

# MANNAM AYURVEDA CO-OPERATIVE MEDICAL COLLEGE

PANDALAM, KERALA

## COMPLETE TENDER PACKAGE

### CONSTRUCTION OF RCC UNDERGROUND WATER SUMP

Two-Stage Bid: Technical & Prequalification Bid followed by Financial Bid  
Single Tender

| Particular                | Details                                                                                    |
|---------------------------|--------------------------------------------------------------------------------------------|
| Tender No.                | MACMCH/00142/2026-2027                                                                     |
| Name of Work              | Construction of RCC Underground Water Sump at Mannam Ayurveda Co-operative Medical College |
| Location                  | Pandalam, Kerala                                                                           |
| Sump Capacity             | 2,60,000 L (as per approved drawing)                                                       |
| Completion Period         | 90 calendar days/ <del>months</del>                                                        |
| Tender Inviting Authority | The Director, MACMC, Pandalam                                                              |
| Issue Date                |                                                                                            |

#### **1. PART I – NOTICE INVITING TENDER**

Sealed/online tenders are invited from eligible and technically qualified contractors/agencies for the construction of RCC underground water sump(s) at Mannam Ayurveda Co-operative Medical College, Pandalam, Kerala.

The tender shall be processed as a Two-Stage Bid System, consisting of:

Stage I – Technical Bid-cum-Prequalification Bid

Stage II – Financial Bid

Both bids shall form part of one single tender. The Financial Bid of only those bidders who satisfy the prescribed technical and prequalification requirements will be considered.

## **2. TWO-STAGE BID PROCEDURE**

The tender will be evaluated in two stages.

### **Stage I – Technical & Prequalification Bid**

The bidder shall submit all documents establishing:

- Legal status of the firm.
- Registration and eligibility.
- Experience in similar RCC construction works.
- Financial capacity.
- Technical manpower.
- Availability of equipment.
- Tax registrations and statutory compliance.
- EMD/tender fee, wherever applicable.
- Acceptance of tender conditions.
- Other documents specifically required under this tender.

The Technical Bid will be evaluated on a **Pass/Fail basis**, unless specific scoring criteria are prescribed separately.

### **Stage II – Financial Bid**

The Financial Bid shall be opened only for bidders who are declared **Technically Qualified/Prequalified**.

The successful bidder shall normally be determined based on the evaluated financial offer, subject to the conditions of this tender and approval of the competent authority.

### **3. TENDER DETAILS**

| <b>Sl.No.</b> | <b>Particulars</b>                      | <b>Details</b>                                                         |
|---------------|-----------------------------------------|------------------------------------------------------------------------|
| 1             | Tender No.                              | :                                                                      |
| 2             | Name of Work                            | : Construction of RCC Underground Water Sump                           |
| 3             | Location                                | : Mannam Ayurveda Co-operative Medical College, Pandalam               |
| 4             | Tender Document Fee                     | : ₹ 500/-                                                              |
| 5             | Security Deposit                        | : 5% of the Contract value                                             |
| 6             | EMD                                     | : ₹ 50,000/-                                                           |
| 7             | Retention Amount                        | : 10% of Contract value on RA bills                                    |
| 8             | Period of Completion                    | : 90 calendar days/ <del>months</del>                                  |
| 9             | Last Date & Time for Submission         | : 12/10/2026, 3 PM                                                     |
| 10            | Date & Time of Opening of Technical Bid | : 12/10/2026, 4 PM                                                     |
| 11            | Date of Opening of Financial Bid        | : Will be intimated to technically qualified bidders                   |
| 12            | Validity of Tender                      | : 60 days                                                              |
| 13            | Defect Liability Period                 | : 12 months                                                            |
| 14            | Performance Security                    | : As specified in the tender conditions                                |
| 15            | Place of Submission                     | : Office of The Director, MACMC Pandalam                               |
| 16            | Tender Inviting Authority               | : The Director, Mannam Ayurveda Co-operative Medical College, Pandalam |

## **4. ELIGIBILITY / PREQUALIFICATION CRITERIA**

The bidder shall satisfy the following minimum requirements

### **4.2 Similar Work Experience**

The bidder shall have successfully completed civil construction works of similar nature during the preceding 3 years.

For this tender, **similar work** shall mean construction of RCC underground water tanks/sumps, RCC water-retaining structures, overhead/underground tanks, RCC reservoirs or other similar RCC structures.

The bidder shall submit:

- Work order/agreement.
- Completion certificate.
- Final bill/payment certificate, wherever applicable.
- Details of the client/department.
- Value of completed work.

### **Suggested minimum experience criterion**

The bidder shall have completed either:

**Option A:** One similar work costing not less than **80% of the estimated contract value**,

or

**Option B:** Two similar works, each costing not less than **50% of the estimated contract value**,

or

**Option C:** Three similar works, each costing not less than **40% of the estimated contract value**.

## **5. FINANCIAL CAPACITY**

The bidder shall have adequate financial capacity to execute the work.

The following documents shall be submitted:

1. Income Tax Returns for the preceding \_\_\_\_\_ financial years.
2. Audited balance sheets/profit and loss statements for the preceding \_\_\_\_\_ years.
3. Annual turnover certificate from a Chartered Accountant.
4. Bank solvency/credit facility certificate, if required.
5. GST returns/compliance documents, wherever applicable.

### **Minimum Average Annual Turnover**

The bidder shall have achieved an average annual turnover of not less than \_\_\_\_\_ **% of the estimated contract value** during the preceding \_\_\_\_\_ financial years.

## **6. TECHNICAL MANPOWER**

The bidder shall have adequate qualified technical personnel for execution of the work.

The proposed technical staff shall include, as applicable:

| <b>Sl. No.</b> | <b>Personnel</b>     | <b>Minimum Requirement</b> |
|----------------|----------------------|----------------------------|
| 1              | Civil Engineer       | _____:1                    |
| 2              | Site Supervisor      | _____:2                    |
| 3              | Skilled Mason        | _____:4                    |
| 4              | Bar Bender           | _____:2                    |
| 5              | Shuttering Carpenter | _____:4                    |
| 6              | Electrician/Plumber  | : As required              |

Details of technical personnel shall be submitted in the prescribed format.

## **7. EQUIPMENT AND MACHINERY**

The bidder shall possess or have assured access to the equipment necessary for satisfactory completion of the work.

Indicative equipment:

- Concrete mixer / batching arrangement.
- Needle vibrators.
- Concrete cutting equipment.
- Bar cutting machine.
- Bar bending machine.
- Dewatering pump.
- Excavator/JCB, where required.
- Plate compactor/rammer.
- Welding equipment, where required.
- Scaffolding/formwork system.
- Water testing arrangements.
- Other equipment required for the work.
- The bidder shall submit an **Equipment Availability Statement**.

## **8. TECHNICAL BID – DOCUMENT CHECKLIST**

The following documents shall be submitted with the Technical Bid.

| <b>Sl. No.</b> | <b>Document</b>                       | <b>Submitted</b> |
|----------------|---------------------------------------|------------------|
| 1              | Tender application                    | Yes/No           |
| 2              | Firm/Company registration certificate | Yes/No           |
| 3              | Contractor registration certificate   | Yes/No           |
| 4              | PAN                                   | Yes/No           |
| 5              | GST Registration Certificate          | Yes/No           |
| 6              | Income Tax documents                  | Yes/No           |
| 7              | Similar work completion certificates  | Yes/No           |

| <b>Sl. No.</b> | <b>Document</b>                                        | <b>Submitted</b> |
|----------------|--------------------------------------------------------|------------------|
| 8              | Work orders of similar works                           | Yes/No           |
| 9              | Turnover certificate from Chartered Accountant         | Yes/No           |
| 10             | Audited financial statements                           | Yes/No           |
| 11             | Bank solvency certificate                              | Yes/No           |
| 12             | EMD proof                                              | Yes/No           |
| 13             | Tender fee proof                                       | Yes/No           |
| 14             | Technical manpower details                             | Yes/No           |
| 15             | Equipment details                                      | Yes/No           |
| 16             | List of ongoing works                                  | Yes/No           |
| 17             | Declaration regarding non-blacklisting                 | Yes/No           |
| 18             | Litigation/arbitration declaration                     | Yes/No           |
| 19             | Acceptance of tender conditions                        | Yes/No           |
| 20             | Site inspection declaration                            | Yes/No           |
| 21             | Signed copy of tender document                         | Yes/No           |
| 22             | Other documents specified by Tender Inviting Authority | Yes/No           |

## **9. SCOPE OF WORK**

The work comprises complete construction, testing and commissioning of an RCC underground water-retaining sump, including all incidental works required for a watertight and serviceable installation.

- Site investigation, setting out and protection of existing services.
- Excavation in soil/hard strata as encountered, including shoring/support and dewatering where necessary.
- Disposal/stacking of excavated material as directed.
- PCC levelling/blinding concrete.
- Reinforced concrete base slab, walls, roof/cover slab and structural members as shown in approved drawings.
- Reinforcement steel, cutting, bending, placing, tying, spacers and chairs.
- Formwork, staging and supports.
- Construction joints, waterstops, puddle flanges and treatment of penetrations.
- Internal/external waterproofing/protective treatment where specified.
- Inlet, outlet, overflow, scour/drain, vent, sleeves and pipe connections.
- Manhole openings, covers, access ladder/steps and safety arrangements.
- Backfilling, compaction, surface restoration and disposal of surplus debris.
- Water-tightness testing, cleaning, disinfection where applicable, commissioning and handing over.

## **10. CODES, STANDARDS AND TECHNICAL REFERENCES**

- Unless otherwise specified, the latest applicable edition/amendment in force on the tender date shall govern. Where a conflict exists, the more stringent requirement shall apply subject to the Engineer's written decision.

| Standard                                     | Application                                                                  |
|----------------------------------------------|------------------------------------------------------------------------------|
| IS 3370 (Part 1) – latest applicable edition | Concrete structures for retaining aqueous liquids – general requirements     |
| IS 3370 (Part 2) – latest applicable edition | Reinforced concrete liquid-retaining structures                              |
| IS 456:2000                                  | Plain and reinforced concrete; to be read with the liquid-retaining standard |
| IS 1786:2008 or latest applicable edition    | High-strength deformed steel bars and wires                                  |
| IS 10262:2019 or latest applicable edition   | Concrete mix proportioning                                                   |
| IS 6494:1988, reviewed 2025                  | Waterproofing of underground water reservoirs and swimming pools             |
| IS 9103:1999 or latest applicable edition    | Concrete admixtures                                                          |
| IS 383:2016 or latest applicable edition     | Coarse and fine aggregates for concrete                                      |
| IS 516 series / applicable latest methods    | Concrete strength and related testing                                        |
| Applicable plumbing/water-supply standards   | Pipes, fittings, valves and accessories                                      |

- The BIS database currently identifies IS 3370 Part 1:2021 as the second revision and IS 6494:1988 as reviewed in 2025. IS 456:2000 remains the governing general RCC code unless superseded by an applicable project requirement.

## 11. DESIGN AND STRUCTURAL REQUIREMENTS

- The sump shall be designed by a qualified structural engineer experienced in liquid-retaining structures.
- Design shall consider both full and empty conditions, external earth pressure, groundwater/uplift, surcharge, construction condition, roof loading, access loads and applicable seismic effects.
- The structural design shall specifically control cracking and water-tightness in accordance with the applicable liquid-retaining code.
- Member thicknesses, reinforcement, joint spacing, anchorage and detailing shall be as per approved structural drawings; the contractor shall not assume nominal dimensions in place of the approved design.
- Minimum concrete grade shall be M30 for RCC liquid-retaining members unless the approved design/specification requires a higher grade.
- Reinforcement shall be Fe500D or the grade specifically shown on approved structural drawings, conforming to the applicable standard.
- Nominal cover shall be as shown in the approved structural drawings and liquid-retaining design; 40–50 mm may be adopted as a project minimum only after design confirmation.
- Concrete shall be dense, properly compacted and adequately cured. Honeycombing, segregation, cold joints and uncontrolled cracks are unacceptable.
- Construction joints shall be restricted to locations shown/approved by the Engineer and shall include approved waterstops where required.
- All pipe sleeves/penetrations shall be detailed before concreting. Retrofitting by core cutting/chasing shall not be permitted without written approval.
- The roof slab shall be designed for its own weight, soil/finish load if any, maintenance/access load, hydrostatic or uplift effects as applicable, and any imposed equipment load.
- Where groundwater is present, uplift stability shall be checked for the empty sump condition.

## **12. MATERIAL SPECIFICATIONS**

### **12.1 Cement**

OPC/PPC/PSC of approved make and relevant IS specification may be used subject to mix-design approval. Cement shall be fresh, properly stored, free from lumps and protected from moisture.

### **12.2 Reinforcement**

High-strength deformed bars, Fe500D unless otherwise specified, shall conform to the applicable BIS standard. Mill certificates and test certificates shall be submitted. Bars shall be free from loose rust, oil, mud and harmful coatings.

### **12.3 Aggregates**

Aggregates shall be clean, hard, durable and well graded. Maximum nominal size shall be selected to suit member thickness, reinforcement spacing and pumping/placing requirements.

### **12.4 Water**

Water used for mixing and curing shall be clean and suitable for concrete.

### **12.5 Admixtures**

Only approved admixtures compatible with the cement and mix shall be used. They shall comply with the applicable standard and be dosed in accordance with the approved mix design.

### **12.6 Waterstops**

PVC/rubber/hydrophilic waterstops of approved type and dimensions shall be used at designated construction/movement joints. The selected system shall be compatible with the liquid-retaining structure and installed continuously with properly welded/joined intersections.

### **12.7 Waterproofing**

Waterproofing shall comply with the approved system and IS 6494. Waterproofing shall not be used as a substitute for watertight RCC design and good joint detailing.

## **13. CONSTRUCTION WORKMANSHIP**

### **13.1 Setting Out**

Set out from permanent reference points approved by the Engineer. Check dimensions, levels and diagonals before excavation and before concreting.

### **13.2 Excavation**

Excavate to the approved lines and levels. Provide safe side slopes/shoring and dewatering. Do not undermine adjacent structures. Unsuitable material shall be removed as directed.

### **13.3 Subgrade**

Bottom shall be trimmed, compacted where applicable and approved. Soft spots shall be removed and replaced with approved material.

### **13.4 PCC**

Provide blinding/PCC of specified grade and thickness on the prepared base. Surface shall be level and suitable for reinforcement/formwork.

### 13.5 Reinforcement

Cut, bend and fix reinforcement as per approved bar bending schedule. Provide approved spacers/chairs to maintain cover. Laps shall be located and staggered as detailed.

### 13.6 Formwork

Formwork shall be rigid, leak-proof and accurately aligned. Internal faces shall be clean and treated with an approved release agent that will not impair concrete/waterproofing.

### 13.7 Concrete

Concrete shall be from approved design mix. Place continuously as far as practicable. Mechanical vibration shall be used without displacing reinforcement or waterstops.

### 13.8 Curing

Cure concrete adequately using methods approved by the Engineer. Curing shall be continuous and shall prevent premature drying and thermal/shrinkage cracking.

### 13.9 Joints

All joints shall be planned before concreting. Construction-joint surfaces shall be properly prepared and cleaned. Waterstops shall be securely fixed.

### 13.10 Backfilling

Backfill only after concrete/waterproofing has achieved the required strength and approval is obtained. Place in controlled layers and compact without damaging the structure.

## 14. WATER-TIGHTNESS AND TESTING

The completed sump shall be tested before commissioning. Testing shall be carried out after the structural concrete has achieved the specified strength and after the Engineer confirms readiness.

- Clean the sump and close/blank all outlets as directed.
- Fill with clean water in stages, allowing appropriate observation periods.
- Monitor visible leakage, seepage, abnormal damp patches and water-level changes after accounting for evaporation and other permitted losses.
- Inspect external faces, joints, pipe penetrations and corners.
- Any leakage attributable to construction defects shall be rectified by the contractor at no extra cost.
- Repairs shall use an Engineer-approved system compatible with potable/utility water storage, as applicable.
- The sump shall be retested after repairs.
- Final acceptance requires satisfactory structural inspection and water-tightness testing.

## 15. QUALITY ASSURANCE / QUALITY CONTROL

| Activity       | Minimum Control / Record                                                    |
|----------------|-----------------------------------------------------------------------------|
| Cement         | Manufacturer/test certificate; storage inspection                           |
| Reinforcement  | Mill certificate; diameter/grade verification; sample testing when directed |
| Aggregates     | Source approval; grading/quality tests as required                          |
| Concrete mix   | Approved mix design; batch records                                          |
| Fresh concrete | Slump/workability checks                                                    |

|                        |                                                                          |
|------------------------|--------------------------------------------------------------------------|
| Concrete strength      | Cube/cylinder testing as specified by Engineer and applicable standards  |
| Reinforcement/Formwork | Pre-pour inspection checklist                                            |
| Waterstops/Sleeves     | Joint/penetration inspection before pour                                 |
| Curing                 | Daily site record                                                        |
| Water-tightness        | Test record and Engineer's acceptance                                    |
| As-built               | Final dimensions, levels, invert levels, pipe locations and test records |

## 16. HEALTH, SAFETY AND ENVIRONMENT

- Comply with applicable labour, safety and environmental legislation and institutional safety requirements.
- Provide PPE, barricading, warning signs, safe access and emergency arrangements.
- Deep excavation shall be protected against collapse and unauthorized entry.
- Provide safe electrical connections, earthing and protection for pumps/tools.
- Control dust, mud, concrete washout, noise and construction debris.
- Maintain access to the medical college and protect students, patients, staff and visitors from the work zone.
- No excavation shall proceed without confirming known underground services.

## 17. TECHNICAL & PREQUALIFICATION BID – MANDATORY DOCUMENTS

| Sl. | Document                                                                  | Pass/Fail |
|-----|---------------------------------------------------------------------------|-----------|
| 1   | Tender application and signed bid form                                    |           |
| 2   | Firm/company/proprietorship registration                                  |           |
| 3   | Valid civil contractor registration/eligibility certificate as applicable |           |
| 4   | PAN                                                                       |           |
| 5   | GST registration and compliance, where applicable                         |           |
| 6   | EMD/tender fee proof as prescribed                                        |           |
| 7   | Similar work experience certificates                                      |           |
| 8   | Work orders/agreement copies for claimed experience                       |           |
| 9   | Completion certificates/final payment certificates                        |           |
| 10  | Average annual turnover certificate from Chartered Accountant             |           |
| 11  | Audited financial statements / ITRs as prescribed                         |           |
| 12  | Bank solvency/financial capacity certificate if required                  |           |
| 13  | Technical manpower statement                                              |           |
| 14  | Equipment availability statement                                          |           |
| 15  | Method statement for RCC liquid-retaining structure                       |           |
| 16  | Quality assurance and testing plan                                        |           |
| 17  | Work programme                                                            |           |
| 18  | Non-blacklisting declaration                                              |           |
| 19  | Litigation/arbitration declaration                                        |           |
| 20  | Site inspection declaration                                               |           |
| 21  | Signed tender document and addenda/corrigenda                             |           |

## **18. TECHNICAL BID APPLICATION**

To

**The Director**

Mannam Ayurveda Co-operative Medical College  
Pandalam, Kerala.

**Subject: Tender for Construction of RCC Underground Water Sump**

Sir/Madam,

We hereby submit our Technical Bid for the above work.

We have examined the Tender Document, drawings, specifications, Bill of Quantities and other conditions relating to the work.

We certify that:

1. The information furnished by us is true and correct.
2. We satisfy the prescribed eligibility and prequalification requirements.
3. We have inspected the site and acquainted ourselves with the site conditions.
4. We have understood the nature and scope of the work.
5. We have adequate technical personnel, equipment and resources to execute the work.
6. We shall execute the work in accordance with the approved drawings and specifications.
7. We agree to comply with all applicable statutory requirements.
8. We have not been blacklisted/debarred by any competent authority, except as specifically declared by us.
9. We agree to the terms and conditions contained in the tender document.
10. We understand that submission of the Technical Bid does not confer any right to award of the work.

**Name of Firm:** \_\_\_\_\_

**Name of Authorized Signatory:** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Seal:** \_\_\_\_\_

## **19. DECLARATION OF NON-BLACKLISTING**

We hereby declare that our firm/company has not been blacklisted, suspended or debarred by the Government of India, Government of Kerala, Local Self Government Institutions, Government Departments, Public Sector Undertakings or any other statutory authority as on the date of submission of this tender.

We further declare that no material information has been concealed.

If any information furnished by us is subsequently found to be false or incorrect, the Tender Inviting Authority shall be entitled to take appropriate action as per the tender conditions.

**Name of Firm:** \_\_\_\_\_

**Authorized Signatory:** \_\_\_\_\_

**Signature & Seal:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## **20. SITE INSPECTION DECLARATION**

We hereby certify that we have inspected the proposed site of the work at Mannam Ayurveda Co-operative Medical College, Pandalam and have acquainted ourselves with:

- Site accessibility.
- Existing ground conditions.
- Existing buildings and services.
- Existing water-supply arrangements.
- Excavation requirements.
- Groundwater/dewatering conditions.
- Availability of materials.
- Disposal of excavated earth.
- Working space and access.
- Other local conditions affecting execution of the work.

We confirm that no additional claim shall be made on account of conditions which could reasonably have been identified during site inspection, except as otherwise provided in the contract.

**Name of Bidder:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Seal:** \_\_\_\_\_

**21. BILL OF QUANTITIES**

| Sl No    | Description of Item of Work                                                                                                                                                                                                                                                                                                                                                                         | Unit           | Quantity | Rate | Amount |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|------|--------|
| 1<br>(a) | Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 in width as well as 10 sqm on plan) including getting out and disposal of excavated earth led up to 50 m and lift up to 1.5m, as directed by Engineering-in-charge for depth up to 1.5m.                                                                                 | m <sup>3</sup> | 203.67   |      |        |
| 1<br>(b) | Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in dept, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead up to 50 m and exceeding 1.5m, as directed by Engineer-in-charge. For depth exceeding 1.5m.                                                                              | m <sup>3</sup> | 325.87   |      |        |
| 2        | Providing and laying in position cement concrete of specified grade including the cost of centering and shuttering – All work up to plinth level and below ground level, 1:4:8 (1 Cement : 4 coarse sand (zone – III) : 8 graded stone aggregate 40 mm normal size) including all labour watering and curing etc. complete                                                                          | m <sup>3</sup> | 18.02    |      |        |
| 3(a)     | Reinforced cement concrete work in slabs for sump tank at bottom level, including the cost of centering, shuttering, finishing and with M30 concrete mix design which should be done a reputed Engineering college/ agency using the materials proposed to be used at the site including all watering, curing charges etc. complete – for bottom slabs. Reinforcement measured and paid separately. | m <sup>3</sup> | 28.15    |      |        |
| 3(b)     | Reinforced cement concrete work in beams for sump tank at bottom level, including the cost of centering, shuttering, finishing and with M30 concrete mix design which should be done a reputed Engineering college/ agency using the materials proposed to be used at the site including all watering, curing charges etc. complete – for beams. Reinforcement measured and paid separately.        | m <sup>3</sup> | 3.58     |      |        |

| Sl No | Description of Item of Work                                                                                                                                                                                                                                                                                                                                                                   | Unit           | Quantity | Rate | Amount |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|------|--------|
| 4     | Reinforced cement concrete work in slabs for sump tank at bottom level, including the cost of centering, shuttering, finishing and with M30 concrete mix design which should be done a reputed Engineering college/ agency using the materials proposed to be used at the site including all watering, curing charges etc. complete – for walls Reinforcement measured and paid separately.   | m <sup>3</sup> | 42.51    |      |        |
| 5     | Reinforced cement concrete work in slabs for sump tank at bottom level, including the cost of centering, shuttering, finishing and with M30 concrete mix design which should be done a reputed Engineering college/ agency using the materials proposed to be used at the site including all watering, curing charges etc. complete – for columns Reinforcement measured and paid separately. | m <sup>3</sup> | 3.39     |      |        |
| 6     | Reinforced cement concrete work in slabs for sump tank at roof level, including the cost of centering, shuttering, finishing and with M30 concrete mix design which should be done a reputed Engineering college/ agency using the materials proposed to be used at the site including all watering, curing charges etc. complete – for slabs. Reinforcement measured and paid separately.    | m <sup>3</sup> | 14.4     |      |        |
| 7     | Reinforced cement concrete work in slabs for sump tank at roof level, including the cost of centering, shuttering, finishing and with M30 concrete mix design which should be done a reputed Engineering college/ agency using the materials proposed to be used at the site including all watering, curing charges etc. complete – for beams. Reinforcement measured and paid separately.    | m <sup>3</sup> | 1.54     |      |        |
| 8     | Cement plaster 1:3, (1 cement, 3 fine sand), 12 mm thick for ceiling with water proofing liquid, proportion as per manufacturer, including all labour scaffolding etc complete                                                                                                                                                                                                                | m <sup>2</sup> | 88.89    |      |        |

| Sl No | Description of Item of Work                                                                                                                                                                                                                  | Unit           | Quantity | Rate | Amount |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|------|--------|
| 9     | 12 mm cement plater of mix : 1:4 (1 cement : 4 fine sand) for inside and outside wall with liquid water proofing material (proportion as per manufacturer) all including curing etc complete. For all works, in all level                    | m <sup>2</sup> | 217.01   |      |        |
| 10    | Cement plaster 1:3, (1 cement, 3 fine sand), 12 mm thick for floor finish with water proofing liquid, proportion as per manufacturer, including all labour scaffolding etc complete                                                          | m <sup>2</sup> | 82.98    |      |        |
| 11    | Steel reinforcement for R.C.C. Work including straightening, cutting, bending, placing in position and binding all complete up to plinth level. Hot rolled deformed bars                                                                     | kg             | 11270    |      |        |
| 12    | Water proofing outside wall.. priming with water base bitumen primer one coat and laying 4mm Dr. Fixit Torchshield (APP membrane plain) P-4160 with 100 mm overlapping, joints welding with hot trowel.                                      | m <sup>2</sup> | 172.07   |      |        |
| 13    | Laying dimple board 500 gsm over the Dr. Fixit Torchshield on basement wall before backup filling for protection of APP Sheet.                                                                                                               | m <sup>2</sup> | 172.07   |      |        |
| 14    | Water proofing inside wall. Applying acrylic base 3 coat system like Fosroc brush bond or Dr. Fixit new coast or similar on pried surface with laying fibre mesh between 1 <sup>st</sup> and 2 <sup>nd</sup> coat including all corners etc. | m <sup>2</sup> | 300.24   |      |        |
| 15    | Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift above 1.5m     | m <sup>3</sup> | 247.34   |      |        |
| 16    | Supplying and fixing GI ladder to motor room/ GI members of size 50*32,16 guage on each side and steps with same members.                                                                                                                    | each           | 1        |      |        |
| 17    | Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacture's specifications including appropriate priming coat, preparation of surface, etc. complete.                                          | each           | L S      |      |        |

| Sl No                   | Description of Item of Work                                                                                                       | Unit | Quantity | Rate | Amount |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------|----------|------|--------|
| 18                      | Providing FRP, 2.5 t capacity cover 760 mm dia at openings provided. 760 mm diameter C.I. cover (heavy duty). including frame etc | each | 6        |      |        |
|                         |                                                                                                                                   |      |          |      |        |
|                         | Total                                                                                                                             |      |          |      |        |
|                         | GST @18%                                                                                                                          |      |          |      |        |
|                         | Total amount after GST                                                                                                            |      |          |      |        |
|                         | Rounded to                                                                                                                        |      |          |      |        |
| <b>Total ..... only</b> |                                                                                                                                   |      |          |      |        |

## **22. GENERAL CONDITIONS OF CONTRACT**

### **22.1 Authority to Reject**

The Tender Inviting Authority reserves the right to accept or reject any tender, in whole or in part, without assigning reasons, subject to applicable rules.

### **22.2 Conditional Tenders**

Conditional, incomplete or ambiguous tenders may be rejected.

### **22.3 Canvassing**

Canvassing in any form shall result in disqualification.

### **22.4 False Information**

Submission of false information or forged documents shall result in disqualification and may result in further action as per applicable rules.

### **22.5 Subletting**

The contractor shall not sublet the whole or substantial portion of the work without prior written permission of the competent authority.

### **22.6 Inspection**

The Engineer-in-Charge shall have the right to inspect the work and materials at any stage.

### **22.7 Measurement**

Payment shall be made based on measurements recorded and certified by the Engineer-in-Charge in accordance with the contract.

### **22.8 Variations**

Variations in quantities shall be dealt with in accordance with the applicable contract conditions and approval procedures.

## **22.9 Defective Work**

Defective or rejected work shall be removed and reconstructed by the contractor at his/her own cost.

## **23. PAYMENT**

Payment shall be made against measured quantities of satisfactorily completed work, subject to:

- Submission of required bills.
- Measurement and certification.
- Quality approval.
- Statutory deductions.
- Recovery of advances, if any.
- Other contractual deductions.

No payment shall be made for rejected work or unauthorized work.

## **24. SECURITY DEPOSIT / PERFORMANCE SECURITY**

The successful bidder shall furnish the required Performance Security/Security Deposit within the prescribed period and in the prescribed form.

Failure to furnish the required security within the stipulated time may result in cancellation of the award and forfeiture of the EMD, as applicable.

## **25. RETENTION / RECOVERY**

The Employer shall be entitled to deduct applicable security deposit, retention amount, taxes, statutory dues and other recoveries from payments due to the contractor in accordance with the contract conditions.

## **26. DEFECT LIABILITY**

The contractor shall remain responsible for defects arising from defective materials or workmanship during the specified Defect Liability Period.

The contractor shall rectify such defects within the period stipulated by the Engineer-in-Charge.

## **27. DISPUTE RESOLUTION**

Any dispute arising out of or relating to the contract shall be dealt with in accordance with the dispute-resolution mechanism specified by the Employer and applicable statutory provisions.

The decision of the competent authority shall be binding to the extent provided under the contract.

## **28. CONTRACT DOCUMENTS**

The following shall form part of the contract:

1. Letter of Acceptance/Work Order.
2. Tender Document.
3. Special Conditions of Contract.
4. General Conditions of Contract.
5. Technical Specifications.
6. Approved drawings.
7. Bill of Quantities.
8. Contractor's accepted Financial Bid.
9. Accepted Technical Bid and methodology.
10. Addenda/corrigenda issued by the Employer.
11. Other documents specifically incorporated into the agreement.

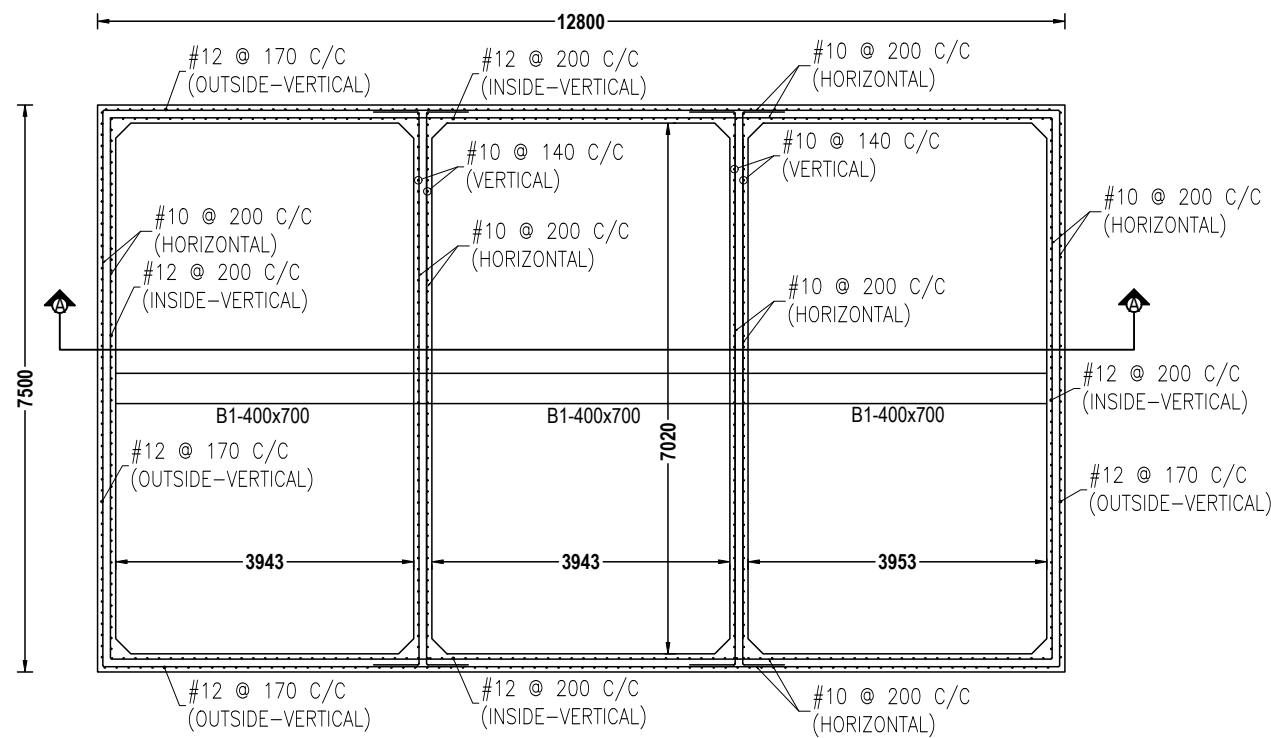
## **29. ORDER OF PRECEDENCE**

In case of discrepancy between contract documents, the order of precedence shall be as specified by the Tender Inviting Authority in the final agreement.

## **30. ANNEXURE – BIDDER INFORMATION**

| <b><u>Particulars</u></b>             | <b><u>Details</u></b> |
|---------------------------------------|-----------------------|
| Name of Firm                          | :                     |
| Constitution of Firm                  | :                     |
| Registered Address                    | :                     |
| Office Address                        | :                     |
| Contact Person                        | :                     |
| Telephone                             | :                     |
| E-mail                                | :                     |
| PAN                                   | :                     |
| GSTIN                                 | :                     |
| Contractor Registration No.           | :                     |
| Registration Class                    | :                     |
| Year of Establishment                 | :                     |
| Name of Proprietor/Partners/Directors | :                     |
| Bank Details                          | :                     |
| Annual Turnover                       | :                     |
| Similar Works Completed               | :                     |

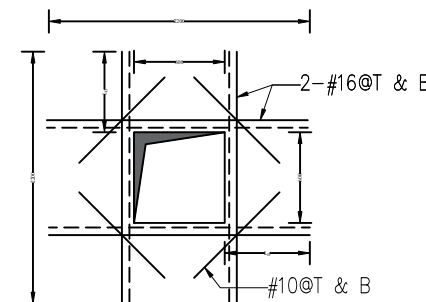




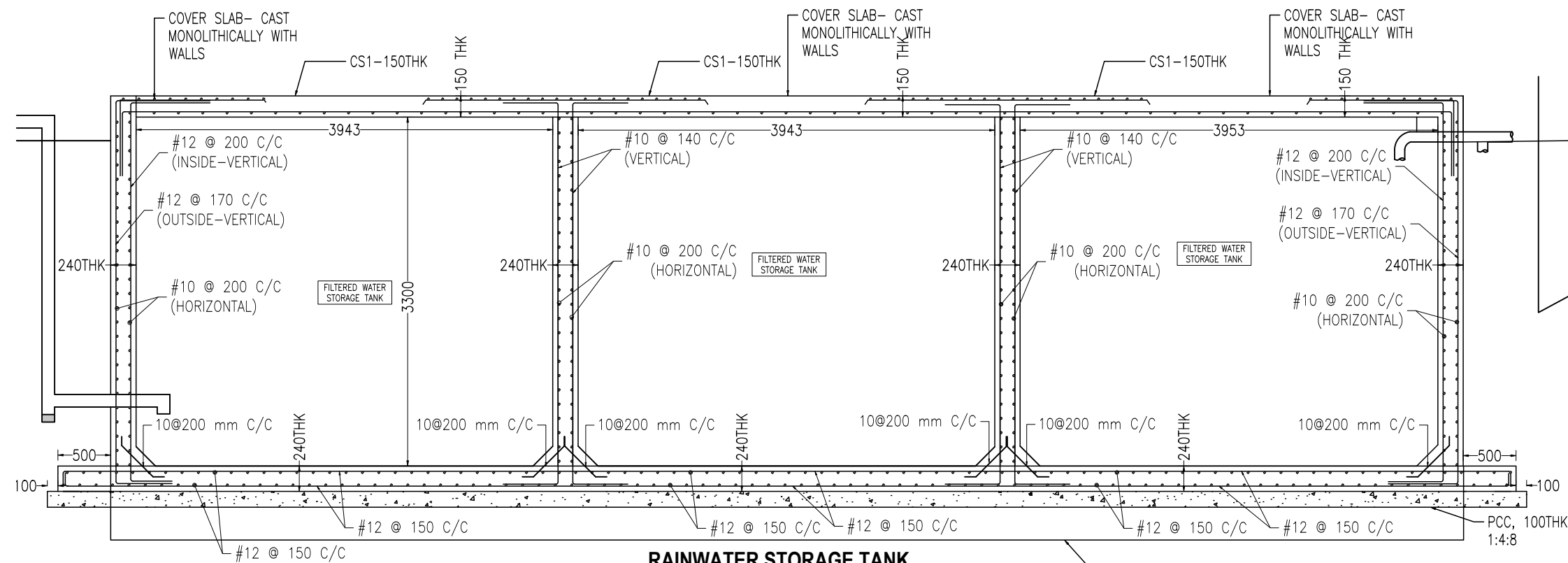
**RAINWATER STORAGE TANK**  
**PLAN**  
SCALE 1:100

| SLAB REINFORCEMENT DETAILS- COVER SLAB |                |                       |                |                   |                |              |
|----------------------------------------|----------------|-----------------------|----------------|-------------------|----------------|--------------|
| SLAB DESIGNATION                       | SLAB THICKNESS | REINFORCEMENT DETAILS |                |                   |                | REMARKS      |
|                                        |                | SHORT SPAN            |                | LONG SPAN         |                |              |
|                                        |                | MID SPAN (BOTTOM)     | SUPPORTS (TOP) | MID SPAN (BOTTOM) | SUPPORTS (TOP) |              |
| CS1                                    | 150            | #8 @ 135 C/C          | #8 @ 135 C/C   | #8 @ 150 C/C      | #8 @ 150 C/C   | TWO WAY SLAB |

- GENERAL NOTE**
- ALL DIMENSIONS ARE IN MILLIMETERS UNO.
  - READ THIS DRAWING WITH RELEVANT ARCHITECTURAL DRAWINGS.
  - THE SAFE BEARING CAPACITY OF SOIL IS 200 kN/m<sup>2</sup>
  - USE Fe500D STEEL AND M30 GRADE CONCRETE WITH MINIMUM CEMENT CONTENT OF 400 kg/m<sup>3</sup> AND MAXIMUM FREE WATER CEMENT RATIO 0.45 UNO
  - THE CONSTRUCTION OF R.C.C. WORKS SHALL COMPLY WITH IS:456-2000. REFER TO IS:456 AND OTHER RELEVANT INDIAN STANDARDS.
  - MINIMUM CLEAR COVER TO ALL REINFORCEMENT INCLUDING STIRRUPS; FOUNDATION-50 mm, COLUMNS-40mm, BEAMS-30mm & SLAB-20mm.
  - A MINIMUM CLEAR COVER OF 50MM SHALL BE GIVEN FOR ALL STRUCTURES BELOW GROUND LEVEL
  - LAPS IN REINFORCEMENT:THE MINIMUM LAP LENGTH OF REINFORCEMENT SHALL BE KEPT AS '50D' WHERE "D" IS THE DIAMETER OF BAR. A MAXIMUM OF 50% OF REINFORCEMENT SHALL BE LAPPED AT ANY ONE LOCATION. LAP SPLICES SHALL BE SUITABLY STAGGERED SUCH THAT THE CENTRE-TO-CENTRE DISTANCE OF THE SPLICES IS NOT LESS THAN 1.3 TIMES THE LAP LENGTH.



**DETAILS OF OPENING**



**RAINWATER STORAGE TANK**  
**SECTION A-A**  
SCALE 1:100

**PROJECT**

PROPOSED SUMP TANK FOR MANNAM  
AYURVEDHA MEDICAL COLLEGE,  
PANDALAM

**CLIENT**

MANNAM AYURVEDHA CO-OPERATIVE  
MEDICAL COLLEGE, PANDALAM

**PRIME CONSULTANT**

**GENERAL NOTES**

- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE METERS UNO
- DRAWING NOT TO BE SCALED OFF, ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED
- USE M30 GRADE CONCRETE AND Fe500D STEEL UNO
- READ THIS DRAWING WITH RELEVANT ARCHITECTURAL DRAWINGS
- MINIMUM CLEAR COVER TO ALL REINFORCEMENT INCLUDING STIRRUPS; FOUNDATION-50 mm, COLUMNS-40mm, BEAMS-30mm & SLAB-20mm
- INCASE OF DISCREPANCY, PLEASE CONTACT THE UNDERSIGNED PERSONS
- FOLLOW ALL THE INSTRUCTIONS GIVEN IN THE GENERAL NOTES & TYPICAL DETAILS

**DRAWING TITLE**

**SUMP TANK REINFORCEMENT  
DETAILS**

**REVISION NOTES**

**CHIEF CONSULTANT**

**Prof.(Dr.) HARI.G.M.Tech,Ph.D**  
MOB: 9447097042  
hari@cglengineers.in

**SIGNATURE**

DRAWN BY NITTY SEBASTIAN, M.Tech  
DESIGNED BY NITTY SEBASTIAN, M.Tech  
CHECKED BY HG

**GOOD FOR CONSTRUCTION**

File No: **HA2607-45**

DRAWING NO: **S01/R0**

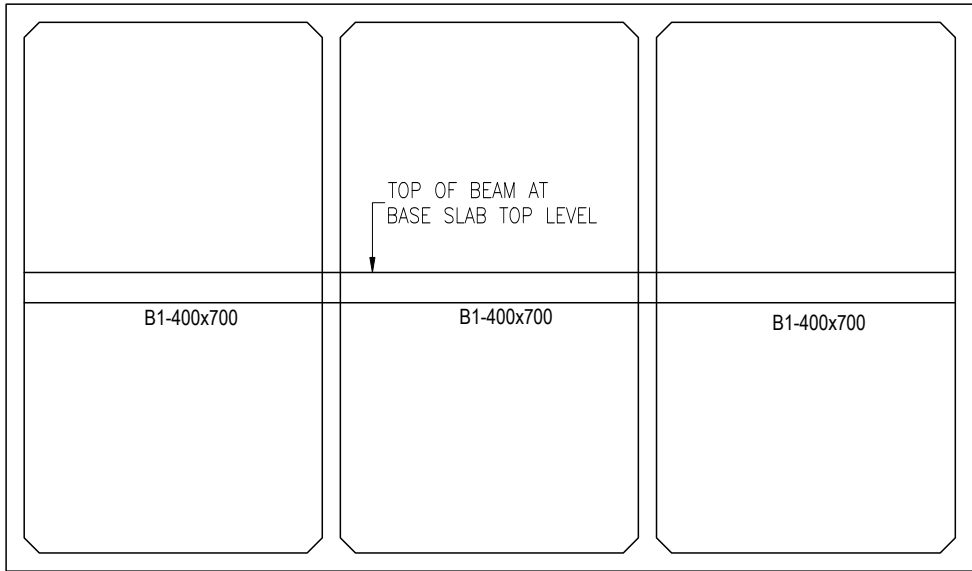
DATE: 30.07.2026

**STRUCTURAL CONSULTANT**

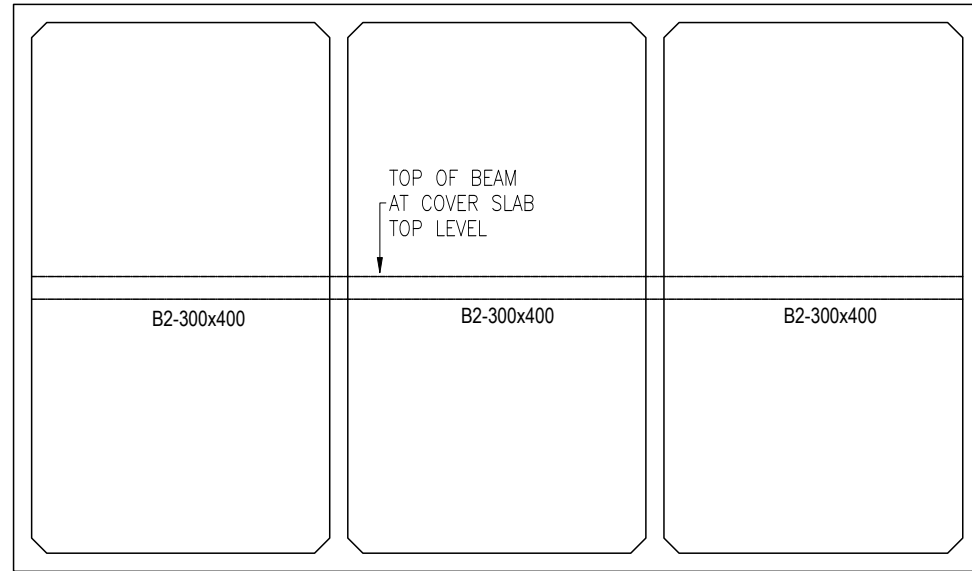
**CGL ENGINEERS**  
**Pvt Ltd**

CGL COMPLEX, PARADISE ROAD,  
VYTTILA P. O, ERNAKULAM - 682019  
mail@cglengineers.in, Ph:9746745472

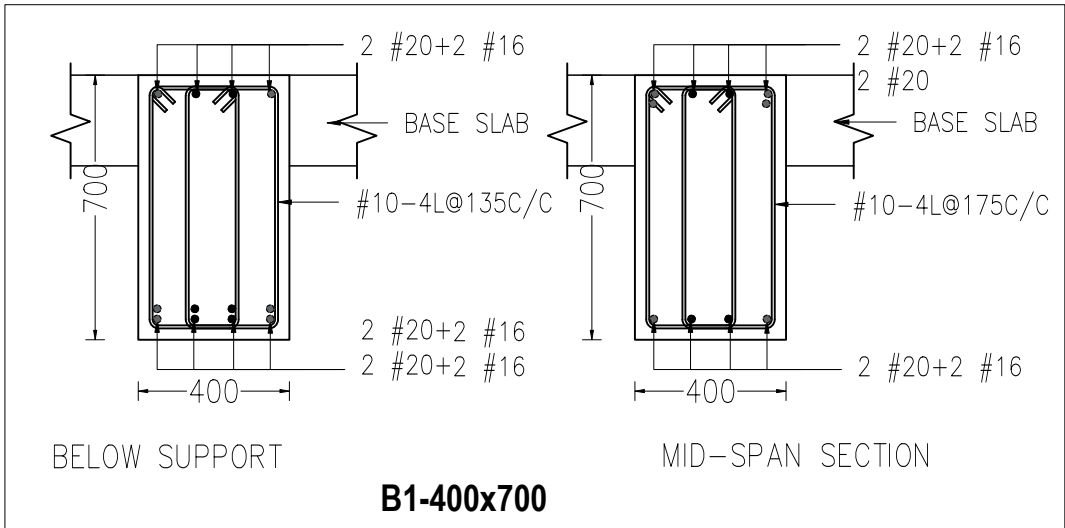
M30  
Fe 500D



**BOTTOM BEAM LAYOUT**  
SCALE 1:100



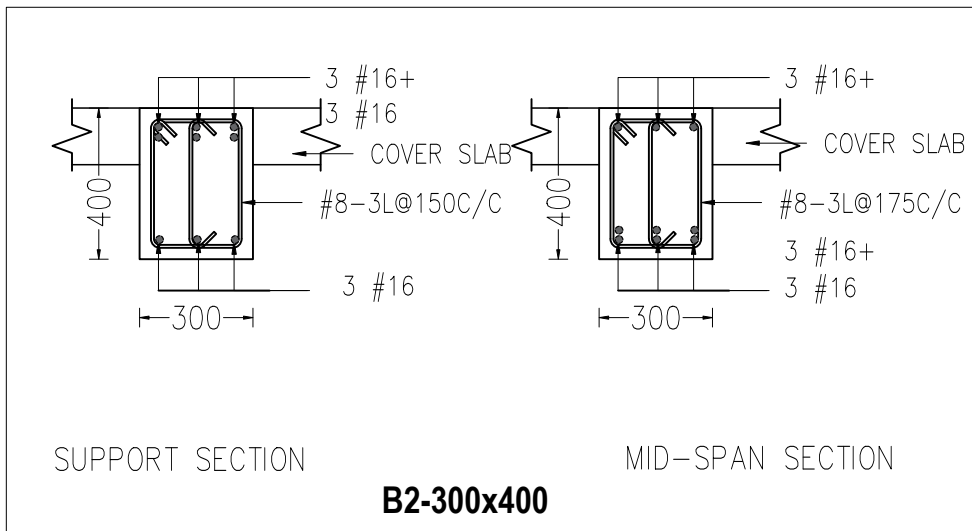
**TOP BEAM LAYOUT**  
SCALE 1:100



BELOW SUPPORT

MID-SPAN SECTION

**B1-400x700**



SUPPORT SECTION

MID-SPAN SECTION

**B2-300x400**

| PROJECT                                                                 |
|-------------------------------------------------------------------------|
| PROPOSED SUMP TANK FOR MANNAM<br>AYURVEDHA MEDICAL COLLEGE,<br>PANDALAM |
| CLIENT                                                                  |
| MANNAM AYURVEDHA CO-OPERATIVE<br>MEDICAL COLLEGE, PANDALAM              |
| PRIME CONSULTANT                                                        |
|                                                                         |

| GENERAL NOTES                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------|
| 1. ALL DIMENSIONS ARE IN MILLIMETERS<br>AND LEVELS ARE METERS UNO                                                               |
| 2. DRAWING NOT TO BE SCALED OFF, ONLY<br>WRITTEN DIMENSIONS ARE TO BE<br>FOLLOWED                                               |
| 3. USE M30 GRADE CONCRETE AND Fe500D<br>STEEL UNO                                                                               |
| 4. READ THIS DRAWING WITH RELEVANT<br>ARCHITECTURAL DRAWINGS                                                                    |
| 5. MINIMUM CLEAR COVER TO ALL<br>REINFORCEMENT INCLUDING STIRRUPS;<br>FOUNDATION-50 mm, COLUMNS-40mm,<br>BEAMS-30mm & SLAB-20mm |
| 6. INCASE OF DISCREPANCY, PLEASE<br>CONTACT THE UNDERSIGNED PERSONS                                                             |
| 7. FOLLOW ALL THE INSTRUCTIONS GIVEN IN<br>THE GENERAL NOTES & TYPICAL DETAILS                                                  |

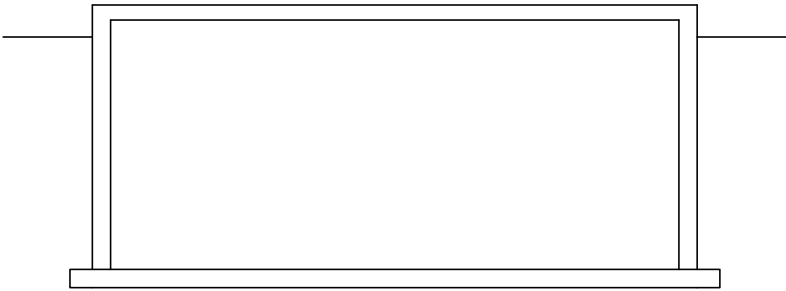
| DRAWING TITLE                                  |
|------------------------------------------------|
| <b>SUMP TANK BEAM LAYOUT &amp;<br/>DETAILS</b> |
| REVISION NOTES                                 |
|                                                |

| CHIEF CONSULTANT                                                                |
|---------------------------------------------------------------------------------|
| <b>Prof.(Dr.) HARI.G,M.Tech,Ph.D</b><br>MOB: 9447097042<br>hari@cglengineers.in |
| SIGNATURE                                                                       |
|                                                                                 |
| DRAWN BY                                                                        |
| NITTY SEBASTIAN, M.Tech                                                         |
| DESIGNED BY                                                                     |
| NITTY SEBASTIAN, M.Tech                                                         |
| CHECKED BY                                                                      |
| HG                                                                              |
| GOOD FOR CONSTRUCTION                                                           |
| File No: <b>HA2607-45</b>                                                       |
| DRAWING NO : <b>S02/R0</b>                                                      |
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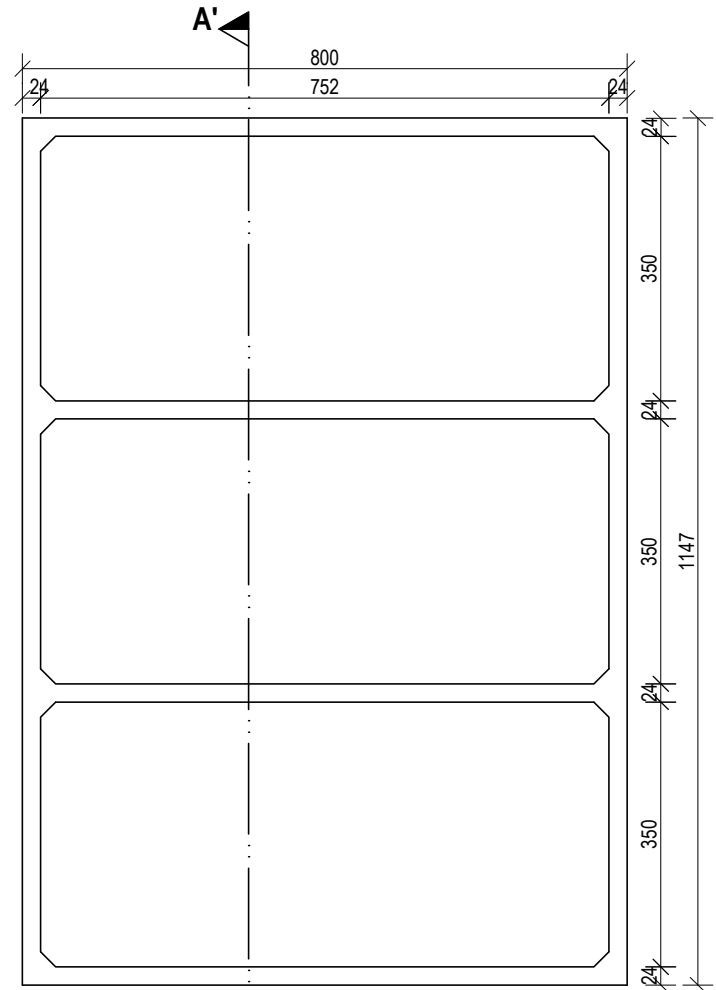
| STRUCTURAL CONSULTANT                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>CGL ENGINEERS<br/>Pvt Ltd</b><br>CGL COMPLEX, PARADISE ROAD,<br>VYTTILA P. O, ERNAKULAM - 682019<br>mail@cglengineers.in, Ph:9746745472 |

M30  
Fe 500D

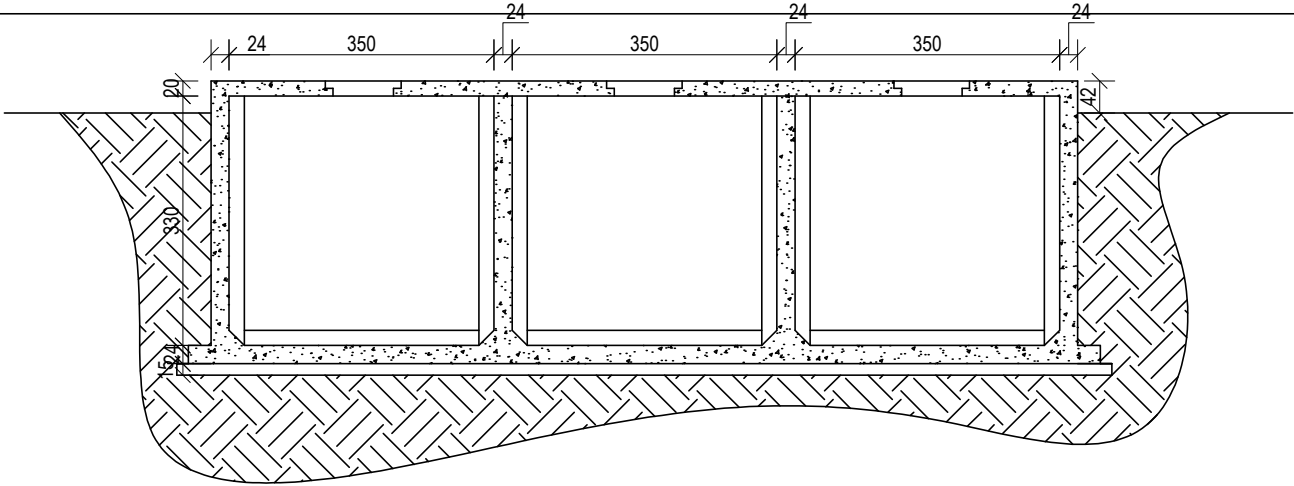
REGULARISATION OF EXISTING BUILDINGS AND PROPOSED NEW BUILDINGS AT MANNAM AYURVEDA CO-OPERATIVE MEDICAL COLLEGE CAMPUS AT PANDALAM MUNICIPALITY



ELEVATION



PLAN



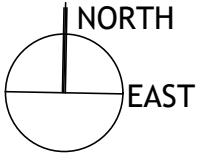
SECTION AA'

TANK CAPACITY - 2.4 L Litres

TANK DETAILS

FOUNDATION - P C C 1:3:6, - 15 CM THICK  
WALLS - M25 R C C , 24 cmTHICK  
ROOF - M25 R C C , 20 cm THICK  
FLOOR - M25 R C C , 24 CM THICK THICK  
FLOOR FINISH - CEMENT MORTAR PLASTERING 1:4 , 12 MM THICK

A3



NOTES

- All dimensions in centimeters unless otherwise specified
- FOR APPROVAL
- FOR CONSTRUCTION
- FOR REFERENCE
- FOR ESTIMATION

| No. | DATE | REVISION |
|-----|------|----------|
|     |      |          |
|     |      |          |
|     |      |          |
|     |      |          |

DRAWING TITLE

RAIN WATER HARVESTING TANK

BUILDING NO.

SCALE:1:100  
All Dimensions are in cm

RAIN WATER HARVESTING TANK

| APPLICANT                              | LAND DETAILS                                       | APPENDIX – J1<br>CERTIFICATE                                                                                                                                                                                                                                                                                                                                                                                                                                           | APPENDIX – J2<br>CERTIFICATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NAME : DIRECTOR                        | RE-SURVEY NO : 609, BLOCK -1                       | Certified that:<br>(i) the plot boundaries, measurements and other details shown in the site plan are correct and<br>(ii) the drawings are in conformity with the provisions of the Master Plan/Detailed Town Planning Scheme/ Interim Development Order as applicable under the Kerala Town and Country Planning Act 2016.<br>(iii) the drawings are in conformity with the provisions of the Kerala Municipality Building Rules, 2019 and other applicable statutes. | Certified that:<br>(i) the document(s) in support of the ownership of the plot has/have been verified and that the applicant (s) has/have every right of construction in this plot;<br>(ii) the plot boundaries, measurements and other details shown in the site plan have been verified at site and found correct and<br>(iii) the drawings are in conformity with the provisions of the Master Plan/ Detailed Town Planning Scheme/ Interim Development Order as applicable under the Kerala Town and Country Planning Act 2016.<br>(iv) the drawings are in conformity with the provisions of the Kerala Municipality Building Rules,2019 and other applicable statutes.<br><br>(Signature)<br><br>..... MunicipalCorporation / Municipal Council / Town Panchayat Office Seal |
| ADDRESS : Mannam Ayurveda Co-operative | OLD-SURVEY NO :393,398,399,412,413,414,423,424,425 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| : - Medical College Hospital           | EXTEND OF LAND : 33.1538 Hectares                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| (A unit of Mannam Sugar Mills)         | VILLAGE : Pandalam                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Pandalam -689501                       | MUNICIPALITY : Pandalam                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| SIGNATURE OF APPLICANT                 | WARD : 27                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | TALUK : Adoor                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | DISTRICT : Pathanamthitta                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                        | STATE : Kerala                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |