

Job-1

ESTIMATED COST: Rs .138940/-only.

EARNEST MONEY : Rs.2780/-only

TIME : One month.

SCHEDULE OF QUANTITY

NAME OF WORK :- Construction of LWSS to cover NC/PC habitation to Chandi Area from Bald Khad in Tehsil Kasauli Distt.
Solani (HP) (SH:- Supply & fixing of Electrical Items)

Sr. No	Description of items.	Quantity	Rate	Unit	Amount
1	Providing and fixing 3.5Cx95 mm ² Aluminum Cable of L&T/Havells/Eon/ Standard make with Aluminum thimbles as required at site complete in all respects.	180 Meter		Per meter	
2	Providing and fixing ICTP switch of 250 A with HRC fuses 250 A in sheet steel enclosure of Larsen & Tubro/Standard/Siemens/Havells make and as per BIS 4064-1978 with upto date amendments complete in all respects	1 No		Each	
3	Providing and fixing ICTP switch of 100 A with HRC fuses 100 A in sheet steel enclosure of Kilburn/Larsen & Tubro/Standard/Siemens/Havells make and as per BIS 4064-1978 with upto amendments complete in all respects	1 No		Each	
4	Providing and fixing ICTP switch of 63 A with HRC fuses 63 A in sheet steel enclosure of Kilburn/Larsen & Tubro/Standard/Siemens/Havells make and as per BIS 4064-1978 with upto amendments complete in all respects	1 No		Per Job	
5	Providing and fixing copper Bus bar box of 200 A capacity of L&T/Havells/Sainik make complete in all respects.	1 No		Each	
				TOTAL	

TERMS AND CONDITIONS

1. The work shall be done by the contractor as per HP IPH specifications in practice and IS codes and to the satisfaction of the Engineer-in-Charge.
2. Security, Sales tax and Income tax will be deducted from each bill as per latest Govt. amendments.
3. Any other materials related for use in work shall be arranged by the contractor himself within his quoted rates.
4. Nothing shall be paid for defective/incomplete work/rejected materials.
5. Guarantee period shall be 12 months from the date of installation.

**Executive Engineer,
I&PH. Division, Arki.**

Job-3

ESTIMATED COST: Rs.414130/-only.

EARNEST MONEY: Rs.8290/-only

TIME: Six month.

SCHEDULE OF QUANTITY

NAME OF WORK :- Providing House Hold connection to LWSS Neri Platta in G.P. Danoghat in tehsil Arki Distt. Solan(HP)(SH:- Laying and Jointing G.I.pipe 15mm dia for balance house hold) (Under JAL JEEVAN MISSION).

Sr. No	Description of items.	Quantity	Rate. <u>In Fig. In words.</u>	Unit	Amount
1	Excavation in foundation, trenches etc. earth work in all type of soil such as pick work, jumper work, blasting work kankar,mooram singles including decomposed soft and hard rock etc. upto all heights stacking the excavated earth not more than 3 metres clear from the edge of excavation and then returning the stacked soil in 15cm layers when required into plinths and sides of foundation etc.consolidating each deposited layer by raming and watering and then disposing of all surplus excavated earth upto all leads and lifts as directed by the Engineer in charge complete in all respects.	955.00 Cubic meter		Per Cubic meters.	
2	Laying and jointing house connection in trenches G.I pipe (Light class) tube fittings & commissioning testing at site (earth work in trenches to be measured and paid for separately) including all carriage of materials up to all leads and lifts complete in all respects.15mm dia	3185.00 Running meter		Per Running meters	
3	Providing fitting and accessories i. such union,Nipple,wheel valve,elbow,Bib cock,fruile etc,required for household connection upto domestic storage tank.The 15mm	91 Nos		Each	

	dia wheel valve shall confirm to as per BIS 778-79 CL-1 and the brass bib tap cock shall confirm to 778-1980 CL-1 all other G.I. fitting shall confirm to BIS specification including carriage of materials upto all leads and lifts complete in all respects.				
				TOTAL	

TERMS AND CONDITIONS

1. The work shall be done by the contractor as per HP IPH specifications in practice and IS codes and to the satisfaction of the Engineer-in-Charge.
2. Security, GST and Income tax will be deducted from each bill as per latest Govt. amendments.
3. Any other materials related for use in work shall be arranged by the contractor himself within his quoted rates.
4. Nothing shall be paid for defective/incomplete work/rejected materials.
5. No change of specification shall be permissible without permission of Engineer-in-charge.
6. 5% payment shall be with held for testing of welding work.
7. The GMS pipe shall be issued free of cost against Indent at Divisional store Arki.
8. Any damage caused shall be promptly restored by the contractor at his own expenses.
9. Validity :- The offer should be valid 120 days from the date of opening of tender.
10. The contractor to be provided labour register of workers and verified from the labour officer before made the payment under (RE and C.S. Act) 1996.

**Executive Engineer,
I&PH.Division, Arki.**

Job-4

ESTIMATED COST: Rs.531475/-only.

EARNEST MONEY: Rs.10630/-only

TIME: Six month.

SCHEDULE OF QUANTITY

NAME OF WORK :- Providing House Hold connection to LWSS Tepra Sanyari More in G.P. Sanyari More in Tehsil Arki Distt. Solan(HP)(SH:- Laying and Jointing G.I.pipe 15mm dia for balance house hold) (Under JAL JEEVAN MISSION).

Sr.No	Description of items.	Quantity	Rate. In Fig. In words.	Unit	Amount
1	Excavation in foundation, trenches etc. earth work in all type of soil such as pick work, jumper work, blasting work kankar,mooram singles including decomposed soft and hard rock etc. upto all heights stacking the excavated earth not more than 3 metres clear from the edge of excavation and then returning the stacked soil in 15cm layers when required into plinths and sides of foundation etc.consolidating each deposited layer by raming and watering and then disposing of all surplus excavated earth upto all leads and lifts as directed by the Engineer in charge complete in all respects.	1144.50 Cubic meter		Per Cubic meters.	
2	Laying and jointing house connection in trenches G.I pipe (Light class) tube fittings & commissioning testing at site (earth work in trenches to be measured and paid for separately) including all carriage of materials up to all leads and lifts complete in all respects.15mm dia	3815.00 Running meter		Per Running meters	
3	Providing fitting and accessories i. such union, Nipple, wheel valve, elbow, Bib cock, fruile etc, required for household connection upto domestic storage tank. The 15mm dia wheel valve shall confirm to as per BIS 778-79 CL-1 and the brass bib tap cock	109 Nos		Each	

	shall confirm to 778-1980 CL-1 all other G.I. fitting shall confirm to BIS specification including carriage of materials upto all leads and lifts complete in all respects.				
				TOTAL	

TERMS AND CONDITIONS

1. The work shall be done by the contractor as per HP IPH specifications in practice and IS codes and to the satisfaction of the Engineer-in-Charge.
2. Security, GST and Income tax will be deducted from each bill as per latest Govt. amendments.
3. Any other materials related for use in work shall be arranged by the contractor himself within his quoted rates.
4. Nothing shall be paid for defective/incomplete work/rejected materials.
5. No change of specification shall be permissible without permission of Engineer-in-charge.
6. 5% payment shall be with held for testing of welding work.
7. The GMS pipe shall be issued free of cost against Indent at Divisional store Arki.
8. Any damage caused shall be promptly restored by the contractor at his own expenses.
9. Validity :- The offer should be valid 120 days from the date of opening of tender.
10. The contractor to be provided labour register of workers and verified from the labour officer before made the payment under (RE and C.S. Act) 1996.

**Executive Engineer,
I&PH.Division,Arki**

Job-6

ESTIMATED COST:- Rs140145./-only.

EARNEST MONEY :- Rs.2810/-only

TIME : Three Month.

SCHEDULE OF QUANTITY

NAME OF WORK:- :- R/M of LIS Deoli in Tehsil Arki Distt. Solan (SH:- Renovation of old pump house)

S.No.	Sub Head and items of work	Qty.	Rate. In Fig. In words.	Unit	Amount
1	Demolition of stone masonry above G.L up to floor two level including stacking of serviceable materials and disposal of unserviceable materials within 20 metres lead dressed stones in cement motar complete in all respects.	1.51 Cubic meters.		Per Cubic meter.	
2	Demolition of machine foundation below G.L up to 1.50 meter depth including stacking of serviceable materials and disposal of unserviceable materials within 20 metres lead and including cutting the necessary reinforcement and separating from RCC work complete in all respects.	5.47 Cubic meters.		Per Cubic meter.	
3	Providing and laying Cement concrete work 1:1.5:3(1cement:1.5 sand:3 graded stone aggregate 20mm nominal size) and curing complete excluding cost of form work in foundation and Plinth complete in all respects.	5.47 Cubic meters.		Per Cubic meter.	
4	Providing mild steel/Tor steel reinforcement for RCC work including bending binding and placing in position upto floor two level complete in all respects.	218.80 Kg		Per Kg	
5	Random rubble coursed with hard stones approved quality in super structure above plinth level and upto floor two level in cement motar!:(6)	2.18		Per Cubic meter	
6	Providing and laying cement concrete work 1:2:4(1 Cement :2 Sand: 4 graded stone aggregate 20mm nominal size)and curing complete excluding cost of form work and reinforcement for reinforced concrete work in:				
	i)Suspended floors, roofs, landings, shelves and their supports, balconies, beams,and girders,bressumers and cantilevers upto floor two level including all leads and lifts etc.complete in all respects	3.08 Cubic meter		Per Cubic meter	
7	15mm thick cement plaster in single coat on the rough side of stone wall for interior plastering upto floor two level including	40.20 Square		Per Square meter	

	arises,internal rounded angle,chamfers and/or rounded angles not exceeding 80mm in girth and finished even and smooth in cement motar 1:6(1cement:6 sand) complete in all respects.	meter			
8	Repair to plaster in patches of 2.50 Sqm.and under and 10 to15mm thick including cutting the patch in proper shape and replastering the surface of the wall including disposal of rubbish to the dumping ground within a lead of 20 meters with:- Cement mortar 1:6(cement:6 sand).	12.80 square meter		Per Cum	
9	Providing and fixing pressed steel doors windows frames manufactured from commercial mild steel sheet of 1.25mm thickness including hinges jamb lock jamb beed and if required angle threshold of mild steel angle of section 50*25mm or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means,adjustable lugs with split and tails to each jamb including steel butt hinges 2.5mm thick with guards,lock strike plate and shok absorber as specified and approved steel primer after pretreatment of the surfaces as directed by Engineer-in-charge.	38.06 Running meter		Per Running meter	
10	Providing and fixing 1mm thick MS grooved sheet door and window shutter with frame and diagonal braces of 25x25x3mm supporting horizontal with MS flat(2Nos) size 25x5mm thick i.c necessary fitting and primer of red oxide fixing at site complete in all respect.	8.57 Square meter		Per Square meter	
11	Distempering with dry distemper of approved brand and manufacture(Two coats) and of required shade on undecorated wall surface to given an even shade over and including primer coat of whiting after thoroughly brushing the surface free from motar droppings and other foreign matter including preparing the surface even and sand papered smooth complete in all respects.	257.46 Square meter		Per Square meter	
12	Painting two coats(excluding priming) on new steel and other metal surface of door and windows with enamel paint brushing to give an even shade including cleaning the surface od all dirt,dust and other foreign matters with enamel paint other than white.	17.14 Square meter		Per Square meter	
				TOTAL	

TERMS AND CONDITIONS

1. The work shall be done by the contractor as per HP IPH specifications in practice and IS codes and to the satisfaction of the Engineer-in-Charge.
2. Security, GST and Income tax will be deducted from each bill as per latest Govt. amendments.
3. Any other materials related for use in work shall be arranged by the contractor himself within his quoted rates.
4. Nothing shall be paid for defective/incomplete work/rejected materials.
5. No change of specification shall be permissible without permission of Engineer-in-Charge.
6. 5% payment shall be withheld for testing of civil work.
7. Fine Sand, coursed sand/aggregate of approved quarry shall be used.
8. Any damage caused shall be promptly restored by the contractor at his own expenses.
9. Nothing extra will be paid beyond the approved rates.
10. The G.I pipe shall be issued free of cost against Indent at Divisional Store Arki.
11. Validity: - The offer should be valid 120 days from the date of opening of tender.
12. The undersigned reserves the right to accept or reject the tender without assigning any reasons thereof. The work should be completed within the stipulated period as mentioned.
13. The contractor to be provided labour register of workers and verified from the labour officer before made the payment under (RE and C.S. Act) 1996
14. Cement shall be issued @232/- per bag against Indent at Divisional store Arki.
15. Steel shall be issued @38500/- per Tonne against Indent at Divisional Store Arki

**Executive Engineer,
IPH Division, Arki.**

Job-8

ESTIMATED COST: -Rs.168992 /-only.

EARNEST MONEY: -Rs.3780 /-only

TIME:- Six month.

SCHEDULE OF QUANTITY

Name of work:-

Restoration of rain damages of FIS Bambira in Tehsil Arki Distt.
Provision for C/O Pillars to protect the GMS pipe)(7 Nos Pillars)

Solam.(SH:-SH:-

Sr.No.	Sub-Head and items of work	Quantity	Rate.	Unit	Amount
			In Fig. In words		
1	Excavation in foundation trenches etc. earth work in all type of soil such as pick work, jumper work, blasting work, Kankar, moorum singles including decomposed, soft and hard rock etc.upto all heights stacking the excavated earth not more than 3 meters clear from the edge of excavation and then returning the stacked soil in 15cm layers when required in to plinths and sides of foundation etc. consolidating each deposited later by ramming and watering and then disposing of all surplus excavated earth up to all leads and lifts as directed by the Engineer in charge complete in all respect.	33.74 Cubic meter		Per ccbic meter	
2	Providing and laying cement concrete1:6:12(1cement:6 sand:12 graded stone aggregate 40mm nominal size) and curring complete excluding the cost of centring and shuttering in foundation and plinth complete in all respects.	1.51 Cubic meter		Per Cubic meter	
3	Providing and laying cement concrete 1:2:4(1cement:2 sand:4 graded stone aggregate 20mm nominal size) and curing complete excluding the cost of from work work in:-				
	a)In columns pillars post and struck up to floor to level all leads and lifts complete in all respects.	16.42 Cubic meter		Per Cubic meter	
4	Providing tor steel/mild steel reinforcement for RCC work including bending, binding and placing in position complete upto floor to level including carriage of materials up to all leads and lifts complete in all respects.	365.54 Kg.			
5	Providing form work with steel plates 3.15 mm thick welded with angle iron in frame 30x30x5mm so as to give a fair finish including centering, shuttering, strutting and propping etc. with wooden battens and ballies, height of propping and centering below supporting floor				

	to ceiling not exceeding 4.00 meters and removal of the same for insitu reinforced concrete and plain concrete work in:-				
	a) Vertical surfaces such as walls any thickness partitions and the like including attached pilasters, buttresses, plinth and string courses and the like complete in all respects.	69.30 square meter		Per Square meter	
6	Laying, Jointing and commissioning testing et site GMS pipe 80mm dia(Light class) including all leads and lifts complete in all respects.	80.00 Running meter		Per Running meter	
				TOTAL	

TERMS AND CONDITIONS

- 1..The work shall be done by the contractor as per HP IPH specifications in practice and IS codes and to the satisfaction of the Engineer-in-Charge.
- 2..Security, GST and Income tax will be deducted from each bill as per latest Govt. amendments.
- 3.Any other materials related for use in work shall be arranged by the contractor himself within his quoted rates.
- 4..Nothing shall be paid for defective/incomplete work/rejected materials.
- 5.No change of specification shall be permissible without permission of Engineer-in-Charge.
6. Cement shall be issued @ Rs.232/- per bag against Indent at Divisional Store Arki.
7. Steel shall be issued @ 38500/- per Tonne against Indent at Divisional Store Arki.
8. GMS pipe shall be issued free of cost against Indent at Divisional store Arki.
9. 5% payment shall be withheld for testing of civil work.
10. Sand /aggregate of approved quarry shall be used.
- 11.Nothing extra will be paid beyond the approved rates.
- 12.Validity :- The offer should be valid 120 days from the date of opening of tender.
13. Any damage caused shall be promptly restored by the contractor at his own expenses.
- 14.The undersigned reserves the right to accept or reject the tender without assigning any reasons thereof. The work should be completed with in the stipulated period as mentioned.
15. The contractor to be provided labour register of workers and verified from the labour officer before made the payment under (RE and C.S. Act) 1996.

**Executive Engineer
IPH Division, Arki.**

Job-5

ESTIMATED COST RS:- 318000 /Only

EARNEST MONEY RS:- 6360/-Only

TIME:- Three Months.

SCHEDULE OF QUANTITY

NAME OF WORK:- R/M of Sewerage scheme to Kunihar area in Tehsil Arki Distt. Solan (HP) (SH:- Providing and fixing of surface aerator fan with shaft for sludge treatment Plant A STP Kunihar.

Sr. No	Description	Qty.	Rate In Fig. In words	Unit	Amount.
1	Providing and fixing of surface aerator epoxy coated fan with shaft for aeration of sludge treatment plant (STP) suitable for operation with 15 HP motor and vertical gear box of 20:1 ratio. As per approved drawing and design/ specification as per as per annexure A including carriage of materials upto all leads and lifts complete in all respects.	2 Nos.		Each	
				TOTAL:-	

TERMS & CONDITIONS:-

- 1.The device shall be manufactured by reputed company having ISO certification.
- 2.The Mobile SIM and operation changes shall be born by department.
- 3.The Make, Model and specifications of the Equipment being supplied should be clearly mentioned by the bidder in the offer.
4. All accessories required to make the system fully functional shall be part of the original equipment nothing extra shall be paid on this account.
5. The Contractor/bidder should submit Manufacturers or system integrators Authorization with the offer.
6. The equipment supplied should be compitable to the HPSEB Norms. The wiring and installation of electric equipment shall be as per HPSEB rules and regulations and subject to the approval of the Chief Electrical Inspector and or his authorized ,Officer. Any defect pointed out shall be rectified by the firm without any extra cost.
7. All statutory deductions as applicable from time to time shall be deducted from running bills of contractor on the total amount of work done including cost of material supplied by the Department.
8. Royalty toll taxes and other local taxes will be paid by the contractor himself.
9. The contractor will show their enlistment/renewal in IPH Department at the time of obtaining of tender forms.

10. Tender forms shall not be issued to contractors/firms who are not registered under GST.
11. The Contractors/Firms must quote their rates in words as well as in figures.
12. The tenders of those contractors/firms will not be considered whose previous performance is found not satisfactory and who has not done such type of work.
13. In case of sudden holiday on the date of opening of tenders the same will be opened on the next working day.
14. Comprehensive Warranty and Guarantee of the complete system:-12 Months from the date of completion and acceptance of the work . In case any defect is found within Warranty period the same will be rectified by the contractor free of cost at the site of work with a down time of less than 36 Hours will be released after expiry of the warranty and the AMC period.
15. The down time due to failure of the system should not exceed more than 36 hours otherwise a penalty of 1% of total amount of the award shall be charged for each day for which the system is not fully functional. In case the fault due to which the scheme is idle /partly functional beyond three days the penalty shall be charged @ 2% per day.
16. Electrical power supply shall be provided by the department. The contractor shall not use the electricity for any other purpose except for the bonafied use of the running and repair of scheme.
17. Item to be dismantled after installation of automation system shall be handed over to the J.E. concerned for proper record.
18. Watch and ward shall be provided by the department.
19. Security, GST and Income tax will be deducted from each bill as per latest Govt. amendments.
20. The bidder shall provide manual of operation and also train the departmental worker to operate the system.
21. Security, GST and Income tax will be deducted from each bill as per latest Govt. amendments.
22. Nothing shall be paid for defective/ incomplete work/rejected materials.
23. Validity :- The offer should be valid 120 days from the date of opening of tender.

**Executive Engineer,
I&PH.Division, Arki**

ESTIMATED COST: -Rs.267000 /-only.

EARNEST MONEY: -Rs.5350 /-only

TIME:- Three month.

SCHEDULE OF QUANTITY

Name of Work :- Providing consultancy services for preparation of Detailed Project for Providing sewerage system to Darlaghat Area in Tehsil Arki District Solan SH:- Detailed survey & Investigation, Project feasibility related field work complete in all respects & Preparation of DPR i/c Hydraulic design of all components & getting the same approved from the competent authority).

Description of items	Qty.	Rate	Unit	Amount
Preparation of Detail Project Report for providing Sewerage Scheme to Darlaghat Rural area with scope of work as under:-	2.00		Per Square Kmtr	
SCOPE OF WORK				
To prepare the DPR which shall include detail survey and investigation of work covering entire area of Darlaghat rural & adjoining area of 2.00 Sq. Km i.c Project feasibility studies, related field work and Environmental Impact Assessment (E.I.A) studies thereof completed in all respect. In addition to above the scope of preparation of DPR shall also include hydraulic designs of all necessary components required as per treatment process design & getting the DPR approved from the competent authority. Design of all components shall be strictly as per instructions of the IPH Department & as per the norms of CPHEEC manual on "Sewerage & Sewage Treatment Plant" of G.O.I.(latest version), estimating of the project, preparation of key Plan / Index map, detail contour Plan , zonal Plans, L-sections & X-Section of sewer network should strictly be to the scales as mentioned in the terms & conditions (attached). Plotting and computerization of data on Auto CAD and tracing , printing drawings through printers, plotters and preparation of blue prints of Plan , L-sections, X-Sections, Detail Contour Plan , Index Plan/Key Plan zonal Plans including preparation of X-sectional drawings of all physical components of treatment works as per approved process design complete in all respects.				
			Total	

Terms & Conditions:-

1. The work shall be done strictly in accordance with CPGEEO manual (latest edition),IPH- HPPWD & BIS specification.
2. Complete 7 nos. copies and one soft copy of DPR shall be supplied to the Department.
3. Nothing shall be paid for rejected work.
4. BM/ MSL shall be used for survey work.
5. Lead Chart, Topo Sheets, any NOC's shall be provided by the Department.

6. Security, income tax, GST and Cess will be deducted as applicable.
7. Tenders form shall be issued to only such contractors those having experience in same kind of work.

Additional :-

1. The contour Plan should be drawn to a scale of 1:1000 & contour interval shall be not more than 0.5mtrs.
2. L-Sections should clearly show RD's , RLs, losses along the alignment of the sewer network, static line, H.G.L.G.I bed level & invert level interval not greater than 15 mtrs. The scale of 1:1000(H) & 1:100(V) be adopted for preparing L-Sections.
3. X-sections at an interval not greater than 15 mtr be plotted in general , but x-sections should essential be drawn at all points where change of alignment is encountered and where manholes, drop-manholes, vent-shafts, hatch boxes, flushing tanks are constructed & any other point of great significance where –ever required as per site conditions as will be decided by the Engineer-in-Charge. X –sections required be drawn to a scale of 1:200 (H)& 1:100(V) & should extend not less than 15.00meter on either side of contour line of sewer network showing plinth level of building.
4. Trunk /Main Sewer /Sub main /branch lines & laterals i/c outfall sewers of sewerage system should be so designed that velocity of flow is not less than 0.60 mtr/sec to avoid silting & self cleansing velocity is maintained atleast once in 24 hours. The velocity shall however be not greater than 8.00 mtr/ sec. to avoid abrasion/ attrition/wearing of pipe walls & accordingly slope of pipeline/channel be adopted.
5. The detailed project report should essentially describe the need of the project, its technical, financial, social, cultural, environmental & institutional viability/ feasibility. In addition DPR should also include all the information's in brief as indicated in CPHEEO "Manual on sewerage & Sewage Treatment Plant" article 1.9.2 (2nd edition-1993) or corresponding information in the latest edition (if any).
6. DPR should be supported with location maps, economic, analysis where necessary, Engineering design & drawings in respect of each physical components such as collection network, Pumping stations, treatment Plants & Disposal system etc.
7. Major environmental/Social impacts (if any) that may affect the feasibility of project also be discussed in the D.P.R.
8. Design, Period, Population forecasting by different methods, estimation of waste water /sewage flow, characterization of sewage, design of sewers, minimums & maximum velocities to be maintained in the sewers under various conditions of flow, depth of flow, spacing of manholes location of hatch boxes, drop manholes, flushing tanks, hydraulic design of treatment plant & final effluent characteristics shall be strictly as per CPHEEO Manual referred above unless otherwise separately specified.
9. If effluent are to be discharged to in land surface water bodies, the tolerance limit in respect of various parameters set by IS-4764-1973 or latest with upto date amendments or as prescribed by the statutory Agency must be adhered to.
10. Degree of treatment shall have to be decided keeping in view the characteristics of incoming sewage, quantity, quantity of effluent & sludge/effluent disposal methods (depending upon site conditions), Disposal site/method shall be decided by the Deptt. as per site condition . In case of disposal into water body it will depend upon use of receiving water bodies. As such testing of such water bodies receiving effluent must also be done for specified physical chemical & biological parameters & accordingly unit operations/ unit process be decided. The climatic conditions & availability of material, labour skilled/ unskilled both & availability of land for treatment plant are also some of the governing factor.
11. Detailed contour plan showing sewage network, STP disposal points & other points of significance must be verified personally by both AE./EE. Concerned for correctness of level of various important points. The certificate to this effect that "contour plan has been verified at site & the details shown there –on is true representation of actually existing things at site & their relative position have been shown correctly" must be

- furnished by the EE concerned before recommending the DPR for approval failing which DPR will not be entertained.
12. Consultancy, the consultant/Agency will have to clear or get the design of all components & estimates there of approved from the competent authority. In case any discrepancy in design drawing & estimate demand amendments the same shall be removed by the consultant at his own risk & cost .
 13. Before evolving hydraulic design of various Unit Operations i.e Physical components a line of treatment i.e. Unit process must be got approved from the department. The hydraulic designs of components required as per approved unit process shall then be evolved.
 14. Engineer-in-Charge must verify, the geographical area i/c adjoining area/ intended to be brought under the proposed sewage Darlaghat area from different reliable sources prior to floating of tenders & accordingly this office be intimated of having personally verified the Area.
 15. Certificate such as N.O.C . in respect of alignment of sewers, making available land for S.T.P. & other physical components at site & certificate to the effect that public will allow laying of sewers along the alignment finalized by the Department without claiming any compensation on account of the damage (if any) to streets etc.& they are ready to pay usage charges that will be levied upon them after commissioning of scheme. All certificates must be obtained by the department/Engineer –in-Charge at his own level from the concerned Gram Panchayat/Local authority environmental. The same be appended with D.P.R.
 16. Environmental impact assessment studies of the project must also be done & NOC obtained from the C.P.C.B. /any other statutory authority.
 17. Testing for various characteristic parameters of influent/effluent which are of great significance for design of Sewage /STP i/c testing of water bodies receiving effluent must also be got done for specified physical , chemical & biological parameters by the Consultant/hiring agency from approved lab & report there of attached.

**Executive Engineer,
I&PH Division Arki.**