

HSCC/BU-II/AIIA/STP/2013

Date: 07.11.2013

To,  
All Bidders

**Amendment-I**

**Subject :** “Tender for Design, Supply, Installation, Testing & Commissioning of Sewage Treatment Plant (STP) and Effluent Treatment Plant (ETP) including Civil and other associated works in the existing All India Institute of Ayurveda Campus for AYUSH at Sarita Vihar New Delhi

Dear Sir,

This has reference to the subject works at HSCC corporate office, Noida,

The following AMMENDMENT-I/CLARIFICATION-I may be noted, which shall be treated as a part of the contract to be uploaded along with tender/contract.

**A. Last Date of sale submission and opening of bid has been extended as follows:**

Sale of tender: upto 20.11.2013 at 12:00 hrs

Date of Submission of bids on : **20.11.2013 upto 15:00 hrs**

Date of opening of bids on : **20.11.2013 at 15:30 hrs**

**B. Bill of Quantity of Civil works is enclosed herewith at Annexure-1 to be executed by the bidder. Other queries will be clarified and published as an amendment-II shortly.**

Other all terms & conditions of tender shall remain unchanged.

Prospective bidders are advised to regularly scan through HSCC web site as corrigendum/amendments etc., if any, will be notified on HSCC web site and separate advertisement will not be made for this.

(A.K.Sinha)  
Project Coordinator

**Project Name: Civil & Electro-Mechanical works for STP & ETP at AIIA, Sarita Vihar, New Delhi      Annexure-I**

ABSTRACT OF COST			
S.No	DESCRIPTION OF WORK		AMOUNT (Rs)
	<b>Civil work</b>		
1	EARTHWORK		
2	CONCRTE WORK		
3	RCC WORK		
4	BRICK WORK		
5	DOORS & WINDOWS		
6	STEEL WORK		
7	FLOORING		
8	CEILING & ROOFING		
9	FINISHING		
	<b>TOTAL</b>		

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
<b>1.00</b>	<b>EARTH WORK</b>					
1.01	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed.					
a)	All kinds of soil	3619.00	cum			
1.02	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.	924.00	cum			
1.03	Supplying and filling in plinth with river sand under floors including, watering, ramming consolidating and dressing complete.	15.00	cum			
1.04	Extra for every additional lift of 1.5 m or part thereof of in					
a)	All kinds of soil.					
i)	1.5 to 3.0m	754.00	cum			
ii)	3.0 to 4.5m	754.00	cum			
iii)	4.5 to 6.0m	754.00	cum			
iv)	6.0 to 7.5m	603.00	cum			
1.05	Extra for disposal of excavated earth for additional lead beyond 50m or part thereof upto 9 such additional leads					
a)	All kinds of soil	2694.00	cum			

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
	SubTotal(earth work)					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
<b>2.00</b>	<b>Concrete Work</b>					
2.01	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:					
a)	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	40.00	cum			
b)	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	15.00	cum			
	<b>SubTotal(Concrete work)</b>					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
<b>3.00</b>	<b>REINFORCED CEMENT CONCRETE</b>					
3.01	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-25 grade reinforced cement concrete by using 380 kg. of cement per cum of concrete. All work up to floor V level.	574.00	cum			
3.02	Centering and shuttering including strutting, propping etc. and removal of form for:					
a)	Foundations, footings, bases of columns, etc. for mass concrete.	51.00	sqm			
b)	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	1703.00	sqm			
c)	Suspended floors, roofs, landings, balconies and access platform.	487.00	sqm			
d)	lintels, beams, plinth beams. girders. bressumers and cantilevers.	5.00	sqm			
e)	Columns, Pillars, Piers, Abutments, Posts and Struts.	15.00	sqm			

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
f)	Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	1.00	sqm			
3.03	Extra for additional height in centering, shuttering wherever required with adequate bracing, propping etc. including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured)					
a)	Suspended floors, <i>roofs</i> , landings, beams and balconies (Plan area to be measured).	974.00	sqm			
3.04	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete (At all levels).					
a)	Thermo-Mechanically Treated bars	62094.00	Kg			
	<b>SubTotal(R.C.C.)</b>					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
<b>4.00</b>	<b>BRICK WORK</b>					
4.01	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in:					
a)	Cement mortar 1:6 (1 cement: 6 coarse sand)	5.00	cum			
4.02	Brick work with F.P.S. bricks of class designation 75 in superstructure above plinth level up to floor V level in all shapes and sizes in :					
a)	Cement mortar 1:6 (1 cement: 6 coarse sand)	18.00	cum			
	<b>SubTotal(Brick work)</b>					



Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
<b>5.00</b>	<b>DOORS, WINDOWS AND FITTINGS</b>					
5.01	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required EPDM rubber/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing and paneling to be paid for separately) :					
5.01.1	For fixed portion					
a)	Powder coated aluminium (minimum thickness of powder coating 50 micron)	55.00	kg			
5.01.2	For shutters of doors, windows & ventilators including providing and fixing hinges/pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately).					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
a)	Powder coated aluminium (minimum thickness of powder coating 50 micron)	28.00	kg			
5.03	Providing and fixing pressed steel door frames confirming to IS: 4351 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 50x25mm, or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 2.5mm 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 C	5.70	metre			
5.04	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket 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) :					
a)	With float glass panes of 5.50 mm thickness	6.00	sqm			

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
5.05	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 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.	3.00	sqm			
5.06	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (over all area of door shutter to be measured) over item no. 5.09 above.	3.00	sqm			
	<b>ALUMINIUM FITTINGS</b>					
5.07	Providing and fixing IS : 3564 marked Aluminium die cast body tubular type universal hydraulic door closer with necessary accessories and screws etc. complete.	1.00	each			
5.08	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:					
a)	300x16 mm	2.00	each			
b)	250x16 mm	2.00	each			

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
5.09	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 screws etc. complete:					
a)	250x10 mm	2.00	each			
b)	150x10 mm	9.00	each			
5.10	Providing and fixing aluminium handles 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 screws etc. complete :					
a)	125 mm	2.00	each			
b)	100 mm	2.00	each			
5.11	Providing and fixing aluminium hanging floor door stopper 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)	Twin rubber stopper	2.00	each			
5.12	Providing and fixing bright finished brass 100 mm mortice latch and lock ISI marked with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles with necessary screws etc. complete (Best make of approved quality).	1.00	each			

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
5.13	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete.					
a)	255 X 19 mm	8.00	each			
5.14	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.					
a)	Powder coated minimum thickness 50 micron aluminium.	8.00	each			
<b>SubTotal(doors, windows and fittings)</b>						

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
<b>6.00</b>	<b>Steel Works</b>					
6.01	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.	500.00	kg			
6.02	Providing and fixing hand rail of approved size 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.	100.00	Kg			
	<b>SubTotal(Steel works)</b>					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
<b>7.00</b>	<b>Flooring</b>					
7.01	Cement concrete flooring 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate) finised with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete.					
a)	40mm thick with 20mm nominal size stone aggregate.	120.00	sqm			
7.02	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.	23.00	sqm			
7.03	Providing and fixing glass strips in joints of <i>terrazo</i> / cement concrete floors.					
a)	40 mm wide and 4 mm thick.	300.00	Metre			
	<b>SubTotal(Flooring)</b>					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
<b>8.00</b>	<b>CEILING &amp; ROOFING</b>					
8.01	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 a slurry coat of neat cement using 2.75 kg/sqm. of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300mm height including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115mm size with 50% of cement mortar 1:5 (1 cement: 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound to IS : 2645 and approved by Engineer - in - charge to required slope and treating similarly the					



Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
	adjoining walls upto 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 using 2.75kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement: 4 coarse sand) admixed with water proofing compound conforming to IS: 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3mm deep. 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)	With average thickness of 120mm and minimum thickness at khurra as 65 mm.	25.00	sqm			
8.02	Water proofing treatment by Chemical Injection system(preconstruction)					
a)	HORIZONTAL SURFACE (RAFT SLAB)					
	A. Before the raft reinforcement is placed in position:					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
	i) Applying Cement slurry (cement and polymer based water proofing compound) in proportion as per manufacturer specifications is spread on already laid PCC.					
	ii) Providing and laying 20mm thick cement mortar 1:4 (1 cement: 4 coarse sand) mixed with polymer based water proofing compound is over the slurry. Stone aggregates 12mm and down size is embedded at random.					
	iii) After 24 hours, spreading cement slurry (cement and polymer based water proofing compound) on the 1st layer of mortar.					
	iv) Providing and laying 2nd layer of 20mm thick cement mortar 1:4 (1cement:4 coarse sand) mixed with polymer based water proofing compound. Stone aggregate 12mm down is embedded at random.					
	v) After curing for two days, spreading cement slurry mixed with water proofing compound over the 2nd layer of cement mortar. Thereafter, the 3rd and final layer of 20mm thick cement mortar in 1:4 (1 cement: 4 coarse sand) mixed with water proofing compound is laid and finished smooth to receive raft foundation.					
	vi) The total thickness of the treatment from operation i to v will be about 60mm.					
	B. After The reinforcement of raft is placed in position:					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
	i) Providing and fixing 25mm dia GI threaded grouting nozzles of adequate length at the specified locations @ 1.50 metre c/c or as shown in the drawing all over the slab. The grouting nozzles are tied with reinforcement in such a manner as not to choke its end during concrete operations. The top of these nozzles protrudes above the raft concrete.					
	ii) After minimum 7 days of concreting, cement grout of cement and polymer based water proofing compound (non shrinkage grouting compound) in proportion as specified is injected, through these nozzles at a pressure of 2.5 to 3.0 Kg/Sq.cm.					
	iii) After grouting, top of the nozzles is cut and the space is filled with cement mortar 1:2 (1 cement: 2 coarse sand) mixed with polymer based water proofing compound. Area of raft treated shall be measured for payment					
	(leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound. ii) 2nd layer of 25mm thick cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in recommended proportions. iii) Finishing top with stone aggregate of 10mm to 12mm nominal size spreading @ 8 cudm/sqm thoroughly embedded in the 2nd layer.	320.53	SQM			
b)	Retaining Wall					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
	i) Preparing the external surface and cement slurry mixed with polymer based water proofing					
	ii) Providing and laying 25mm thick cement mortar in 1:4 (1 cement : 4 coarse sand) mixed with polymer based water proofing compound in two layers with chicken wire mesh 26 or 24 gauge 25mm size in between the two layers.					
	iii) Placing G.I. pipes at 1.5m c/c and at location as directed or indicated as in drawing and securely fastened to the reinforcement prior to shuttering and concreting or alternately by drilling holes (25mm to 32mm dia) in the concrete upto a depth as directed or as shown in the drawing all over the wall surface @ 1.50mt. c/c and as shown in the drawing. Treatment along all construction joints by providing nozzles, as above, shall also be executed.					
	iv) Fixing 25mm dia G.I. threaded nozzles in these holes with cement mortar 1:4(1 cement: 4 coarse sand) mixed with water proofing compound.					
	v) Injecting cement grout of cement and polymer based water proofing compound (non shrinkage grouting compound) in proportion as per manufacturer specification or as specified in these nozzles at a pressure of 2.5 to 3.0 Kg/Sq.cm.					
	vi) After the grout the nozzles are cut and filled with cement mortar 1:2 mixed with polymer based water proofing compound in proportion as specified and finished smooth.					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
	Area of walls treated shall be measured for paintment	486.20	Sqm			
	<b>SubTotal(ceiling and flooring)</b>					

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
<b>9.00</b>	<b>Finishing</b>					
9.01	12 mm cement plaster of mix:					
a)	1:6 (1 cement: 6 fine sand)	156.00	sqm			
9.02	15 mm cement plaster on the rough side of single or half brick wall of mix:					
a)	1:6 (1 cement: 6 fine sand)	191.00	sqm			
9.03	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) finished with a top layer 6mm thick cement plaster 1:6 (1 cement: 6 fine sand).	20.00	sqm			
9.04	6 mm cement plaster of mix:					
a)	1:3 (1 cement: 3 fine sand)	188.00	sqm			
9.05	Distemping with oil bound washable distemper of approved brand and manufacture to give an even shade					
a)	New work (two or more coats) over and including priming coat with cement primer.	535.00	sqm			
9.06	Finishing walls with Acrylic Smooth exterior paint of required shade:					
a)	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including base coat of water proofing cement paint applied @ 2.20 kgl10 sqm).	10.00	sqm			

Item No	Description Of Item	Total Qty	Unit	Rate in Figures(Rs)	Rate in Words(in Rs)	Amount in Figures(in Rs)
1	2	3	4	5	6	7
9.07	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:					
a)	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.	8.00	sqm			
	<b>SubTotal(finishing)</b>					