SPECIAL CONDITIONS OF CONTRACT

The cost of bid document and Earnest Money will be fixed with respect to the combined (Civil + Electrical) estimated cost.

1. The work shall be treated as complete when all the components of the work are completed. The completion certificate of the work shall be recorded by Engineer-in-Charge.

2. Labour huts at site are not allowed inside the campus.

3. The contractor shall execute the whole work in the most substantial and workman like manner in strict accordance with the specifications, approved design, drawings, particular specifications, special conditions, additional conditions and instructions of the Engineer-in-Charge.

4. No labour or material movement shall be allowed through the campus main road except in unavoidable circumstances with special permission of the Engineer- in Charge with a gate pass.

5. Before tendering, the contractor shall inspect the site of work and structures and shall fully acquaint himself about the conditions prevailing at site, availability of materials, availability of land and suitable location for construction of go-downs, stores, site office, transport facilities, constraints of space for establishing design mix plants, weather condition at site, the extent of leads and lifts involved in execution of work etc., which may affect or influence the tenders.

6. The contractor shall at his own expense and risk arrange land for accommodation of labour, setting up of office, storage of materials, erection of temporary workshops, and construction of approach roads to the site of work, including land required for carrying out of all jobs connected with the completion of the work. However, the departmental land to the extent available may be allowed to be used for these purposes free of rent without accepting any responsibility for the delay, if any, on this account. The contractor shall have to abide by the regulations of the authorities concerned and the directions of the Engineer-in-Charge for use of land available at the site of work. If it becomes necessary during construction to remove or shift the stored materials, shed, workshop, access roads, etc, to facilitate execution of the work included in this agreement or any other work by any other agency, the contractor shall remove or shift these facilities as directed by the Engineer-in-Charge and no claim whatsoever shall be entertained on this account. The contractor shall submit a detailed layout drawing of the temporary structures, stock yards, plant locations proposed to be constructed by him for his use which may be got approved before any such construction is attempted.

7. It shall be deemed that the contractor has satisfied himself as to the nature and location of the work, transport facilities, availability of land for setting up of camp, etc. The department will bear no responsibility for lack of such knowledge and the consequences thereof.

8. The contractor shall have to make approaches to the site, if so required and keep them in good condition for transportation of labour and materials as well as inspection of works by the Engineer-in-Charge. Contractor will have no right to restrict access to whom so ever the engineer in charge authorizes from using any such temporary or permanent access made Nothing extra shall be paid on this account.

9. The contractor shall carry out true and proper setting out of the work in co- ordination with the Engineer-in-Charge or his authorized representatives and shall be responsible for the correctness of the positions, levels, dimensions and alignments of all parts of the structure. If at any time during the progress of the work any error appears or arises in the position, level, dimensions or alignment of any part of the work, the contractor on being asked to do

so by the Engineer-in-Charge, shall rectify such error to the entire satisfaction of Engineer-in-charge. The checking by the Engineer-in-Charge or his authorized representatives shall not relieve the contractor of his responsibility for the correctness of any setting out of any line or level. The contractor shall carefully protect and preserve all bench marks, pegs and pillars provided for setting out of works.

10. All setting out activities concerning establishment of bench marks, instrument stations, centre line pillars, etc. including all material, tools, plants, equipments and all other instruments, labour, etc. required for performing all the functions necessary and ancillary thereto at the commencement of the work, during the progress of the work and till the completion of the work shall be carried out by the contractor and nothing extra shall be paid on this account.

11. The work shall be carried out in such a manner so as not to interfere or adversely affect or disturb other works being executed by other agencies, if any.

12. Any damage done by the contractor to any existing works or work being executed by other agencies shall be made good by him at his own cost or will be made good at his risk and cost without any notice served in this regard depending on the urgency of restoration of such damaged services.

13. **Compliance with** Local **Bye-Laws**.

In the event of any restrictions being imposed by security and traffic agencies or any other authority having jurisdiction in the area on the working or movement of labour /material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on this account. The loss of time on this account, if any, shall have to be made up by generating additional resources etc

14. For completing the work in time, the contractor may have to work in two or more shifts and no claims whatsoever shall be entertained on this account, notwithstanding the fact that the contractor will have to pay to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour regulations and the agreement entered upon and/or extra amount for any other reasons.

15. The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the State / Central Govt. departments concerned. Contractor shall get the water tested from laboratory approved by the Engineer-in-charge at regular interval as per the latest CPWD Specifications. All expenses towards collection of samples, packing, transportation, testing charges etc. shall be borne by the contractor.

16. The drawings for the work issued by the Engineer-in-Charge during execution of work shall at all times be properly correlated before executing any work and no claim whatsoever shall be entertained for discrepancies in the drawings.

17. The works to be governed by this contract shall cover delivery and transportation up to destination, safe custody at site, insurance, erection, testing and commissioning of the entire works.

The works to be undertaken by the contractor shall inter-alia include the following:

(i) Preparation of detailed SHOP drawings and AS BUILT drawings wherever applicable.
(ii) All the Architectural and vetted structural drawings are provided by the consultant engaged by IISER TVM. The same is attached in the tender document. However, the contractor has to submit the vetted drawings for shuttering of roof slab for the designed height. The contractor shall submit material submittals along with material sample for approval of Engineer-in-charge prior to delivery of material at site.

18. The contractor shall maintain in good condition all work executed till the completion of entire work entrusted to the contractor under this contract.

19. No payment shall be made to the contractor for damage caused by rain, whatsoever

during the execution of works and any damage to the work on this account shall have to be made good by the contractor at his own cost.

20. Unless otherwise provided in the Schedule of quantities, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account.

21. The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work (including marking of reference points, center lines of buildings), construction and maintenance of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signage, labour safety, labour welfare and labour training measures, preparatory works, working during monsoon, working at all depths, height and location etc. and any other incidental works required to complete this work. Nothing extra shall be payable on this account.

22. Ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity connection, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various approvals, No Objection Certificates, completion certificates from local bodies (if required) etc., protection works, testing facilities / laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in-Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts. The Contractor shall submit to the Engineer-in-Charge, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank etc.

23. No claim whatsoever for idle labour, additional establishments, costs of hire and labour charges for tools and plants, scaffolding etc, would be entertained under any circumstances.

24. The Contractor(s) shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night. In case of any accident of labours/ contractual staffs the entire responsibility will rest on the part of the contractor and any compensation" under such circumstances, if becomes payable, shall be entirely borne by the contractor.

25. Contractor shall within two weeks of award of work, submit to the Engineer- in-Charge for his approval, list of measures for maintaining safety of manpower/deployed for construction and avoidance of accidents.

26. For the safety of all labour directly or indirectly employed in the work the contractors shall, in addition to the provision of IISER TVM safety code and directions of the Engineer-in-Charge, make all arrangements to provide facility as per the provision of Indian Standard Specifications (Codes) listed below and nothing extra shall be paid on this account.

(i) IS 3696 Part I - Safety Code for scaffolds and ladders

(ii) IS 3696 Part II - Safety Code for scaffolds and ladders Part II ladders.

(iii) IS 764 - Safety Code for excavation work.

(iv) IS 4138 - Safety Code for working in compressed air

(v) IS 7293 - Safety Code for working with construction machinery.

(vi) IS 7969 - Safety Code for storage and handling of building materials

(vii) IS 4130 - Safety code for demolition of buildings.

27. The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards and by providing red flags, red lights and barriers. The contractor shall be responsible for any accident at the site of work and consequences thereof.

28. Scaffolding: Wherever required for the execution of work, all the scaffolding shall be provided and suitably fixed, by the Contractor. It shall be provided strictly with steel double scaffolding system, suitably braced for stability, with all the accessories, gangways, etc. with adjustable suitable working platforms to access the areas with ease for working and inspection. It shall be designed to take all incidental loads. It should cater to the safety features for workmen. It shall be ensured that no damage is caused to any structure due to the scaffolding. Nothing extra shall be payable on this account.

29. Royalty if any payable and all other incidental expenditure shall have to be paid by the contractor on all the boulders, metal shingle, earth, sand bajri, etc. collected by him for the execution of the work, direct to the concerned Revenue Authority of the State or Central Govt. and the amount paid shall not be reimbursed in any form whatsoever.

30. Other agencies working at site will also simultaneously execute the works entrusted to them and to facilitate their working, the contractor shall make necessary provisions e.g. holes, openings, etc. for laying/burying pipes, cables, conduits, clamps, hooks, etc. as may be required from time to time. The contractor shall extend full co-operation to other agencies for smooth execution of works by other agencies. The final finishing of the work is to be executed in co-ordination with other agencies as directed by the Engineer-in-Charge.

31. On account of security considerations, there could be some restrictions on the working hours, movement of vehicles for transportation of materials and location of labour camp. The contractor shall be bound to follow all such restrictions and adjust the programme for execution of work accordingly. Nothing extra shall be paid on this account. Also the contractor shall plan the activities so that no delay occurs due to the above. The contractor is expected to collect information about the same.

32. Stacking of materials and excavated earth shall be done as per the directions of the Engineer-in-Charge. Double handling of materials or excavated earth if required shall have to be done by the contractor at his own cost.

33. In case of construction joints, the cost of applying cement slurry over the concrete surface before fresh concrete is laid as per para 5.4.4.4. of CPWD Specification 2019 is included in the relevant items of the schedule of quantities and nothing extra shall be paid on this account.

34. Unless otherwise specified in the Schedule of Quantities the rates for all items of work shall be considered as inclusive of working in or under water and/or liquid mud and/or foul conditions including pumping or bailing out liquid mud or water accumulated in excavations during the progress of the work from springs, tidal or river seepage, rain, broken water mains or drains and seepage from subsoil aquifer.

35. For works below ground level the contractor shall keep that area free from water. If dewatering or bailing out of water is required the contractor shall do the same at his own cost and nothing extra shall be paid except otherwise provided in the items of Schedule of Quantities.

36. To protect the flooring and steps of staircases during construction and until the completion of the work, finished/semi-finished surface of flooring shall be covered with a thick layer of plaster of Paris and this layer shall be maintained in good condition till its removal. The removal of the layer of plaster of Paris and cleaning the surface shall be done as and when decided by the Engineer-in-Charge. After the removal of plaster of Paris and cleaning of the surface, damage, if any, shall have to be made good by the contractor. No extra payment shall be made for protection with plaster of Paris, removal of plaster of Paris, cleaning and making good the damages.

37. The contractor shall give a performance test of the entire installation (s) as per standard specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.

38. Only factory-made round / square type cover blocks should be used in RCC work, to avoid displacement of reinforcement bars in any direction and to ensure proper cover.

39. In RCC work, to avoid displacement of reinforcement bars in any direction and to ensure proper cover, only factory-made round / square type cover blocks should be used. Nothing extra will be paid for centering, shuttering, reinforcement and RCC work for sloped slabs and beams, unless otherwise specified in the item.

40. The contractor shall give ten years guarantee in the prescribed proforma for water proofing items. In addition to this 10% of the quoted cost of items shall be retained either

in cash /fixed deposit or in the form of bank guarantee, which shall be released after the expiry of ten years from the date of completion if no defects are found in water proofing or the defects are made good. This amount shall be adjusted against the expenses incurred on making good the defects if the contractor commits breach of guarantee.

41. Concrete mixers to be used on the work shall have automatic arrangement for dispersing water for controlling water cement ratio.

42. Any cement slurry added over base surface (or) for continuation" of concreting for better bond is deemed to have been in built in the items and nothing extra shall be payable no extra cement considered in consumption on this account.

43. If the actual weight of reinforcement and structural steel to be used in the work differs from standard weight given in table 5.4 of CPWD Specification, the following procedure shall be followed for arriving at the quantity for payment.

(i) If the actual weight is more than standard weight only standard weight shall be considered for payment.
(ii) If the actual weight is less than standard weight but within the permissible variation, only actual weight shall be considered for payment.

44. The contractor shall arrange to keep the premises neat and clean. The rubbish/malba and unserviceable materials shall be removed on day-to-day basis.

45. The Contractor shall arrange electricity at his own cost for testing of the various electrical installations as directed by Engineer-in-Charge and for the consumption by the contractor for executing the work. Also all the water required for testing various testing water supply, sanitary and drainage lines, water proofing treatment etc. shall be arranged by the contractor at his own cost. Nothing extra shall be payable on this account.

46. Time and Programme Chart.

(i) The contractor shall give scientifically analyzed detailed programme chart for all the activities of the work within 10 days from the date of issue of letter of acceptance of tender. The programme chart shall be prepared covering the physical milestones as envisaged in the tender documents. Nothing extra shall be paid for preparation/ modification of programme chart, CPM and PERT chart. The contractor shall submit the time and programme and project report using the mutually agreed software or in other format decided by the Engineer-in-charge.

(ii) While preparing the above detailed programme chart, effort shall be made to take all possible items of work simultaneously.

(iii) The programme chart so finalized and accepted by IISER TVM should be got reviewed by the department, once in a month regularly. Modified / revised programme chart shall be prepared in the event of not adhering to the targets mentioned in the earlier programme chart. The contractor shall augment additional resources, materials and man power for achieving the targets, so submitted in the revised Programme chart.

(iv) He shall furnish the details both in hard copies as well as soft copies. Nothing extra shall be paid on this account.

(v) The submission for approval by the Engineer-in-Charge of such program or the furnishing of such particulars shall not relieve the contractor of any of his duties or responsibilities under the contract. This is without prejudice to the right of Engineer-in-Charge to take action against the contractor as per terms and conditions of the agreement.

SUBMISSION OF PROGRESS REPORTS:

Apart from the above integrated program chart, the contractor shall be required to submit monthly progress report of the work in a computerized form on 1st and 16th of every month.

47.QUALITY ASSURANCE

(i) The proposed work is a prestigious campus development project and quality of work is of paramount importance. Contractor shall have to engage well-experienced skilled labour and deploy modern T&Ps and other equipment in the execution of the work.
Many items like water proofing, sand stone wall cladding and pile foundation will specially require engagement of skilled workers having experience particularly in execution of such items.

(ii) The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material / work beyond the set out tolerance limit shall be summarily rejected by the Engineer-in-charge and the contractor shall be bound to replace / remove such sub-standard / defective work immediately. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.

(iii) Special attention should be paid towards quality of materials, workmanship of execution of required standard and finish, lines and levels internal and external plastering, finish of exposed smooth surface of RCC **members by providing fresh shuttering plates, rubberized linings to all the shuttering joints,** accurate joinery work in wooden doors and windows, accurate joints in stone/ tiling / cladding work, non-hollowness in floor and dado tiles work, protection of scratches over flooring by providing layer of plaster of Paris, water tight pipe linings, proper compaction of joints in brick masonry, proper compaction of filled up earth etc. as per specification to achieve prescribed standards, Quality assurance for the project shall be of paramount importance.

(iv) The Contractor shall submit, within 21 days after the date of award of work, a detailed and complete method statement for the execution, testing and Quality Assurance, of such items of works, as directed by the Engineer-in-Charge.
All the materials to be used in the work, to make the finished work complete in all respects, shall comply with the requirements of the specifications and shall pass all the tests required as per specifications as applicable or such specifications / standards as directed by the Engineer- in- Charge. However, keeping the Quality Assurance in mind, the Contractor shall submit, on request from the Engineer-in- Charge, his own Quality Assurance procedures for basic materials and such items, to be followed during the execution of the work, for approval of the Engineer-in- Charge.

(v) All materials and fittings brought by the contractor to the site for use shall conform to the specification and the samples approved by the Engineer-in- charge. The contractor should get the samples of all the materials got approved from the Engineer in charge before bringing the bulk quantity, which shall be preserved at site of execution till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per approved list of brand names given in the tender document / particular specifications for approval of Engineer-In-Charge. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-In- Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge.

(vi) The Contractor shall procure and provide all the materials from the manufacturers / suppliers approved by Engineer-in-charge, as per the item description and particular specifications for the work. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge.

(vii) All materials whether obtained from Govt. stores or otherwise shall be got checked by the Engineer-in-Charge or his authorized supervisory staff on receipt of the same at site before use.

(viii) To avoid delay, contractor should submit all samples well in advance so as to give timely orders for procurement.

(ix) The contractor has to establish field laboratory at site including all necessary

equipment for field tests as given in Schedule 'F'. All the relevant and applicable standards and specifications shall be made available by the contractor at his cost in the field laboratory. The contractor shall designate one of his technical representatives possessing required qualification and experience specified in the Schedule F as Quality Assurance Engineer, who shall be responsible for carrying out all mandatory field/laboratory tests. The contractor shall also provide adequate supporting staff at his cost for carrying out field tests, packaging and forwarding of samples for outside laboratory tests and for maintaining test records.

All the registers of tests carried out at Construction Site or in outside laboratories and all material at site (MAS) registers including cement register shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-charge. All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by Engineer -in -Charge or his representative. Contractor shall be responsible for safe custody of all the registers. The above registers shall in no circumstances be taken out of the site and shall be made available for inspection as and when required without any delay.

(x) The contractor shall at his own cost submit samples of all materials sufficiently in advance and obtain approval of Engineer-in-Charge. The materials to be used in actual execution of the work shall strictly conform to the quality of samples approved by the Engineer-in-Charge and nothing extra shall be paid on this account. The acceptance of any sample or material on inspection shall not be a bar to its subsequent rejection, if found defective.

(xi) The contractor shall at his cost, make all arrangements and shall provide necessary facilities as the Engineer-in-Charge may require for collecting, preparing, packing, forwarding and transportation of the required number of samples for tests and for analysis at such time and to such places as directed by the Engineer-in-Charge. Nothing extra shall be paid for the above operations including the cost of materials required for tests and analysis. Testing charges shall be borne by the contractor.

(xii) The necessary tests shall be conducted in the laboratory approved by the Engineer-in-Charge. For this purpose, laboratories in the Government Sector, Semi Government or Private Sector, all Govt. Institutes, Indian Institutes of Technology, National Institutes of Technology, Central and State research Centers, Centrally and State funded laboratories stand approved. The samples for carrying out all or any of the tests shall be collected by the Engineer-in-charge or on his behalf by any other officer of IISER TVM. The contractor or his authorized representative shall associate himself in collection, preparation, packing and forwarding of such samples for the prescribed tests and analysis. In case the contractor or his authorized representative is not present or does not associate him in the aforesaid operation the results of such tests and consequences thereon shall be binding on the contractor.

Materials used on work without prior inspection and testing (where testing is necessary) and without approval of the Engineer-in-Charge are liable to be considered unauthorized, defective and not acceptable. The Engineer- in-Charge shall have full powers to require the removal of any or all of the materials brought to site by contractor which are not in accordance with the contract specifications or do not conform, in character or quality to the samples approved by the Engineer-in-Charge. In case of default on the part of the contractor in removing rejected materials, the Engineer-in- Charge shall be at liberty to have them removed at the risk and cost of the contractor.

(xiii) The contractor shall make his own arrangement of water required for execution of work and get the water tested at his own cost with regard to its suitability for use in the works and get written approval from the Engineer- in-Charge before he proceeds with the use of same for execution of work and thereafter it is got tested at the prescribed interval as per specification.

(xiv) All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions before covering and their measurements in computerized measurement book duly test checked shall be deposited with Engineer in charge or his authorized representative, prior to hiding these items.

(xv) Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to local bye-laws rules and specification of municipal / corporation, If CPWD Specifications are not available for the same. The contractor should engage

licensed plumbers for the work and get the materials (fixtures/fittings) tested by the Municipal Body/Corporation authorities wherever required at his own cost.

49 . Senior Officers of IISER TVM shall be inspecting the on-going work at site at any time with or without prior intimation. The contractor shall, therefore, keep updated the following requirements and detailing.

a. Display Board showing detail of work, weekly progress achieved with respect to targets, reason of shortfall, status of manpower, wages being paid for different categories of workers.

b. Entrance and area surrounding to be kept clean.

c. Keep details of quantities executed, balance quantities, deviations, possible Extra item etc.

d. Keep one set of plastic / cloth mounted building drawings.

e. Sets of Helmets and safety shoes for exclusive use for officers/dignitaries visiting at site.

50. The contractor shall not store/dump construction material or debris on road.

51 The contractor shall get prior approval from Engineer-in-charge for the area where the construction material or debris can be stored beyond the road, This area shall not cause any obstruction to the free flow of traffic/inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage. The Contractor shall take appropriate measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and /or other similar material to ensure that no construction material dust fly outside the plot area.

52 The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes/or are carrying construction material like cement, sand and other allied material are fully covered. The contractor shall take every necessary precautions that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust, sand or any other particles are not released in air/contaminate air.

53 The Contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relatable to dust emission.

54 The contractor shall ensure that C&D waste is transported to the C&D Waste site only and due record shall be maintained by the contractor.

55 The contractor shall compulsory use of wet jet in grinding and stone cutting.

56 The contractor shall comply all the preventive and protective environmental steps as stated in the latest MoEF guidelines amended upto date.

57 The contractor shall carry out on-Road-Inspection for black smoke generating machinery. The contractor shall use cleaner fuel.

58 The contractor shall ensure that all DG sets comply emission norms notified by MoEF amended upto date.

59 The contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.

60 The contractor shall ensure that the construction material is covered by tarpaulin. The contractor shall take all other precaution to ensure that no dust particles are permitted

to pollute air quality as a result of such storage.

61 The contractor shall make arrangement for helmet and safety shoes (meant for construction works at site). For all field staff of the IISER TVM, during the entire period of construction for safety reasons, one helmet and two pairs of shoes per staff member (maximum 10 members) of the Department(s) per year shall be arranged by the contractor.

62 Safety, security and insurance for the workers engaged shall be the responsibility of the agency.

63 The Jurisdiction for any legal dispute shall be the courts which are having Jurisdiction over the State of KERALA.

64 For water proofing works guarantee bond in the prescribed format and 10% security for 10 years.

65 Jointing with existing RCC& reinforcement shall be done at no extra cost by the Contractor.

66 **Nothing extra shall be payable for jungle clearance, bush cutting, and removal of any building rubbish.**

67 Extra lift shall not be paid for earth work excavation in hill side cutting where actual lift is not involved.

68 **Nothing extra shall be paid for double handling of surplus excavated earth**

69 Manufacturer warranty for all manufacturing items such as valves etc. shall be secured from the manufacturer and shall be provided by the agency to the client.

70 Unless otherwise specified, nothing extra, whatsoever shall be paid for executing the work as per the above special conditions.

SPECIAL CONDITION FOR PILE FOUNDATION & SAND STONE WALL CLADDING

FOR SAND STONE WALL CLADDING

The sand stone selected shall confirm to the latest IS 3622 .

Machine cut slab- Tolerances

The tolerance for thickness shall be plus / minus 3 mm

The tolerance in length and breadth shall be plus / minus 1 mm

Physical Properties

Sl. No	Characteristic	Requirement	Methods of Test
1	Water absorption	Not more than 2.5 percent by mass	IS 1124
2	Transverse strength	Not less than 7 N/mm2 (70 Kg f/ cm2)	IS-1121 (Part-II)
3	Resistance to wear	Not greater than 2 mm on the average and 2.5 mm for any individual specimen	IS 1706
4	Durability	Shall not develop signs of spalling ,disintegration or crack	IS 1126

FOR PILE FOUNDATION

Pile load test to be carried out as per latest IS 2911 (Part 4)

Initial load test has to be carried out **on test pile** using vertical loading and the mode of loading selected should be static loading as per the relevant IS code.

Routine Test has to be carried out **on working pile** using vertical loading and the mode of loading selected should be static loading as per the relevant IS code.

SPECIAL CONDITIONS FOR CEMENT AND STEEL BROUGHT BY THE CONTRACTOR

1. CEMENT

1.1. The contractor shall procure 43 grade ordinary Portland cement conforming to IS:8112/ Portland Pozzolana Cement conforming to IS:1489 (Part-I) as required in the work, from reputed manufacturers of cement as per approved list of manufacturers or from any other reputed cement.

The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially. Supply of cement shall be taken in 50 kg bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so. Every fresh cement batch should be brought to site at least 30 days before they are to be used / consumed in the work.

1.2. The cement go-down of the capacity to store a minimum of one months requirement shall be constructed by the contractor at site of work for which no extra payment shall be made. Double lock provision shall be made to the door of cement go-down. The keys of one lock shall remain with Engineer-in-Charge or his authorized representative and keys of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement go-down. The contractor shall facilitate the inspection of the cement go-down by the Engineer-in-Charge or his authorized representatives.

1.3. The cement shall be got tested by the Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. The frequency and details of the tests shall be decided by the Engineer-in-Charge depending on the quantum of supply in each batch. The cost of tests shall be borne by the contractor

1.4.

The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 42 of the contract and shall governed by the conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at rate so prescribed shall be made. In case of excess consumption no adjustment shall be made.

1.5. Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-charge.

1.6. Damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-charge. If he does not do so within 3 days of receipt of such notice, the Engineer-in- charge shall get it at the cost of the contractor.

1.7. The cement bags shall be stacked on proper floors consisting of two layers of dry bricks laid on well consolidated earth at a level of at least one foot above ground. The stacks shall be in rows of 2 and 10 bags high with minimum of 0.6m clear. Bags should be placed horizontally continuous in each line. Actual size / shape of go down shall be as per site requirement and nothing extra shall be paid on this account. The decision of Engineer- in-charge regarding capacity shall be final.

1.8. Cement register for the cement shall be maintained at site. The account of daily receipts and issues of cement shall be maintained in the register in the proforma prescribed and signed daily by contractor or his authorized agent.

1.10 The contractor shall bring whatever cement he requires for temporary structures or for trial mix for design mix or any such miscellanies work and consume the same before storing the cement in the cement godown. If any personal requirement of cement for any purpose what so ever occurs after the cement is taken in account for in the cement register the same shall be intimated to the Engineer in Charge in writing which will be issued in your personal name by the Engineer in Charge which then will be excluded from in the calculation of the cement consumption.

1.11 Cement if left un consumed for longer than the permissible expiry time will be rejected by the Engineer In Charge and will have to be removed from site without any compensation and will be written off from the cement register.

1.12 Cement shall be stored such that the older lot gets consumed first.

2. STEEL

2.1(a) The IISER TVM /Contractor shall procure IS marked TMT bars of various grades from the steel manufacturers or their authorized dealers (as per following selection criteria) having valid BIS license for IS.1786-2008 (Amendment 1st November 2012).

The procured steel should have following qualities.

i) Excellent ductility, bend ability and elongation of finished product due to possible refining technology.

ii) Consumption of steel should be accurate as per design.

iii) Steel should have no brittleness problem in finished product.

iv) Steel should carry the quality of corrosion and earthquake resistance.

v) Quality steel with achievement of proper level of sulphur and phosphorus as per IS:1786-2008.

2.2 The contractor shall have to obtain and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work.

2.3 Samples shall also be taken and got tested by the Engineer-in-charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications as defined under Para 2.1 above, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week's time of written orders from the Engineer-in-charge to do so.

2.4 The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.

2.5 For checking nominal mass, tensile strength, bend test, re-bend test, elongation etc. specimen of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:-

Size of bar	**For consignment below 100 tonnes**	**For consignment over 100 tonnes**
Under 10mm dia bars	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10mm to 16mm dia bars	One sample for each 35 tonnes or part thereof	One sample for each 45 tonnes or part thereof
Over 16mm dia bars	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof

2.6 The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor. The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per CPWD procedure and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.

2.7 The steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.

2.8 The standard section weight referred to as standard tables in Para 5.3.3. in CPWD specifications 1996 Volume —II to be considered for conversion of length of various sizes of MS bars and High yield strength deformed bars into weight are as under.

Size (Diameter MM)	Weight in Kg/ Meter
6	0.222
8	0.395
10	0.617
12	0.888
16	1.58
18	2
20	2.47
22	2.98
25	3.85
28	4.83
32	6.31
36	7.99
40	9.86
45	12.49
50	15.42

For steel, measurement will be regulated on sectional weight basis, weight being calculated with help of the above tables. The weight shall be taken as per actual weight if it is found lower than the standard weight but within tolerance limit as per relevant IS codes. Nothing extra shall be paid for extra weight of steel sections more than that given in the table.

The Contractor has to produce the bills to the Engineer -in- Charge or its representative as and when he brings the cement and steel to the site.

SPECIALCONDITIONS FOR RMC

1. The cost of packaging, scaling, transportation, loading, unloading, cost of samples and the testing charges for mix design in all cases shall be borne by the contractor.

2. The various ingredients for mix design / laboratory tests shall be sent to the lab / test houses through the Engineer-in-Charge and the samples of such ingredients sent shall be preserved at site till completion of work or change in Design Mix / Ready Mix whichever is earlier. The sample shall be taken from the approved materials which are proposed to be used in the work.

3. For each change of source or quality / characteristic properties of the ingredients during the work, from that approved and used in the concrete mix, a fresh mix design shall be got done by the contractor. Revised trial mix test shall be conducted and shall be submitted by the contractor as per the direction of the Engineer-in-Charge.

4. A separate mix design shall be done for concrete incorporating water proofing compound and water proofing compound shall not be blindly added in the mix design already obtained and approved without water proofing compound.

5. The items of RMC shall be inclusive of all the ingredients including admixtures if required, labour, machinery T&P etc., (except shuttering which will be measured and paid for separately) required for a ready-mix concrete of required strength and workability. The rate quoted by the agency shall be net and nothing extra shall be payable on account of change in quantities of concrete ingredients like cement aggregates and admixtures etc., as per the approved mix design.

6. Sampling and Testing

Quantity of concrete delivered (cum)	Number of sample
Less than 15	1
16 to 30	2
31 to 50	3
51 and above	Three plus one sample for each additional 30 cum or part thereof.

7. Minimum ordinary Portland cement /Portland pozzolana cement for Mix M-25 grade concrete shall be 330 kg/m^3.

8. All concrete of M25 / M30 grade shall be done using batching plant conforming to the batching plant description given in the NIT / Mixer machine.

Mini Batching Plant (6 cum /hour) and Batching Equipment at the site

Hoppers for weighing cement, mineral admixtures, aggregates and water and chemical admixture shall consist of suitable containers freely suspended from a scale or other suitable load measuring devices and equipped with a suitable discharging mechanism. The method of control of the loading mechanism shall be such that, as the quantity required in the weighing hopper is approached, the material may be added at a controllable rate and shut off precisely within the weighing tolerances specified in Annexure-A. The weighing hoppers for cement, mineral admixtures, and aggregate shall be capable of receiving their rated load, without the weighed material coming into contact with the loading mechanism. The weighing hoppers shall be constructed so as to discharge efficiently and prevent the buildup of materials. A tare adjustment up to 10 percent of the nominal capacity of the weigh scale shall be provided on the weighing mechanism so that the scale can be adjusted to zero at least once each day. Dust seals shall be provided on cement hoppers between the loading mechanism and the weigh hopper, and shall be fitted so as to prevent the emission of cement dust and not to affect weighing accuracy. The hopper shall be vented to permit escape of air without emission of cement dust.

Vibrators or other attachments, where fitted, shall not affect the accuracy of weighing. There shall be sufficient protection to cement and aggregate weigh hoppers and weighing mechanisms to prevent interference with weighing accuracy by weather conditions or external build-up of materials.

Where chemical admixture dispensers are used, they shall be capable of measurement within the tolerances in Annexure-A and a calibrated container or weigh scale shall be provided to check the accuracy of measurement at least once a month.

Each control on the batching console and weigh-dial or display shall be clearly labeled with its function and where concerned with the batching of materials, the material type.

When pulverized fuel ash and other mineral admixtures are batched through the cement weigh system, the weighing device and discharge screw or other parts of the transfer system shall be empty when the weighing system has returned to zero reading or completed the batch.

Where a back weigh system is utilized to weigh materials a system shall be in place so as to prevent materials being loaded during the process of weighing.

Fully automatic production systems shall be fitted with digital control equipment to allow the correct operation of the plant to be monitored during weighing and batching. Automatic control systems on batching plants shall not commence batching until all hoppers have been emptied and / or tared and the scales zeroed unless such systems are designed to take account of buildup in their programming.

ANNEXURE — A

CALIBRATION AND WEIGHING EQUIPMENT ACCURACY

1. The following limits shall apply to all design-mixed concrete plants:

A) The accuracy, sensitivity and arrangement of the weighing devices shall be such as to enable the materials to be batched within the following tolerances:

1) Cement, mineral admixtures : Within + 2 percent of the quantity of the constituent being measured

2) Aggregate, chemical admixtures : With + 3 percent of the quantity and water of the constituent being measured

B) Analogue scales shall have scale increments not exceeding 5 kg for cement and mineral admixtures, 25 kg for aggregate and 2 kg for water.

C) Preset controls shall be calibrated in increments not exceeding 5 kg for cement and mineral admixtures, 10 kg for aggregate and 2 kg for water.

(i) Digital readouts shall have a scale increment not exceeding 2 kg for cement and mineral admixtures, 10 kg for aggregate and 1 kg for water.

(ii) At the time of installation, or reconditioning, the accuracy of the indicated mass at any point on the scale shall be within 0.25 percent of the full scale reading.

(iii) At any other time during operation the accuracy shall be within 0.50 percent of the full scale reading.

(iv) Chemical admixture dispensers shall have scale increments not exceeding:

Range of Scale In kg/l	Scale increment in kg/l
0.1 - 0.5	0.01
0.5 - 1.0	0.02
1.0-10.0	0.2
more than 10.0	0.4

(v) All weighing and measuring equipment shall be tested and calibrated over its full working range at the following intervals:

1) Mechanical / knife edge systems : At least once every two months

2) Electrical /load cell systems : At least once every three months

Adequate and identified facilities shall be provided for the application of the test loads.

a. In the case of batch weighing systems, testing and calibration shall be based on the application test loads to the weigh hoppers.

b. Checks on continuous weigh systems shall be based on comparison of Preset quantities with those actually produced.

C. To achieve the required accuracy of calibration, a minimum of 500 kg of Stamped weights are required, except that for low capacity scales an acceptable limit on the total mass of calibration weights would be 20 percent of the scale capacity.

d. When calibration of weighing equipment is carried out all personnel involved should be competent and fully trained, the procedures should be fully documented, and special attention should be paid to the health and safety aspects of the procedure.

ANNEXURE-I

LIST OF TESTING EQUIPMENTS TO BE PROVIDED BY THE CONTRACTOR AT SITE LAB

Sl.No.	Testing Equipment
1	Balances a. 100 kg capacity, semi-self-indicating type- Accuracy 10 gm b. 500 gm capacities, semi-self-indicating type- Accuracy 1 gm c. Counter balance- 10kg capacity- Accuracy 1 gms
2	Ovens- electronically operated, thermostatically controlled upto 110°C to 1^0C
3	Sieves as per IS 460-1962. (i) IS sieves - 450mm internal dia, of sizes 100mm, 80mm, 63mm, 50mm, 40mm, 25mm, 12.5mm, 10mm, 6.3mm and 4.75mm complete with lid and pan. (ii) IS sieves - 200mm internal dia(brass frame), consisting of 2.36mm, 1.18mm, 600 microns, 425 microns, 212 microns, 90 microns, 75 microns with lid and pan.
4	Sieve shaker capable of 200mm and 300 mm dia sieves, manually Operated with timing switch assembly.
5	Equipment for slump test-slump cone, steel plate, tamping rod, steel scale, scoop.
6	Dial gauges, 25mm travel- 0.01mm/division least count-2 nos.
7	Graduated measuring cylinders 200 ml capacity — 3 Nos.
8	Enamel trays (for efflorescence test of bricks) (i) 300 mm x 250 mm x 40 mm — 2 Nos. (ii) Circular plates of 250mm dia 4 Nos.
9	Steel tapes-3m, 5m, 30m etc in sufficient Numbers
10	Vernier calipers,
11	Micrometer screw 25mm gauge.
12	A good quality plumb bob in sufficient numbers.
13	Spirit level, minimum 30cms long with 3 bubbles for horizontal vertical.
14	Wire gauge (circular type) disc.
15	Foot rule

16	Long Nylon thread
17	Magnifying glass.
18	Screw driver 30cms long
19	Bell pin hammer, 100 gms
20	Plastic bags for taking samples
21	Earth resistance test
22	Megger
23	Steel cube moulds 150x150x150mm size with tamping rod — 30 Nos
24	Rebound hammer for testing concrete
25	Moisture meter
26	Digital balance 10 kg capacity

Note: The list is indicative only and not exhaustive. The bidder shall be required to deploy any such testing equipment as per work requirement as decided by Engineer-in-charge.

TABLE-2

Plant And Equipment Required to Be Owned / Taken On Lease By The Contractor

Sl. No.	Equipment	Numbers (Minimum)
1	Builders hoist	1
2	Excavator cum loader (JCB 3D model or equivalent).	1
3	Compressor machine minimum 200 CFM with rock Breaker.	1
4	DG set of minimum capacity 62.5 KVA.	1
5	Mini batching plant (6 cum./hr.).	1
6	Concrete pump	1
7	Transit mixers.	As per requirement
8	Needle Vibrators.	4
9	Screed leveller.	1
10	Plate Vibrator	1
11	Automatic Ring making machine(Reinforcement)	1
12	Dumper/Tipper	1
13	Reinforcement bending machine.	1
14	Reinforcement cutting machine.	1
15	Power driven earth rammer (Soil compactor).	1
16	Total station.	1
17	Auto level & staff.	1
18	Tractor with trolley.	1
19	Water tanker(Minimum capacity of 5000 litres)	1
20	Welding machine 400 Ampere	1
21	Screener for coarse sand and fine sand	1
22.	Centrifugal mono block water pump minimum capacity 2 HP	1

25	Drilling machine	1 No.
26	Shuttering with necessary props	1500 sq.mt.
27	Double steel scaffolding and staging materials	1000 sq.mt.
28	Air compressor	1Nos.
29	Floor grinding/polishing machines	1Nos.
30	Sand stone cutting machine	1 Nos.
32	Sand stone hand polishing machine	1 Nos.
33	Computer with printer for billing	2 Nos.
34	Office table with chair	2 Nos.
35	Any other machinery required for completion of the work as per decision of Engineer-in-charge.	As per Actual requirement

Note: The above list is only indicative and not exhaustive. The contractor may be required to deploy more T&P as per the requirement of work.

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Annexure

List of Approved Civil materials

NOTE: Not withstanding to the approval given in the list, the field staff are requested to observe the following conditions

1. Equivalent material and finishes of any other make may be used on written request of the contractor, in case of unavoidable circumstances and also if it is established that minimum three brands are not specified below or three brands out of all brands specified below are not available in the market, after written approval of the alternate brand by the NIT approving authority. This substitution shall be subject to cost adjustment in case the substituting brand is available at cheaper rates in market than those mentioned herein above. There shall be no cost adjustement if the substituting brand is costlier in market than those mentioned herein.

2. In addition, the brands approved as hereunder, should have valid and active BIS certificate as on the date of supply for the work
.

3. Material shall conform to **Make in India** policy of Government of India as on the date of supply for the work.

4. Other brands not included in the list below but having BIS certificate on the date of supply for the work shall only be allowed against note (1) above.

5. In case of non availability of BIS codes for any of the materials incorporated above, the Engineer-in-charge shall send the materials for testing as per the relevant ASTM or EN codes and satisfy himself before using the same in work.

Sl.No	**Material Description**	**Material**	
		Brand	**Make**
SUB HEAD No.2			
EARTH WORK			
1	Chloropyriphos	DURSBANTCT	DE-NOCIL Ltd.
		Premise Agends	Bayer Ltd
		PIRAMID	AMVAC AGRI RASAYAN Pvt Ltd
		NOBAN	Chemtts Wets & Flows Pvt. Ltd
		HILBAN	Hidustan Insecticides Ltd.
		Sarups Pest Control	Sarups Pest Control Ltd

SUB HEAD NO.3			
MORTAR			
1	Ordinary Portland Cement (43 grade) / Portland Pozzolona Cement (PPC)	ACC	ACC cements Ltd
		Ultra Tech	Ultra Tech Cement Ltd.
		Coromandal	India Cements Ltd.
		Chettinadu	Chettinadu Cements Corporation Ltd.
		Bharathi	Bharathi Cement Corporation Ltd.
		Dalmia	Dalmia Cement Bharat Ltd.
		Zuari	Zuari Cement Limited.
		JSW	JSW Cement Ltd.,
		Japee Cement	Japee Cement Ltd
		Maha Cement	Myhome Industries Pvt Ltd.
		J.K Cement	J.K Cement Pvt. Ltd
		Ambuja Cement	Ambuja Cements Ltd
		Penna Cement	Penna Cement Industries Ltd.
		Konark Cement	Konark Cement
		Centuary Cement	Birla Gold Cement
		Shree Cement	Shree Cement
		Ramco Cement	Ramco Cement Ltd
		Sagar Cement	Sagar Cement Ltd
		Emami Cement	Emami Cements Ltd
SUB HEAD NO.4			
CONCRETE WORK			
1	Damp Proof course materials	MAPEI	MAPEI Construction Products India Pvt. Ltd.
		Impermo	Snowcem Paints
		Duraseal	Apurva India Pvt. Ltd.
		ACCO Proof	ACC Cement Ltd.
		Dr.Fixit	Pidilite Industries
		Ferrous crete	Ferrous Crete (India) Pvt. Ltd.
		Fosroc	Fosroc Chemicals India Pvt. Ltd.
		CICO	CICO Industries
		SIKA	Sika India Pvt. Ltd
		PIDILITE	Pidilite Industries Ltd.
		BASF	BASF India Ltd
		MYK	MYK LATICRETE India Pvt.Ltd.

		Asian Paints smart caredampproof	Asian Paints Ltd
		Weather Coat Roof gaurd	Berger Paints
		Polytancreteiwl	Sunanda Speciality coatings Pvt.ltd.
		Wallshield 2K	Berger Paints
		KCPL	Kunal Conchem Pvt Ltd
SUB HEAD NO.5			
REINFORCED CONCRETE WORK			
1	TMT bars Fe-500D	SAIL	Steel Authority of India Ltd.
		TISCO	TATA STEEL Ltd
		VIZAG	Rastriya Ispat Nigam Ltd.
		JSW	JSW Steel Ltd
2	Plasticiser & Super Plasticiser	Contrament, power flow	MC Bauchemie (India) Pvt. Ltd.
		Sunanda Chemicals	Sunanda Chemicals Ltd.
		Plastiment, Sikament	Sika Inida Pvt Ltd.,
		Conplast SP430	FOSROC India
		Chryso-HP / Delta / Optima	Chryso India Pvt. Ltd.,
		MYK Schomburg	MYK Arments range of products
		BASF	BASF India Ltd
		CICO	CICO Industries
		Smart Care Techno Plast/Smart Care Maximo Plast	Asian Paints Ltd
		Endura	H.R. Jhonsons
		KCPL	Kunal ConchemPvt. Ltd.,
3	Expansion Joint Bitumen board	Dura board HD100	Supreme Industries
		DURAFILL	Supreme Industries
		STP	Shalimar Tar Products
4	Grout	Ardex	Ardex Endura Adhesive India Pvt. Ltd
		LATA POXY	MYK LATICRETE India Pvt. Ltd
		Fugabella, Porcelana	Kerakoll India Pvt. Ltd.
		Dr.Fixit	Pidilite Industries
		Weber	Saint-GobinIndiaPvt. Ltd
		Ferrous crete	Ferrous Crete (India) Pvt. Ltd.
		BASF	BASF India Ltd

		FosrocGP2	Fosroc India Ltd
		MYK Schomburg	MYK Arments range of products
		Fugabella, Porcelana	KerakollIndiaPvt. Ltd
		Kerapoxy	MAPEI Construction Products India P Ltd.
		KCPL	Kunal ConchemPvt. Ltd.,
		Asian paints	Smart Care SC GP Grout Grey
		Pidilite	Pidilite Industries Ltd.
		Care	Care
		Mapefill GPIN	MAPEI Construction Products India P Ltd.
		SIKA	SIKA India
		Smart Care SC GP Grout Grey	Asian Paints
		HomeshieldSupergrout	Berger Paints
5	Ready Mix Concrete	Ultra Tech	Ultra Tech Concrete
		ACC	ACC Ltd
		RMC (India)	RMC (India) Pvt. Ltd.
		Lafarge	Lafarge India Pvt. Ltd
6	Mechanical coupler for Reinforcement	Dextra	Dextra India Pvt., Ltd.
		Sanfield	Sanfield India Ltd
SUB HEAD NO.9			
WOOD & PVC WORK			
1	Wooden Flush door shutters	Jayna ply	Jain Wood Industries
		Raavella door	Raavella Industrials (P) Ltd
		Kailash	Kailash Hi tech Timber Industries India Pvt. Ltd
		Shakthi	Shree Shakthi Modern Flush doors
		Greenlam	Greenlam Industries
		Mayur	Mayur Plywood
		MP Ply wood products	MP Wood products
		Archidply	Archidply Industries Ltd
		DEC	D.E.C Infrastructure & Project (India) Pvt.Ltd.
		Greenpanel	Greenpanel Industries Ltd.
		Jain Doors	Jain Doors Pvt. Ltd,

		Indian Timber Products	Indian Timber Products
		Kitply	Kitply Industries Ltd.
		DuroFlushdoors	Duro Ply Industries Ltd.
		Kenwood	Kenwood Ply & Board
		Century	Century Flush Doors
2	Water Proof Plywood, Commercial ply, Fire retardant ply and Block boards, BWR Marine Ply, BWR/ MR Ply.	Jayna ply	Jain Wood Industries
		Greenpanel	Greenpanel Industries Ltd.
		Archidply	Archidply Industries Ltd
		Kitply	Kitply Industries Ltd.
		Duroply	Duro ply Industries Ltd.,
		Century ply	Century Flush Doors
		Wuudply	M/s Prime Veneers Ltd.
3	Laminates	Green Lam	Green lam Industries Ltd.
		Centuary	Centuray laminates
		Merino	Merino laminates
		Royal touche	Royal touche laminates
		Kitmica	Kitply Industries Ltd.
		Formica	Formica Laminates (India) Pvt Ltd.
		Heritage	Deco Mica Limited, Ahmedabad
		Decolam	Decolam India Pvt Ltd.
		Archidply	Archidply Industries Ltd
		Sonear	Sonear Laminates
		Sunmica	Sunmica Industries
		Vidya Ply	Vidya Ply & Board Pvt.Ltd.
4	Prelaminted particle board MDF (Exterior Grade)	Novapan	GVK NovapanIndustries Pvt Ltd.,
		Merino	Marino laminates
		Kitlam	Kit PlyIndustires Ltd,
		Ecoboard	Ecoboard Industries Ltd.
		Associate	Associate Décor Limited
		Archid ply	Archid ply industries Ltd.

		TESA	Balaji Action Buildwell
		Centuary	Centuary MDF
		Green lam	Green lam industries Ltd.
		Heritage	Deco Mica Limited, Ahmedabad
		Greenpanel	Greenpanel Industries Ltd.
5	Veenering	Greenpanel	Greenpanel Industries Ltd.
		Centuary	Centuary MDF
6	FRP Door Frames & Shutter	Jain Doors	Jain Doors Pvt. Ltd,
		Signum	Signum Fire Protection India Pvt. Ltd
		Meena Fibre Glass,	Meena Fibre Glass
		Duroplast	Duroplast extrusion Pvt Ltd
		Cactus	Cactus
		Polyline	Polyline
7	Factory made panel door shutter, 2.Factory made wire mesh door shutters 3.LVL door shutter	Jain doors	Jain doors Pvt Ltd
8	High Density (HDF) Prelaminated board	Pergo	Red Floor India
		Armstrong	Armstrong world Industries
		Green ply	Green ply Industries Ltd.,
9	Gypsum board	Gyproc Saint Gobain	Saint Gobain Gyproc India Ltd
		Lafarge	Lafarge Gypsum India Pvt Ltd
		USG Boral Board	USG Boral Board India (P) Ltd
		Armstrong	Armstrong wold Industries
10	Glass Door Hardware	Dorma	Dorma India Pvt Ltd
		Kich	Kich Architectural Products Ltd.
		Classic	Classic hardware
		Hafele	Hafele India Pvt. Ltd
		Ozone	Ozone Hardware.
		Geze	Geze GMBH
		Define	Define Overseas Pvt. Ltd.
		Squash	Squash glass doors
		Dorset	Dorset Industries Pvt Ltd
		Garg	D P Garg Pvt Ltd
11	Hydraulic door closers/ Floor springs	Godrej	Godrej locking solution & systems
		Hardwyn	Hardwyn hardware

		Dorma	Dorma India Pvt Ltd.
		Everite	Everite agencies
		MAGNUM KIT	Mukund Overseas
		Dorset	Dorset Industries Pvt Ltd
		Geze	GezeGMBH
		Garg	D P Garg Pvt Ltd
		Ingersolrand	Ingersolrand India Pvt Ltd
		OZONE	Ozone Hardware.
12	Locks & Latches	Dorset	Dorset Industries Pvt Ltd
		Godrej	Godrej locking solutions& systems
		Harrison	Harrison locks
		Plaza	Bharat lock House
		Yale	ASSA ABLOY India (P) Ltd.
		Hitech	Globe Locks India
		Hafele	Hafele India Pvt. Ltd
		Link	Link Locks
		Geze	GezeGMBH
		Garg	D.P. Garg Pvt Ltd.,
		Hardonite,	Hardonite
		FOSROC	Fosroc India
		SIKA	SIKa India
		BASF	BASF India Ltd.,
		CICO,	CICO Technologies Ltd.,
		Pidilite	PidiliteIndustries Ltd,
13	Stainless steel screws	Kundan	Kundan Industries Ltd.
		Pooja	Pooja SteelCorportion
		Atul	Atul fasteners Ltd.
		Alloy	Alloy ltd
		GKW	GKW Limited
		Nettlefold	Nettlefold screws
14	Butt Hinges openable window shutters	Hafela	Hafele India Pvt. Ltd
		Alu Alpha	Alu Alpha India
		Earlt Bihari	EarltBihari India Pvt .Ltd.
		Dorma	DormakabaIndiaPvt. Ltd
		Garg	D.P. Garg Pvt Ltd.,

		Dorset	Dorset Industries Pvt Ltd
15	Mild Steel Butt Hinges / Piano hinges	Jolly	Jolly Engineering works
		Garg	D.P Garg& Company
		Amit	Lovely metal industries Pvt Ltd.
		Jyoti	Jyoti Architectural Pvt Ltd.
		Supreme	Supreme
		Saswat	Saswat
		Deepak	Deepak
		Swift	Swift screws
16	Stainless steel Butt hinges	Prayag	PrayagPolymers (P) Ltd
		Ozone	Ozone Hardware.
		Dorma	Dormakaba India Pvt Ltd
		Geze	GEZEGMBH
17	Concealed tower bolt	Dorma	Dorma India Pvt Ltd
		Ingersolrand	Ingersolrand (India) Ltd,
		Alu Alpha	Alu Alpha India
		Garg	D.P. Garg Pvt Ltd.,
		DORSET	Dorset Industries Pvt Ltd
18	UPVC doors, frames and window profiles	Fenesta	Fenasta DCM Shriman
		QUTE	QuteextrusionPvt. Ltd
		LG	LG Housys India
		Kommerling	Profine India Window technology Pvt Ltd.
		Duroplast	Duroplast extrusion Pvt Ltd
		Polyline	Polyline extrusion Pvt Ltd
		Aparna Venstar	Aparna Enterprises Ltd.
		AMD	AMD overseas Impex (India) Pvt. LTD.
		SimtaAstrix	Simta clear coats pvt.Ltd
		Rajshri	Rajshri Productions Pvt. Ltd.
		NCL VEKA	NCL VEKA Ltd.
		Prominance	Prominance Window Systems
		Marcolini	Mathura Polypack(P) Ltd.

		Akshara Polymerss	Akshara Polymerss
		Encraft	Encraft India Pvt.Ltd.
		Rehau	Rehau Unlimited Polymer Solutions
		Aluplast	Alu Alpha India
		Shirke	B.G Shirke Construction Technology Pvt Ltd.
19	Stainless friction hinges	Hetich	HetichIndia Pvt .Ltd.
		Haffle	Haffle India Pvt .Ltd.
		Securistyle	Securistyle India Pvt .Ltd.
		Earl Bihari	Earl Bihari India Pvt .Ltd.
		ROTO	ROTO Frank Asia
		EBCO	EBCO
20	Float Glass	Saint Gobain,	Saint Gobain India Pvt .Ltd. ,
		Asahi	Asahi India glass .Ltd.
		Pilkinton	Pilkinton India Pvt .Ltd.
		Modiguard	Gujarat Guardian Ltd.
21	Anchor/ SS Stone Dash fasteners	Hilti	Hilti India Pvt .Ltd.
		Fischer	Fischer India
		Anchor	Anchor Ltd
		Kundan	Kundan Industires Ltd.
		Nutech	Nutech Construction Chemicals
		Canon	Cannon
		Wurth	Wuerth India Pvt. Ltd
		Trixel	Axel India Pvt.Ltd
		Helfen	Helfen Anchoring System
		BOSCH	BOSCH Ltd
22	Partions	Birla Aerocon	HIL Ltd (CK Birla Groups)
STEEL WORK			
1	Structural Steel	SAIL	SAIL
		TISCO	TATA STEEL
		VIZAG	RINL

		JSW	JSW
		Apollo	APL Apollo
2	M.S.Pipes / Tubes and Hollow sections.	SAIL	SAIL
		TISCO	TATA STEEL
		METPRO	MKK Matel Section Pvt. Ltd.
		R.K. Steel	R.K. Steel Manufacturing CompnayPvt. Ltd.,
		Apollo	APL Apollo
		Kalinga	Kalinga Tubes
		JINDAL	JSW
		Nezone	Nezone Tubes Limited
3	Stainless steel pipes / sections	Salem	SAIL
		Jindal	JSW
		SAIL	SAIL
		KINGSTON	KINGSTON Brass
		Connect	Connect ltd.
		Ark	Ark Product Pvt. Ltd
4	Stainless steel Bolts, washers, nuts	Kundan	Kundan Industires Ltd
		Pooja	Pooja Steel Corrporation
		Atul	Atul fasterners Ltd
		Hilti	Hilti India Pvt. Ltd
5	Stainless steel pressure plate screws	Kundan	Kundan Industires Ltd
		Pooja	Pooja steel corporation
		Atul	Atul fasterners Ltd
6	Welding rods	Advani	Advani oerlikon Ltd.
		ESAB	ESAB India Pvt. Ltd
7	Steel Windows/Pressed Steel Frames	Madhu Industries,	Madhu Industries, San Harvic, NCL
		San Harvic,	San Harvic
		NCL	NCL Industries
8	M S Precision Tubes (cold seamless pipes	R K Steel	R K Steel Manufacturing Compnay Pvt Ltd
SUB HEAD No.11			
FLOORING			
1	Vitrified tiles & Bath room anti-skid tiles	Asian (AGL)	Asian Granite India Ltd
		NITCO	NITCO Ltd
		RAK	RAK Ceramic IndiaPvt

			Ltd.
		Kajaria	Kajaria Ceramic Ltd
		Restile	Restile Ceramic Ltd
		Somany	Somany Ceramic Ltd
		Jhonson	Prism Jhonson Ltd
		Orient Bell	Orient Bell Ltd
		Varmora Granito	Varmora Granito Granite Ptd Ltd
		Oasis	Oasis Vitrified Pvt Ltd
		Naveen	Murudeshwar Ceramics Ltd.,
		Anuj	Aravid Ceramic Industries Ltd
		Asttra	Asttra Tile and Pavers Company
		Viero	Aparna Tiles
		Aparna Vitero	Aparna Enterprises Ltd
2	Glazed Wall Ceramic Tiles	Asian (AGL)	Asian Granite India Ltd
		NITCO	NITCO Ltd
		RAK	RAK Ceramic IndiaPvt Ltd.
		Kajaria	Kajaria Ceramic Ltd
		Somany	Somany Ceramic Ltd
		Jhonson	Prism Jhonson Ltd
		Orient Bell	Orient Bell Ltd
		Varmora Granito	Varmora Granito Granite Ptd Ltd
		Oasis	Oasis Vitrified Pvt Ltd
		Naveen	Murudeshwar Ceramics Ltd.,
		Anuj	Aravid Ceramic Industries Ltd
3	Cement concrete parking tiles	NITCO	NITCO Ltd
		Eurocon	Eurocon tiles India
		Dazzle	Dazzle Designer tiles Pvt Ltd
		Ultra	Ultra tile private Ltd.
		Anuj	Aravid Ceramic Industries Limited,
		Hindustan tiles	Hindustan tiles, Ranchi Pune
		Poddar	Paddar Udyog
		Asttra	Asttra tile and pavers

			company
		NTC	NTC parking tiles
4	False flooring	Hewetson	Hewetson India
		Unifloor	Unifloor Inida Ltd
		Unitile	Unitile Office system Pvt Ltd
		Kebao	Inner Space (Distributors)
		Access floor system	Access Floor System
		PINNACLE	PINNACLE
5	White Cement	ACC	ACC Cements Ltd
		Birla	Birla Corportion Ltd.
		JK White	JK Cement ltd.
		Hollitex	Hollitex Carpet tiles
		Standard Carpets	Standard Carpets
		Ger flor	Gerflor flooring
		Armstrong	Armstrong world Industires
ROOFING			
1	UPVC Pipes and fittings (Rain water pipes)	Supreme	Superme Industries Ltd.
		Prince	Prince pipes and fittings Ltd.
		Finolex	Finolex Industries Ltd.
		Prepoly	Premier PVC Industry.
		Astral	Astral polytechnik Ltd.
		Ajay	Ajay Industrial Corporation
		Sharon	Sharon Extrusions.
		Vectus	Vectus
		Prayag	Prayag Polimers (P) Ltd
		Flow Guard	Flow Guard
		Truflow	HSIL Ltd of Hindware
		Ashirwad	Ashirwad PVC Pipes
2	Polycorbanate roof sheets	Danapalon	Danapal Light Architecture
		Alcox	Hindeggan Alcox Ltd
		Polygal	Polygal India Pvt Ltd
		MG Polyplast	MG Polyplas
		GE Lexon	GE Silicones
3	False Ceilings	Aerolite	Andhra Polimers Pvt Ltd

		Anutone	Anutone Accoustics Ltd
		Armstrong	Armstrong World Industries
		Ramco	Ramco Industries Ltd
		Knauf	Knauf Gypsum India Pvt Ltd
		Himalyan Acoustics	Himalyan Acoustics
		Saint Gobain Gyproc	Saint Gobain Gyproc India
		Gridsquare	Gridsquare Ceilings
		USG Boral	USG Boral
		Hunter Dougals	Hunter Dougals
4	False ceiling members (Perimeter, ceiling section, intermediates angles etc)	Armstrong	Armstrong World Industries
		Gypframe steel	British Gypsum
		Knauf	Knauf Gypsum India Pvt Ltd
		Saint Gobain	Saint Gobain Gyproc
		Aerolite	Andhra Polimers Pvt Ltd
		Gridsquare	Gridsquare Ceilings
		Hunter Dougals	Hunter Dougals
5	Galvolume sheet for roofing, cladding , sandwhitch panel	Lloyd Metel Craft	Lloyd Insulation (India) Ltd
		Tata Blue Scope	Tata Bluescope
		Bhushan	Bhushan steel
		JSW	JSW
		ESSAR	Essar Group
SUB HEAD No.13 & 14			
FINISHING			
1	Synthetic enamel Paint	Premium gloss enamel	Asian paint Ltd
		Dulex	ICI dulex Ltd
		Nerolac	NerolacPaints Ltd
		Berger	Berger Paints
		Nippon	Nippon Paint India Ltd.
		Surfa Coats	Surfa coats Pvt Ltd
2	Pink primer	Wood primer	Asian paint
		Dulex	ICI dulex
		Nerolac	NerolacKansiaNerolac Paints Ltd.,
		Berger	Berger Paints
		Nippon	Nippon
3	Red Oxide Zinc Chromate primer	High performance yellow metal primer	Asian paint
		Dulex	ICI dulex
		Nerolac	Neroloc Paints Ltd

		Berger	Berger Paints
		Nippon	Nippon
4	Oil Bound Distemper	Tractor Aqalock	Asian paint
		Dulex	ICI dulex
		Nerolac	Neroloc Paints Ltd
		Berger	Berger Paints
		Nippon	Nippon
		mG Polyplast	Neroloc Paints Ltd
5	Premium acrylic emulsion paint	Royale Luxury Emulsion of Asian Paint	Asian paint
		Velvet Touch of Dulux	ICI dulex
		Nerolac Impression 24 Carat	Neroloc Paints Ltd
6	Water Proof Cement paint	Asian exterial wall primer	Asian paint
		Berger	Berger Paints
		Cem Colour	Snowcem Paints
		Surfa	Surfacoats (India) Pvt Ltd
		ICI DULUX	ICI DULUX
7	Acrylic smooth exterior paint	ACE / Apex	Asian paint
		Dulex	ICI dulex
		Nerolac	Neroloc Paints Ltd
		Berger	Berger
		Nippon	Nippon
		Surfa Coats	Surfa coats Pvt Ltd
8	Premium Acrylic smooth exterior paint with silicon additives	Apex Ultima of Asian Paint	Asian paint
		Weather shield max of Dulux	ICI dulex
		Excel top guard of kansai Nerolac	Neroloc Paints Ltd
		Weather coat long life 10	Berger
		Nippon Weather bond Advance	Nippon
9	Cement based wall putty	J.K.wall putty	J.K. Cement Ltd.
		Birla wall case	Birla Cements Ltd.,
		Asian paints	Asian paints Ltd

		Altek	NCL Alltek&seccold Ltd.
		Birla Hil	HIL Ltd (CK Birla Group)
		Berger	Berger
		Ardex Endura	Ardex Endura India Pvt. Ltd.
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
10	Melamine Polish	Asian paints	Asian paints
		Polycure	Polycuremalaysia
		Melamine Gold wudfin	Pidilite industries
		Hilti	Hilti India
		Akzonobel	DulexAkzonobel Paints
		Asian Paints	Asian Paints
		STPL Ltd.	STPL Ltd.
11	Anticorrosive bitumastic paint	Berger	Berger paints India Ltd.
		Shalimar	Shalimar paints India Ltd.
		IS 158 bituminous black	Asian Paints
12	Cement Primer	Asian paints	Asian paints
		JK Primaxx	JK Cement Ltd.
		Berger	Berger paints India Ltd.
13	Epoxy Paint	Berger	Berger paints India Ltd.
		Shalimar	Shalimar paints
		Asian Epoxy	Asian Paints
		STP Ltd.	Shalimar Tar Products
		Ardex Endura	Ardex Endura India Pvt. Ltd.
		Mapecoat L24	MAPEI Construction Products India P Ltd.
		Nerolac	Neroloc Paints Ltd
		Sun Epoxy Paint	Sunanda Speciality Coatings Pvt,Ltd
14	Epoxy Coating	Fosroc	Fosroc India
		Laticrete	MYK Laticrete India
		BASF	BASF India Ltd
		Ardex Endura	Ardex Endura India Pvt. Ltd.

		Mapecoat DW25	MAPEI Construction Products India P Ltd.
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Sun Epoxy Paint	Sunanda Speciality Coatings Pvt,Ltd
SUB HEAD No.17			
SANITARY INSTALLATIONS			
1	Mirrors	Modi Guard	Gujarat Guardian Ltd.
		Saint Gobain	Saint Gobain Glass India Ltd.,
		AIS mirror	Asahi India glass Ltd,
		Atul	Atul glass Industries Ltd.,
		CERA	CERA Sanitaryware Ltd.,
2	Vitreous Commodes/ Washbasin	Hindware	HSIL Ltd,
		Roca	ROCA Bath room products
		Parryware	ROCA BathPvt. Ltd.,
		Kohler	Kohler world wide
		Somany	Somany Ceramic Ltd,
		Golf Ceramics (Prayag)	Golf Ceramics Ltd
		NEYCER	NEYCER India Ltd.,
		CERA	CERA Sanitaryware Ltd.,
		Rak Ceramics	Rak Ceramics India Pvt. Ltd
		Jaquar	Jaquar Group
		Bathsense	Asian paints
3	Flushing Cistern with EWC/WC	Parryware	ROCA Bath Pvt. Ltd.,
		Shakti	Shakti Enterprises
		Hindware	HSIL Ltd,
		Rak Ceramics	Rak Ceramics India Pvt. Ltd
		CERA	CERA Sanitaryware Ltd.,
		Kohler	Kohler world wide
		Jaquar	Jaquar Group
		Bathsense/TECE	Asian paints Ltd
4	Urinals	Parryware	ROCA Bath Pvt. Ltd.,
		Shakti	Shakti Enterprises
		Hindware	HSIL Ltd,

		CERA	CERA Sanitaryware Ltd.,
		Rak Ceramics	Rak Ceramics India Pvt. Ltd
5	SWR / UPVC Pipes& fittings	Supreme	SupermeIndustires Ltd.
		Astral	Astral polytechnik Ltd.
		Finolex	Finolex Industries Ltd.,
		Ajay	Ajay Industries Ltd.
		Vectus	Vectus Industries Ltd.,
		Prince	Prince Pipes and fittings
		Prayag	Prayag polymers Pvt Ltd.,
		Sentini	Sentini Flopipes, India Private Ltd.
		Birla Hil	HIL Ltd (CK Birla Group)
		Astral	Astral Poly Technik Limited,
		Flowgard	Ashirwad PVC Pipes
		Truflow	HSIL Ltd of Hindware
6	Stainless Steel Kitchen sink	Jhonson	PrisionJhonson Ltd.
		Diamond	Pheonix Appliances Pvt. Ltd.
		Jindal	Centuarypolytech
		Kingston	Kingston brass India
		Nirali	Jyoti (India) matel Industries Pvt Ltd.
		Hindware	HSIL Ltd
		Silver shine	Blue stone sanitary Industries Pvt. Ltd.
		Prayag	PrayagPolimers (P) Ltd.
		Navkar	Shri Navkar Metals Ltd.
		Futura	Futura Kitchen Sinks India Pvt. Ltd.
		CERA	CERA Sanitaryware Ltd.,
		Nilkanth	Nilkant
		Joyna	Joyna
		Franke	Franke India Ltd.
7	Sensor Based Auto flush Systems	AOS Systems,	AOS Systems
		TOTO	TOTO Ltd

		Parryware,	Parryware
		Hindware,	HSIL Ltd
		Grohe,	Grohe
		Jaquar	Jaquar Group
		Kochier	Kochier
8	Centrifugally Caste (Spun) Iron Soil waste, Pipes and fittings.	Neco	JayaswalNeco Ltd
		RPMF	Raj Pattern Makers and Founders Pvt. Ltd.
		SKF brand	SKF Industries
		HEPCO	Hepco
		Bengal Iron Corporation	Bengal Iron Corporation
		HIF	M/s.Babulal Bajaj Iron Foundry
9	Modular Kitchen/ Wardrobes/ Hardware and accesseries	Sleek	Asian Paints
		Godrej	Godrej & Boyee Co
		Spacewood	Spacewood
		Evoke	Evoke
SUB HEAD No.18			
WATER SUPPLY			
1	G I Pipes	TATA	TATA Steel Ltd.,
		Zenith	Zenith Birla (India) Ltd.
		Jindal	Jindal Pipes Ltd.,
		R.K. Steel	R.K. Steel Manufacturing CompnayPvt. Ltd.,
		HISSAR	HISSAR
		Apollo	APL Apollo
2	G I Pipe fittings	Zoloto	Zoloto Industries
		Unik	Unikmalleables
		HB	HB Industries
		ICS	Sgreesamarth Engineers
		R.K. Steel	R.K. Steel Manufacturing CompnayPvt. Ltd.,
3	Water supply Valves	Zoloto	Zoloto Industries
		leader	leader valves Ltd.,
		ARCO	Arco valves Pvt. Ltd.,

		Nanda	Nanda Miller company
4	CPVC pipes and fittings	Supreme	Supreme Industries Ltd.
		Finolex	FinolexIndustries Ltd.
		Astral	Astral Polytechnik Ltd.,
		Prince	Prince Pipes andfinttings Ltd,.
		Ajay	Ajay Industrial corporation
		Prayag	Prayag polymers Pvt Ltd.,
		Vectus	Vectus Industries Ltd.,
		Truflo	HIS Ltd.
		Anil	Anil Thermoplastics Pvt. Ltd.
		Birla Hil	HIL Ltd (CK Birla Group)
		Sentini	SentiniFlopipesIndiaPvt. Ltd.
		Astral	Astral Poly Technik Limited,
		Ashirwad	Ashirwad PVC Pipes
		Flowgard	Flowgaurd
5	PVC / HDPE water storage tanks	Sintex	Sintexplastic technology Ltd,.
		Vectus	Vectus Industries Ltd.
		Supreme	Supreme Industries Ltd.
6	Water supply fixtures like bibcock, Shower panels CP Brass fixtures like bibcock, angle cock , Piler Cock, mixtures, Showers etc.,	Jaquar	Jaquar Group
		Parryware	Roca bath room products Pvt. Ltd,
		Metro	Metro sanitationsPvt. Ltd.,
		Waterman	Kewal brothers
		Seiko	Seiko Sanitations
		Prayag	Prayag polymers Pvt Ltd.,
		Kingston	Kingston brass India
		Johnson	Prism Jhonson Ltd
		CERA	CERA Sanitaryware Ltd.,
		MARC	MARK Showers
		HINDWare	HSIL Ltd.
7	Air release valve	Kirloskar	Kirloskar brothers Ltd.,

		RBM	AFS Ltd.,
		Kartar	Kartar valves private Ltd.,
8	Centrifugally (Spun) Cast Iron Pipes	Jindal	Jindal saw Ltd.
		Kesoram	Kesoram Industries Ltd.
		Electrosteel	Electrosteel castings Ltd.
9	Spun Cast iron Fittings	Kartar	KartarValves Private Ltd.
		Neco	Jayaswal Neco Ltd
		Electrosteel	Electrosteel castings Ltd.
		Kapilansh Centrifugal	Kapilansh Dhatu Udyog(P)Ltd.
		SKF brand	SINGHALIRON FOUNDARY Pvt. Ltd.,
10	CI double flange sluice valve	Kirloskar	Kirloskar brothers Ltd.,
		RBM	AFS Ltd.,
		Kartar	Kartar valves private Ltd.,
		IVS	Indian valves private Ltd.,
		Zoloto	Zolota Industries
		Leader	Leader valves Ltd.
		BURN	BURN
11	CI double flanged non return valve	Kirloskar	Kirloskar Brothers Ltd.,
		Fluidtech	Fluidtech
		Zolto	Zolota Industries
12	Gun metal Valves	Zolto	Zolota Industries
		Leader	Leader valves Ltd.
		Sant	Sant valves Pvt Ltd,
		Audco	L&T Valves
13	PTMT/PVC water supply fittings like bibcocks, pillar cock, Angle valve, Stop Valve etc.	PEARL	Precision Products
		Prayag	Prayag Polymers (P) Ltd
		Supreme	Supreme Industries
14	Float Valve (Ball Valve)	Prayag,	Prayag Polymers (P) Ltd

		Leader,	Leader valves Ltd.
		Zoloto,	Zolota Industries
		IBP	IBP Industries
		Arco	Arco valves Pvt. Ltd.,
15	HDPE Pipes	DEC	DEC Infrastructure & Project (India) Pvt Ltd
SUB HEAD No.19			
DRAINAGE			
1	*RCC Pipes	Indian Hume Pipe	Indian Hume Pipe Ltd.,
		Jain & Co	Jain spun pipes Co.,
		Lakshmi Sood&Sood	Lakshmi Sood&Sood Pipe Co.
	(*) Madurai spun pipes has been discontinued from the approval list as they have confirmed that they do not possess BIS license.		
2	CI Manhole cover	Neco	JayaswalNeco Ltd.,
		BIC	Bengal iron corporation
		DEC	DEC Infrastructure & Project (India) Prviate Limited.
		HEPCO	Binay Udyog Pvt. Ltd.
3	SFRC Cover and grating	KK	KK Manhole and gratings Co Pvt Ltd.,
		Advent	Advent concrete vision
		Nu-TEC	Nu-Tech concrete products (P) Ltd,.
		Kutty	Kutty Industries
		DEC	DEC I & P India Pvt.Ltd.
4	Plastic Encapsulated Foot Rest	KK India	KK Manhole and gratings Co Pvt Ltd.,
		KGM	KGM Exports .
		Accurate Buildcon	Accurate Buildcon company.
5	Spun cast iron covers & gratings	Neco	JayaswalNeco Ltd
		Jagannath	Sri Jagannath Iron Foundry Pvt. Ltd.
		Kapilansh Centrifugal	Kapilansh Dhatu Udyog(P)Ltd.
		SKF brand	SINGHALIRON FOUNDARY Pvt. Ltd.,
SUB HEAD No.21			
ALUMINIUM WORK			
1	Aluminium doors/windows sections	Hindalco	Hindalco Industries Ltd.,
		jindal	jindalAluminium Ltd.,
		Bhoruka	BhorukaAluminium Ltd.,

		Indal	Indian Aluminium Ltd.,
		Padmavathi Extrusion	Padmavathi Extrusion Private Ltd.
		Hydro	Hydro Extrusion
		Omalco Extrusion	Omalco Extrusion Pvt. Ltd.
		Bhoruka	BhorukaAluminium Ltd.,
2	Aluminium systems/ Anodised aluminium fittings for doors/windows	Define	Define Overseas Pvt. Ltd.
		Schueco	SchuecoIndiaPvt. Ltd.,
		Bhoruka	BhorukaAluminium Ltd.,
		Kawneer	Kawneer India
		Hardima	Hardima sales corporation
		Everite	Everite Agencies
		Sigma	Sigma Corporation
		Jyothi	Jyothi Industries
3	Friction stay hinges	Earl Bihari	Earl Bihari Pvt. Ltd.
		KINLONG	Kinlong Industries
4	EPDM Gaskets	Anand	Anand NVH products (P) Ltd.,
		Roop	Roop Polymers Ltd.,
		Bohra	Bohra rubber Pvt Ltd.,
		Hanu	Hanu Industries
		Amee Rubber	Amee Rubber Industries Pvt Ltd.
5	Silicon Gaskets	Sree Gaurav	Sree Gaurav Rubber Products
6	Masking Tapes	3M	3M
		Sun	Sun
		Wonder polymer	Wonder Tape Industries
		Roop	Roop Polymers Ltd.,
7	Rockwool/ Glasswool insulation	Twigafiber, ,	Twigaifiber glass ltd
		Llyod Insulation	Llyod Insulation Ltd.
		Supereme	Supereme Industries ltd

8	Aluminium Formwork	MFE(MIVAN)	MIVAN
		S-Form	S-Form
		MFS	MFS
SUB HEAD No.22			
WATER PROOFING WORK			
1	Water proofing compound	Fosroc	Fosroc India
		Sika	Sika India
		Dr.Fixit	PidiliteIndustires
		CICO	CICO Technologies Ltd.,
		Impermo	Snowcem paints
		Accoproof	ACC cements Ltd.,
		Ardex Endura	Ardex Endura (India) Ltd
		Alchemica	Alchemica Ltd.
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		MYK Schomburg	MYK Arments range of products
		Penetron	Penetron India Pvt.Ltd
		Smart Care	Asian Paints
		Cementmix Plus/Advanced Latex Plus	Berger Paints
		Shaliplast LW+	STP Ltd
		Mapecure AS/Mapecure E 30/Mapecure ASE	M/s MAPEI Constructions Product India Pvt. Ltd.
		KCPL	Kunal ConchemPvt. Ltd.,
		STP Ltd	STP Ltd
		Texsa	Texsa India Ltd
		WR Grace	WR Grace Co India Pvt Ltd,
		Dr.Fixit	PidiliteIndustires
		Alchemica	Alchemica Ltd.
		Hydro tech	Hydro tech Ltd
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		MYK Schomburg	MYK Arments range of products

		Asian paints	Smart Care Water Proofing products
		Ardex Endura	Ardex Endura ltd
		Mapeplan TU S20/Planiseal 88/Planiseak 288	M/s MAPEI Constructions Product India Pvt. Ltd.
		Elastoroof PU/Sunroof PU/Sunkote	Sunanda Speciality Coatings Pvt,Ltd
		KCPL	Kunal ConchemPvt. Ltd.,
2	Chemical water proofing system	BASF	BASF India Ltd.,
		MC-Bauchemie	MS-Bauchemie India Ltd.,
		Sika	Sika India
		Sunanda speciality coating	Sunanda speciality coating Pvt Ltd.
		Perma construction Aid	Perma construction Aid Pvt Ltd,
		Fosroc	Fosroc India
		Dr.Fixit	PidiliteIndustires
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Smart Care	Asian Paints
		Latexshield 2K/Tankshield PW	Berger Paints
		KCPL	Kunal ConchemPvt. Ltd.,
3	Water stops	Hydrotite	Sika India
		BASF	BASF India Ltd.,
		Dr.Fixit	PidiliteIndustires
		Hydroswell	Sika India
		Ardex Endura	Ardex Endura ltd
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Smart Care	Asian Paints
SUB HEAD No.25			
ALUMINIUM COMPOSITE PANELS			
1	Aluminium composite panels	Alucobond	3A Composites India Pvt.Ltd.
		Eurobond	M/S Euro panel products Pvt. Ltd.
		Aludecor	M/S Aludecor Lamination Pvt. Ltd.
		Reynobond	Reynobond
		Alpolic	Alpolic
		Alstrong	Alstrong
		Hynadecor	Hynadecor AC Panels, Delhi

		Alstone	Alstone, New Delhi
		Eurobond	Eurobond Pvt.Ltd.,Delhi
		Sevax	Saint Gobain Glass India Ltd.,
		Kich	Kich India
		Ozone	Ozone Ltd
		Hafele	Hafele Ltd
ELECTRICAL ITEMS			
1. **PVC insulated FRLS copper wire**: RRKABEL/POLYCAB/HAVELLS/L&T/ FINOLEX 2. **PVC Medium Grade conduit**: Precision/Balco/AKG/BEC 3. **Switches and Sockets**: Legrand/Schnieder/L&T/Honeywell 4. **Circuit Breakers and Distribution boards**: Legrand/Schnieder/L&T/Siemens 5. **Light fixtures**: Philips/Havells/Wipro/Bajaj/Crompton/Klite			
MISELLANEOUS ITEMS			
1	PVC Perforated Pipes	Rex Polyextrusion	Rex Polyextrusion Ltd,
		Akash Enterprises	Akash Enterprises
		Zenplas Pipes	Zenplas Pipes Pvt. Ltd.,
		Supreme	Supreme Industries
2	Structural Sealant	Dow corning	Dow corning India
		Wacker	Wacker Silicones.
		GE	GE Silicones
		Fosroc	Fosroc India
		BASF	BASF India Ltd.,
		STP Ltd.	Shalimar Tar Products
		Asian paints	Smart Care Sealant
3	Poly-sulphide sealant	Dr.Fixit	PidiliteIndustries Ltd,
		Chemetall-Raj	BASF India Ltd.,
		Fosroc	Fosroc India
		Techseal	Choksey Chemical Pvt. Ltd,
		Tuff seal	Bondit construction Chemical
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		MYK Schomburg	MYK Arments range of products

		Pidilite	PidiliteIndusteries
		STP Ltd.	Shalimar Tar Products
		Smart Care	Asian Paints
4	Bitumen Impregnated Board	Shalitex	STP Limited
5	Polyethylene backer rod	Supreme	Supreme Industries
6	Epoxy	CICO Poxy	CICO Technologies Ltd.,
		Fosroc	Fosroc India
		Shalibons	STP Limited
		Ardex	ArdexEndura (India) Pvt. Ltd,.
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Asian paints	Asian Paints
7	Weather / Structural Silicon sealent	Dow corning	Dow corning India
		Momentive (GE)	GE Silicones