Signature of Witness to Contractor's
Signature

Occupation.....

The above tender for the sum of Rs _____ Rupees _____

_____ only) is hereby accepted by me _____
Engineer _____ Division _____ on behalf of the Delhi Development Authority.

Dated the _____ day of _____ 200_____

Signature of _____ Engineer

A: Two
C: Two
CS
OW
D: one

47 C2

SCHEDULE OF QUANTITIES

Name of work:- D/o 60 hectare of land at Bakkarwala (Loknaya Puram)

Sub Head: C/o command tank and pump house in Loknaya Puram

S.no.	Description of item	Quantity	Unit	Rate	Amount
<u>GROUND IMPROVEMENT</u>					
1	Boring providing and installing bored cast in situ compacted stone piles of specified diameter and length below the designated in graded stone aggregate 75 mm & down to 40 mm nominal size compacted by 1/2 tonne drop hammer in layers not exceeding 50 cm for strengthening of soil strata with bentonite @ 10% and all other allied operations complete as per the direction of Engineer-in-charge. Work may be carried out in or under water / foul conditions. No extra payment shall be made for making arrangement for making arrangements for such conditions.				
A ₁ 153-	a) 400 mm dia piles.	17125.00.	metre	metre	
2 a)	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer-in-charge. Single pile Up to 50 tonne capacity -				
A ₂	a) Initial test.	2 Nos.	per test		

A: Two
C: }
CS }
OW } Nil
D }

b) Routine test

9 Nos.

per test

II) Group of two or more piles Up to 50 tonne capacity (Routine test).

4 Nos.

per test

A1

1/57

1. EARTH WORK

1.1 Earth work in excavation over areas (exceeding 30 cm in depth, 1.5 metre in width as well as 10 square metre on plan) including disposal of excavated earth, lead up to 50m and lift up to 1.5 metre; disposed earth to be leveled and neatly dressed a) ~~A2~~

a) all Kinds of soil.

13703.57 cum

cum

1.2 Extra for every additional lift of 1.5 m or part thereof in :
a) all Kinds of soil.

14673.88 cum

cum

1.3 Extra rate for quantities of works, executed :

A - Two
C -
CS -
OW -
D -

a) in/or under water and/or liquid mud, including pumping out water as required 5091.22 metre depth

cum per
metre
depth

A3

1.4 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth: consolidating each deposited layer by ramming and watering, lead up to 50 metre and lift up to 1.5 metre.

7562.17 cum

cum

1.5 Supplying and filling in plinth with jamuna sand under floors including watering, ramming consolidating and dressing complete.

12.55 cum

cum

A1

A2

-157-

2. CONCRETE WORK

2.1 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering -All works up to plinth level. -

6390.53 cum

cum

a) 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size). ad

b) 1:5:10 (1 cement: 5 fine sand: 10 graded stone aggregate 40 mm nominal size).

28.47 cum

cum

A Three

C

CS } 1/2

on - one

D Nil

3.2 Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete

a) ~~Cold twisted deformed bars~~

Thermo Mechanically Treated bars

C₁

186033.00 kg

kg

3.3 Centering and shuttering including strutting, propping etc. and removal of form for :

a) foundations, footings, bases of columns etc. for mass concrete.

293.04 sqm

sqm

b) walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.

1998.87 sqm

sqm

c) suspended floors, roofs, landing, balconies and access platform.

1505.55 sqm

sqm

d) Lintels, beams, plinth beams, girders, bressumers and cantilevers.

901.35 sqm

sqm

} one
S
W } Nil
D }

e) Columns, pillars, piers, abutments, posts and struts. 631.62 sqm sqm

f) Stairs, (excluding landings) except spiral staircases. 44.16 sqm sqm

4. BRICK WORK

4.1 Brickwork ^{A₂} of class designation 75 in foundation and plinth in:
a) cement mortar 1:6 (1 cement: 6 fine sand).

4.20 cum cum

4.2 Brickwork ^{A₃} of class designation 75 in superstructure above plinth level up to floor three level in:
a) cement mortar 1:6 (1 cement: 6 fine sand).

96.31 cum cum

5. WOOD WORK

A - Three
C -
CS -
OW -
D - } Nil

5.1 Providing and fixing ISI marked flush door shutters decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters-

a) 35 mm thick including ISI marked stainless steel butt hinges with necessary screws.

11.75 Sqm

Sqm

5.2 Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade with *nuts* and screws etc. complete: *A₂*
a) 300x16 mm. *A₃*

7 Nos.

each

5.3 Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade with necessary and screws etc. complete-

a) 250x10 mm.

5 Nos.

each

b) 150x10 mm.

5 Nos.

each

A - Three
C -
CS -
OW -
D - } nil

- 5.4 Providing and fixing aluminum handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour and shade with necessary screws etc. complete:-
a) 125 mm

14 Nos. each

6. STEEL WORK

- 6.1 Supplying and fixing rolling shutters of approved make, made of required size M.S. laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shafts with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 27.5 mm long wire springs grade No. 2 and M.S. top cover of required thickness for rolling shutters.

a) 80x1.25 mm laths with 1.25 mm thick top cover.

27.00 sqm sqm

- 6.2 Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. all complete

a) Fixed to steel windows by welding.

1131.46 kilogram kilogram

- 6.3 Providing and fixing ball bearing for rolling shutters.

9 Nos. each

A - one
S -
W -
D -

6.4 Providing and fixing ISI marked steel glazed doors, windows and ventilators of standard rolled steel sections, joints mitred and welded with 15x3 mm lugs, 10 cm long, embedded in cement concrete blocks 15x10x10 cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of glass panes with glazing clips and special metal sash putty of approved make complete including applying a priming coat of approved steel primer, excluding the cost of metal beading and other fitting except necessary hinges or pivots as required:

A ₁	- 169 -	a) ^{OW} In composite units of doors, windows and ventilators : (i) for overall portion treated as fixed.	102.86 sqm	sqm
		b) Extra for side hung portion : (i) windows.	36.00 sqm	sqm

A - Three

C -]
CS -] Nil

OW - one

D - Nil

£

1

6.5 Providing and fixing pressed steel door frames manufactured from commercial mild steel sheet of 1.25 mm thickness including hinges jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25 mm, or base ties of 1.25 mm pressed mild steel welded or rigidly fixed together with mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 2.5 mm thick with mortar guards, lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by engineer-in-charge

a) Profile B. 36.14 metre metre

6.6 Providing and fixing oxidised M.S. casement stays (Straight peg type) with necessary screws etc. complete :

a) 300 mm weighing not less than 200 gms. A₂ 58 Nos. each

6.7 Providing and fixing ISI marked oxidised M.S. handles conforming to IS: 4992 with necessary screws etc. complete : A₃

a) 125 mm. 58 Nos. each

6.8 Structural steel work welded in built up sections / framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required:

a) In gratings, frames, guard bar, ladders, railings, brackets, gates and similar works. 568.14 kilogram kilogram

A - Three
C - Nil
CS - Nil
DW - Nil
D - Nil

6.9 Providing and fixing hand rail by welding etc. to steel ladder railing, balcony railing and staircase railing including applying a priming coat of approved steel primer:

a) M.S. tube (medium) 40 mm nominal bore.

234.80

kilogram

kilogram

6.10 Providing and fixing 1 mm thick MS sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plate at the junction and corners all necessary fittings complete, including applying a priming coat of approved steel primer,

a) using M.S. angle 40x40x6 mm for diagonal braces.

12.00 sqm

sqm

7. FLOORING

7.1 a) 52 mm thick cement concrete flooring with 'Hardcrete' cement hardener topping under layer 40 mm thick cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick 'Hardcrete' cement hardener consisting of mix 1:2 (1 cement hardener mix: 2 graded stone aggregate 6 mm nominal size) by volume with which Hardcrete hardening compound of Snowcem India Ltd. Or equivalent is mixed @ 2 liter Hardcrete per 50 kg of cement including cement slurry, but excluding the cost of nosing of steps etc. complete.

259.71 sqm

sqm

A - Two
C - Nil
CS - Nil
OW - one
D - Nil

b) Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering -All works up to plinth level

(i) 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size).

140.87 cum cum

7.2 Cement plaster skirting (Up to 30 cm height) with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement)

a) 18 mm thick.

4.67 sqm sqm

b) 21 mm thick.

7.15 sqm sqm

7.3 Cement concrete pavement with 1:2:4 (1 cement: 2 coarse sand: 4 stone aggregate 20 mm nominal size including finishing complete.

15.92 cum cum

A. - one
C -
CS -
OW -
D -
Nip

7.4 40 mm thick marble chips flooring rubbed and polished to granolithic finish, under layer 34 mm thick cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 stone aggregate 12.5 mm nominal size) and top layer 6 mm thick with white, black, chocolate, gray yellow or green marble chips of sizes from 1 mm to 4 mm nominal size laid in cement marble powder mix 3:1 (3 cement: 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix: 7 marble chips) by volume including cement slurry etc. complete:

a) Ordinary cement without any pigment.

26.83 sqm

sqm

7.5 Marble chips skirting (Up to 30 cm height) rubbed and polished to granolithic finish, top layer 6 mm thick with white, black, chocolate, gray yellow or green marble chips of size from smallest to 4 mm nominal size laid in cement marble powder mix 3:1 (3 cement: 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix: 7 marble chips) by volume

a) 18 mm thick with under layer 12 mm thick cement plaster 1:3 (cement : 3 coarse sand) – with ordinary cement without any pigment.

1.14 sqm

sqm

b) 21 mm thick with under layer 15 mm thick cement plaster 1:3 (cement : 3 coarse sand) – with ordinary cement without any pigment.

2.39 sqm

sqm

A - One
C -
Cs -
OW -
D -

7.6 Providing and fixing glass strip in joints of terrazo / cement concrete floors:

a) 40 mm wide and 4 mm thick.

53.66 metre metre

7.7 Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with gray cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1:4 (1 cement: 4 coarse sand) ow,

a) 25 mm thick.

44.52 sqm sqm

7.8 Kota stone slab 25 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs including rubbing and polishing complete.

20.45 sqm sqm

A - One

C - } Nil

CS - }

OW - One

D - Nil

- 7.9 Providing and fixing 1st quality ceramic glazed tiles conforming to IS 13753 of minimum thickness 5 mm of approved make like NITCO, ORIENT, SOMANY, KAZARIA, or equivalent make in all colours, shades designs and prints except begundy, bottle green, black of any size as approved by the Engineer-in-charge in skirting, risers of steps and dados over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete.

15.08 sqm

sqm

8. ROOFING

- 8.1 Painting top of roofs with bitumen of approved quality at 17 Kg/10 sqm impregnated with a coat of coarse sand at 60 cudm per 10 sqm including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete.

A₂

- a) with residual type petroleum bitumen of penetration 80/100.

329.90 sqm

sqm

- 8.2 10 cm thick average mud phuska of damped brick earth on roof laid to slope consolidated and plastered with 25 mm thick mud mortar mixed with bhusa at 35 Kg per cum of earth and gobi leaping with mix 1:1 (1 Clay : 1 cow dung) and covered with flat tile bricks of class designation 100 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2 % integral water proofing compound by weight of cement and finished neat

A - Two

C -
CS -
OW -
D - } Nil

a) with FPS brick tiles.

305.32 sqm sqm

8.3 Extra for every additional 1 cm thickness of mud phuska.

1526.60 sqm sqm

8.4 Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge) including finishing with cement mortar 1:3 (1 cement : 3 fine sand as per standard design ;
a) in 75x75 mm deep chase.

133.58 metre metre

8.5 Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) over PVC sheet 1mx1mx400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete

6 Nos. each

8.6 Providing and fixing unplasticised-PVC pipe clips of approved design to unplasticised-PVC rain water pipes by means of 50X50X50 mm hard wood plugs, screwed with M.S. screws of required length including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete-
a) 110 mm.

18 Nos. each

A - one
C -
CS -
ow -
D -
nip

8.7 Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS :13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion - Single socketed pipes-
a) 110 mm diameter. 33.15 metre metre

8.8 Providing and fixing on wall face unplasticised - Rigid PVC moulded fittings/accessories for unplasticised- Rigid PVC rain water pipes conforming to IS :13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion -

a) Bend 87.5° - 110 mm bend.

6 Nos. each

b) Shoe (Plain)- 110 mm Shoe.

6 Nos. each

9. FINISHING

9.1 12 mm cement plaster of mix 1: 6 (1 cement: 6 fine sand).

76.67 sqm sqm

9.2 15 mm cement plaster on the rough side of single or half brick wall of mix 1: 6 (1 cement: 6 fine sand).

582.87 sqm sqm

9.3 12 mm cement plaster of mix 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.

1193.00 sqm sqm

A - } one
C - }
CS - }
OW - } nil
D - }

9.4 6 mm cement plaster to ceiling of mix 1: 3 (1 cement: 3 fine sand).

2356.85 sqm sqm

9.5 Distempering with dry distemper of approved brand and manufacture (Two or more coats) and of required shade on new work, over and including priming coat of whiting to give an even shade.

3016.39 sqm sqm

9.6 Applying priming coat :

a) with ready mixed aluminium primer of approved brand and manufacture on resinous wood and plywood.

28.20 sqm sqm

b) with ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron / steel works.

162.26 sqm sqm

9.7 Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with black, anti corrosive, bitumastic paint approved brand and manufacture over and including a priming of ready mixed zinc chromate yellow primer on new work-

a) 100 mm diameter pipes.

39.40 metre metre

9.8 Painting with synthetic enamel paint of approved brand and manufacture to give an even shade

1- of required colour

A - Two
C -
CS -
OW -
D -
Nil

a) two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.

340.91 sqm sqm

9.9 Forming groove of uniform size in the top layer of washed stone grit plaster as per approved pattern using wooden battens, nailed to the under layer including removal of wooden battens, repair to the edges of panels and finishing the groove complete as per specifications and direction of Engineer-in-charge-

a) 15 mm wide and 15 mm deep groove.

882.40 metre metre

9.10 Washed marble chips grit plaster with white, black, chocolate, grey, yellow or green marble chips on exterior walls of height up to 10 metre above ground level in two layers, under layer 12 mm cement 1:4 (1 cement: 4 coarse sand) furrowing the under layer with scratching tool, applying cement slurry on the under layer @ 2 kg of cement per square metre, top layer 15 mm thick with mix 1:0.5:2 (1 cement: 0.5 marble powder: 2 marble chipping 7 to 10 mm nominal size) matching the mix by mixing light shaded pigment @ 3.50 kg per 50 kg of cement in panels with groove allaround as per approved pattern including scrubbing and washing, the top layer with brushes and water to expose the marble chipping, complete as per specification and direction of engineer-in-charge (Payment for providing grooves shall be made separately) -

a) Light shade pigment with ordinary cement

441.20 sqm sqm

A - one
CS -
C -
OW -
D -

Nil

A1

-189-

10. SANITARY INSTALLATIONS

- 10.1 Providing and fixing water closet squatting pan (Indian type WC pan) with 100 mm sand cast iron P or s trap, 10 liter low level white PVC flushing cistern with manually controlled device (handle lever) conforming to IS 7231, Parryware/ Hindware/Seabird/Orient (Coral) with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :

a) White Vitreous China Orrissa Pattern WC pan of size 580 x 440 mm with integral type foot rests.

1 Nos.

each

- 10.2 Providing and fixing wash basin with C.I./M.S brackets, 15 mm C.P. brass pillar taps, Kingston/Gem/Techno/Parco, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required

a) Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap.

1 Nos.

each

A - Two
C -
CS -
OW -
D -

} NIP

A₁

-191-

10.3 Providing and fixing 600x450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.

1 Nos. each

10.4 Providing and fixing soil, waste and vent pipes –
a) 100 mm diameter Sand cast iron S&S pipe.

10.00 metre metre

b) 75 mm diameter Sand cast iron S&S pipe.

3.00 metre metre

10.5 Providing and fixing M.S. holder bat clamps of approved design to sand cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) including cost of cutting holes and making good the walls etc.-

a) For 100 mm diameter pipe.

4 Nos. each

10.6 Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete-
a) 100 mm dia sand cast iron S&S.

1 No. each

A - one
C -
CS -
ow - } Nil
D -

b) 75 mm dia sand cast iron S&S.

2 Nos.

each

10.7 Providing and fixing heel rest sanitary bend-

a) 100 mm dia sand cast iron S&S.

1 No.

each

b) 75 mm dia sand cast iron S&S.

2 Nos.

each

10.8 Providing lead caulked joints to sand cast iron/ Centrifugally cast (Spun) iron pipes and fittings of diameter -

a) 100 mm.

11 Nos.

each

b) 75 mm.

7 Nos.

each

10.9 Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors:

a) 100 mm inlet and 75 mm outlet sand cast iron S&S.

2 Nos.

each

A - one
C -
CS -
OW -
D - } nip

11. WATER SUPPLY

- 11.1 Providing and fixing G.I. Pipes complete with GI fittings and clamps, including cutting and making good the walls etc. (internal work) exposed on wall

a) 15 mm dia nominal bore. 20.00 metre metre

b) 20 mm dia nominal bore. 10.00 metre metre

- 11.2 Providing and fixing G.I. Pipes complete with GI fittings including trenching and refilling etc. (external work)

a) 20 mm dia nominal bore. 20.00 metre metre

- 11.3 Providing and fixing brass bib cock of approved quality

a) 15 mm nominal bore. 4 Nos. each

- 11.4 Providing and fixing brass stop cock of approved quality

a) 15 mm nominal bore. 4 Nos. each

b) 20 mm nominal bore 2 Nos. each

2-197

7 - one
5 -
W -
D -

11.5 Providing and fixing ball valve (brass) of approved quality complete
High or low pressure with plastic floats-
a) 20 mm nominal bore.

1 No. each

11.6 Providing and fixing uplasticised PVC connection pipe with brass
unions
a) 30 cm length with 15 mm nominal bore.

3 Nos. each

11.7 Painting G.I. pipes and fittings with synthetic enamel white paint
over a ready mixed priming coat, both of approved quality for new
work-
a) 15 mm diameter pipe.

20.00 metre metre

b) 20 mm diameter pipe.

10.00 metre metre

11.8 Providing and fixing GI union in GI pipe including cutting and
threading the pipe and making long screws etc. complete (New
work) a) 20 mm nominal bore.

2 Nos. each

A - one
C -
CS -
OW -
D - } Nil

- 11.9 Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI:12701 marked indicating the BIS License No. with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and base support for tank (Sintex, electroplast, star, Lotus or equivalent having valid ISI license).

500 liter per liter capacity

- 11.10 Painting GI pipes with fittings with two coats of anticorrosive bitumastic paint of approved quality a) 20 mm diameter pipe.

20.00 metre metre

- 11.11 Providing and filling sand of grading zone V or coarser grade all-round the GI pipes in external work a) 20 mm diameter pipes.

20.00 metre metre

- 11.12 Providing and fixing in position precast R.C.C. manhole cover and frame of required shape and approved quality-
a) MD-10- Circular shape 500 mm internal diameter.

2 Nos. each

- 11.13 Providing and laying S&S centrifugally cast (spun) / Ductile iron pipes conforming to IS :8329 -
a) 450 mm dia Ductile iron class K-9 pipes.

150.00 metre metre

A - one
C -
CS -
OW -
D - } Nil

11.14 Providing and laying double flanged (screwed/welded) centrifugally (spun) Ductile iron pipes of class K-9 conforming to IS :8329 –

50.00 metre metre

a) 600 mm dia Ductile iron double flanged.

11.15 Providing push-on-joints to Centrifugally (Spun) Cast iron pipes or Ductile iron pipes including testing of joints and including the cost of rubber gasket-

a) 450 mm dia pipes.

61 Nos. each

11.16 Providing flanged joints to double flanged C.I./D.I. pipes and specials including testing of joints. -

a) 600 mm diameter pipe.

31 Nos. each

11.17 Providing and laying D.I. specials of class K-12 suitable for push on jointing as per IS : 9523-

a) Up to 600 mm dia.

28.60 quintal quintal

11.18 Providing and fixing C.I. sluice valve (with hand wheel) complete conforming to IS 14846:2000 class PN 1.6 bearing ISI mark with bolts, nuts, rubber insertions etc. (The tail piece, if required will be paid separately -

A - } one
CS - }
OW - }
D - }
 } Nil

- | | | |
|---|--------|------|
| a) 600mm dia sluice valve with ^{C1} long rod | 2 Nos. | each |
| b) 450 mm dia sluice valve | 4 Nos. | each |

12. DRAINAGE

12.1 Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement: 1 fine sand) including testing of joints etc. complete-

- | | | |
|---------------------|-------------|-------|
| a) 100 mm diameter. | 3.00 metre | metre |
| b) 150 mm diameter. | 89.00 metre | metre |

12.2 Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sand: 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design.-

- | | | |
|-------------------------------|-------------|-------|
| a) 100 mm diameter S.W. pipe. | 3.00 metre | metre |
| b) 150 mm diameter S.W. pipe. | 89.00 metre | metre |

A - } one
 C - }
 CS - }
 OW - } Nil
 E - }

A-205-

12.3 Providing and fixing square mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design.

a) 100x100 mm size P type with F.P.S. Bricks class designation 75.

1 No.

each

12.4 Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement:2 fine sand) including testing of joints etc. complete-

a) 250 mm diameter R.C.C. pipe.

10.00 metre

metre

A - one
C -
CS -
GW -
D -

per

12.5 Constructing brick masonry manhole in cement mortar 1:4 (1 cement: 4 coarse sand) R.C.C. top slab with 1:2:4 mix (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) foundation concrete 1:4:8 mix (1 cement: 4 coarse sand: 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design-

a) Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) with FPS bricks with class designation 75.

5 Nos.

each

A - one
C - } Nil
CS - }
GW - ~~one~~ ^D one
D - one

- 12.6 Constructing brick masonry circular type manhole 0.91 m internal diameter at bottom and 0.56 m diameter at top in cement mortar 1:4 (1 cement: 4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (a cement: 3 coarse sand: 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement all complete as per standard design^(a) 0.91 m deep with SFRC cover and frame (heavy duty HD-20 grade designation) 560 mm internal diameter conforming to IS 12592 total weight of cover and frame to be not less than 182 kg fixed in cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) including centering and shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) with FPS bricks with class designation 75.

2 Nos.

each

- 12.7 Extra depth for circular type manhole 0.91 m internal diameter (at bottom) with beyond 0.91 m to 1.67 m with FPS bricks with class designation 75.

1.00 metre

metre

A - One
C -
CS -
OW -
D -

Nil

- 12.8 Providing orange colour safety footrests of minimum 6 mm thick plastic encapsulated as per IS:10910 on 12 mm diameter steel bar conforming to IS:1786 having minimum cross section as 23 mmx25mm and overall minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacturer's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) complete as per design.

94 Nos.

each

13. WATER PROOFING

- 13.1 Providing and placing in position suitable PVC water stops conforming to IS :12200 of Deep- Jyoti or equivalent for construction/ expansion joints between two R.C.C. members and fixed to the reinforcement with binding wire before pouring concrete etc. complete

a) Serrated with central bulb (225 mm wide, 8-11 mm thick).

502.94 metre

metre

A - One
C -
CS -
OW - } Nil
D - }

- 13.2 Providing and laying integral cement based treatment for water proofing on horizontal surface at all levels as directed by Engineer-in-charge and consisting of: (i) 1st layer of 20 mm thick approved and specified rough stone slab over a 25 mm thick base of cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound 'Impermo' of Snowcem or equivalent conforming to IS :2645 in the recommended proportion. Joints sealed and grouted with cement slurry mixed with water proofing compound. (ii) 11nd layer of 25 mm thick cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in the recommended proportions. (iii) Finishing top with stone aggregate of 10 mm to 12 mm nominal size spreading @ 8 cubic decimetre/square metre thoroughly embedded in the 2nd layer

a) Using rough Kota stone.

2103.75 sqm

sqm

- 13.3 Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 20 mm thick with cement slurry mixed with water proofing compound 'Impermo' of Snowcem or equivalent conforming to IS :2645 in the recommended proportions with a gap of 20 mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:4 (1 cement: 4 coarse sand) 20 mm thick base with neat cement punning mixed with water proofing compound in recommended proportions

As complete at all levels and as directed by the Engineer-in-charge

a) Using rough Kota stone. ow)

852.70 sqm

sqm

A - Two
C - } nil
CS - }
OW - one
D - nil

A1

- 215 -

13.4 Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc. consisting of following operations:

a) Applying and grouting a slurry coat of neat cement using 2.75 kg/square meter of cement admixed with proprietary water proofing compound conforming to IS:2645 over the R.C.C. slab including cleaning the surface before treatment.

(b) Laying cement concrete using broken bricks/brick bats 25 mm to 100 mm size with 50 % of cement mortar 1:5 (1 cement: 5 coarse sand) admixed with proprietary water proofing compound conforming to IS:2645 treating to required slope and over 20 mm thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS:2645 similarly the adjoining walls up to 300 mm height including rounding of junctions of walls and slabs.

(c) After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS:2645

(d) Finishing the surface with 20 mm thick joint less cement mortar of mix 1:4 (1 cement: 4 coarse sand) admixed with proprietary water proofing compound conforming to IS:2645 and finally finishing the surface with trowel with neat cement slurry and making of 300x300 mm square.

(e) the whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-charge.

A - one
C -
CS -
OW -
D - } Nil

217-

(i) With average thickness of 120 mm and minimum thickness at khurra as 65 mm.

1274.49 sqm

sqm

14. MISCELLANEOUS BUILDING WORKS

14.1 Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement:3 coarse sand: 6 graded stone aggregate 20 mm nominal size) over 75 mm bed of dry brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.

67.49 sqm

sqm

14.2 Providing and fixing 200mm dia MS swan neck type vent pipe welded and fabricated with 10mm mild steel sheet 0.91 metre above water tank as per approved sketch including necessary priming coat of zinc chromate yellow primer and painting with ready mixed paint with two or more coat

18 No.

each

A₂ Total

Note: The item of disposal of surplus excavated earth is not included in the schedule of quantities. It is to be disposed off as required at the other sites/works or as required by the other divisions.

~~D₁~~

A - Two
C - }
CS - } Nil
DW - }
D - one