

CENTRE FOR SOCIAL STUDIES, SURAT

Expression of Interest Invited for a carrying-out an Guest House Assignment

Expressions of interest are invited for carrying out an assignment of proposed Guest House to be developed at the Centre for Social Studies (CSS), Veer Narmad South Gujarat University Campus, Surat. Those who are interested are requested to submit their quotations by the 5th of October, 2018 on the below given address. The CSS reserves the right of selection or rejection of offers without assigning any reasons to anyone for doing so.

Director,
Centre for Social Studies
Veer Narmad South Gujarat University Campus,
Udhana Magdalla Road,
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Phone: 0261-2977172/ 2977174/2255298
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General Technical Specifications for Civil Work
For New Guest House Building

APPROVED LIST OF MAKES OF THE MATERIALS		
All the Materials/Makes listed above and other than as specified above shall be ordered and used after obtaining prior approval from the Architect. In case of non availability of any brand alternative equivalent make shall be approved by Architect before ordering.		
Approved make Civil and Finishing work		
1	OPC/PPC	Siddhi, Hathi, equivalent
2	Bricks-regular	Any approved local brand
3	Bricks-fly ash	Any approved local brand
4	White cement	Birla J. K.
5	TMT-Fe-415/Fe-500 Ribbed bars	Electrotherm, National, equivalent
6	Coarse Aggregates 6mm to 40mm sizes	Approve quarry
7	stone rubbles & Gravels	Approve quarry
8	Locks	Godrej or equivalent
9	Float Glass/Mirror/wired glass	Modi guard, Saint gobain Ashahi
10	precast terrazzo tiles & skiting(mosaic)	Bharat, Alcock, Nitco, Royal, Jhonson, Kajria Asian
11	Glazed tiles	Nitco, Royal Jhonson, Kajaria, AsianRak
12	Ceramic tiles	Nitco, Royal Jhoson, Kajaria Asian Rak
13	Vitrified tiles	Nitco, Royal, Jhonson, Kajaria, Asian,
14	Natural stones	As Approved
15	construction chemicals	Cico, Fosroc, M.C. Bauchemie, Fosroc. Pidilite, BAL, rishna.,
16	Paint, primer, putty	Asian, berger Birla, ICI
17	polish	MRF, Asian, ICI
18	hardware	Kthc, Dunex, EPPW, Ebc.,
19	Adhesives	Fevicol, Kitcol Araldite, BAL
20	Anchor fastenr/botts	Fischer, Hilti
21	linseed oil	Saffola
22	Floor spring	Godrej or equivalent
23	door closer	Godrej or equivalent
24	Aluminium sectionjs	Jindal, Indal
25	Window locks cum handle	Dill or as approved
26	Filler rubber of glass panel	EPDM quality
Approved Make Plumbing Works		
1.	PVC pipes	Astral, Supreme, Prince
2	GI pipes	Jindal, Tata or equivalent
3.	Gunmetal Valves	Zoloto, Leader
4.	Sanitary ware	Parryware, Cera Hindware
5.	CP fittings	parryware, Cera Hindware
6.	Stainless Steel grating and clamps	Chilli
7.	Stainless Steel Sink	Nirali
Approved make Electrical Works		
1.	PVC Conducts	Precision, Nihir or equivalent
2.	Wires	R.R. kable, Havell's Finolex, Polvcab
3.	Switches & its accessories	Anchore, havells, kone, or equivalent
4.	Telephone and data wires	R.R. kable, Havell's Finolex, Polvcab
5.	Telephone and date outlet points	Anchore, havells, Kone, or equivalent
6.	Light fixtures	Haells, Phillips, Keseleo, Crompton, Wipro (Sample to be approved)
7.	Fans	(Havells, Philips, Orient, Usha, Bajaj

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A. Earthwork

1. Excavation for foundation by mechanical or manual means including sorting out and stacking of useful materials, dressing of the sides, ramming of bottom, disposing of the excavated stuff upto 50 m. lead including for all lifts, for all kind of soil, including dewatering etc complete as directed. Depth up to 3 m.

- 1. General**

Any soil which generally yields to the application of pickaxes and shovels, spades, rakes or any such ordinary excavating implement or organic soil, gravel, silt, sands turf loam, clay, peat etc. falls under this category. Proper care should be taken to maintain slope of the excavated trenches or pit, if necessary proper shoring should be done to stabilize the slope.

Excavation to be done upto the yellow earth.

B. Civil Work

2. **Providing and laying PCC 1:4:8 (1 cement : 4 coarse river sand : 8 stone aggregates using 20/6 mm nominal size graded hard granite/black trap stone aggregated obtained from quarry) including compaction, finishing top surface to the level curing but excluding cost of formwork complete, as per specifications and directions of Engineer in charge, in sub base of floors etc.**

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1.1. Material :

1.1.1. Water :

Water shall not be salty or brackish and shall be clean, reasonably clear and free from objectionable quantities of silt and traces of oil and injurious alkalis salts, organic matter and other deleterious material which will either weaken the mortar or concrete or cause efflorescence or attack the steel in RCC. container for transport's storage and handing of water shall be clean. Water shall conform to the standards specified in IS : 456.

Water to used for construction and curing shall be compared with distilled water for its property through chemical test and shall be testing as per IS 269. In no case hard or salty water shall be used for RCC/PCC or curing work. Water tot be tested as per applicable IS code for its suitability for construction prior to use.

2.1.2. Cement :

Cement of approved make and specified grade only shall be used. Cement shall be delivered on the site in packages with an unbroken sell fixed by the makers and plainly marked with the name of the brand and the manufacture.

Cement bags to be stored properly and should be stacked in such a manner to avoid any contact with moister and water. Cement bags with lumps shall be rejected and contractor has to transfer rejected bags at his own expenses.

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For New Guest House Building

Cement shall be ordinarily Portland slag cement, grade 33, as per IS : 269, grade 43, as per IS : 8112 and grade 53, a super IS : 12269 or Portland slag cement as per IS : 455.

Following tests to be carried out for cement as per applicable IS codes.

- a. Setting Time.
- b. Fines Modules.
- c. Consistency Test
- d. compressive Test.

1.1.3. Sand :

Sand shall be medium/coarse natural sand, clean, well graded, hard, strong, durable and gritty. Sand particles should be free from injurious amount of dust, clay, kankar nodules, soft or flaky particles of shale, alkali, salts, organic matter loan, mica or other deleterious substances and shall be approved from the Engineer in charge and Architects. The sand shall not contain more than 8% of silt as determined by field test and 3% by laboratory test, if necessary the sand shall be washed to make it clean. All sand to be used for plaster, brickwork, concrete shall be strictly sieved by 4.75 mm sieve.

Following tests to be carried out for cement as per applicable IS codes.

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- a. Silt contain
- b. Fitness Modules.
- c. Sieve analysis.

1.1.4 Aggregate :

The aggregate shall generally be cubical/round in shape. Unless special stones of particulars quarries are mentioned aggregates shall be machine crushed from the black trap or equivalent black hard stone as approved. Aggregate shall have no deleterious reaction with cement. The aggregate shall be stored separately and handled in such a manner as to prevent the intermixing of different aggregates. If the aggregates are covered with dust they shall be washed with water to make them clean. Gradation of aggregate as per applicable IS standards shall be done prior to approval of the source and also during the change of source.

Following tests to be carried out for aggregate as per applicable IS codes.

- a. Flakiness Index
- b. Impact Value.
- c. Abrasion Value

1.2. General :

1.2.1. PCC is to be done as a leveling courses to receive the flooring.

Base slab after dismantling of the existing floor shall be cleaned with air blower to make in clean and free from any

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foreign material and broken debris,. Before starting of PCC work proper thaiya (marking of levels) shall be made on slab in grid not more than 2 m center to center. Once levels are checked by EIC, pouring of PCC shall be allowed. Top finish surface of the PCC shall be kept as per the instruction of EIC and with proper level and slopes if any.

1.2.2. Proportion of material in the PCC?RCC work shall be measured though weight batcher. In case of volumetric mixing proper MS boxes shall be prepared of size 30 cm x 30 cm x 38 cm. Material shall be filled in the boxes upto the top with ramming and cutting of the excess material piled above the edge of the box.

1.3. Curing :

1.3.1. Immediately after placing and compaction, concrete shall be protected from weather, including rain, running water, shocks, vibration, traffic, rapid temperature changes, frost and drying out process. After 24 hours it shall e covered with wet sacking basin or other similar absorbent material approved soon after the initial set and shall be kept continuously wet for a period of not less then 14 days from the date of placement. Masonry work over concrete may be started after 48 hours of its laying but curing of concrete shall be continued for a minimum period of 14 days.

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1.4 Testing :

1.4.1. Concrete shall be tested for its compressive strength and result shall be noted for 7th and 28th days strength. Sampled from fresh concrete shall be taken as per IS : 1199 and cubes shall be made, cured and tested at 7 days or 28 days as per requirements in accordance with IS : 516. No of samples and testing procedure shall be as per applicable IS codes.

- 3. Providing & laying in position controlled reinforced cement concrete of Mix 1:1:5:3 of M20 grade, machine batched, machined weighed & machine vibrated with approved design mix concrete using graded hard (black trap) stone aggregate of 20mm nominal size obtained from quarry including compaction, finishing top surface to the level curing but excluding cost of formwork, complete for all RCC work, for all floors / all levels/ all heights. all depths, in any position & any shape for all structures as per specification (Rate to include labour for keeping embedment if any, wherever required while casting) all material to confirm relevant IS standards. The concrete mix design shall be confirming to latest IS 10262 with minimum cement content for durability & the same shall be done in testing laboratory approved by the Engineer in charge. The mix design shall be without using admixture/additives. The rate should be inclusive of cover blocks as approved. contractor may also use RMC, design mix to be approved by Architect.**

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3.1 Material :

Shall be as per 1.1. above.

3.2. General :

RCC shall be done for lintels mullions, smaller slabs, to fill cutouts and other miscellaneous places, all care shall be taken that location of pour is properly cleaned and free from any foreign material. Rest all shall be as per clause 1.2.1. and 1.2.2. above.

2.3. Curing :

Shall be as per 1.3.1. above.

1.4. Testing :

Shall be as per 1.4.1. above.

- 4. Supplying, fabricating and fixing in position reinforcement TMT bars Fe-415, yield strength not less than 415 N/mm² for RCC structures /items as per design including transporting steel to the work site, handling, recoiling, cutting, bending, cranking, fabricating to required shape, placing in position and tying / binding the system with 16 gauge (not less than 1.0mm with two strands) GI wires, welding if necessary etc. for all floors/all levels/all heights complete as per specifications and direction by the Engineer-in charge. The quoted rate should be inclusive the cost of binding wire and the same will not be measured and paid separately.**

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4.1. Material :

Reinforcement Steel should conform with IS 1786 and relevant part of IS 456. It should be procured from approved make and should be clean and free from dirt, paint grease, mill scale or loose or thick rust, at the time of placing.

4.2. General :

The work shall consist of furnishing and placing reinforcement to the shape and dimensions, as shown on the drawings or as directed. The type of reinforcement shall be as per the item description. The contractor shall submit the test certificate from steel manufacturer as and when required. The test results shall be verified, if required in any reputed laboratory. Bar bending schedule shall be made by the contractor before starting the work. The payment shall be done based on quantity worked out in bar bending schedule. The bar bending schedule shall be prepared as per SP 34.

3.3 Testing

Reinforcement steel shall be tested for tensile strength, percentage elongation and rolling margin as per the applicable IS code method.

5. Providing ordinary formwork with laminated shuttering plywood/steel sheathing and steel supporting system so as to give fair finish, including centering, shuttering and propping etc., complete, and removal of the same for In-situ reinforced

General Technical Specifications for Civil Work
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concrete and plain concrete work in foundations, footings, bases of columns, walls, columns, slabs, beams, sills, lintel, coping etc. for all heights, levels, shapes and locations.

5.1 Material :

Shuttering to the concrete member can be of plywood or steel plats of appropriate thickness, shape and size. Plywood should be laminated film face to give smooth surface to the concrete after de shuttering. Only approved shuttering oil shall be used. Raw linseed oil or oil of approved manufacture shall be used. Only steel props an steel H-frames shall be used fro scaffolding.

5.2. General

The formwork shall conform to the shape, lines and dimensions as shown on the drawings and shall be so constructed so as to remain sufficiently rigid and water tight during the placement and compaction of the concrete. Adequate arrangement shall be mad by the contractor to safe guard against any settlement of the formwork during the course of concreting and after concreting. The formwork of shuttering, centering, scaffolding, bracing, etc shall be as per the design and shall be made from shuttering plywood with bittern/steel plates and steel supporting system. In case of double height false staging should be erected preferably with Acro-props & spans of H frames.

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All rubbish, particularly chipping, shaving and saw dust shall be removed from the interior of the form before the concrete is placed and the formwork in contact with concrete shall be cleaned thoroughly. The surface shall be coated with approved release agent as directed by Engineer in charge or Architect. Care shall be taken that the coating is not applied on the construction Joints surface and steel reinforcement bars.

6. Providing and laying brick masonry walls above plinth at all levels with all lifts in 1:6 cement mortar (1 cement : 6 sand) raking out joint, providing scaffolding making provisions for openings in walls watering curing etc. complete. Rate for RCC runner shall be paid in respective Item.

For 115 mm the wall

For 230 mm the wall.

6.1 Material :

the bricks shall be of first quality hand or machine molded and made from suitable soils and kiln burnt. They shall be free from cracks, flaws and modules of free lime. They shall have smooth rectangular faces with sharp corners and shall be of uniform In colour. The bricks shall be molded with a frog of size 100 mm x 40 mm., and 10 mm to 20 mm. deep on one its flat sides. The bricks shall not break when thrown on the ground from a height of 1 m.

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6.2 General

The bricks shall be laid with the frog facing upwards. The walls shall be taken up truly in plumb. All courses shall be laid truly horizontal and all vertical joints shall be truly vertical. Vertical joints in alternate courses shall generally be in one vertical plane. The thickness of brick course shall be kept uniform. All the fixtures, pipe outlets of water, etc. which are required to be built in the wall shall be embedded in CM, as per the drawings or as directed. The frames of doors, windows, cupboards, etc. shall be housed into the brick work at the correct location and level as directed. Bricks shall be so laid that all joints are quite flush with mortar. Thickness of joint shall not exceed 12 mm. The face joint shall be raked out as directed by raking tools daily, during the progress of work when the mortar is still green so as to provide key for plaster or pointing to be done, subsequently. Fresh work shall be protected from rain suitably. Masonry work shall be kept moist on all the face for a minimum period of 7 days. The top of masonry work shall be kept well wetter at the end of the day's work.

5.2 Testing :

Bricks shall be tested for following as per applicable IS codes :

- a. Effloresces
- b. Compressive Strength
- c. Water Absorption.

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7. Providing and laying average Plaster in CM at all floors, all shapes, all heights with necessary scaffolding, curing making grooves, forming pattas, hacking properly RCC surface etc. complete, with floating coat of cement slurry as directed by the Architect and Engineer in charge.

7.1. Material

material specification shall be as per 1.1.1, 1.1.2. and 1.1.3.

7.2. General :

Safety of scaffolding should be checked before use. Scaffolding for ceiling plaster should be independent of the walls. The surface shall be cleaned of all dust, loose, mortar droppings, traces of algae, efflorescence and other foreign matter by water or by brushing. Smooth surface shall be roughened by wire brushing if it is not hard and by dense hacking if it is concrete. All putlog holes in brickwork and junction between concrete and brickwork shall be properly filled in advance. joints in brick work shall be raked about 10mm. and concrete surface shall be properly raked in advance joint in brick work shall be raked about 10 mm. and concrete surface shall be hacked to provide grip to the plaster projecting burrs of mortars formed due to gaps at joints in shuttering shall be removed. The surface shall be scrubbed clean with wire brush/coir brush to remove dirt, dust etc. and the surface thoroughly washed with clean water to remove efflorescence. grease and oil etc., and shall be kept wet for a minimum of two hours before application of plaster.

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For external plaster, the plastering operation shall be started from the top floor and carried downwards. For internal plaster, the plastering operations may be started wherever the building frame and cladding work are ready and the temporary supporting sculling resting on the wall of the floor have been removed. Ceiling plaster shall be completed before starting plaster to walls.

- 8. Providing and laying average 25mm thick green polished kotah of approved quality, selected and sorted for uniform colour, in floor, otta and skirting etc. in required sizes upto 60 cm(finish) and as per design in normal pattern (square or rectangular) and residue as per drawing, including cement mortar 1:6 bedding upto 50 mm thickness, jointed with grey cement as specified, with mirror polishing unto the satisfaction of the Architect or Engineer in charge etc. complete.**

8.1 Material :

The kotah stones shall be hard, even sound and regular in shape and generally be uniform in colour. The colour of the stone shall generally be green. Brown coloured stones shall not be allowed for use. The stones shall be without any soft veins, cracks or flaws.

8.2 General :

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Kota to be laid in uniform sizes as per direction of Architect. Kota to be pre cut in proper right angle or to be chiseled on site as per direction of Architect. Kota to be laid in uniform shade.

9. Providing and laying in position, glazed tiles, in floor and dado, of approved make and colour, of first quality as per design set in cement slurry (3.3 kg. cement/m².) over an average 12 mm thick cement sand mortar 1:3 on wired plaster fixed with 1:1 cement sand mortar of average 6 mm thickness behind the tiles for dado and fixed to proper slope and level, joints shall be grouted in white cement and jointed with white cement and pigment with residue as per drawing and approved by Engineer in charge or Architect complete.

9.1 material :

Tile shall be per approved make, corners to be all perfect right angles.

9.2. General

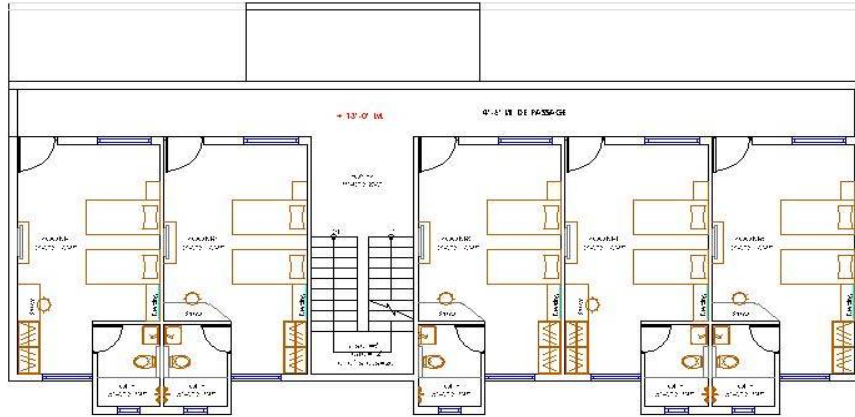
The tiles before laying shall be soaked in water for at least two hours. Neat grey cement slurry at 3.3 kg. Cement/m². of honey like consistency shall be spread over the wired plaster as directed. The tiles shall not have staggered joints. Where full size tiles cannot be fixed, they shall be cut (Sawn) to the required size and the edges rubbed smooth to ensure straight and true joints. After the tiles are laid, the joints shall be cleaned of grey cement grout with a wire brush to a depth of about 5 mm. and then grouted with white cement with or without pigment to match the shade of the topping of tiles.

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For New Guest House Building

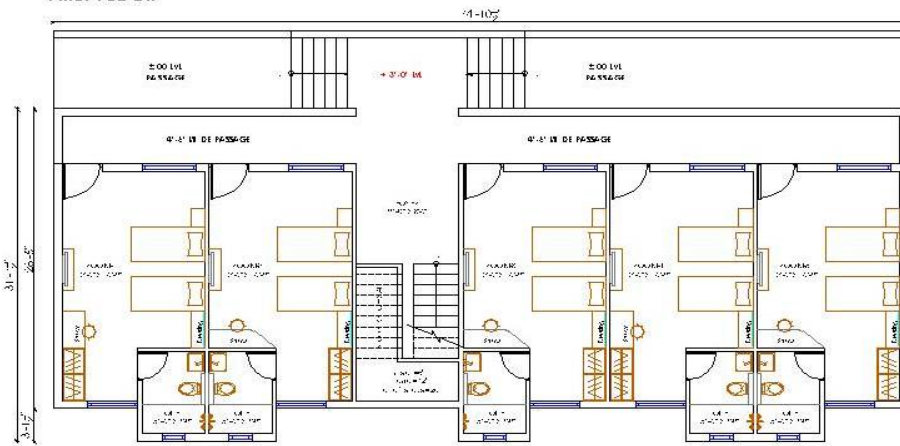
10. Providing and laying cement water proofing of average 115 mm. thick for balcony terrace and all the floors, cleaning and applying cement slurry with water proofing chemical like Cico no. 1 or equivalent arranging brick bats in emend mortar 1:5 according to the slope, adding suitable chemical for water tightness and testing the same after 3 days pending, providing on top cement mortar 1:3 including waterproofing compound and keeping the top wired finish (to receive china mosaic) as per direction and instruction, complete at all levels and floors including furnishing a guarantee bond for 10 years. The work should be carried out through an approved specialized water proofing agency (wall to wall measurement will be considered only including vata)

10.1 General

Unless otherwise specified preparatory waterproofing treatment shall be excited though approved specialized water proofing agency popper care should be taken for maintaining slopes in water proofing.



FIRST FLOOR



GROUND FLOOR

LEGENDS & AREA CALCULATIONS

SR NO.	DESCRIPTIONS	QUANTITY	AREA /ROOV (SQFT)	TOTAL AREA (SQFT)
1	ROOMS	5 Nos.		
2	FOYER + PASSAGE + STAIR CASE	1		
TOTAL AREA FOR FIRST FLOOR (SQFT)				2383.00
TOTAL AREA FOR STAIR CABIN (SQFT)				250.00

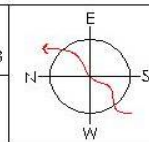
LEGENDS & AREA CALCULATIONS

SR NO.	DESCRIPTIONS	QUANTITY	AREA /ROOV (SQFT)	TOTAL AREA (SQFT)
1	ROOMS	5 Nos.		
2	FOYER + PASSAGE + STAIR CASE	1		
TOTAL AREA FOR GROUND FLOOR (SQFT)				2230.00

NOTE:- PRESENTATION LAYOUT FOR CONCEPT DEVELOPMENT. CONSTRUCTION WORKS SHALL BE CARRIED OUT AS PER AUTHORITIES APPROVED LAYOUTS

PROJECT:- PROPOSAL FOR CONSTRUCTION OF GUEST HOUSE
 LOCATION:- CENTRE FOR SOCIAL STUDIES CAMPUS, UM ROAD, SURAT
 TITLE:- APPROVED LAYOUT

PROJ. NO.	APPROVED.	DATE
DRG. NO.	DRAWN BY.	SCALE
	KRUNAL	NTS



Guest House Building
CENTRE FOR SOCIAL STUDIES