

Job No. 1

***SCHEDULE OF QUANTITY ***

Name of work :- Improvement of WSS (OHSR) to village Saner GP Bhatian in Tehsil Nalagarh District Solan (HP)(SH:- S/E of Centrifugal pumping machinery with allied accessories , Laying, jointing & testing of Rising main and Distribution system.)

Estimated cost :- 193511 /-only

Earnest money :- 3870 /-only

Time Limit :- 3 (Three months.)

S.No	Description of item.	Quantity.	Rate	Unit	Amount.
1	Excavation in drain and channels etc. earth work for pipes upto all depths in all classification of earthwork such as pick work, jumper work, saturated soil including bailing or pumping out water, blasting soft/hard rock or chiseling soft/hard rock where blasting is prohibited in all lifts including jungle clearance wherever required, trimming & dressing of sides, levelling of beds to correct grade including shoring/strutting, planking , timbering & dewatering wherever required stacking the useable/unuseable material/soil seperately & after laying, jointing & testing of pipes, returning the useable soil in trenches in 15cm layers including consolidating of such deposited layer by ramming & watering & then disposing of all surplus excavated soil/ unuseable material as directed with in all leads & lifts including restoration of un-metalled surfaces to its original condition & including cost of diversion for traffic, right signals, fixing caution boards, crossing over trenches for access to houses, fencing etc. complete in all respect with in all leads and lifts and as per direction of the Engineer-in-charge at site of work.	268.20 Cum		Per Cum.	
	RISING MAIN				
2	Laying,jointing and testing and commissioning at site in trenches levelled and properly graded plain ended GMS pipe 65 mm (M) confirming to BIS 1239-1990 (Part -1) of latestwith upto date ammendments capable of with standing required test pressure as prescribed in BIS code in randum length 5.50 to 6.50 mtr. The pipe end shall be bevelled suitable for butt weld including the cost of jointing with butt welding conforming to IS 816-1969 or latest as applicable (leak proof) in three layer of site of work with welding of standard make and all allied accessories what ever required for welding at site tail piece tees bends manufactured from parent pipes etc. and cutting of pipes wherever required as per site requirement i/c carriage in all leads lifts as directed by Engineer in charge. (Earth work shall be measured and paid for seperately).	620.00 Rmt		Per Rmt.	
3	Providing, welding and fixing of M.S plate flange of 65 mm dia of following flange table , conforming to IS: 6392-1971 or Latest with upto date ammendments to GI pipe after every 90 mtr or as per site requirement including cutting of pipes where ever required welding in three layer (Leak proof) conforming to specification as prescribed in relevent IS code IS 816-1969 or latest as applicable with upto date amendments with nuts, bolts and washers and special etc. conforming to IS 1963 or latest with upto date amendment that is paking sheet including asbestos fiber sheet minimum 3 mm thick and painting with enticrossive paint complete in all respect in all leads, lifts and carriage of materials and as directed by Engineer- incharge.				
	65 mm. dia flange table-17.	2.00 Pair		Per Pair	
	65 mm. dia flange table-5.	5.00 Pair		Per Pair	
	S/E OF CENTRIFUGAL PUMPING MACHINARY WITH ALLIED ACCESSORIES				
4	Supply, erection, testing & commissioning of horizontal spindle, horizontal split casing, radial split Single,/Multistages centrifugal pumps of standarad make such as KSB/ Mather & Platt/ Jyoti / Kirloskar/ Beaconweir /BS & BE conforming to BIS 1520-1980 with upto date ammendments read with BIS 9137-1978 or latest edition to handle clear raw water having charters tics as mentioned in item 1 (a) as under, with impelleres,casing ring, priming funnels & shaft sleeves of bronze, shaft of steel with cast iron casing of suitable capacity coupled directly through a flexible coupling on a common base plate of cast steel /Mild steel to BHEL /Kirkokar/ NGEF/ Crompton / Siemen/Jyoti /GEC make slip ring /squirrel cage screen protected drip proof induction electric motor suitable for operation on the data given below. i/c the cost of all accessories in all lead & lifts & carriage of material at site as per direction of Engineer-In-Charge. a). Total Head :- 80.77 Mtr b). Capacity (in LPS) of each pump set : 2.98 LPS. c). Dia of R/Main (in mm) : 65 mm. d).Length of R/Main (in Mtrs) : 620 mtr. A). SITE CONDITIONS:- i). Location of Site :- Near village Dattowal. ii) The altitude of place in which the motor is intended to work :- 360.00 mtrs. iii) Humidity :- Wheather generally remains humid during monsoon season. iv). Nature of atmosphere :- As normally encountered in Shivalik Ranges. v). Detail of quality of water :- Clear cold water	2SetX 5 HP Set.		Per Set	

- vi). Water free from sand or not :- No.
- vii). Water corrosive or not :- yes.
- viii). Turbidity :-
- ix). NPSH available :-
- x). Any other information or requirement :- ----

B). OPERATING CONDITIONS :-

- i). Type of current :- AC three/single phase
- ii). Operating frequency :- 50HZ.
- iii). Rated voltage :- 400 (+/-) 10% volts
- iv). System of earthing if any to be adopted :- Double loop earthing as per BIS 3043-1987 latest with upto date ammendments.
- v). No. of pumping hours per day :- 12.00 hours.
- vi). Speed of revolution in RPM :- To be quoted by tenderer.
- vii). Direction of rotation :- To be quoted by tenderer.
- viii). The max. Temp. of cooling air & water in the place in which the motor intended to work in ordinary service :- 35 Degree Centigrade.

C). MOTOR:-

- i). Ref to BIS code :- BIS 325-1978 read with BIS 900-1992 (latest) with upto date ammendments.
- ii). Type of enclosure of motor :- As per BIS 4691-1985 or latest with up to date ammendments
- iii). Type of duty :- "S1" i.e. Continuous duty type as per IS-12824-1989 or latest with up to date ammendments.
- iv). Mechanical out put in KW :- Suitable for driving submersible pumps required for duties specified against pumps. To avoid overloading of motor a margin of about 15-20% may be kept in the rated out put of prime mover.
- v). Class of insulation :- Class ~B~ .
- vi). Max. permissible temp. rise of motor reqd. if different from that given in B (viii) above :- To be specified by the tenderer.

- vii). Particulars of test reqd. & where they are to be conducted:- As per terms & conditions attached.
- viii). Particulars as to whether voltage limiting device will be employed:- Star Delta starter, oil immersed, fully automatic to be installed between bus bar & motor. Shunt capacitor is also proposed to be installed for improving the power factor at site.

(NOTE:- Star delta starter upto 37.5 KW & ATS for 37.5 KW & above)

- ix). Motor whether squirrel cage or slipring :- Squirrel cage / slipring. (Note:- squirrel cage upto 65 HP and slipring above 65 HP)
- x). Details of shaft extension reqd :- just sufficient to provide direct drive by flexible coupling to pump.
- xi). Type of slipring gear whether continuously rated or for starting purposes only & whether to be fitted with brush lifting or short circuit arrangements or both if interlocks are required:- Continuously rated for squirrel cage/ Slipring motor.
- xii). Breakway torque in terms of rated load torque & the corresponding breakway starting current which may be taken from the supply with the starting apparatus in:- Breakway torque to be given by the tenderer but the starting current should not exceed 2.50 times of the full load current.
- xiii) Nature of load & any information regarding the driven machine which has a bearing upon the torque reqd. during the accelerated period, the kinetic energy of the moving parts to be accelerated & No. of starts during a specified period :- Sufficient to work the pump offered.
- xiv) Where possible fault capacity of the system to which the motor is connected :- The motor should be able to withstand initial current of 2.5 times the rated current for two minutes without suffering damages or permanent deformations .

D). PUMPS:- BIS 1520-1980 read with BIS 9137-1978 both with upto date ammendments

- i) Nos of pumps required :- 2 Nos. Pump. (One set will be stand by)
- ii). Spare parts required :- For two years normal maintenance as recommended by manufacturer.
- iii). Optional fittings required :- -----

PUMP OPERATING CONDITIONS:-

- i). Capacity of pump (in lps) :- 2.98 LPS.
 - ii). Total head (in Mts.) :- 80.77 Mtrs.
- If total head is not known then following details be provided:-
- a) Static head (in mtrs):-
 - b) Minimum depth of water (in mtrs) :-
 - c) Seasonal Variation in water level (in mtrs):-
 - d) Ground level to max. water level (in mtrs) :-

	e) Ground level to delivery point (in mtrs):-		
	f) Pressure in the suction tank (in kg/cm ²):-		
	g) Pressure in the delivery tank (in kg/cm ²) :-		
	iii). Length of R/Main (in mtrs):-	620.00 mtrs.	
	iv). Dia of R/Main (in mm):-	65 mm.	
	v. Drive arrangement:-	Direct through flexible coupling on a common base plate.	
	vi. Drive Type:-	Electric driven.	
	vii. NPSH reqd:-	To be quoted by the tenderer	
	viii). Limits of total head in which the pump is reqd. to operate :- (-) 15% to (+) 10% of total head.		
	ix) Suction/delivery size of pump :-	To be specified by the tenderer.	
	x). Efficiency of pump at :-	To be specified by the tenderer.	
	a) duty head of as mentioned in item No.4(a) :-	80.77 mtrs.	
	b) (+) 10 % head of as mentioned in item No.4 (a) :-	88.85 mtrs.	
	c) (-) 15 % head of as mentioned in item No.4 (a) :-	68.65 mtrs.	
	xii). Material of construction :-	To be specified by the tenderer (manufacturers certificate to be appended)	
5	Supplying and installation at site of suitable direct on line/oil immersed star delta/ATS/stator rotor starter of standard make such as MEI/Kilburn/Jyoti/ Siemens/Larson & Tubro conforming to BIS-8544-1979 latest with up to date ammendments for squirrel cage/slip-ring motor (make to be specified by the tenderers) mounted on panel board with magnetic type over load release & dashpot,time lag,under voltage release with initial oil filling . Note:- Star - delta - starter upto 37.5 KW , ATS between 37.5 KW to 50 KW and stator rotor starter with slipring motor beyond 50 KW.	2 No.	Each
6	Providing & fixing at site M.S. sheet 16 SWG steel fabricated floor mounted closed almira type switch board including angle iron post of suitable height and size ISA 40x40x6mm duly painted comprising and capable of mounting the following accessories including cost of providing & fixing of all these accessories with all internal electric connections. The drawing of panel board shall be subject to approval of Engineer in charge. a). Ammeter AC supply,100 mm dia circular dial Auto electric/AE/IMP/Havells make of suitable range for above motor with selector switches conforming to BIS 1248-(P-II)1983 latest with up to date ammendments. b). Voltmeter AC supply,100 mm dia circular dial Auto electric/AE/IMP/Havells make of suitable range for above motor with selector switches conforming to BIS 4064-1978 with up to date ammendments. c). ICTP switches with HRC fuses of Kilburn/Larsen & Tubro/Standard/Siemen/Havells make and having capacity 30% extra of the operational rating of motor as per BIS 4064-1978 with upto date ammendments immediatly after the power meter of HPSEB.	1 No. 1 No. 1 Set.	Each Each Each
	d).Busbar chamber having three copper bars of suitable rating for full length equal to width of board of three live phases and one copper bar of half rating of full length for neutral conforming to BIS 8084-1976 and 11353-1985 read with 5578-1985 all latest with upto date ammendments.	1 No.	Each
	e).ACB/MCB/Oil circuit breaker of suitable capacity of Kilburn/L & T/MEI/GEC/Standard make on incomming feeder for motors offered by the tenderer conforming to BIS 2516-1985 latest with upto date ammendments with initial oil filling whenever required & neutral linked under voltage release.	1 No.	Each
	f).Three phase indicating lamps complete with toggle switches for individual motors conforming to BIS 3452 part I & II latest with up to date ammendments.	1 Set.	Each
	g) Earth leakage circuit breaker/relay of recommended make such as Kilburn/L&T/MET/GEC conforming to BIS-2516-1977 with upto date ammendments and of suitable range which should have control box, oprating handel and trip/reset push button, on/ off indicators, re-indicating off spring condition of the circuit breaker for over current protection. The circuit should be equipped with magnet thermal release with metallic tap CTS. It should also be fitted earth fault for tripping of breaker on occurrence of earth fault on/ of breaker load side.	1 No.	Each
	h).Hour run meter of reputed make of four digit capacity conforming to BIS-722 (latest edition)/recommendations.	1 No.	Each
	i).Suitable three phase voltage monitor relay with all protections & usual indicators with electric sirens against single phasing, low voltage, high voltage & overloading & phase voltage difference as per IS-3842 with up to date ammendments.	1 No.	Each
	j).Single phase preventor of reputed make & suitable capacity conforming to IS:1248 (P-V)-1983 with up to date ammendments	1 No.	Each
7	a). Providing and fixing at site of Kirloskar/Leader/KSB/ Fouress make of suitable dia cast iron double flanged sluice valve of 65 mm dia Class-PN-1.6 having size one size larger than the nominal dia of delivery of the pump or equal to dia of column pipe (in case of Tube well) and capable of withstanding nominal seat pressure as mentioned in item No. 4-(a) + surge pressure conforming to BIS standards with up to date ammendments for delivery line of pump.	1 No.	Each

	b).Providing and fixing at site of Kirloskar/Leader/ KSB/ Fouress make of suitable size cast iron double flanged swing/ check type reflux valve of 65 mm dia Class PN- 1.6 having bye pass arrangement & size one size larger than the nominal dia delivery size of pump or equal to dia of column pipe (in case of tube well) and capable of withstanding nominal seat pressure as mentioned in item No.4 -(a) & conforming to standards BIS with up to date ammendments for delivery line of pump .	1 No.	Each
8	a).Providing,laying,jointing & testing at site suitable size copper PVC insulated armoured power three & half core cable (for supply side) conforming to BIS 1554 (Part I) -1988 or latest with up to date ammendments of Siemen/Gloster/ICC/ EICO/National /IEC make from meter of HPSEB to circuite breaker & from circuite breaker to bus bar switch & starter (one cable carrying all three phases) including all other electrical equipment/accessories such as thimbles,flexible pipe,solder, nuts & bolts,cable glands etc. laid in pipes or trenches under floor The type,size & make will be subject to approval of HPSEB authorities. In case of non acceptance by HPSEB authorities it shall have to be replaced by the tenderer free of cost. (20.00 Mtr.) The size of cable shall be 10.00 mm square.	1 Job	Job
	b).Providing,laying,jointing & testing at site PVC jointless flat water proof cable (for Motor Side) as per BIS 694-1990 (latest with up to date ammendments) suitable for the pump sets offered from circuite breaker to motor & motor to starter including all other electrical equipments such as thimbles, flexible pipes, solder,nuts & bolts,cable glands etc. laid in pipes or trenches. The type,size & make will be subject to approval of HPSEB authorities.In case of non acceptance by HPSEB authorities it shall have to be replaced by the tenderer free of cost. (20.00 Mtr.) The size of cable shall be 4.00 mm square.	1 Job	Job
	c) Providing and laying at site double loop earthing with Copper/G.I plate 600x600x3mm thick electrode complete with material such as charcoal, common salt ,GI pipes,thimbles,nuts & bolts,digging of pits,GI wiring & 25x5mm copper strips of required capacity conforming to BIS 3043-1987 latest with up to date ammendments suitable for above motors & other electrical equipments.	1 Job	Job

	d).Supply & erection at site of floor/wall mounted power factor shunt capacitor conforming to BIS 2834-1986 or latest with upto date amendments of BHEL/GEC/Machneil/ Mager/Bajaj/L&T make to raise the prevailing power factor at site to 0.95 for direct connection to induction motor individually,of required KVAR according to HP of motor offered including cable Siemens/Gloster/ICC make from busbar chamber to capacitor & also including L&T/Kilburn/Standard/Siemen/Havells make ICTP switches conforming to BIS 4064-1978 or latest with HRC fuses (Range to be specified by the tenderer).	1 Job	Job
9	Supplying and fixing at site of 100mm dia circular dial pressure gauge of suitable range & standard make such as Fiebeg/Bourden/Precision/PREGA with all accessories such as stop cock,copper tubing etc.conforming to BIS 3624-1987 or latest with up to date amendments.	1 No.	Each
10	P/F double flanged suction, delivery pipe & common header of GMS pipe (M) grade considering site requirements, NPSH required & available & common header having area equal to two times the area of delivery branch of pump including tapers,flanges,rubber gaskets 3mm thick as per BIS-2712-1978 nuts & bolts as per 1364-1983 & special up to 5 mtrs. away from the outer wall of pump house as per layout drawings approved by Engineer-in-Charge. The pipes shall be capable of withstanding minimum 1.5 times the total pressure as indicated in item no 1 a. or total dynamic pressure(+) surge pressure which ever is more . The size of suction pipe shall be one or two sizes larger than the suction size of pump such that velocity of flow in suction pipe is not more than 2.50 mtr/sec & delivery pipe shall be of size one size larger than nominal delivery size of pump i/c cost of jointing delivery pipes and common header with R/Main complete in all respect.	1 Job	Job
NOTE:- Actual laying to be done as per final drawings to be approved by the Engineer in charge			
11	Supply of antivibration pads conforming to BIS 6337-1971 or latest with upto date amendments of suitable size for above machinery.	2 Nos.	Each
12	Erection of all equipments from S.No.5 to 6, 9 & 10 i/c cost of tees,bends tapers & any other fittings required as per site conditions & as per directions of Engineer-in-Charge.	1 Job	Job

DISTRIBUTION SYSTEM

13	Laying, jointing and testing in trenches galvanised mild steel tube of medium grade complete including providing and fixing tube fitting such as union, tees, socket etc (excluding cost of bends and valves) for the following dia as per direction and to the entire satisfaction of Engineer-in-charge. a) 50 mm dia (Light grade)				
14	Providing and fixing double flanged cast iron sluice valve of Kirloskar/ Kilburn/IVC/Fouress/Gled/ Bhel/ Leader/ Bir/ Kartar make conforming to IS- 780 including rubber sheet and nut bolts complete of following internal dia. 50 mm dia PN-1				
		150 Rmt.	Per Rmt.		
		3 Nos	Each		

Total

*** TERMS AND CONDITIONS ***

(Rs. One Lac ninety three thousand five hundred eleven Only.)

- 1 The works shall be carried out as per IPH specification
- 2 Security, GST, income tax, labour cess and other statutory deduction will be deducted as applicable.
- 3 The Contractor is fully responsible for watch and ward of the material at site of work.
- 4 Nothing shall be paid for rejected work/ material.
- 5 G.I.Pipe will be issued to the Contractor free of cost from IPH Divisional Store Nalagarh in case of theft from the custody of contractor the panel recovery will be effected on SIR which as under:-
50 mm dia (L) S/S = 210 /- Per Rmt.,
65 mm dia (M) P/E = 312/- Per Rmt.

Terms & Condition for Pumping machinery attached.

Executive Engineer
I & PH Division Nalagarh.

Job No. 2

Schedule of Quantity

Name of Work- C/O Sewerage scheme to Baddi Town in Tehsil Baddi , Distt. Solan HP. (SH:- Balance work of newly constructed Divisional office Building at Nalagarh.)	Estimated Cost :- Rs. 880110.00 /-only
	Earnest Money :- Rs. 17602.00 /-only
	Time :- Three Months

SCHEDULE OF WORKS

Sl. No.	Description of work	No.or Qty.	Unit	RATE In Figures To be entered by the		AMOU NT Rs.
				Figure s	Words	
1.00	Providing and fixing of aluminum tower bolts(berrel type) anodized trans parent or dyed to required shade and color with srews etc complete i/c entire carreige of material upto all leads and lifts.					
	250x10mm	50.00	Nos	Each	#NAME?	
	150x10mm	236.00	Nos	Each	#NAME?	
2.00	Providing and fixing of aluminum handle anodized trans parent or dyed to required shade and color with necessary srews etc complete 125mm i/c entire carreige of material upto all leads and lifts.	168.00	Nos	Each	#NAME?	
3.00	Providing and fixing of aluminum eye and hooks anodized trans parent or dyed to required shade and color with srews etc complete i/c entire carreige of material upto all leads and lifts,	59.00	Nos	Each	#NAME?	
4.00	P/F PVC floor trap of self cleaning design					
	110x75mm	5.00	Nos	Each	#NAME?	
5.00	P/F vitreous china wash down water closet (European type W.C pan) CRUSE CERA MAKE or equivalent reputed makewith integral P,S, trap including jointing the trap with soil pipe in cement mortar 1:1(1 cement: 1 sand) (seat and over to be measured and paid for separatly)	4.00	Nos	Each	#NAME?	
6.00	P/F 10.0/12.50/15.00 liters vitreous china low level flushing cistern CRUSE CERA MAKE or equivalent reputed make with a pair C.I or mild steel bracket, complete with fitting such as alead valve with less syphone , 15mm nominal size brass valve with polythine float, C.P. Brass handle, union and coupling for connections with inlet, outlet and overflow pipes, 40mm dia C.P flush bends including hole in walls and making good the same and connecting the flush bend with cistern and closet (overflow pipe to be measured and paid for separatly)	4.00	Nos	Each	#NAME?	
7.00	P/F white vitreous china flat back or wall coner type lipped front urinal basin of 430x260x350 and 340x430x265mm size respectively with automatic flushing cistern CURSE MAKE OR equilent make with fitting R.S OR CI brackets standared size galvanized steel flush pipe and spearded galvanized steel flush pipe ana speraeded with brass union and GI union and clamps complete including painting of cistern and fitting cutting and making goods the wall floors where required one unireal basin wioth 5litres CI automatic flushing cistern.	4.00	Nos	Each	#NAME?	
8.00	P/F plastic seat cover solid type black plastic seat cover CRUSE CERA MAKE or equivalent reputed make for wash down water closet with C.P Brass hinge and rubber buffers:	4.00	Nos	Each	#NAME?	
9.00	P/F vitreous china wash basin with single hole for pillar(flat black 550x400) CRUSE CERA MAKE or equivalent reputed make tap with C.I OR M.S brackets painted white including cutting holes and making good the same but excluding fitting.	4.00	Nos	Each	#NAME?	
10.00	P/F M.I union for wash basin 32mm dia	4.00	Nos	Each	#NAME?	
11.00	P/F PVC C.P brass waste for wash basin or sink 32 mm dia	4.00	Nos	Each	#NAME?	
12.00	P/F 600X450 bevelled edge mirror of superior glass mounted on 6mm thick A.C sheet or plywood sheet and fixed to wooden plug with C.P brass screw and washers.	4.00	Nos	Each	#NAME?	

13.00	P/F C.P brass towel rail complete with C.P brass brackets fixed to wooden plugs with C.P brass screw						
	600mmx20mm	2.00	Nos	Each		#NAME?	
14.00	P/F 600mmx120mm glass self with C,P brass bracket and guard rail complete ,fixed to wooden plugs with C.P Brass screws	2.00	Nos	Each		#NAME?	
15.00	P/F C.P toilet paper holder C.P brass	1.00	No	Each		#NAME?	
16.00	P/F chromium plate brass soap dish with C.P brass bracket fixed to wooden cleats with C.P brass screws	4.00	Nos	Each		#NAME?	
17.00	P/F C.P brass bib tap with Capston head 15mm dia including entire carrage of material upto all leads and lifts	8.00	Nos	Each		#NAME?	
18.00	P/F brass bib tap(superior or heavy type) 15 mm dia long nose	2.00	Nos	Each		#NAME?	
19.00	P/F C.P brass angle valve (Orintal or equivelent reputed make)15mm dia without nuts and pipe	15.00	Nos	Each		#NAME?	
20.00	P/F C.P stop cocks:(Orintal or equivelent reputed make) 15 mm dia	4.00	Nos	Each		#NAME?	
21.00	P/F one hold basin mixture faucet (Orintal or equivelent reputed make) 15mm dia	4.00	Nos	Each		#NAME?	
22.00	P/F PVC connection 15mm dia	15.00	Nos	Each		#NAME?	
23.00	P/F 100mm dia C.P grating of supirior quality for floor , gullyor nahani trap	12.00	Nos	Each		#NAME?	
24.00	constructing manhole with RCC top slab in 1:2:4 mix in (1 cement:2 sand :4 graded stone aggregate 20mm nominal size) foundation comcrete 1:4:8 (1 cement:4 sand :8 graded stone aggregate 40mm nominal size) inside plastering 15mm thick with cement mortor 1:3 (1cement :3sand) finished with a floating coat of neat cement and making channel in concrete 1:2;4 mix (1 cement:2 sand :4 graded stone aggregate 20mm nominal size) finished smooth complete i/c curing and testing.Inside size 800mm x 800mm x500mm deep i/c C.I.cover with frame (Light duty single seal pattern-1) 455mm x610mm internal dimensions total weight of cover and frame to be not less then 38kg. (Weight of cover 23kg and weight of frame 15kg).with 200mm thick wall of brick masonry using common burnt clay building bricks in cement mortar 1:3	2.00	Nos	Each		#NAME?	
25.00	constructing brick masonry chamber for under ground C.I. inspection chamber and bends with common burnt clay building bricks in cement mortar 1:5 (1cement : 5 sand) C.I.cover with frame (Light duty) 355mm x 610mm internal dimensions total weight of cover and frame to be not less then 38kg. (Weight of cover 23kg and weight of frame 15kg) RCC top slab with 1:2:4mix (1 cement:2 sand :4 graded stone aggregate 20mm nominal size) foundation concrete 1:5:10 (1 cement:5 sand :10 graded stone aggregate 40mm nominal size) inside plastering 15mm thick with cement mortor 1:3 (1cement :3sand) finished with a floating coat of neat cement on walls and bed concrete etc. complete. Inside dimensions 455mmx610mmx450mm deep single pipe line	2.00	Nos	Each		#NAME?	
26.00	Providing and installing testing and commissioning of Exhaust fan (white color squire type louver) of following size es in the the existing opening including making the hole to suite size of the above fan making good the damages connecting testing commissioning etc as required i/c entire carriage of material upto all leads and lifts	4.00	Nos	Each		#NAME?	
	Exhaust fan light duty domastic 250mm sweep						

27.00	supply and fixing of surface /recessed mounting ceiling fitting of all sizes and shapes counting one NO tread type CFL lamp holder complete with all accessories but excluding CFL lamp including making connecting testing etc required i/c required carriage of material upto all leads and lifts						
	Ceiling fitting surface category-A	14.00	Nos	Each		#NAME?	
28.00	Providing and fixing of CFL lamp 11 watts including testing complete	36.00	Nos	Each		#NAME?	
29.00	Applying Birla white wall care putty over plaster surface after thoroughly brushing the surface free from mortar drop dust loose materials and other foreign matter sand paperd smooth to give final matter finish to the surface complete.	487.43	Sqm.	Per Sqm.		#NAME?	
30.00	Finishing wall with whether proof exterior grade emulsion of approved design (apexultima) or its equivalent on undecorated wall surface (two coat to give an even shade and final finish after thoroughly cleaning the surface to remove all dirt, dust and other foreign matter etc i/c sand paper smooth complete	487.43	Sqm.	Per Sqm.		#NAME?	
31.00	Wall Painting (Two Coat) with acrylic emulsion paint of approved brand and manufacture for interior grade on undecorated concrete/stone/ plastered wall surface to give an even shade including thoroughly brushing the surface free from mortar dropping and other foreign matter and sand paperd smooth including applying putty a required for metling the surface.	1238.14	Sqm.	Per Sqm.		#NAME?	
32.00	Providing and fixing anodised aluminium work for door, window, ventilators and partitions with extruded built up standard tubular and other sections of approved make conforming to IS 733 and IS 1285 anodised transparent or dyed to required shade according to IS 1868. (Minimum anodic coating of grade AC 15) fixed with rawlplugs and screws or with fixing clips, or with expansion hold fastners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rustfree, straight, mitred and jointed mechanically where ever required including cleat angle, aluminium, snap beading for glazing/panelling C.P. brass/stainless steel screws. All complete as per architectural drawings and the directions of Engineer-In-Charge. For doors windows and ventilations and glazed partitions frames.	1429.73	Kg.	Per Kg.		#NAME?	
33.00	Prov. and fixing glazing in aluminium doors, windows ventilator shutters and partition etc. with PVC/ Neoprens gaskets etc. complete as per the Architectural drawings and the directions of Engineer - in Charge (cost of aluminium snap beading shall be paid in basic item) . Glazing with glass panes of 4.00 mm thickness (Weight not less than 10.00 Kg/sqm.	100.98	Sqm.	Per Sqm.		#NAME?	
34.00	Providing and fixing MS wire gauge in aluminium door window, ventilator, shutters and partion etc with PVC gasket complete as per the direction of Engineer in Charge galvanised MS wire gauge of I.S. gauge designation 85 G with wire of dia 0.56 mm for doors windows and clerestorey windows including carriage of material upto all leads and lifts.	44.56	Sqm.	Per Sqm.		#NAME?	
Total in Figures							0.00
Total in Words						#NAME?	

TERMS AND CONDITIONS: -

1. The work will be got executed as per IPH specifications.
2. Security, GST, income tax, labour cess and other statutory deduction will be deducted as applicable.
3. The contractor is fully responsible for watch and ward of the material at site of work.
4. Nothing shall be paid for rejected work/material.
5. Cement @ Rs. 255/-per bag will be issued from IPH store Nalagarh.

Executive Engineer,
I&PH Divn., Nalagarh.