

Project: Development of Taluk Hospital Koyilandi in Kozhikode District

Tender No: WAP/INFRA/KERALA/2024/KOYI/491

Response to Pre-Bid Queries

***Note: These documents shall form part of the original tender and shall supersede the Tender Document/BoQ wherever applicable**

****Revised excel sheet of the Financial Bid is attached along with the Addendum. Bidders are advised to use this excel sheet to quote for this project.**

Name of Bidder: ULCCS Ltd				
Sr. No.	Reference Clause No.	Reference Page No.	Tender Suggestion/Query	Response
1.	General	General	Please provide Soil Investigation report for reference.	As per Tender Document
2.	General	General	Please provide the Architectural Drawing including site plan.	Indicative Architectural Drawing and site plan attached in Annexure 1
3.	General	General	Kindly confirm whether an area for the disposal of excavated surplus earth is available.	Successful Bidder has to make his own arrangements.
4.	General	General	Kindly confirm the PED approval status.	Irrelevant
5.	BOQ Items	General	The BOQ quantities for the following items are not whole numbers, and the unit mentioned is each/No. Item Numbers - 3.64, 8.05, 39.01, 39.02, 39.03, 39.04, 39.05, 39.08, 40.02, 40.03.	Refer revised BoQ
6.	3.54, 5.27	BOQ	Kindly specify the size of the Rolling Shutters.	As per Tender Document
7.	4.01	BOQ	Kindly provide the details and clarity on the specific BOQ item.	Refer revised BoQ
8.	General	General	It is mentioned in the Tender condition that the Contractor to follow Kerala State Government Orders, Circulars, Kerala PWD Manual etc., and hence the G.O.(Ms) No. 135/97/Co-op. Dated 13th Nov 1997 and G.O. (Ms)No: 41/2020/PWD dated 19.03.2020 are also applicable to the Tender.	As per Tender Document
9.	General	General	Kindly confirm whether the scope of existing utility shifting is under the contractor's responsibility. If required, please provide the	Successful Bidder, at his own cost, shall identify and shift the underground utilities (cables, pipelines, tanks, trees,

			existing utility layout.	etc) in the project area, if any, to a suitable location as per the directions of EIC/ Hospital authorities/local authorities and make it functional as it was prior to shifting. No inconvenience should be caused to the working hospital. Any damage caused to the underground services/utilities shall be rectified by the bidder at his own cost.
10.	General	General	We request confirmation that obtaining all clearances and permissions from various authorities, such as the PCB, Forest Department, environmental clearances, tree-cutting permissions, etc., will be the responsibility of the Client.	Irrelevant
11.	General	General	Kindly confirm whether the bidder needs to consider AMC/CAMC for the equipment during the defect liability period after the standard 1-year warranty, or if the client will engage other entities for AMC/CAMC separately.	As per G.O, for electrical works DLP is for 3 years. Thus contractor is liable for unconditional warranty up to DLP period.
12.	General	General	Kindly mention the duration for releasing the Security Deposit after the work completion.	As per Tender Document
13.	Form E	216 in DNIT	In form E it is mentioned as Site clearance and no cutting off the matured trees. Whereas in the bid document itself it is mentioned regarding the tree cutting. Kindly clarify the situation of the trees at site.	The bidder is expected to visit site before submission of bids
14.	3.66	BOQ	Currently, GI sheets are not available in the market. Instead, Galvalume sheets of 0.5mm thickness with self-tapping screws are available. Kindly clarify	As per Tender Document
15.	3.68	BOQ	The specified BOQ is for a conventional type Polycarbonate System with a high possibility of leakage and low durability. We suggest a 16mm thick polycarbonate system with	As per Tender Document

			aluminum framing, using brands such as Palram, Danpal, etc., for better performance.	
16.	3.73	BOQ	A Semi-Unitized Structural Glazing system has been proposed under BOQ item 3.73. This item includes only accessories and labor. The aluminum sections and glass are to be considered additional; however, the glass item is missing in the BOQ.	Item is inclusive of all components including "Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12-6 mm insulated glass (double glazed) and any other item for the completion of item to make it fully functional as per directions of engineer in charge
17.	46.01 46.02 46.03 46.04 46.05 46.06 46.07 46.09	HVAC - BOQ	1. As per BoQ, Air Handling Units are made of 40mm thick panels. The spec calls for a 25mm thick double-skin panel. Kindly confirm that you will consider a 40mm thick double-skin panel.	1 Follow BoQ. 40mm thick Panels to be used
			2. As per BoQ, wiring with 2 Nos of pressure sensors is required. Kindly clarify the connection details and logic details.	2. Only one pressure sensor need to include in AHU cost. Refer revised BoQ
			3. As per BoQ, VFD starter panels are required. Kindly confirm whether a VFD Bypass arrangement is required or not.	3. As plug fans are proposed for AHUs, VFDs will be required to control the speed. VFD Bypass arrangement may not be required.

			4. As per BoQ, only HVAC application VFD shall be used. Kindly confirm the current harmonics, THiD requirements.	4. VFD shall be with necessary harmonic filters.
			5. Kindly confirm whether the static pressure mentioned is TSP or ESP.	5. Static pressure mentioned is TSP
			6. As per BoQ, Strip heaters are required for AHU. Kindly confirm whether we have to include the rate for the humidity control panel along with AHU. If required kindly confirm to consider digital type or analogue type heater. Also, confirm whether we have to consider the humidity control panel along with the starter panel OR separate a starter and humidity control panel.	6. Rate for humidity control panel shall be included along with AHU cost. Consider analogue type heater and humidity control panel along with starter panel arrangement.
			7. As per BoQ, 0.5mm tube thickness is required for AHU coil, whereas some of the manufacturers have 0.4mm thick for 1/2 inch coil and 0.3mm thick for 3/8 inch coil. Kindly confirm.	7. 0.5mm tube thickness will be required for AHU coil.
			8. Kindly confirm to consider Eurovent-certified AHU.	8. Eurovent-Certification for AHUs are suggested but not mandatory for approval.
			9. As per specification humidification arrangement shall be provided for AHUs. Normally AHU manufacturers do not provide the same. Kindly advice.	9. Humidification arrangement for AHUs are not included in tender/BoQ.
18.	46.08	HVAC - BOQ	Kindly confirm the insulation thickness shall be as per ECBC?	Yes. Insulation thickness shall comply with ECBC requirements. Minimum 19mm thick

				insulation for copper refrigerant pipes as per BoQ to be followed.
19.	47.03	HVAC - BOQ	As per BoQ 1.6 TR VRV Indoor unit is required. Kindly specify the type of unit.	Hi-Wall Units.
20.	47.12	HVAC - BOQ	How many no's of indoor and outdoor units to be connected in single controller. Also confirm whether we have to consider BMS compatible central controller?	Consider BMS compatible central controller. As per the capability of selected VRF brand, the maximum number of IDUs & ODUs that can be assigned to a single central controller can be done. At execution stage, recommendation, if any, from Hospital Authorities also to be considered.
21.	48.01 - 48.13 48.16 - 48.20	HVAC - BOQ	1. As per BoQ, all the fans are required IE3 ratings, but the same shall be not available for single phase fans. 2. Kindly confirm whether to consider a starter panel for 3 phase fan and a speed regulator for single-phase fans.	1. IE3 required only for 3-phase fans. 2. Starter panel is required for 3-phase fans; Speed regulator is required for 1-phase fans.
22.	49.01 -49.02	HVAC - BOQ	The UOM for the items is given in meters instead of SQM. Kindly clarify.	Consider UOM as Sq.m
23.	49.03	HVAC - BOQ	What is the torque required for fire damper actuator?	Proposal to suit type of application and industry standards.
24.	49.04	HVAC - BOQ	Kindly confirm whether fire damper shall be as per UL 555.	Yes. Already specified in technical spec.
25.	49.05	HVAC - BOQ	Kindly confirm the insulation thickness shall be as per ECBC?	Yes. Insulation thickness shall comply with ECBC requirements. But, minimum 8mm thick insulation as per BoQ to be followed
26.	51.01	HVAC - BOQ	Kindly confirm the item mentioned is Humidity control panel.	Humidity control panel is already included with AHU spec. This item is for Humidistat & its control cabling
27.	51.02	HVAC - BOQ	Kindly provide the cable size. (number of core and sqmm)	Propose as per unit requirement and industry standards
28.	51.03	HVAC - BOQ	Kindly confirm which all are the units to be considered in the item.	For all HVAC units where isolators are proposed in electrical drawings or applicable.
29.	General		Kindly approve the following makes Factory fabricated duct - Multiline, Aduro	As per Tender Document

			Ventilation fans - Carryaire, Nicotra HEPA Filter - AAF, Thermadyne	
30.	BOQ1 - Item No. 53.01	FPS - BOQ	Diesel engine driven pump (Horizontal centrifugal pump) conforming to IS1520. But this standard has been withdrawn and is no longer active. Kindly advise	Horizontal centrifugal pump specifications are now covered in IS 6595 (Part 2)
31.	BOQ1 - Item No. 53.02	FPS - BOQ	Main electric pump (Horizontal centrifugal pump) conforming to IS-1520. But this standard has been withdrawn and is no longer active. Kindly advise	Horizontal centrifugal pump specifications are now covered in IS 6595 (Part 2)
32.	BOQ1 - Item No. 53.02	FPS - BOQ	Main electric pump motor (squirrel cage induction motor) conforming to IS325. But this standard has been withdrawn and is no longer active. Kindly advise	Shall be as per latest applicable standards. minimum E3
33.	BOQ1 - Item No. 53.03	FPS - BOQ	Jockey pump motor (squirrel cage induction motor) conforming to IS-325. But this standard has been withdrawn and is no longer active. Kindly advise	Shall be as per latest applicable standards. minimum E3
34.	BOQ1 - Item No. 53.03	FPS - BOQ	Jockey pump (Horizontal centrifugal pump) conforming to IS-1520. But this standard has been withdrawn and is no longer active. Kindly advise	Horizontal centrifugal pump specifications are now covered in IS 6595 (Part 2)
35.	BOQ1 - Item No. 53.02 & 53.03	FPS - BOQ	Kindly advise on the motor IE to be considered	Shall be as per latest applicable standards. minimum E3
36.	BOQ1 - Item No. 53.07, 53.08, 53.09, 56.03 & 56.04	FPS - BOQ	Butterfly valve of PN 1.6 rating with bronze/gunmetal seat not available for all Brands. Kindly approve seat material as per available brands in approved Make List.	Disc material of Stainless steel also acceptable as per technical spec.
37.	BOQ1 - Item No. 53.12	TS - Page No. 416	As per BOQ, the air vessel tank height is 1.5m. But in technical specification, it is mentioned as 1.2m. Kindly advise which to consider.	Consider 1.2m height for Air vessel.
38.	BOQ1 - Item No. 54.02	BOQ	FM approved Gunmetal/Stainless Steel Coupling - External Hydrant Valve are not available. Kindly approve as per IS standards	Refer revised BoQ
39.	BOQ1 - Item No. 54.04	TS - Page No. 380	As per BOQ, the MS sheet for hose cabinet shall be 16 gauge. But it is mentioned in	As per technical specification. i.e 2mm.

			technical specification as 2mm (equal to 14 gauge). Kindly advise which will consider.	
40.	BOQ1 - Item No. 54.10	TS - Page No. 380	As per BOQ, the fire brigade connection (fire service inlet) is 4 way type. But as per technical specification, it is mentioned as 2/3 way only. Kindly advise.	For 150mm rising main, collecting head with 4 numbers of 63mm inlets should be provided. For 100mm rising main, collecting head with 2 numbers of 63mm inlets should be provided.
41.	BOQ1 - Item No. 55.01	FPS - BOQ	Kindly mention the thickness of 200 mm MS Heavy duty pipes to be considered.	6.3mm
42.	BOQ1 - Item No. 55.01 to 55.04 & 56.08 to 56.14	FPS - BOQ	Kindly specify the type of fittings to be used for Smaller dia and Larger dia MS pipes.	For pipes 50mm and above welded fittings can be used. Welded joints shall not be permitted for pipes having diameter less than 50mm. Screwed fittings can be used for pipes having diameter less than 50mm.
43.	BOQ1 - Item No. 56.02	FPS - BOQ	Kindly mention whether rossette plate should be considered in this line item.	For sprinkler installation at false ceiling provided areas, rossette plates can be considered.
44.	BOQ1 - Item No. 61.01 & 61.05	FPS - BOQ	As per BOQ, ABC type Fire Extinguisher is conforming to IS-2171-1999. But this standard has been withdrawn and is no longer active. Kindly advise	Portable fire extinguishers shall comply with IS 15683
45.	BOQ1 - Item No. 58.01	FPS - BOQ	As per BOQ, 10 zone Talk Back Panel is mentioned, but only 4 numbers of Talk back unit are shown. Kindly advise	Follow BOQ
46.	BOQ1 - Item No. 61.06 & 61.07	FPS - BOQ	As per BOQ, Co2 type Fire Extinguisher is conforming to IS-2878-2004. But this standard has been withdrawn and is no longer active. Kindly advise	Portable fire extinguishers shall comply with IS 15683
47.	General	FPS - BOQ	Kindly share the technical specifications for fire extinguishers	Portable fire extinguishers shall comply with IS 15683
48.	General	FPS - BOQ	Kindly share the Make List for Signages	As per Tender Document
49.	General	FPS - BOQ	In approved Make for Addressable Fire Alarm system, Fire alarm panel has Ravel, Siemens, Honeywell, Secutron, but in Fire Alarm components only Notifier, Siemens and EST is approved. Kindly approve all brands mentioned in Fire alarm panel for Fire alarm	All brands mentioned in Fire alarm panel are approved for Fire alarm components.

			components also.	
50.	DNIT	General	Make list not provided for STP/BioGas plant/Sink/Cleaners Sink/Bed Pan Sink/Scrub Sink/Eye Washer/Smart Water meter/Data Concentrator/Water Storage Tank etc. Pls provide if any	As per Tender Document
51.	DNIT	General	Detailed technical specification for PHE works not attached	As per Tender Document . For detailed technical specification of water supply and drainage works refer latest CPWD Technical specification.
52.	DNIT	General	Detailed technical specification for Biogas plant not attached.	Refer Annexure 2
53.	BOQ	41.18	Energy rating for Geyser not mentioned	Minimum 4-star ISEER.
54.	DNIT	General	Energy rating for STP/WTP motors not provided	IE3 rating to be followed considering continuous operation
55.	BOQ	44.04	Whether any specific solid handling capacity required?	Proposed sump pump is used for fire pump room sump pit where solids are not expected.
56.	Item no 3.32	General-Civil & Interior	Flush Door- According to the BOQ, the specifications for the flush door match Kitply, but the make list does not include Kitply as a brand. Kindly add Kitply to the make list?	As per BoQ specification
57.	Item 3.39 & 3.40	General-Civil & Interior	Kindly provide the make list for WPC door Shutter	V Make/Ever Wood/Ecoste/Durian Industries/Highness Doors /Alstone/Deron or equivalent
58.	Item no 3.42	General-Civil & Interior	CNC wall panelling on exterior wall -Please provide a detailed specification for mentioned item. (Material, frame & finish)	As per Tender Document
59.	Item no 8.01, 8.02, 8.03 & 8.04	General-Civil & Interior	Kindly confirm the panel for sign board (HPL Sheet Rate is higher(nearly double) than ACP-), and provide the thickness of panel	As per Tender Document
60.	Item no 8.05	General-Civil & Interior	Please mention the height & numbers for english and malayalam letters and Specify the criteria for the Unit	Letter size suitable to the size of board will be finalized at the time of execution as per the direction of engineer in charge
61.	14.01	250 kVA Diesel	The BOQ specification asks for CPCB 2 diesel	DG shall be as per the latest mandates

		Generator	engine which is not available in the market. Kindly clarify.	of CPCB IV. Refer revised BoQ
Name of Bidder: Tricon RealTech Pvt. Ltd.				
1.	Clause 7	Page 25	<p>The bidder or the associate, as the case may be, should have installed and commissioned these specialized works at minimum 1 hospital project in any Central/State/PSU/Department. This shall be considered for the purpose of assessing the technical competence only without adding its monetary value for determining the financial eligibility criteria An MoU (Memorandums of Understanding) between the bidder and the associate in this regard should be submitted along with an undertaking on Rs. 100 Non-Judicial Stamp Paper as per Form P. The validity of MOU shall be up to completion of Defects Liability Period (DLP).</p> <p>Pls share if there is some standard format</p>	Refer Annexure 3
2.	Clause 5.0	Page No. 29	<p>CONTENTS OF FINANCIAL BID</p> <p>The Financial Bid should be uploaded separately along with the technical bid before the last date & time of submission of Tender Document. The estimated cost mentioned in NIT is based on the rates of items of works in DSR 2018 with applicable cost index and non-DSR items on market rate. The quoted rate filled in the Schedule of Quantities, should include all costs associated with the project including any out of pocket/mobilization expenses, Taxes if any applicable as per Government norms, shall be paid by the Contractor excluding Goods and Services Tax.</p>	Refer Government websites

			<p>Cost Index means increase in the cost by the percentage:</p> <p>For Example, Cost Index in Kozhikode is 136.44 which means 36.44% above the DSR - 2018 or some other factor.</p>	
3.	Clause IV	Page-38	<p>On substantial Completion of any work which has been completed to such an extent that the intended purpose of the work is met and ready to use, then a provisional Completion certificate shall be recorded by the Engineer-in-Charge. The provisional certificate shall have appended with a list of outstanding balance items of work that need to be completed in accordance with the provisions of the contract.</p> <p>Substantial Completion means interim asCompletion: We have been awarded a project of 38.31 Crore. We have partially completed it amounting to 32.55 Crore- Certificate issued by the Department will be considered. (The Project with Wapcos at Kochi- Kerala)</p>	As per tender document
4.	<p>CLAUSE 10CA</p> <p>CLAUSE 10CC</p> <p>Clause 13</p>	<p>Page 58</p> <p>Page 110</p>	<p>PAYMENT DUE TO VARIATION IN PRICES OF MATERIALS AFTER RECEIPT</p> <p>PAYMENT DUE TO INCREASE/DECREASE IN PRICES/WAGES (EXCLUDING MATERIALS COVERED UNDER CLAUSE 10 CA) AFTER RECEIPT OF TENDER FOR WORKS</p> <p>Rates and amount Quoted by the contractor shall be firm and fixed for the entire contract period as well as extended period for completion of the works. No escalation shall</p>	As per tender document

			be applicable on this contract.	
			Pls explain which clause will be primer clause	
5.	ANNEXURE – III FORMAT FOR EMD BANK GUARANTEE DEPOSIT (Not Applicable)		The Wapcos weather will accept EMD will be accepted in the shape of Bank Guarantee or not.	As per tender document
Name of Bidder : Nirman Constructions				
1	<p>Similar Experience definition: With regard to the prequalification criteria mentioned in the NIT, we note that eligibility requires experience in civil, electrical, and plumbing works under a single contract. While we meet the criteria for civil and plumbing works, we request that the eligibility for the electrical portion of the work be allowed to be associated with a qualified electrical contractor possessing the requisite experience and credentials. This association would ensure adherence to the standards specified in the tender while allowing us to participate competitively. Furthermore, we wish to highlight that other tendering agencies in Kerala permit such associations for electrical works through the execution of a Memorandum of Understanding (MOU) with an eligible electrical contractor.</p>		<p>As per Tender Document: “Similar Experience” shall mean project completion of a project for construction of multi-storied RCC framed structure building including civil works, plumbing works, Electrical, Fire Fighting, HVAC, Lift etc. all composite under one agreement. For specialized E&M services and Medical Services such as MGPS, Operation Theatre, STP, WTP, the bidder can enter into an agreement with an associate to fulfil the technical eligibility criteria. The bidder or the associate, as the case may be, should have installed and commissioned these specialized works at minimum 1 hospital project in any Central/State/PSU/ Department. This shall be considered for the purpose of assessing the technical competence only without adding its monetary value for determining the financial eligibility criteria. An MoU (Memorandums of Understanding) between the bidder and the associate in this regard should be submitted along with an undertaking on Rs. 100 Non-Judicial Stamp Paper as per Form P. The validity of MOU shall be upto completion of Defects Liability Period (DLP). Copy of Completion certificate signed by Engineer not below the rank of Executive Engineer or equivalent needs to be enclosed.</p>	<p>Revised As: “Similar Experience” shall mean completion of a project for construction of multi-storied RCC framed structure building. For specialized works (Fire Fighting, HVAC, Electrical, Lift, MGPS, Operation Theatre, STP, WTP), the bidder can enter into an agreement with an experienced associate to fulfil the technical eligibility criteria. The bidder or the associate, as the case may be, should have installed and commissioned these specialized works at minimum 1 project in any Central/State/PSU/ Department. This shall be considered for the purpose of assessing the technical competence only without adding its monetary value for determining the financial eligibility criteria. An MoU (Memorandums of Understanding) between the bidder and the associate in this regard should be submitted along with an undertaking on Rs. 100 Non-Judicial Stamp Paper as per Form P. The validity of MOU shall be upto completion of Defects Liability Period (DLP). Copy of Completion certificate signed by</p>

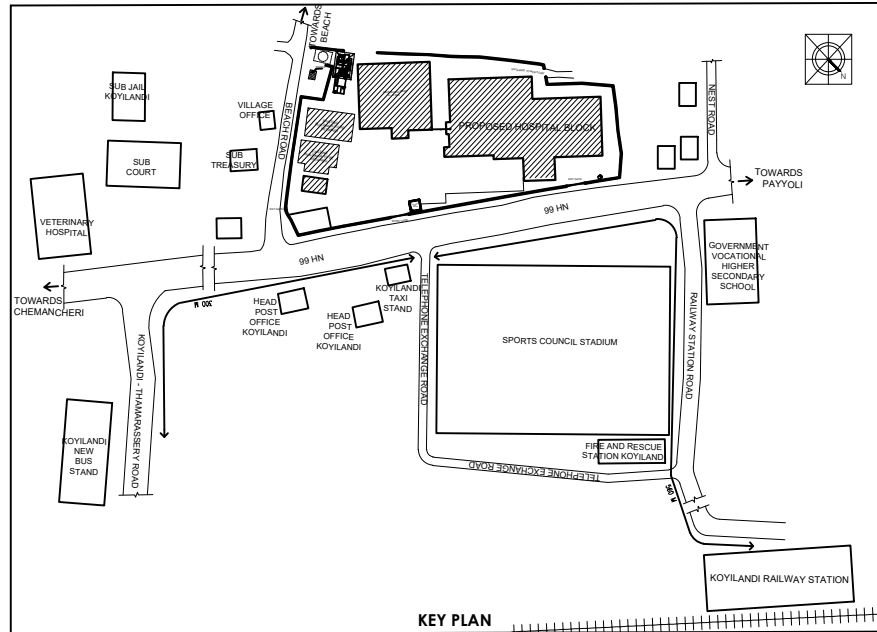
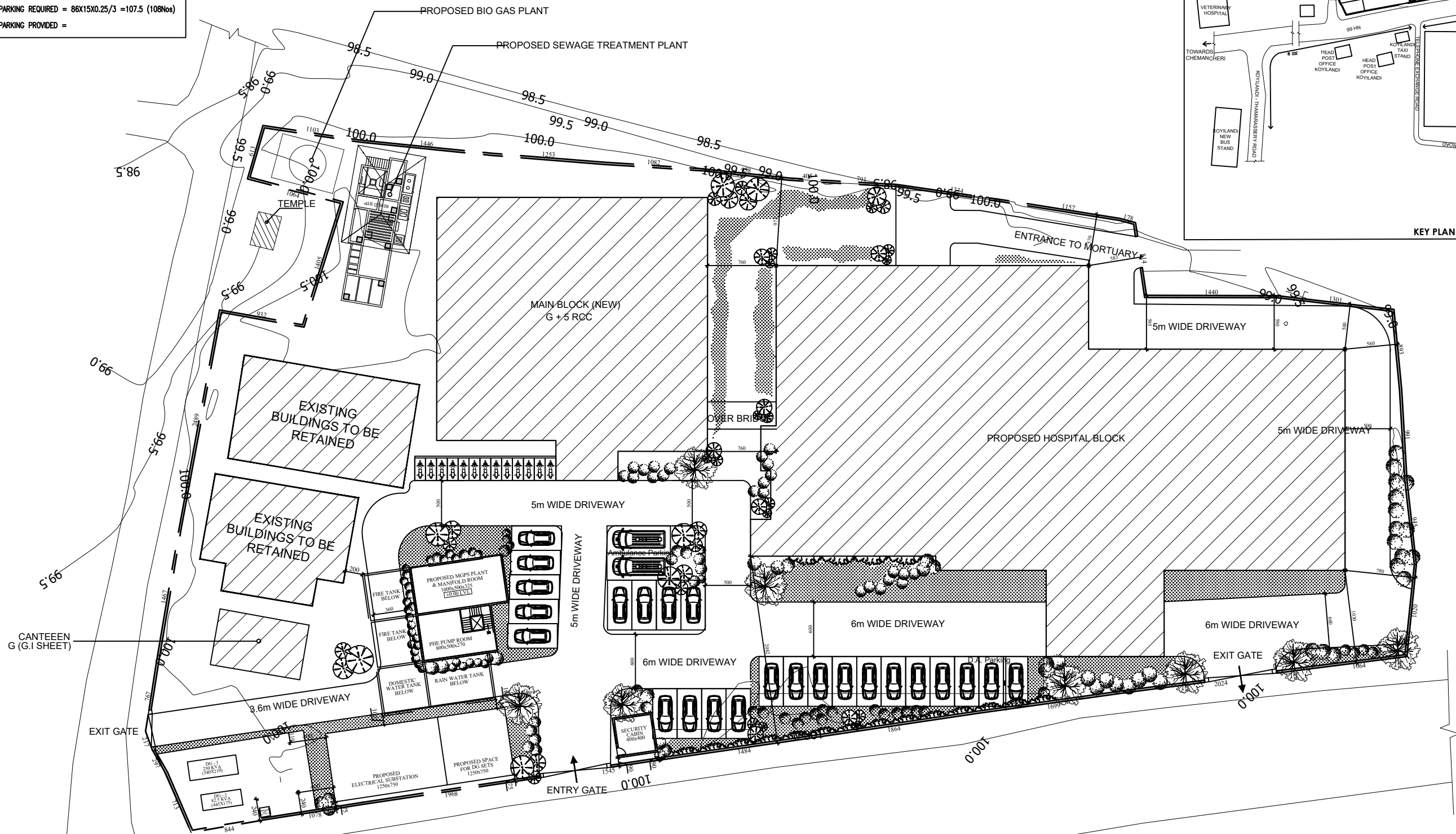
			In the case of the private sector work, signed completion certificate issued by the competent authority must be submitted duly supported by the TDS certificates in the form 26AS duly authenticated by the chartered accountant.	Engineer not below the rank of Executive Engineer or equivalent needs to be enclosed. In the case of the private sector work, signed completion certificate issued by the competent authority must be submitted duly supported by the TDS certificates in the form 26AS duly authenticated by the chartered accountant.
2	od48631/2022_2023 : Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-30 of specified diameter and length below pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic pilling Rig all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap). Note: Truck Mounted rotary/TMR/Tube well boring machine shall not be used. 700 mm dia piles Details of cost for 15 m length of pile MATERIAL: Concrete $3.14/4 \times 0.75^2 \times 15 = 6.62 \text{ cum}$	1.05	can we use tractor mounted rotary drilling machine	As per tender document
3	od48632/2022_2023 : :Boring, providing	1.06	can we use tractor mounted rotary drilling	As per tender document

	and installation bored cast-in-situ reinforced cement concrete piles of grade M-30 of specified diameter and length below pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic pilling Rig all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap). Note: Truck Mounted rotary/TMR/Tube well boring machine shall not be used. 800 mm dia piles		machine	
4	od48633/2022_2023 : Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-30 of specified diameter and length below pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic pilling Rig all	1.07	can we use tractor mounted rotary drilling machine	As per tender document

	<p>complete,&lt;br&gt;including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured&lt;br&gt;up to bottom of pile cap). Note: Truck Mounted rotary/TMR/Tube well boring machine shall not be&lt;br&gt;used.&lt;br&gt;900 mm dia piles&lt;br&gt;Details of cost for 10 m length of pile&lt;br&gt;MATERIAL:&lt;br&gt;Concrete</p> <p>$3.14/4 \times 1.00 \times 10 = 7.85 \text{ cum}$</p>			
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Annexure-1

NEW BLOCK PARKING AREA CALCULATION
TOTAL FLOOR AREA = PARKING AREA
TOTAL FLOOR AREA = 7721.80 SQM
PARKING REQUIRED = $7721.80/90 = 85.7$ (86 Nos)
DIFFERENTLY ABLED PARKING AREA = $86 \times 0.03 = 2.58$ (3 Nos)
PARKING REQUIRED = 89 nos
TOTAL PARKING PROVIDED =
TWO WHEELER PARKING REQUIRED = $86 \times 15 \times 0.25/3 = 107.5$ (108Nos)
TWO WHEELER PARKING PROVIDED =



NOTES :
• All measurements are in cm unless specified otherwise.
• This drawing should not be scaled.
• The measurements are to be checked on site before construction.

CLIENT :



**HEALTH AND
FAMILY WELFARE (P)
DEPARTMENT**
(Government of Kerala)



FUNDING AGENCY :
**KERALA INFRASTRUCTURE
INVESTMENT FUND BOARD**
(Government of Kerala)
2nd Floor, Felicity Square,
MG Road, Statue,
Thiruvananthapuram - 695001
Kerala, India.
Ph: +91-471-2780900
Email: financeadmin@kiifb.org,
appraisaldivision@kiifb.org

SPECIAL PURPOSE VEHICLE (SPV) :
WAPCOS
WAPCOS LIMITED
(A Government of India Undertaking)
Ministry of Jal Shakti
Regional Office (Kerala)
1st Floor, JP Krishna Building
Palimukku, Pettah
Thiruvandrum 695024, Kerala

CHECKED BY :

APPROVED BY :

REVISIONS		
NO.	DESCRIPTION	DATE
R1		
R2		
R3	corrections as per kiifb comments - TAR	10-01-2022
R4	corrections as per health dept comments	07-02-2022
R5	corrections as per client comments	09-02-2022
R6		07-07-2022
R7		31-10-2022

PROJECT NAME : **DEVELOPMENT OF
TALUK HOSPITAL
KOYILANDI**

SHEET TITLE : **SITE PLAN**

DATE : **01/10/2024**

SCALE : NTS

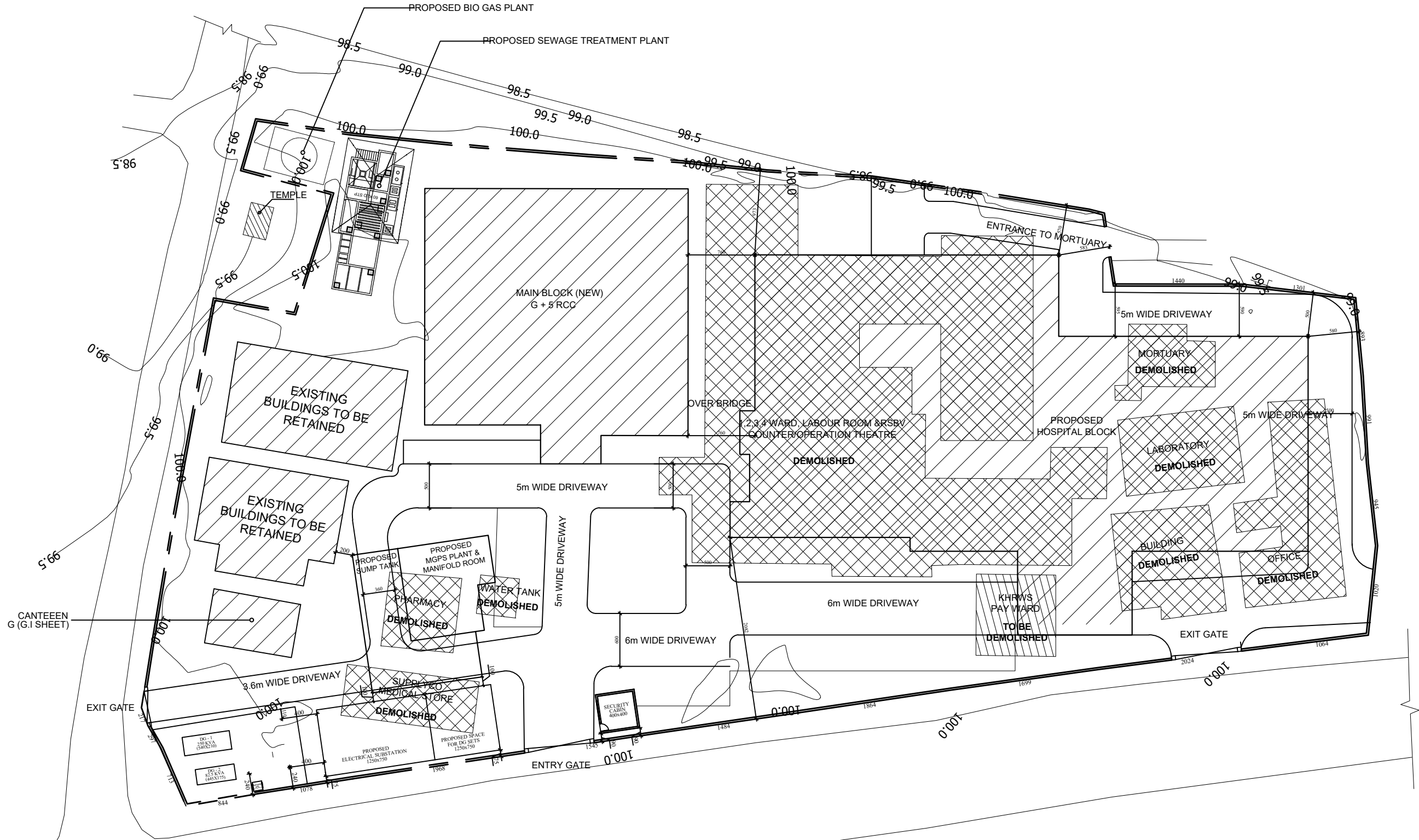
SHEET SIZE : A2

SHEET NO : 01 of 11

DRAWN BY :

DRAWING NO : WAP/AD/THK-101-R7

DRAWING STATUS : Tender drawings



- Building to be retained / proposed
- Building already demolished
- Building to be demolished

NOTES :

- All measurements are in cm unless specified otherwise.
- This drawing should not be scaled.
- The measurements are to be checked on site before construction.

CLIENT :



HEALTH AND FAMILY WELFARE (P) DEPARTMENT
(Government of Kerala)

FUNDING AGENCY :



KERALA INFRASTRUCTURE INVESTMENT FUND BOARD
(Government of Kerala)

2nd Floor, Felicity Square,
MG Road, Statue,
Thiruvananthapuram - 695001
Kerala, India.
Ph: +91-9471-2780900
Email: financeadmin@kifb.org,
appraisaldivision@kifb.org

SPECIAL PURPOSE VEHICLE (SPV) :



WAPCOS LIMITED
(A Government of India Undertaking)

Ministry of Jal Shakti
Regional Office (Kerala)
1st Floor, JP Krishna Building
Pallimukku, Pettah
Thiruvandrum 695024, Kerala

CHECKED BY :

APPROVED BY :


REVISIONS		
NO.	DESCRIPTION	DATE
R1		
R2		
R3	corrections as per kifb comments -TAR	10-01-2022
R4	corrections as per health dept comments	07-02-2022
R5	corrections as per client comments	09-02-2022
R6		31-10-2022

PROJECT NAME : DEVELOPMENT OF TALUK HOSPITAL KOYILANDI

SHEET TITLE : SITE PLAN- DEMOLITION PLAN

DATE : 01/10/2024
SCALE : NTS
SHEET SIZE : A2
SHEET NO : 02 of 11

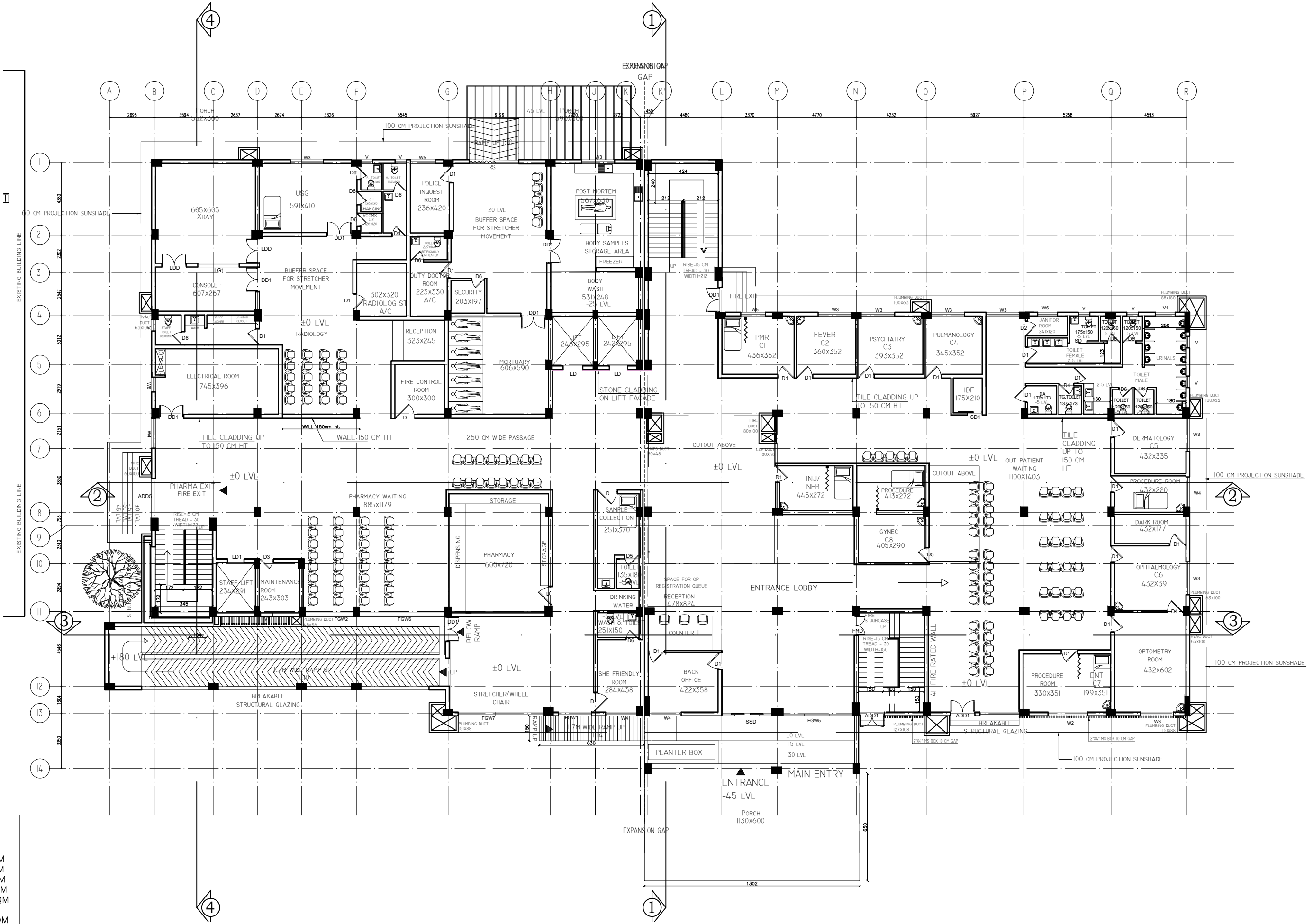
DRAWN BY :
DRAWING NO : WAP/AD/THK-102-R7
DRAWING STATUS : Tender drawings



SANITATION REQUIREMENTS – GROUND FLOOR
Built up area – 1952.187 sqm

Total out patient Built-up area –
1839.547 / 5.9 = 312 persons
male – 220, female – 110

GROUND FLOOR		
OUT-PATIENT AREA		
PARTICULARS	REQUIRED	PROVIDED
W.C – MALE	3	4
W.C – FEMALE	2	3
ABLUTION TAPS	5	5
W.B – MALE	4	3
W.B – FEMALE		5
BATH	0	0
BED PAN SINK	0	0
CLEANER'S SINK	1	1
URINAL	6	12



AREA STATEMENT:

FLOOR AREA :	
Ground Floor	1942.387 SQM
First Floor	1729.318 SQM
Second Floor	1663.968 SQM
Third Floor	1677.835 SQM
Terrace	713.797 SQM
Total Floor Area	7727.305 SQM

NOTES :
• All measurements are in cm unless specified otherwise.
• This drawing should not be scaled.
• The measurements are to be checked on site before construction.

CLIENT :



**HEALTH AND
FAMILY WELFARE (P)
DEPARTMENT**
(Government of Kerala)

FUNDING AGENCY :



**KERALA INFRASTRUCTURE
INVESTMENT FUND BOARD**
(Government of Kerala)
2nd Floor, Felicity Square,
MG Road, Statue,
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Ph: +91-9471-278900
Email: finance@kiifb.org,
appraisal@kiifb.org

SPECIAL PURPOSE VEHICLE (SPV) :

WAPCOS
WAPCOS LIMITED
(A Government of India Undertaking)
Ministry of Jal Shakti
Regional Office (Kerala)
1st Floor, JP Krishna Building
Palmukku, Pettah
Thiruvandrum 695024, Kerala

CHECKED BY :

APPROVED BY :

REVISIONS

NO.	DESCRIPTION	DATE
R1		
R2		
R3	corrections as per kiifb comments - TAR	10-01-2022
R4	corrections as per health dept comments	07-02-2022
R5	corrections as per client comments	09-02-2022
R6		07-07-2022
R7		31-10-2022

PROJECT NAME : DEVELOPMENT OF
TALUK HOSPITAL
KOYILANDI

SHEET TITLE : GROUND FLOOR PLAN

DATE : 01/10/2024

SCALE : NTS

SHEET SIZE : A2

SHEET NO : 03 of 11

DRAWN BY :

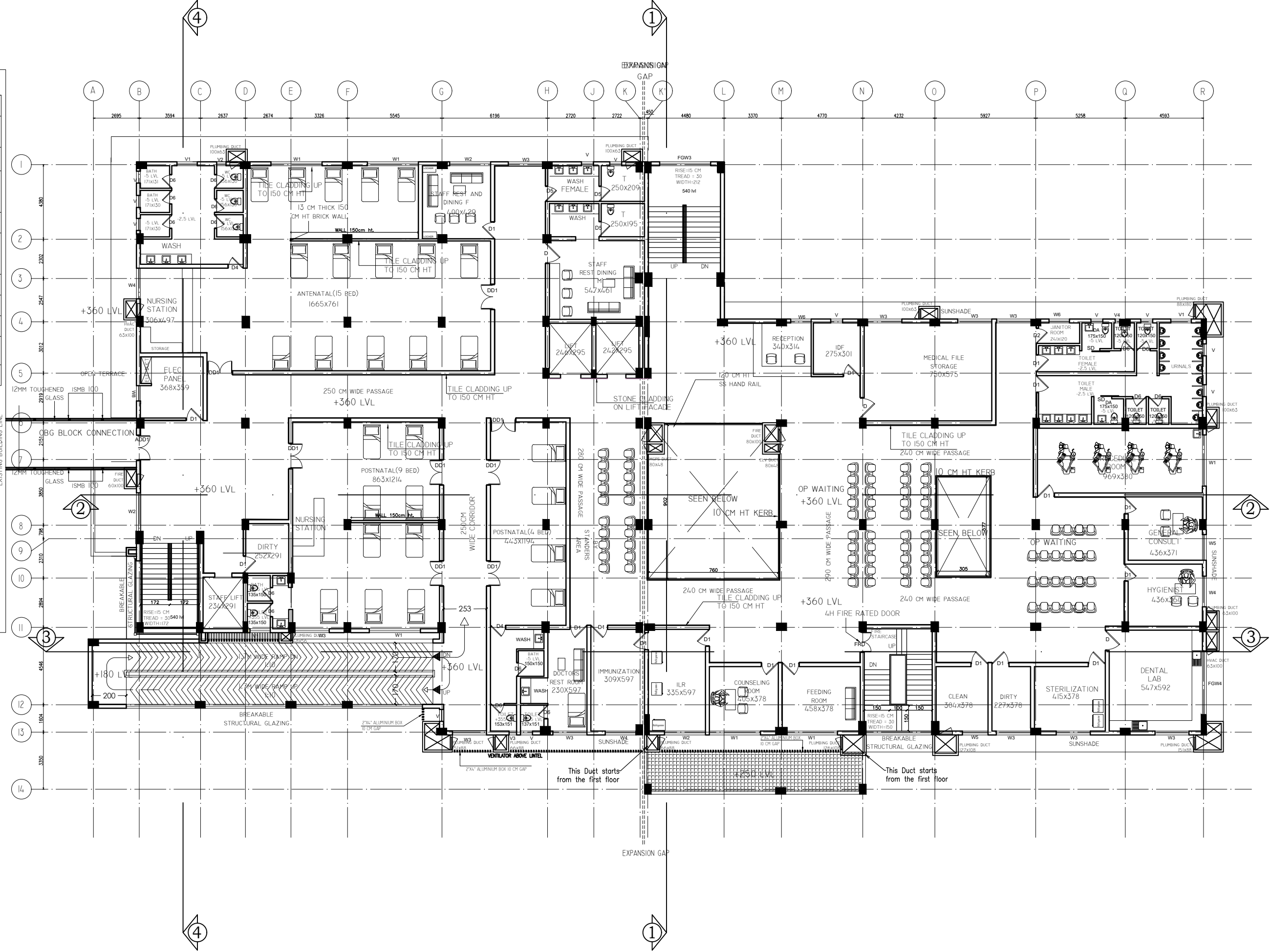
DRAWING NO : WAP/AD/THK-103-R7

DRAWING STATUS : Tender drawings

SANITATION REQUIREMENTS - FIRST FLOOR
Built up area - 1729.31 sqm

In-patient area -
no. of beds - 28nos. (female)
Total out-patient area - 1283.5 / 5.9 = 218 persons
male - 145, female - 73

FIRST FLOOR					
	IN-PATIENT AREA		OUT-PATIENT AREA		STAFF
PARTICULARS	REQUIRED	PROVIDED	REQUIRED	PROVIDED	PROVIDED
W.C - MALE	0	0	2	4	3
W.C - FEMALE	4	6	2	2	
ABLUTION TAPS	8	8	2	2	2
W.B - MALE	2	0	3	4	7
W.B - FEMALE		6		4	
BATH	4	4	0	0	0
BED PAN SINK	1	1	0	0	0
CLEANER'S SINK	1	1	1	1	1
KITCHEN SINK & DISH WASHERS	1	1	1	1	0
URINAL	0	0	4	12	0



AREA STATEMENT:

FLOOR AREA :	
Ground Floor	1942.387 SQM
First Floor	1729.318 SQM
Second Floor	1663.968 SQM
Third Floor	1677.835 SQM
Terrace	713.797 SQM
Total Floor Area	7727.305 SQM

NOTES :

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CLIENT :



HEALTH AND
FAMILY WELFARE (P)
DEPARTMENT
(Government of Kerala)

FUNDING AGENCY :



KERALA INFRASTRUCTURE
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(Government of Kerala)
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SPECIAL PURPOSE VEHICLE (SPV) :

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REVISIONS

NO.	DESCRIPTION	DATE
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R3	corrections as per kiifb comments - TAR	10-01-2022
R4	corrections as per health dept comments	07-02-2022
R5	corrections as per client comments	09-02-2022
R6		07-07-2022
R7		31-10-2022

PROJECT NAME : DEVELOPMENT OF
TALUK HOSPITAL
KOYILANDI

SHEET TITLE : FIRST FLOOR PLAN

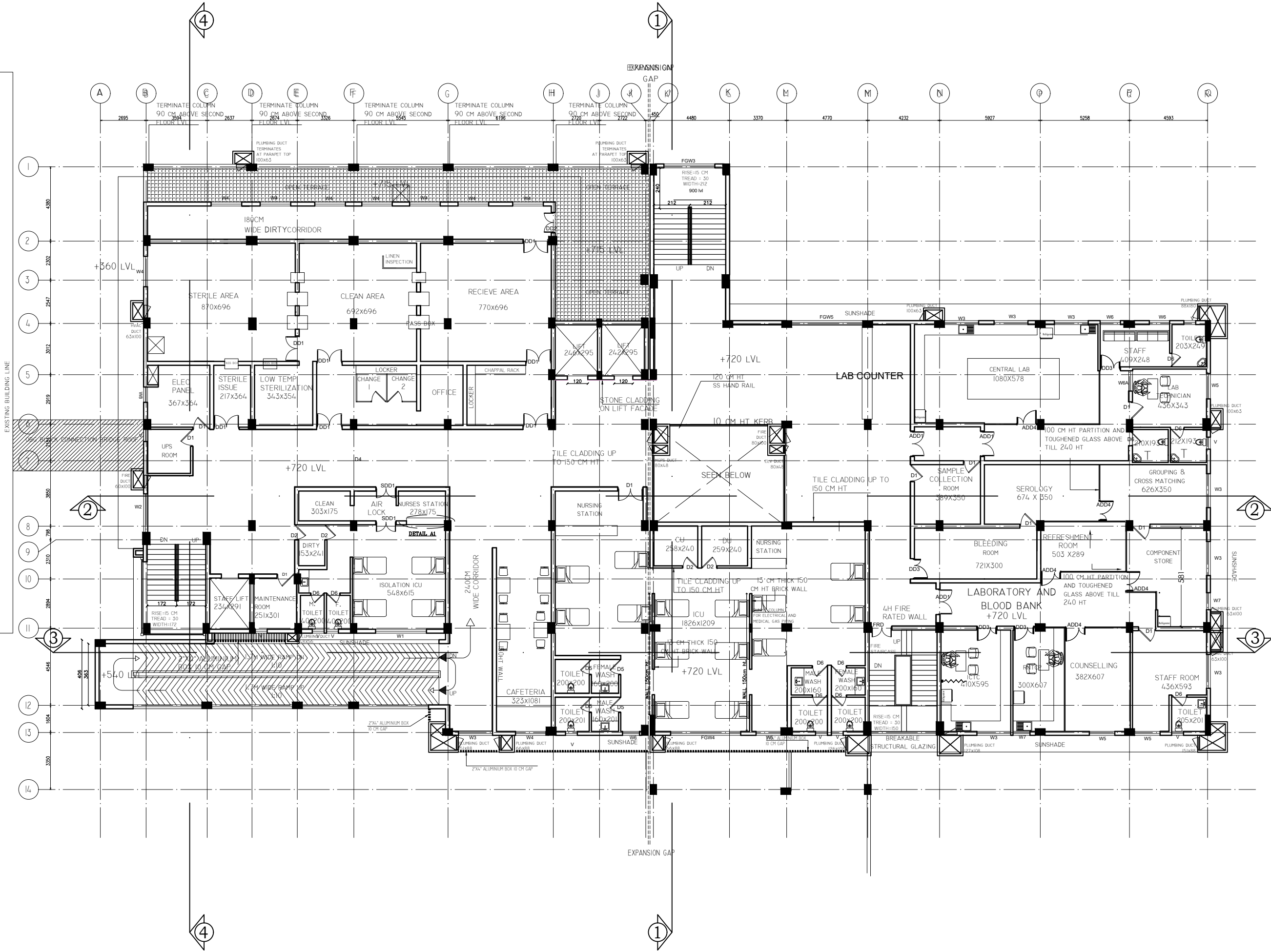
SCALE : NTS
SHEET SIZE : A2
SHEET NO : 04 of 11

DRAWN BY :
DRAWING NO : WAP/AD/THK-104-R7
DRAWING STATUS :

SANITATION REQUIREMENTS – SECOND FLOOR
Built up area – 1663.96 sqm

In-patient area –
no. of beds – 18nos.

SECOND FLOOR			
	IN-PATIENT AREA		STAFF
PARTICULARS	REQUIRED	PROVIDED	PROVIDED
W.C – MALE	3	3	4
W.C – FEMALE		3	
ABLUTION TAPS	6	6	6
W.B – MALE	2	2	4
W.B – FEMALE		2	
BATH	3	6	0
BED PAN SINK	1	1	0
CLEANER'S SINK	1	1	0
KITCHEN SINK & DISH WASHERS	1	1	0
URINAL	0	0	0



AREA STATEMENT:	
FLOOR AREA :	
Ground Floor	1942.387 SQM
First Floor	1729.318 SQM
Second Floor	1663.968 SQM
Third Floor	1677.835 SQM
Terrace	713.797 SQM
Total Floor Area	7727.305 SQM

NOTES :
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CLIENT :



HEALTH AND
FAMILY WELFARE (P)
DEPARTMENT
(Government of Kerala)

FUNDING AGENCY :



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SPECIAL PURPOSE VEHICLE (SPV) :



WAPCOS LIMITED
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1st Floor, JP Krishna Building
Palimukku, Pettah
Thiruvandrum 693024, Kerala

CHECKED BY :

APPROVED BY :

REVISIONS		
NO.	DESCRIPTION	DATE
R1		
R2		
R3	corrections as per kiifb comments - TAR	10-01-2022
R4	corrections as per health dept comments	07-02-2022
R5	corrections as per client comments	09-02-2022
R6		07-07-2022
R7		31-10-2022

PROJECT NAME : DEVELOPMENT OF
TALUK HOSPITAL
KOYILANDI

SHEET TITLE : SECOND FLOOR PLAN

DATE : 01/10/2024

SCALE : NTS

SHEET SIZE : A2

SHEET NO : 05 of 11

DRAWN BY :

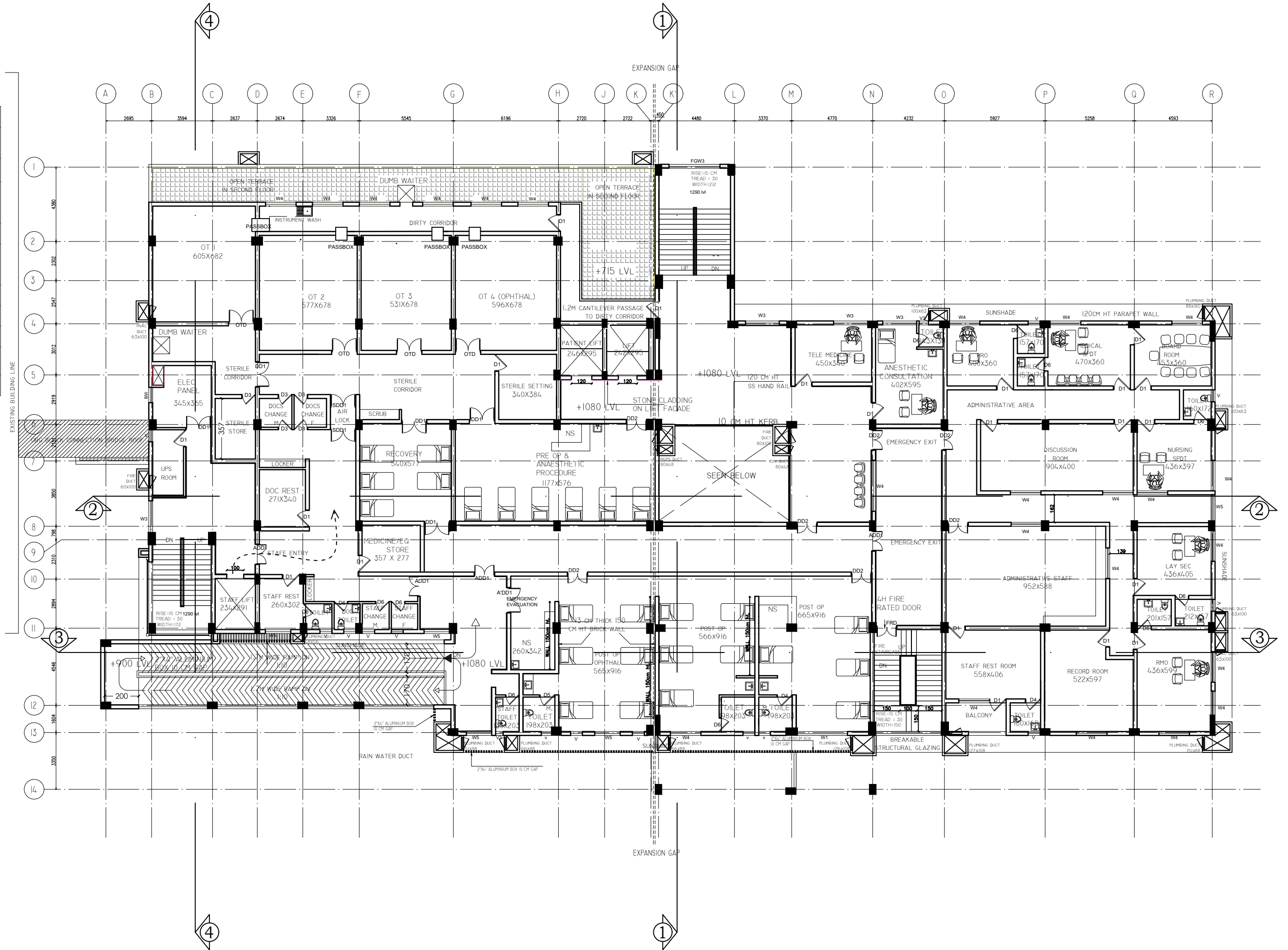
DRAWING NO : WAP/AD/THK-105-R7

DRAWING STATUS : Tender drawings

SANITATION REQUIREMENTS – THIRD FLOOR
Built up area – 1677.83 sqm

In-patient area –
no. of beds – 26nos.
Administration area – 390.7 sqm
Total Admin area – 390.7 / 5.9 = 66 persons
male – 44, female – 22

THIRD FLOOR					
	IN-PATIENT AREA		ADMIN. AREA		STAFF
PARTICULARS	REQUIRED	PROVIDED	REQUIRED	PROVIDED	PROVIDED
W.C – MALE	3	2	2	6	4
W.C – FEMALE		1	1		
ABLUTION TAPS	6	6	4	4	4
W.B – MALE	3	2	3	6	4
W.B – FEMALE		1			
BATH	3	3	1	0	0
BED PAN SINK	1	1	0	0	0
CLEANER'S SINK	1	1	1	0	0
KITCHEN SINK & DISH WASHERS	1	1	1	0	0
URINAL	0	0	3	0	0



AREA STATEMENT:

FLOOR AREA :	
Ground Floor	1942.387 SQM
First Floor	1729.318 SQM
Second Floor	1663.968 SQM
Third Floor	1677.835 SQM
Terrace	713.797 SQM
Total Floor Area	7727.305 SQM

- NOTES :
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CLIENT :



HEALTH AND
FAMILY WELFARE (P)
DEPARTMENT
(Government of Kerala)

FUNDING AGENCY :



KERALA INFRASTRUCTURE
INVESTMENT FUND BOARD
(Government of Kerala)
2nd Floor, Felicity Square,
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SPECIAL PURPOSE VEHICLE (SPV) :



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(A Government of India Undertaking)
Ministry of Jal Shakti
Regional Office (Kerala)
1st Floor, JP Krishna Building
Pallimukku, Pettah
Thiruvandrum 695024, Kerala

CHECKED BY :

APPROVED BY :

REVISIONS		
NO.	DESCRIPTION	DATE
R1		
R2		
R3	corrections as per kiifb comments - TAR	10-01-2022
R4	corrections as per health dept comments	07-02-2022
R5	corrections as per client comments	09-02-2022
R6		07-07-2022
R7		31-10-2022

PROJECT NAME : DEVELOPMENT OF
TALUK HOSPITAL
KOYILANDI

SHEET TITLE : THIRD FLOOR PLAN

DATE : 01/10/2024

SCALE : NTS
SHEET SIZE : A2
SHEET NO : 06 of 11

DRAWN BY :

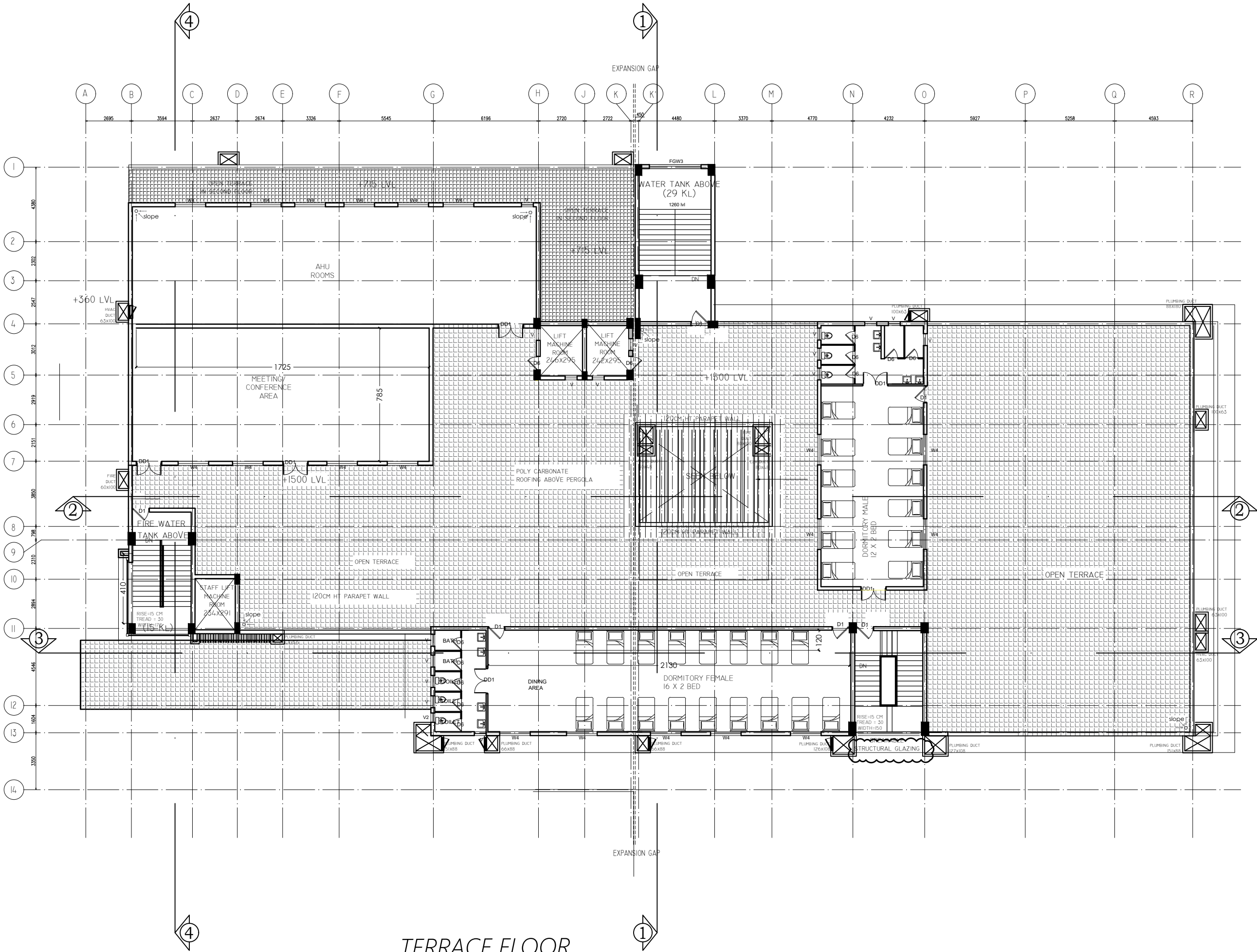
DRAWING NO : WAP/AD/THK-106-R7

DRAWING STATUS : Tender drawings

SANITATION REQUIREMENTS – TERRACE FLOOR
Built up area – 713.79 sqm

public area –
no. of beds – 29nos.
(male – 12, female – 17)

TERRACE FLOOR	
PARTICULARS	PROVIDED
W.C – MALE	3
W.C – FEMALE	3
ABLUTION TAPS	10
W.B – MALE	4
W.B – FEMALE	4
BATH	4
BED PAN SINK	0
CLEANER'S SINK	0
KITCHEN SINK & DISH WASHERS	0
URINAL	0



AREA STATEMENT:

FLOOR AREA :	
Ground Floor	1942.387 SQM
First Floor	1729.318 SQM
Second Floor	1663.968 SQM
Third Floor	1677.835 SQM
Terrace	713.797 SQM
Total Floor Area	7727.305 SQM

NOTES :
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CLIENT :



HEALTH AND
FAMILY WELFARE (P)
DEPARTMENT
(Government of Kerala)

FUNDING AGENCY :



KERALA INFRASTRUCTURE
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Kerala, India.
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Email: financeadm@kiifb.org,
appraisaldivision@kiifb.org

SPECIAL PURPOSE VEHICLE (SPV) :



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REVISIONS		
NO.	DESCRIPTION	DATE
R1		
R2		
R3	corrections as per kiifb comments - TAR	10-01-2022
R4	corrections as per health dept comments	07-02-2022
R5	corrections as per client comments	09-02-2022
R6		07-07-2022
R7		31-10-2022

PROJECT NAME : DEVELOPMENT OF
TALUK HOSPITAL
KOYILANDI

SHEET TITLE : TERRACE PLAN

DATE : 01/10/2024

SCALE : NTS

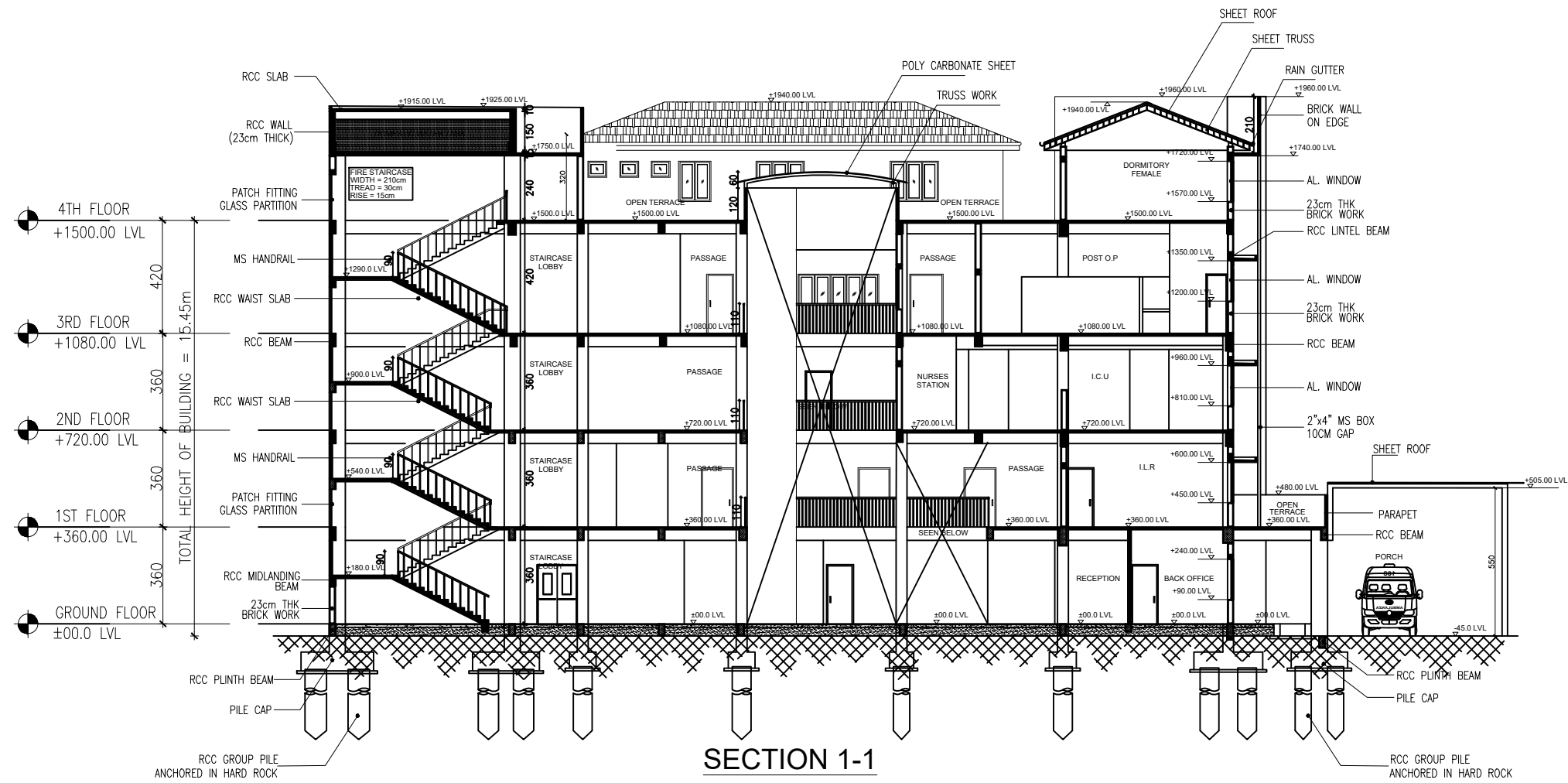
SHEET SIZE : A2

SHEET NO : 07 of 11

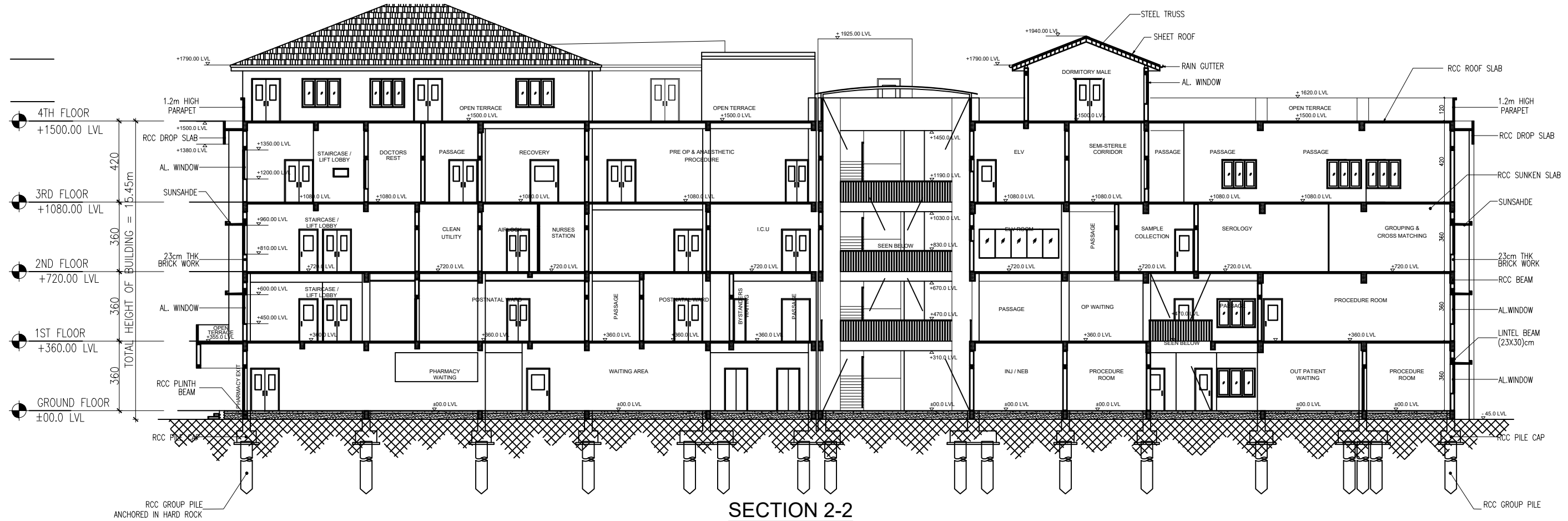
DRAWN BY :

DRAWING NO : WAP/AD/THK-107-R7

DRAWING STATUS : Tender drawings



SECTION 1-1



SECTION 2-2

NOTES :

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CLIENT :



**HEALTH AND
FAMILY WELFARE (P)
DEPARTMENT**
(Government of Kerala)

FUNDING AGENCY :



**KERALA INFRASTRUCTURE
INVESTMENT FUND BOARD**
(Government of Kerala)
2nd Floor, Felicity Square,
MG Road, Statue,
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Kerala, India.
Ph: +91-0471-2780900
Email: financeadmin@kiifb.org,
appraisaldivision@kiifb.org

SPECIAL PURPOSE VEHICLE (SPV) :



CHECKED BY :

APPROVED BY :

NO.	REVISIONS	
	DESCRIPTION	DATE
R1		
R2		
R3	corrections as per kiifb comments - TAR	10-01-2022
R4	corrections as per health dept comments	07-02-2022
R5	corrections as per client comments	09-02-2022
R6		07-07-2022
R7		31-10-2022

**PROJECT NAME : DEVELOPMENT OF
TALUK HOSPITAL
KOYILANDI**

SHEET TITLE : SECTION 1-1 & 2-2

DATE : 01/10/2024

SCALE : NTS

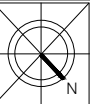
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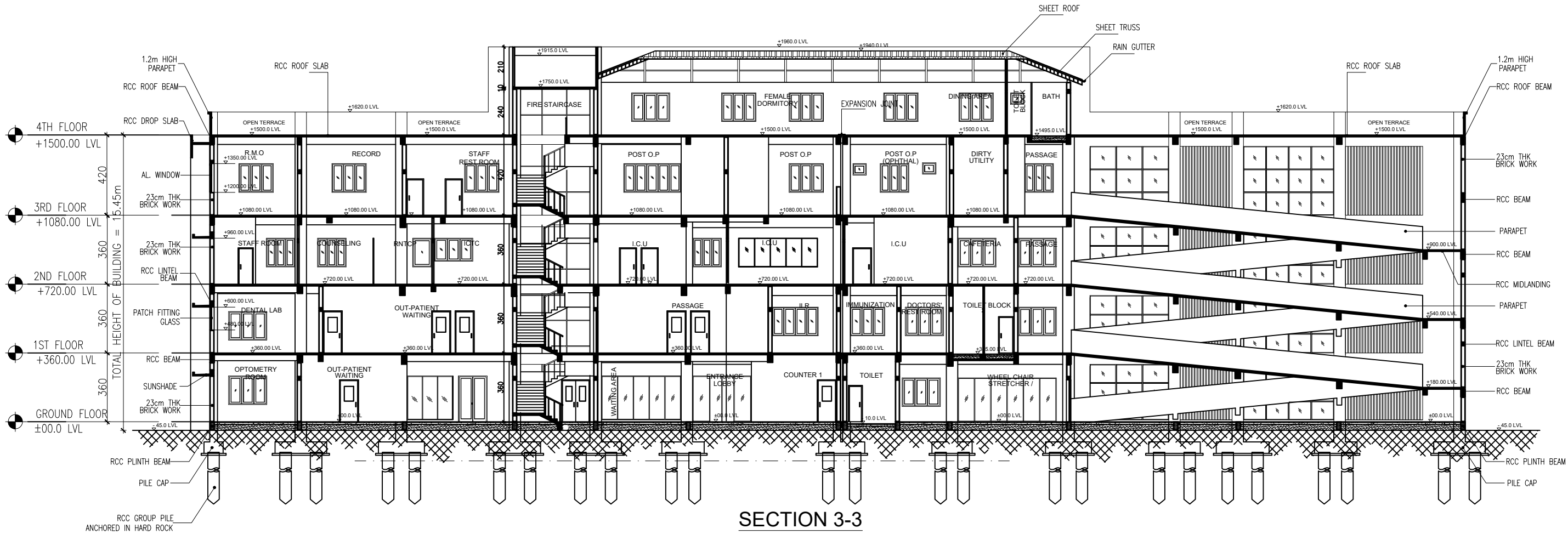
SHEET NO : 08 of 11

DRAWN BY :

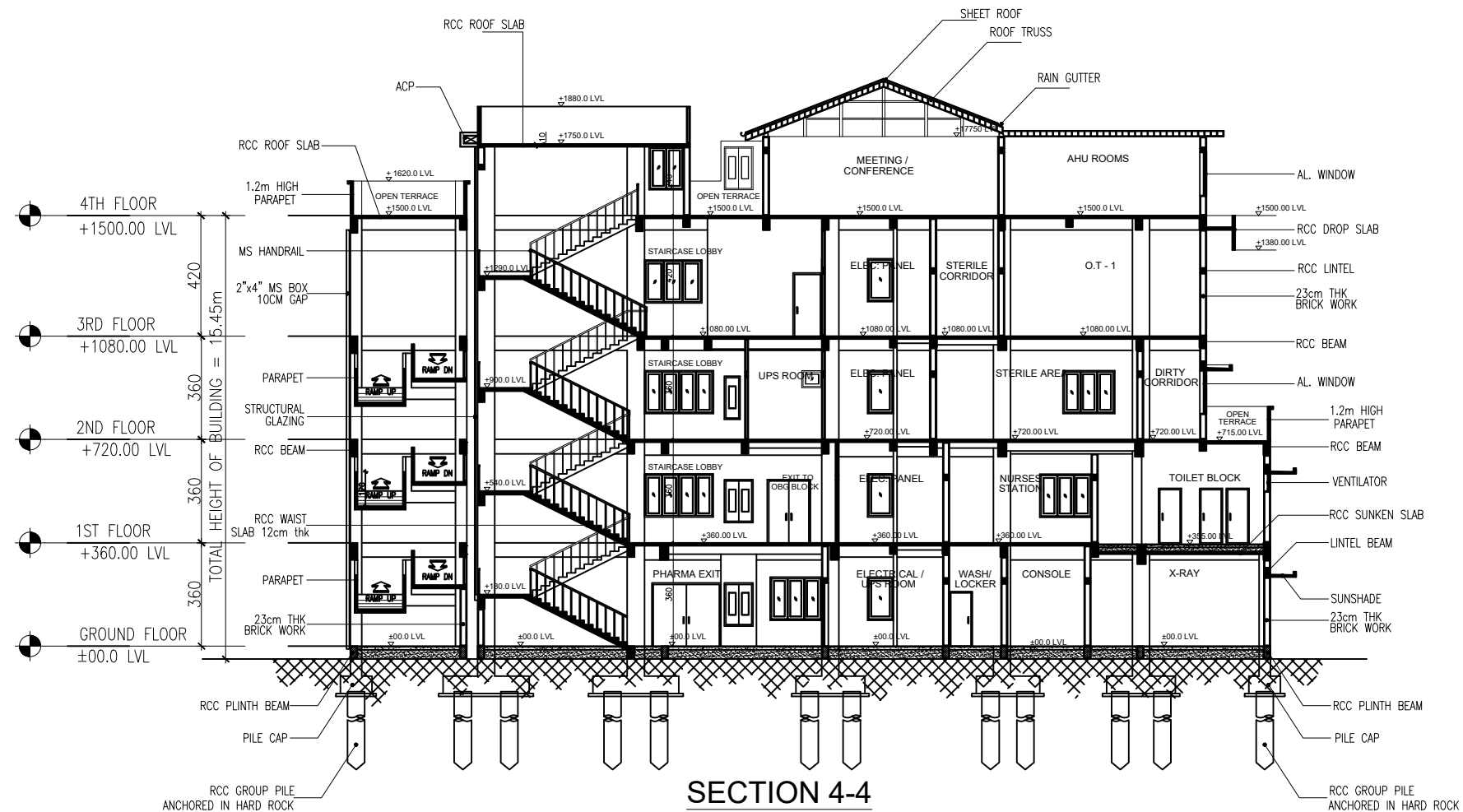
DRAWING NO : WAP/AD/THK-108-R7

DRAWING STATUS : Tender drawings





SECTION 3-3



SECTION 4-4

NOTES :

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CLIENT :

HEALTH AND FAMILY WELFARE (P) DEPARTMENT
(Government of Kerala)

FUNDING AGENCY :

KERALA INFRASTRUCTURE INVESTMENT FUND BOARD
(Government of Kerala)

SPECIAL PURPOSE VEHICLE (SPV) :

WAPCOS LIMITED
(A Government of India Undertaking)

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APPROVED BY :

REVISIONS		
NO.	DESCRIPTION	DATE
R1		
R2		
R3	corrections as per kltb comments - TAR	10-01-2022
R4	corrections as per health dept comments	07-02-2022
R5	corrections as per client comments	09-02-2022
R6		07-07-2022
R7		31-10-2022

PROJECT NAME : **DEVELOPMENT OF TALUK HOSPITAL KOYILANDI**

DATE : **01/10/2024**

SCALE : NTS

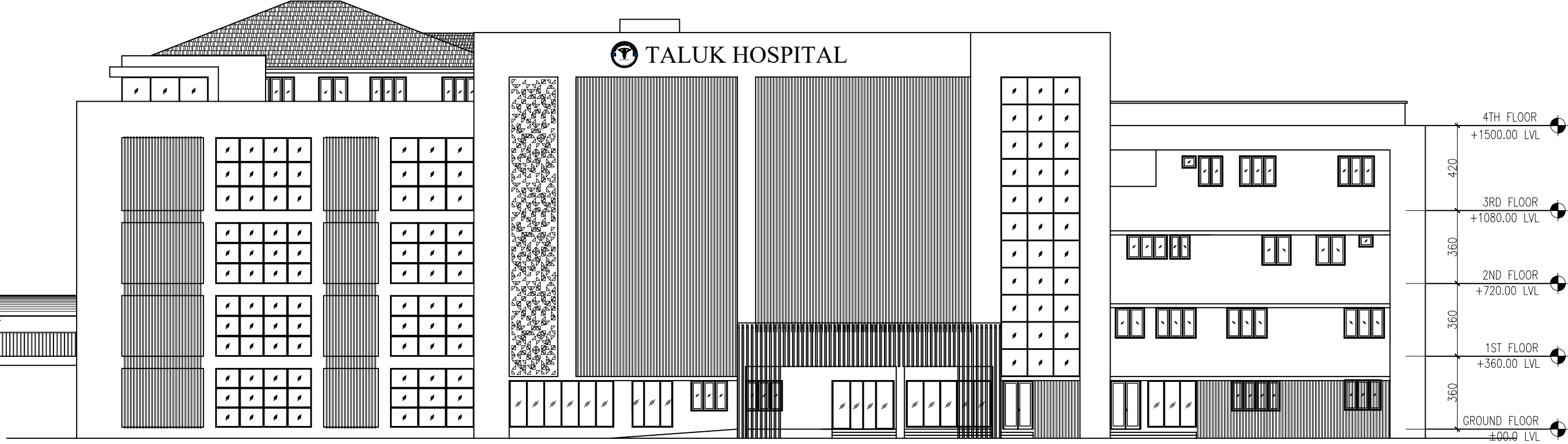
SHEET SIZE : A2

SHEET NO : 09 of 11

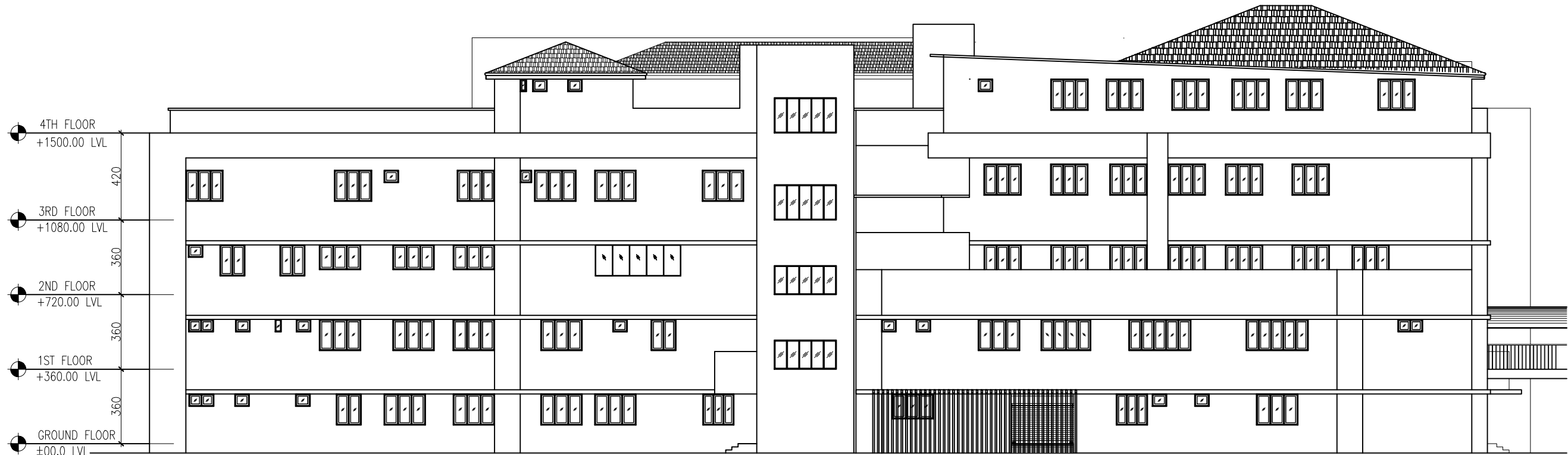
DRAWN BY :

DRAWING NO : WAP/AD/THK-109-R7

DRAWING STATUS : Tender drawings



FRONT ELEVATION



REAR SIDE ELEVATION

NOTES :

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CLIENT :



**HEALTH AND
FAMILY WELFARE (P)
DEPARTMENT**
(Government of Kerala)

FUNDING AGENCY :



**KERALA INFRASTRUCTURE
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2nd Floor, Felicity Square,
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appraisaldivision@kiifb.org

SPECIAL PURPOSE VEHICLE (SPV) :



(A Government of India Undertaking)
Ministry of Jal Shakti
Regional Office (Kerala)
1st Floor, JP Krishna Building
Palimukku, Pettah
Thiruvandrum 695024, Kerala

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REVISIONS		
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R3	corrections as per kiifb comments - TAR	10-01-2022
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R5	corrections as per client comments	09-02-2022
R6		07-07-2022
R7		31-10-2022

**PROJECT NAME : DEVELOPMENT OF
TALUK HOSPITAL
KOYILANDI**

SHEET TITLE : ELEVATIONS

DATE : 01/10/2024

SCALE : NTS

SHEET SIZE : A2

SHEET NO : 10 of 11

DRAWN BY :

DRAWING NO : WAP/AD/THK-110-R7

DRAWING STATUS : Tender drawings





RIGHT SIDE ELEVATION



LEFT SIDE ELEVATION

JOINERY SCHEDULE			
WINDOWS & VENTILATORS			
1	W1	300 X 150	sliding
2	W2	240 X 150	sliding
3	W3	200 X 150	sliding
4	W4	180 X 150	sliding
5	W5	150 X 150	sliding
6	W6	120 X 150	sliding
7	W7	100 X 150	sliding
8	W8	90 X 150	sliding
9	W9	55 X 150	sliding
10	W3A	200 X 120	sliding
11	W3B	200 X 75	sliding
12	W4A	180 X 120	sliding
13	W6A	120 X 120	sliding
14	LG1	250 X 120	lead fixed window
15	V	70 X 60	ventilator
16	V1	120 X 60	ventilator
17	V2	55 X 60	ventilator
18	V3	44 X 60	ventilator
19	V4	30 X 60	ventilator
20	FGW1	200 X 150	fixed glass
21	FGW2	286 X 230	fixed glass
22	FGW3	300x140/170	fixed glass
23	FGW4	413 X 120	fixed glass
24	FGW5	416.5 X 150	fixed glass
25	FGW6	514 X 230	fixed glass
26	FGW7	516 X 150	fixed glass

DOORS			
27	DD1	150(75+75) X 220	double panel door
28	DD2	120(60+60) X 220	double panel door
29	DD3	120(80+40) X 220	double panel door
30	A'DD1	150(75+75) X 220	emergency exit door
31	D	120 X 220	single panel door
32	D1	100 X 220	single panel door
33	D2	90 X 220	single panel door
34	D3	80 X 220	single panel door
35	SD1	90 X 220	sliding door
36	SSD	150 X 220	patch fitting sliding glass double door
37	D4	90 X 220	single panel toilet door
38	D5	90 X 220	single panel toilet door
39	D6	80 X 210	single panel toilet door
40	SD	105 X 220	sliding single panel toilet door
41	OTD	150 X 220	hand/floor sensoroperated SS/HPL sliding door with vision panel for operation theatre
42	FRD1	150(75+75) X 220	fire rated door
43	FRD	120 X 220	fire rated door
44	SDD1	150(75+75) X 220	SS double paneled door with drop seal/ vision panel
45	LDD	150(75+75) X 220	double paneled lead door with drop seal/ vision panel
47	ADD1	120(60+60) X 220	access control tempered & laminated patch glass double doors
49	ADD4	120(30+90) X 220	access control tempered & laminated patch glass double doors
50	ADD5	240(120+120) X 220	access control tempered & laminated patch glass double doors
51	LD	120 X 220	lift door opening
52	LD1	100 X 220	lift door opening
53	RS	300 X 240	rolling shutter

NOTES :

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CLIENT :



**HEALTH AND
FAMILY WELFARE (P)
DEPARTMENT**
(Government of Kerala)

FUNDING AGENCY :



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INVESTMENT FUND BOARD**
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Thiruvandrum 695024, Kerala

CHECKED BY :

APPROVED BY :

REVISIONS		
NO.	DESCRIPTION	DATE
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R2		
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R6		07-07-2022
R7		31-10-2022

**PROJECT NAME : DEVELOPMENT OF
TALUK HOSPITAL
KOYILANDI**

**SHEET TITLE : ELEVATIONS &
JOINERY SCHEDULE**

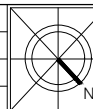
DATE : 01/10/2024

SCALE : NTS
SHEET SIZE : A2
SHEET NO : 11 of 11

DRAWN BY :

DRAWING NO : WAP/AD/THK-111-R7

DRAWING STATUS : Tender drawings



BIOGAS PLANT with a capacity to process 50 kg of organic waste per day typically has the following specifications and components:

Technical Specifications

1. Capacity: 50 kg/day organic waste.

Equivalent to generating approximately 2-3 m³ of biogas per day (depending on waste composition).

2. Feedstock: Organic biodegradable waste, such as:

Kitchen waste.

Food scraps.

Agricultural residues.

3. Digester Volume:

The digester size typically ranges between 2-5 m³, depending on retention time (average 20-30 days for mesophilic digestion).

4. Retention Time:

Mesophilic operation: 25–30 days.

Thermophilic operation: 15–20 days.

5. Gas Yield:

0.4–0.6 m³ of biogas per kg of organic waste.

6. Output:

Biogas: Used for cooking, heating, or electricity generation (if coupled with a generator).

Slurry: Used as organic fertilizer.

Components

1. Feed Tank:

A hopper for loading waste, connected to the digester.

2. Anaerobic Digester:

Made of FRP (Fiber-Reinforced Plastic), HDPE (High-Density Polyethylene), or concrete.

Designed for airtight conditions to facilitate anaerobic digestion.

3. Gas Holder:

Flexible balloon or fixed dome to collect biogas.

4. Piping System:

For biogas transportation, typically PVC or HDPE pipes.

5. Biogas Stove or Generator:

To utilize biogas for cooking or power generation.

6. Slurry Outlet:

For extracting digested slurry.

Operational Requirements

1. Space Needed:

Approx. 15–20 m², depending on design.

2. Water Requirement:

Mixing waste at a ratio of 1:1 waste to water by weight.

3. Maintenance:

Periodic removal of non-digestible materials (e.g., plastics).

Regular feeding to ensure consistent gas production.

Popular Models

1. KVIC (Khadi and Village Industries Commission) Model:

Fixed-dome design suitable for small-scale setups.

2. Deenbandhu Model:

Economical and widely used across rural areas.

3. Portable Biogas Plants:

Prefabricated plants made of plastic or fiberglass, ideal for urban settings.

Memorandum of Understanding

This Memorandum of Understanding (herein after referred to as “MoU”) entered on this the day of2024 by and between

1. (Name of Bidder) having its registered office at (hereinafter referred to as the “Bidder” which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

2. (Name of Specialized Agency) having its registered office at (hereinafter referred to as the “Specialized Agency” which expression shall, unless repugnant to the context include its successors and permitted assigns)

Whereas M/s WAPCOS Ltd. invited a Tender No: WAP/INFRA/KERALA/2024/AAA/XXX dated DD.MM.YYYY for the work of “.....” (Name of Work)

Both parties have agreed to quote for the work jointly and work together strictly on back to back basis as per the tender documents, if the work is awarded to (Name of Bidder)

..... (Name of Specialized Agency), is having vas experience in the field of installation and completion of (Name of Specialized work) and have agreed to associate with (Name of Bidder) as per tender clause 2(g) (Qualifying Criteria) Section-II of Notice Inviting Tender of WAPCOS Ltd.

..... (Name of Specialized Agency) have successfully completed and commissioned the work of (Name of Specialized work) for (Name of Project and Client) as per attached Work order and Completion Certificate.

..... (Name of Specialized Agency) has agreed to provide their services until the successful completion and commissioning of the (Name of Specialized work) including Defects Liability Period as described in the tender document.

..... (Name of Specialized Agency) shall provide all required support to (Name of Bidder) during the DLP for 3 years for Electrical and Mechanical works including warranty for 3 years.

IN WITNESS WHEREOF, the parties have caused this MoU to be executed by their respective authorized representatives with effect as of the effective date and shall be valid till completion of the work.

For and on behalf of

..... (Name of Specialized Agency)

Authorized Signatory

For and on behalf of

..... (Name of Bidder)

Authorized Signatory