TECHNICAL PROCUREMENT SPECIFICATION	8144-01-PS-004
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TPS No	8144-01-PS-004
STATUS	☐ ENQUIRY ☐ COMMITMENT
ORIGINATING DEPT.	Mechanical
P.O. / W.O. No.	
PROJECT	Construction of Educational building for National Institute of Technology, Nagaland.
LOCATION	Dimapur, Nagaland
CLIENT	NIT, Nagaland
PURCHASER	NIT, Nagaland
VENDOR	

ITEM : ELECTRIC TRACTION PASSENGER LIFTS

3	06.09.23	Fourth Issue	NK	LA	RM
2	03.07.23	Third Issue	KBK	LA	RM
1	13.06.23	Second Issue	KBK	LA	RM
0	05.04.23	First Issue	KBK	LA	RM
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED

TECHNICAL PROCUREMENT SPECIFICATION	**ATTACHMENTS**	8144-01-ATT-004
		PAGE 1 OF 1

TPS No. 8144-01-PS-004

Sl. No	Doc. No	Description	No. of pages	Rev. No. with Issue			
				1	2	3	4
1	8144-01-IS-004	EQUIPMENT / ITEM TO BE SUPPLIED	1	0	**1**		
2	8144-01-INS-004	SCOPE OF INSPECTION AND TESTS	1	0			
3	8144-01-VDR-004	VENDOR DATA REQUIREMENTS	1	0	**1**		
4	8144-01-VDI-004	VENDOR DATA INDEX	1	-			
5	00ES001/2010	VEDOR DATA SUBMISSION PROCEDURE	4	-			
6	8144-01-SPL-004	SPECIAL REQUIREMENTS OF THE PROJECT	9	0	**1**	2	3
7	8144-01-DA(DB -1) -004	DATA SHEET - DB-1	2	0	**1**	2	
8	8144-01-DA(DB - 2) -004	DATA SHEET - DB-2	2	0	**1**	2	
9	8144-01-DA(LB - 1) -004	DATA SHEET - LB-1	2	0	**1**	2	
10	8144-01-LD-004	EQUIPMENT LUBRICATION DATA	1	0			
							2
11	**DRAWINGS**						
11.1	8144-12-DG-00700	LIBRARY BLOCK GROUND FLOOR PLAN	1	0			
11.2	8144-12-DG-00701	LIBRARY BLOCK FIRST FLOOR PLAN	1	0			
11.3	8144-12-DG-00702	LIBRARY BLOCK SECOND FLOOR PLAN	1	0			
11.4	8144-12-DG-00703	LIBRARY BLOCK ROOF FLOOR PLAN	1	0			
11.5	8144-12-DG-00704	LIBRARY BLOCK FRONT SIDE ELEVATION	1	0			
11.6	8144-12-DG-00500	DEPARTMENT BLOCK-1 GROUND FLOOR PLAN	1	1			
11.7	8144-12-DG-00501	DEPARTMENT BLOCK-1 FIRST FLOOR PLAN	1	1			
11.8	8144-12-DG-00502	DEPARTMENT BLOCK-1 SECOND FLOOR PLAN	1	1			
11.9	8144-12-DG-00503	DEPARTMENT BLOCK-1 ROOF FLOOR PLAN	1	0			
11.10	8144-12-DG-00624	DP-BLOCK 1,2&3 DETAILS OF LIFT ROOM BEAM	1	0			
11.11	8144-12-DG-00504	DEPARTMENT BLOCK-2 GROUND FLOOR PLAN	1	1			
11.12	8144-12-DG-00505	DEPARTMENT BLOCK-2 FIRST FLOOR PLAN	1	1			
11.13	8144-12-DG-00506	DEPARTMENT BLOCK-2 SECOND FLOOR PLAN	1	1			
11.14	8144-12-DG-00507	DEPARTMENT BLOCK-2 ROOF FLOOR PLAN	1	1			
11.15	8144-12-DG-00508	DPB-2 FRONT AND REAR ELEVATIONS.	1	0			
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11.17	8144-01-SIW-004	SCHEDULE OF ITEMS OF WORK	2	0	1		2
11.18	8144-01-CS-004	COMPLIANCE STATEMENT	1	-			

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2	03.07.23	Third Isssue	KBK	LA	RM
1	13.06.23	Second Issue	KBK	LA	RM
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TECHNICAL PROCUREMENT SPECIFICATION	**EQUIPMENT / ITEMS TO BE SUPPLIED**	8144-01-IS-004
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TPS NO. 8144-01-PS-004

Sl. No.	Eqpt. No. / Tag No.	Description	Qty.	Remarks
	ELECTRIC TRACTION PASSENGER LIFTS			
1		10 PASSENGERS LIFT, 3 STOPS for Dept. Block -1	1	
2		10 PASSENGERS LIFT, 3 STOPS for Dept. Block -2	1	
3		10 PASSENGERS LIFT, 3 STOPS for Library Block	1	

REV.NO.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
1	13.06.23	Second Issue	KBK	LA	RM
0	05.04.23	First Issue	KBK	LA	RM

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TECHNICAL PROCUREMENT SPECIFICATION	**SCOPE OF INSPECTION AND TESTS**	8144-01-INS-004
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TPS NO.	8144-01-PS-004
ITEM :	**ELECTRIC TRACTION PASSENGER LIFTS**
EQPT. NO.	

The following inspection and test shall be conducted and records submitted.

Sl No.	Description	Inspn. Reqd.	Witness Reqd.	Remarks
1.0	**Shop Test**	✓		
1.1	Visual Test	✓		
1.2	Dimensional Test	✓		
1.3	Mechanical run test of all rotating equipment	✓		
1.4	Material Test Certification	✓		
2.0	**Site Tests**	✓		
2.1	Performance Guarantee test run	✓	✓	

REV.NO.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
0	05.04.23	First Issue	KBK	LA	RM

FACT ENGINEERING AND DESIGN ORGANISATION FEDO

TECHNICAL PROCUREMENT SPECIFICATION	**VENDOR DATA REQUIREMENTS**	8144-01-VDR-004
		PAGE 1 OF 1

PROJECT : Construction of Educational building for National Institute of Technology, Nagaland.

ITEM : ELECTRIC TRACTION PASSENGER LIFTS

CLIENT : **NIT, Nagaland**

TPS No : **8144-01-PS-004**

STATUS : ☑ ENQUIRY ☐ COMMITMENT

PO No :

Sl. No	Grp Code	Description	Offer	After Commitment				Final@@
			Qty	Qty	Lead time in weeks			Qty
					Reqd	Prop@	Agrd	
1.0	A	List of facilities considered for persons with disabilities	S	S	2			S
2.0	A	Dimensioned GA & cross sectional drawings	S	S	2			S
3.0	B	Inspection & Tests Procedure		S	2			S
4.0	A	Duly filled and signed Data Sheets of:						
		Passenger Lifts	S	S	2			S
5.0	B	Dimensioned drawing of door position & clear opening		S	2			S
6.0	C	Signed copy of the TPS document as acceptance of TPS conditions.	S	S				S
7.0	A	Utility Consumption		S	2			S
8.0	B	Equipment lubrication data sheets		S	2			S
9.0	B	Material test certificates			10 *			S
10.0	B	Test records			10 *			S
11.0	C	Installation, operation & maintenance manual						S
12.0	C	Technical literature & catalogs	S					S
13.0	C	Reference list of previous supplies	S					S
14.0	C	Storage instructions (if any)	S					S
15.0	C	Safety Instructions	S					S
16.0	B	Compliance statement (In the format with TPS)	S					S

Legend :

Group code : A - For review and detailed Engineering , B - For review , C - For information and record

Document type : S - Soft copy

Notes :

' @ ' Vendor shall fill in proposed lead time if different from the required lead time

' @@ ' Each set of final documents shall be submitted in a folder. Two such folders shall be packed and despatched with the equipment.

*** After Tests and before supply.**

REV NO	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
1	13.06.23	Second Issue	KBK	LA	RM
0	05.04.23	First Issue	KBK	LA	RM

FACT ENGINEERING AND DESIGN ORGANISATION

FEDO

TECHNICAL PROCUREMENT SPECIFICATION	**VENDOR DATA INDEX**	8144-01-VDI-004
		PAGE 1 OF 1

PROJECT : Construction of Educational building for National Institute of Technology, PROJECT No. : 8144 VENDOR :

ITEM : ELECTRIC TRACTION PASSENGER LIFTS P.O. No. : DATE :

Sl. No.	Doc. / Drawing No.	Description	Rev. 0 Date	Rev. 1 Date	Rev. 2 Date	Rev. 3 Date	Rev. 4 Date	Rev. 5 Date	Relevent to This issue ✓

ISSUE No.											
DATE											
SIGNATURE											

FACT ENGINEERING AND DESIGN ORGANISATION

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CONTENTS

1.0.0. SCOPE

1.1.0. This document together with "VENDOR DATA REQUIREMENTS (VDR)" defines FEDO's requirements for vendor drawing and data for any enquiry, work order or purchase order.

1.2.0. Bidders unable to comply with these requirements must detail all exceptions in their proposal. The timely delivery of quality drawings and data is as crucial as delivery of the equipment itself and hence the same shall be strictly adhered to after commitment.

1.3.0. Failure to provide adequate preliminary data / drawing may render a proposal non-responsive and hence may be rejected. After commitment failure to provide documents as per purchase order may delay progressive payments and adversely affect future invitation to bids.

2.0.0 VENDOR DATA REQUIREMENTS (VDR)

2.1.0 FEDO will provide a partially completed VDR form along with each enquiry. This form explains group code of the document, quantity of each document required and lead time for submission. Columns are available for the vendor to fill in his deviations, if any, from FEDO's requirements.

2.2.0 The vendor shall forward a filled-in VDR form along with his offer, if he has got any deviation from FEDO's requirements. In the absence of a filled-in VDR form along with the offer, it will be presumed that the vendor is accepting FEDO's requirements specified in the VDR.

3.0.0. CLASSIFICATION OF DOCUMENTS

3.1.0. Documents are classified based on their status and nature of content.

3.1.1. Status of documents:

1. Preliminary documents required along with the offer.
2. Documents to be submitted after commitment.
3. Final documents.

3.2.0. The documents are further classified into Groups A,B and C, depending on the nature of the documents as explained below.

3.2.1. Group A requirements

These documents are urgent in nature and contain information that is required for proceeding with the detailed engineering of surrounding / down stream equipments in the plant and hence are to be submitted on priority basis.

3.2.2. Group B requirements

These documents are to be reviewed by FEDO for compliance with the purchase order / work order specifications but are not essential for other engineering activities of FEDO.

3.2.3. Group C requirements

Documents in this group contains data / information / records which are final in nature and that are required for the equipment user and need not be reviewed by FEDO.

4.0.0. VENDOR DATA INDEX (VDI)

4.1.0. Vendor shall forward a filled up and updated VDI along with each vendor data transmittal. VDI shall list out all documents that are being prepared for the particular order, their current revision status and indicate the documents included in the present transmittal. A blank VDI is attached along with this document, which shall be used for this purpose.

5.0.0. QUALITY OF VENDOR DRAWINGS

5.1.0. Vendor drawing and data shall be supplied in full size drawings, reproducible and CDs as specified in the VDR.

5.2.0. All drawings / documents shall be clear, legible, right reading and made out of originals prepared in black ink. English language and metric units shall be used for the preparation of all documents.

5.3.0. The documents shall be prepared n any of the following standard sizes.

5.3.1. A1: 594 mm x 840 mm
5.3.2. A2: 420 mm x 594 mm
5.3.3. A3: 297 mm x 420 mm
5.3.4. A4; 210 mm x 297 mm

5.4.0. All documents submitted to FEDO shall be folded into A4 size (210 x 297 mm) except originals / re-producible which may be rolled. All reproducible shall be in high quality polyester films. Soft copies shall be furnished in CD for final drawings / documents.

5.5.0. Each drawing / document shall have a title block at the right hand bottom corner with the following information.

5.5.1. Name of Vendor.
5.5.2. Drawing title.
5.5.3. Name of Project, Owner and location.
5.5.4. Name of Consultant: FEDO
5.5.5. FEDO Purchase Order Number.
5.5.6. Equipment name & Number
5.5.7. Drawing number, revision and page number.

5.6.0. All drawings shall be drawn to some standard scales only and the same shall be indicated in the drawing.

5.7.0. The status of the document like "PRELIMINARY, FINAL, FOR REVIEW" etc. shall be stamped on all copies forwarded to FEDO.

5.8.0. All documents shall have a block of 100 mm x 100 mm space left vacant for FEDO to put their stamp after review.

5.9.0. All drawing/document shall have a revision block explaining revision number, revision description, data of revision, revision authorization etc. When the revised drawings are submitted all currently revised area shall be clearly demarcated by clouding. Any revisions made on other parts of the documenting will not be reviewed by FEDO.

5.10.0. When drawings are received back from FEDO with comments, vendor shall incorporate all the comments and resubmit the same. If the vendor is not in a position to incorporate certain comment made by FEDO, then the reason for such deviation shall be highlighted in the forwarding letter to FEDO.

5.11.0 The respective engineering specification and other purchase order spec. Will explain the minimum data / details required in various drawings. In the absence of any such information in the purchase order documents, vendor shall follow the standard good engineering practices in detailing the drawing.

6.0.0. CONDITIONS OF FEDO REVIEW

6.1.0. FEDO and / or its client reserve the right to review the vendor documents. FEDO's REVIEW WITH OR WITHOUT COMMENTS OF THE VENDOR DOCUMENTS SHALL NOT RELIEVE THE VENDOR OF RESPONSIBILITY TO COMPLY WITH ALL PURCHASE ORDER TERMS AND CONDITIONS, including all implied requirements relating to fitness for service and good engineering practices. Approval or acceptance does not imply or infer any determination relating to compliance by the vendor with its full

responsibilities under the purchase order.

6.2.0. FEDO's comments are limited to identifying requirements within the scope of the purchase order or failure by the vendor to comply with the requirements of purchase order, as revealed by the limited review. Oversights in the above limited review cannot be taken as approval for the vendor to deviate from the purchase order conditions. FEDO reserve the right to point out any such deviations at any stage of the order execution. The vendor shall comply with all such requirements without any price / delivery implications.

6.3.0. FEDO review will be authorized by an official stamp as given below, properly filled and signed by the concerned. Comments if any will be indicated in red ink or clouded in the case of copies of commented drawings.

Appropriate comment in the 'comments' column and 'status of review' column will be marked.

Comment	Status of Review
As noted	Revise and resubmit for review
No comments	Proceed as noted and submit revised docs. For records
Not reviewed	No further review required
	Forward final docs. As per P.O.

6.4.0. All documents received in FEDO shall be dispatched after review within 15 days from the date of receipt. Vendor shall notify FEDO of non-receipt of reviewed documents in time immediately, to take corrective actions.

6.5.0. The delivery of the equipment shall in no case be linked with the review of the vendor drawings and data by FEDO. It is the sole responsibility of the vendor to execute the job as per the purchase order conditions. If required the vendor shall depute his technical personnel to FEDO after submission of documents for timely finalisation of documents.

****

1.0 INTRODUCTION

1.1 This specification covers the design, manufacture, supply and installation, testing and commissioning of the electric traction lifts as listed below to be installed at NIT, Nagaland campus at Dimapur. This specification forms a part of bid document and shall be read in conjunction with the same.

1.2 All items / equipment offered shall be complete in all respects and any specific item not covered or mentioned in this specification but essential for proper functioning, installation or maintenance of the supplied item or equipment, shall be included by the bidder in the offer with reference to such inclusions.

1.3 All material, components, parts and equipment covered in this specification shall be designed, manufactured, assembled, tested, erected and commissioned in accordance with the latest Indian standard 14665, IS 15330 and all latest applicable BIS, NBC code.

1.4 Vendor shall ensure that the system complies with all statutory requirements. The Contractor shall follow all Statutory Requirements as well as best trade practices in the manufacture & installation of lifts. The Contractor shall arrange to obtain the statutory approval of the Inspectorate of Lifts and Central Electricity Authority as may be required for commissioning of the lifts, and handover for operation after satisfactory tests. All liaising for obtaining of approvals shall be in vendor's scope. All statutory fees shall be reimbursed by NIT, Nagaland on submission of original receipts.

2.0 GENERAL

2.1. All documents as detailed in 'Vendor Data Submission Procedure" & "Vendor Data Requirements" attached shall be submitted by Vendor for review by FEDO.

2.2. Inspection / Tests shall be carried out by Vendor as detailed in "Scope of Inspection and Tests". Witnessing of tests wherever specified will be done by FEDO or their authorized representative.

2.3. Data sheets of Electric Traction Lifts are enclosed. Vendor shall submit the data sheet duly filled up along with other documents / drawings indicated in "Vendor Data Requirements", with the offer. Changes, if any, required for meeting system / operational requirements shall be indicated along with reasons thereof.

2.4. Bidders or Representative of bidders shall visit the site and familiarize themselves of the site conditions before submitting their bid with prior permission from FEDO/NIT, Nagaland. The bidder shall collect the necessary additional data as well as purchaser's requirements before quoting so that full coverage of the scope will be ensured in the offer itself. Any additional hooks/ beams or any extra items that is necessary shall be in the scope of bidder.

2.5. All equipment shall be properly tagged, packed, securely anchored and protected for domestic shipment by rail / truck or suitable for ocean transport as the case may be. Rust inhibitors shall be

applied to the equipment to prevent rusting during shipment and site storage for minimum of 6 months.

2.6. All safety devices to protect the equipment from damage due to conditions of overload shall be incorporated as per standard practice.

2.7. The commissioning spares, if required, shall be included in the lump-sum price.

2.8. Deviations, if any, from the specifications shall be clearly spelt out in the **"Compliance Statement"** attached failing which it will be taken to understand that there are no deviations from the specifications. (Shall be in the format that attached with the TPS, **Other formats/statements will not be considered)**

3.0 SCOPE OF WORK

3.1 The items to be supplied, erected and commissioned under this tender is as detailed in the Schedule of Items of Work *(Please refer attached drawings and datasheet for elevator's locations and spec).* The list is indicative only and the bidder shall supply and erect all necessary items for the proper working of the lift, complete in all aspects.

3.2 The scope of work of the successful bidder shall include but not be limited to the following:

a. Design of Lifts.
b. Submission of drawings for approval from FEDO / NIT, Nagaland for all individual lifts.
c. Manufacture.
d. Assembly and Testing.
e. Customer inspection, if required.
f. Packing and despatch to site.
g. Receipt and Storage at site.
h. All necessary ladders, fascia plates, sill angles etc.
i. All necessary scaffolding and other supports
j. Erection, Installation, Testing and Commissioning of equipment.
k. Documentation package to be specified as attachment.
l. Obtain all statutory clearances/approvals/licences from the concerned Departments required for operations of Lifts in the premises.
m. Civil work such as chipping, grouting, fixing of display panel, bolt fixing etc.
n. The testing of lift with 25% excess load shall be conducted as per IS 14665 latest edition. Testing load and instruments shall be in the scope of vendor.

3.3 CODES AND STANDARDS

3.3.1 All works performed under this sub-contract shall be completed with all necessary equipment for its satisfactory operation control, maintenance and safety under all normal conditions of service and shall comply in all respects with the latest regulations, by-laws and National Building Code of India (NBC).

3.3.2 The following BIS Standards and Codes of Practice with up-to-date amendments shall apply to the equipment and the work covered by this contract.

a.	Electric Traction Lifts – Guideline for outline dimensions	IS 14665 (Part-1)
b.	Electric Traction Lifts – Code of practice for installation	IS 14665 (Part-2)
c.	Electric Traction Lifts – Safety Rules	IS 14665 (Part-3)
d.	Electric Traction Lifts – Components	IS 14665 (Part-4)
e.	Electric Traction Lifts – Inspection manual	IS 14665 (Part-5)

f. Code of practice for electrical wiring installations (system voltage not exceeding 650 volts) IS 732:1963

g. Code of practice for installation and maintenance of lifts for handicapped persons IS 15330

3.3.3 In addition, the relevant clauses of the following, as amended up-to-date shall apply.

a. The Indian Electricity Rules 1956
b. The Indian Electricity Act 1910
c. Bombay Lift Act 1939 or Any other Lift Act
d. Fire Safety Regulations pertaining to elevators
e. National electrical code 2011
f. Indian electricity act 2003

3.3.4 The Tenderers shall also take into account local and State regulations in vogue for the design and installation of lifts.

3.3.5 Wherever appropriate Indian Standards are not available, relevant British and /or IEC Standards shall be applicable. BIS certified equipment shall be used as a part of the Contract.

4.0 TECHNICAL DETAILS

This work shall be done in accordance with the provisions of Local Lift Authority rules and shall also conform to the requirements of local municipal by-laws, and subsequent provisions, as also any state or local act in force and latest Indian standard 14665 and all latest applicable BIS, IS:15330 code for practice for installation and maintenance of lifts for handicapped persons, National Building Code (NBC), CPWD General Specification for Electrical works *(part III, Lift and Escalators)* 2004 and CPWD Hand book.

4.1 MECHANICAL

4.1.1 TRACTION MACHINE

- Rotating parts shall be statically and dynamically balanced.
- Adequate and dust proof lubrication shall be provided for all bearings and worm gears.
- All the related scaffolding for the erection of lifts shall be in the scope of vendor.
- The lift shall be complete with and including following accessories / fittings

a. Hall button (With registered lights) with landing display at all floors.
b. Car operating panel with car position indicator, car direction indicator.
c. The safety controls and indicator shall be as per standard practice and based on infra-red sensors.
d. Fireman's switch.
e. Battery operated alarm bell and emergency light with battery.
f. Car Fan
g. LED lighting for the car.
h. Emergency intercom system including cable
i. Overload function, constant indication/ buzzer.
j. 3 Phase supply & earthing from power source to all equipment. (Power source: As per electrical specification/at a convenient point.)

k. Multi beam full length crisscrossing each other infrared door sensor
l. Automatic Rescue Device (ARD)
m. Operable by physically challenged students / persons by electronics/RFID cards

2

4.1.2 CARS

- Car Frame

  Lifts car frame shall consist of suitable Structural shape, properly braced and securely fastened together. The car shall be so mounted on the frame that vibration and noise transmitted to the passengers inside is minimized.

- Cabin size

  Variation in car length and breadth dimensions are permitted, however car inside dimensions shall be within the maximum and minimum area limits specified in IS 14665 (Part 3) SAFETY RULES. Car size shall be suitably selected so that lift well modification such as additional framework shall be avoided to the maximum extent possible.

- Car Enclosure

  Car enclosure shall be of Stainless Steel Hair line Finish with handrail.

- Car Platform

  The lift car platform shall consist of an outside metal frame, which shall have steel sheet. The car flooring shall be covered with Granite flooring. Supply and application of granite shall be in vendor scope.

- Door

  The entrance shall be provided with a Centre/Side Opening (as indicated in datasheet) power door. The Landing doors shall have fire resistance of minimum 1 hour. The surface of the Car door shall be Stainless Steel Hairline Finish.

- Car Light Fittings and fan

  The Car shall be provided with LED light fitting. Lift car shall be provided with fan.

4.1.3 LIFT OPERATION

- Operation

a. The lift shall be of automatic type and operable by physically challenged students/persons by electronics/RFID cards.
b. The type of operation offered shall be of Selective Collective Control.
c. All stops registered by the momentary pressure of the Car buttons shall be made in the order in which the landings are reached after the buttons have been pressed, irrespective of the sequence in which calls were registered.
d. The type of operation offered for lifts shall also cover the provision for operation with attendant.
e. Provision for manual rescue in case of emergency shall be made. A home landing shall be established at the main floor to which the Car shall automatically return when all calls have been cleared and park.
f. Provision shall also be made in the controller and wherever necessary for the lift to directly travel to ground floor on any signal from Fire Alarm Control panel, automatically and ignoring direction of travel and other pending commands.

2

g. The Lifts control system shall also have the following features in addition to those otherwise specified.
h. Lifts car shall be provided with Load Weighing Device (LWD). This shall sense overload (110%) and prevent start of the car in that load condition by keeping its door open and sounding the buzzer in the car.
i. Cancellation of false calls using infrared light curtain in the lift car door or any other sensing device
j. Door Open Time: The door opening time at any floor shall be capable of being set at site depending on the site conditions.

- Machine and Machine Room

  As per data sheet.

- Levelling Accuracy - ± 5 mm

- Door Hangers and Tracks

  Steel hangers and tracks at each hoist way entrance shall be provided with track rollers to ensure smooth operation of the doors. Adjustable ball bearing rollers (anti - lift rollers) shall take up-thrust of the doors.

- Hoisting

  All ropes/hoisting medium shall be specially designed and shall be as per recognised / universally accepted standards (shall specify in the offer itself) and constructed for elevator application. **The minimum factor of safety in rope/hoisting-medium capacity shall be 10.**

- Safety Device and Governor

  The safety device shall be of progressive type safety gear and mounted on the bottom members of the Car frame or otherwise as per manufacturers specification and shall be operated by an over speed governor located over the hoist way. The safety device shall be provided to stop the Car whenever excessive descending speed is attained with means to cut off power from the motor and apply the brake prior to application of the safety device.

- Guide Rails & Fastenings

  Steel solid guide rails shall be provided for the car and counter weight. They shall be erected plumb and fastened securely to the hoist way framing by heavy steel brackets.

- Guide shoes

  The car and counter weight guide shoes shall be of sliding type.

4.2 ELECTRICAL

4.2.1 The entire electrical installation shall be done in accordance with the Indian electricity act 2004, Indian electricity rules 1956 as amended to date. The electrical work shall conform to CPWD general specification for electrical work part 1 (internal) and part III Lifts and Escalators as amended up to date and rules and regulations of state Electrical Inspectorate, ECBC etc .

4.2.2 Power Supply

4.2.2.1 One number 415V,40A RCBO with sensitivity 300mA, and One number 230V, 16A, Single phase LDB (16A 2pole MCB+ELCB as incomer and 3Nos 10A Single pole MCBs as outgoings) will be provided for the lift by the client at a convenient point in the top most landing area.

4.2.3 Electric Wiring

4.2.3.1 The electrical wiring shall strictly comply with IS:732 and latest applicable BIS and NBC code necessary insulated wiring to connect all parts of the equipment shall be furnished and installed. Insulate wiring shall be flame retardant and moisture resistant.

4.2.3.2 All cables shall be with copper conductors and flame retardant PVC insulated of appropriate size. The cables feeding motor and in heavy current flow paths shall be so selected that the size matches the protecting fuses and will not result in more than 2 percent voltage drop from the main board to the terminals of the motor. Control cables shall be not less than 0. 5Sq.mm or equivalent, if stranded.

4.2.3.3 A trailing cable, which incorporates the control circuit shall be separate and distinct from that which incorporate lighting and signalling circuit.

4.2.3.4 Trailing cables exceeding 30 meters in length shall run so that the strain on individual cable conductors will be reduced to a minimum and the cables are free from contact with the car counterweight, shaft walls or other equipment. Trailing cables exceeding 30 meters in length shall have steel supporting fillers and shall be suspended directly by them without rubbing over other supports.

4.2.3.5 5 percent of the total capacity subject to a minimum of 5 wires shall be available unutilised in the trailing cable everywhere suitably distributed between various functions.

4.2.3.6 The controller unit comprising the main circuit breaker, adjustable overload and phase reversal and phase failure protection, all the circuit elements, transformer, rectifier for D.C. control supply, inverter power pack, terminal blocks etc. shall be enclosed in an insect vermin proof, sheet steel floor or wall mounted cabinet with hinged doors at front or at both front and rear. Proper warning boards and danger plates shall be provided on both sides of the controller casing. Sheet steel used for controller cabinet shall not be less than 14 gauge and shall be properly braced, where necessary. Suitable gland plate shall be provided for cable entry. The battery for the charger unit shall be suitably placed in the machine room. Enclosure shall have provision of earthling studs.

4.2.4 Hoist Motor

4.2.4.1 The Hoist motor shall be controlled by a variable voltage variable frequency (VVVF) micro-processor control system which shall control and monitor every aspect of lift operation at all stages of the car motion cycle on real time basis. The motor shall be suitable for 415 volts +10% to –20%, 50Hz, 3 phase AC supply. The motor must be designed for arduous lift duty, rapid reversals and constantly repeated starts and stops as defined in the relevant codes of practice. All windings must be heavily insulated adequately impregnated for tropical climate and mechanically strengthened and must be specifically designed to have a high starting torque and low starting current characteristics within the limits acceptable to electricity supply requirements and I.E rules. The motor shall be designed in such a way as to withstand occasional overloading above its rated capacity and shall have overload protection. The motor shall have good speed regulation under different conditions of load and shall be designed to give a noiseless and vibration free operation.

4.2.5 Emergency Stop Switch

4.2.5.1 A stop switch in the machine room / top of the car shall be provided for use by maintenance crew to cancel all car and landing calls for a particular lift. Emergency stopping device in car operating panel for automatically operated lift with imperforated door is prohibited.

4.2.6 Maintenance switch

4.2.6.1 On operation of the maintenance switch located on the top of the car by the maintenance crew, the car shall travel at slow speed not exceeding 0.85m/sec by continuous operation of a button.

4.2.7 Landing door interlocks

4.2.7.1 Electrical interlocks shall be provided to ensure that the car does not operate unless the car reaches a landing zone.

4.2.8 Devices and Accessories

4.2.8.1 Automatic Rescue Device

a. The safety mechanisms shall include the provision of Automatic Rescue Device (ARD) to rescue the stranded lift passengers in the event of a power failure, operated on dry maintenance - batteries of required capacity to continuously monitor the normal power supply in the main elevator controller and activate rescue operation by which the lift is brought to the nearest landing and doors remain open.
b. Battery for the Emergency Battery Operated Power Supply shall be in vendor scope.
c. The battery shall be of "sealed -Maintenance free type and conform with IS/BS.
d. The capacity of the battery is such that when fully charged should be capable operating lighting fixtures and all alarm bells for a period of at least half (1/2) hour.

4.2.8.2 Car Operating Panel

a. The Car operating panel shall be Stylish, full height, flush mounted in the Car enclosure and fitted with the following:
b. A bank of buttons to correspond to the various landing levels served.
c. A 'Door Close' button and a 'Door Open' button, An Alarm button shall be provided. The door open button shall be capable of reversing the doors while closing.
d. The following provision shall be covered in the operating panel for use of the attendant.
e. Key operating switch for attendant operation.
f. Up and down light jewels for indicating the direction of the Car, set to travel.
g. The following shall also be included in the car-operating panel
h. Braille notations for the following buttons;
    i) Floor buttons
    ii.) Up & down buttons
    iii.) Door open & Door close buttons
    iv.) Alarm
    v.) Intercom

4.2.8.3 Call Registered Lights

Each hall button faceplate in Stainless Steel shall be provided with registered lights, which shall illuminate when Corresponding button in the faceplate is shortly pressed (Luminous buttons) and remain illuminated until call is answered.

4.2.8.4 Car Position Indicators

Car Position Indicators shall be provided.

4.2.8.5 Hall Position Indicator

Hall Position Indicators shall be provided.

4.2.8.6 Car and Hoist way Door Operation

Doors on the Car and at each hoist way landing shall be operated quietly and smoothly by an Electric Operator, which shall open the Car door and hoist way door simultaneously. All electric contact for the Car door shall be provided which shall prevent elevator movement away from the landing unless the door is in the closed condition. Each hoist way door shall be equipped with a positive electro mechanical interlock and auxiliary door-closing device so that the elevator can be operated only after interlock circuit is established. In case of power interruption or failure of the operator, it shall be possible to open the doors manually from within the car.

4.2.8.7 Door Safety

The Car doors shall be provided with full length infrared light curtain to instantly stop the closing of the doors on sensing an obstruction and to retract. The door system shall also have an electronic door close limiter.

4.3 FIRE RESCUE DEVICE.

4.3.1 "FIRE MAN SWITCH" shall be provided to ground all the lifts and use the designated "FIRE LIFT" as per local statutory regulation. Break glass panel and other requirements for Fireman's lift shall be provided for all lifts.

4.3.2 Lifts shall ignore current position of operation and travel to ground floor and stop there with doors open by overriding command under the Emergency Fire mode system. Only the lift designated as Fireman's' lift shall be in operation for the use of fire fighting personnel.

4.4 SAFETY REQUIREMENTS AS PER CVC GUIDELINES

4.4.1 Elevators offered should comply with the guidelines of CVC Report for safety in public buildings

5.0 QUALITY

5.1 The contractor shall follow all Statutory Requirements as well as best trade practices in the manufacture & installation of lifts.

5.2 All equipment covered under this specification shall be designed, manufactured, assembled and tested to internationally acceptable quality.

5.3 All materials used shall be new and tested quality. Appropriate material test certificate shall be furnished with the delivery of machine.

5.4 For all bought out items like motor, gearbox etc., the vendor shall furnish test certificate from the manufacturer.

6.0 PACKING AND DESPATCH

6.1 All equipment / parts covered under this specification shall be packed domestic packing in non-returnable boxes.

6.2 All items covered in this specification shall be despatched in one consignment or as per specific consignment schedule if agreed.

7.0 ERECTIONS AND COMMISSIONING

7.1 The erection and commissioning of Lift and its accessories shall be carried out by the vendor. The vendor to state separately the erection and commissioning cost at site.

7.2 The Vendor shall execute the work with NIL / Minimum disturbance to the project constructions, which is constantly underway at site. All safety precautions shall be taken for carrying out the job as per the standard safety practices, rules and regulations in force at site

7.3 The work shall be done as per the directives and with the consent of the Engineer-in-charge.

7.4 All tool and tackles, consumables, lifting arrangement such as small cranes / forklifts, skilled and unskilled labour required for the erection and commissioning shall be arranged by the vendor till the date of handing over the system.

7.5 Power for erection shall be in vendor scope.

7.6 All prevailing labour laws / rules / practices in the factory for engaging contract labour utilizing for the erection and commissioning shall apply as such.

8.0 PERFORMANCE GUARANTEE

8.1 The item / equipment covered in this specification will be checked for performance after commissioning on actual operating conditions up to the specified operating parameters.

8.2 The contractor shall rectify and make good any deficiency in performance of the equipment. This shall include free replacement of deficient parts / whole equipment without extra cost to Purchaser.

8.3 The Purchaser on successful completion of performance guarantee shall issue final acceptance certificate tests.

9.0 WARRANTEE

9.1 All items / equipment and system covered in the above specification shall be warrantied against any defect in material, manufacturing, assembly, testing, painting, etc, for a period of 12 months from the date of final acceptance after commissioning. Warrantee-time maintenance shall be without any extra cost implication.

10 SPECIAL CONDITIONS

10.1 All equipment shall be properly tagged, packed, securely anchored and protected for domestic shipment by rail / truck or suitable for ocean transport as the case may be. Rust inhibitors shall be applied to the equipment to prevent rusting during shipment and site storage for minimum of six months.

10.2 Lubricant, Spares, and Consumables for Testing, Commissioning and establishing Guarantees shall be in the scope of the Contractor.

10.3 Commissioning spares, if required, shall be included in the equipment cost.

10.4 Special tools, if any, required for the operation and maintenance of the machine shall be included in the scope of supply.

* * * * *

DATA SHEET	ELECTRIC TRACTION LIFT (Passenger)	8144-01-DA (DB-1)-004 PAGE 1 OF 2

Applicable to : ☑ Proposal ☐ Purchase ☐ As built				TPS No. : 8144-01-PS-004			1
Site : NIT Campus, Nagaland				Job No : 8144			2
Unit : Department Block 1				Item No. : DB-1			3
1.0	Type of Application			☑ Passenger Lift ☐ Goods Lift ☐ Service Lift ☐ Hospital Lift ☐ Dumbwaiter			4 5
2.0	Type			☐ ~~Conventional~~ ☑ MR Less ☐ ~~Hydraulic~~ ☐ Gearless ☐ ~~Others~~			6 7
3.0	Type of Operation			☑ Electric Traction ☐ Drum Drive ☐ Hydraulic ☐ Other Type _____			8 9
4.0	No. of Lift(s)			1			10
5.0	Lift Standard(s) as applicable			IS 14665 (Part 1 to 5) & IS 15330*			11
6.0	Lift Speed (m/s)			1 m/s			12
7.0	Lift Capacity / Minimum No. of persons per Lift				Kgs.	10 No. of Persons	13
8.0	Lift Travel(m) (Vendor to specify as per attached drawing)						14
9.0	No. of Stops			3			15
12.0	Headroom(mm)(Vendor to specify as per attached drawing)						18
13.0	Shaft Dimensions (mm)			1640	Width	2410 Length (Door side)	19
14.0	Car Entrance (mark appropriate option)			☑ Single Entrance ☐ Through Entrance ☐ Triple Entrance ☐ Adjacent Entrance ☐ Left ☐ Right			20 21
15.0	Type of Control (mark all applicable)			☐ Down Collective ☑ Selective Collective ☑ Simplex ☐ Duplex ☐ Triplex ☐ Other: _____			22 23 24
16.0	Fire Alarm Interface Facility			Required			25
17.0	Guide Fixing (Vendor to specify)			☐ SPIT ☐ Expanding Rawbolt ☐ Through Wall Bolt ☐ Chemical Fixing ☐ Screw to Fix Struc. ☐ Other _____			26 27 28
18.0	Mirrors			☐ ⅓ ☑ ½ ☐ Complete ☐ None			29
19.0	Power Supply(Vendor to specify)						30
20.0	Type of Structure(Vendor to specify)						31
21.0	Handrails			Required			32
22.0	Type of Ceiling (Vendor to specify)						33
23.0	Type of Walls			SS			34
24.0	Type of Floor			Natural Granite (Black sea) Flooring			35
25.0	Material of Construction of Car			SS			36
26.0	Control Panel Box Finish (Vendor to specify)						37
27.0	In Car Indicator Type (Vendor to specify)						38

*Note : Additional requirements for lifts in order that they are accessible for persons with disabilities shall be provided conforming to IS 15330. Lift shall be operable by electronics/RFID cards 39

2

					PROJECT	Construction of Educational building for National Institute of Technology, Nagaland.
2	03.07.23	KBK	LA	RM	CLIENT	NIT, Nagaland
1	13.06.23	KBK	LA	RM	P.O No.	
0	05.04.23	KBK	LA	RM	VENDOR	
Rev	DATE	PRPD.	CHKD.	APPRD.		

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DATA SHEET	ELECTRIC TRACTION LIFT (Passenger)	8144-01-DA (DB-1)-004 PAGE 2 OF 2

28.0	Landing Indicator Type (Vendor to specify)		1
29.0	Car and landing operating panel type	Stylish	2
30.0	Car Enclosure Type (Vendor to specify)		3
31.0	Type of Brake Provided (Vendor to specify)		4
32.0	Inside Car dimensions LxBxH (mm) (Vendor to specify)		5
33.0	Car Doors: Shall be Side or Central (Vendor to specify)	☐ Side Opening ☐ Central Opening	6
34.0	Car Door Clear Opening WxH (mm)	Min. 800 wide X 2000 high opening.	7
35.0	No. of Car Door Panels (Vendor to specify)		8
36.0	Car Door Finish	SS Hairline finish	9
37.0	Landing Doors:Shall be Side or Central(Vendor to specify)	☐ Side Opening ☐ Central Opening	10
38.0	Landing Door Clear Opening WxH (mm)	Min. 800 wide X 2000 high opening.	11
39.0	No. of Landing Door Panels (Vendor to specify)		12
40.0	Landing Door Finish	SS Hairline finish, (Fire rated - minimum 1 hour)	13
41.0	Other Accessories Required:		14
	- Door Opening	✓	15
	- Door Hold	✓	16
	- Arrival Gong	✓	17
	- Key access	✓	18
			19
			20
42.0	Safety devices Required:		21
	- Safety Door Shoe	✓	22
	- Automatic Rescue Device	✓	23
	- Intercom / Autodialler	✓	24
	- Overload Warning	✓	25
	- Car Position Indicator	✓	26
	- Emergency light & alarm	✓	27
	- Fireman's switch	✓	28
	- Full height infrared light curtain for door	✓	29
	- Safe Landing (to bring car to next nearest landing during emergency)	✓	30 31
	- Protection against power fluctuations.	✓	32
			33
43.0	Any other safety device for safe operation	✓	34
	Note: Variation in car length and breadth dimensions are permitted, however car inside dimensions shall be within the maximum and minimum area limits specified in IS 14665 (Part 3) SAFETY RULES		35 36
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DATA SHEET	ELECTRIC TRACTION LIFT (Passenger)	8144-01-DA (DB-2)-004 PAGE 1 OF 2

Applicable to : ☑ Proposal ☐ Purchase ☐ As built				TPS No. : 8144-01-PS-004			1
Site : NIT Campus, Nagaland				Job No : 8144			2
Unit : Department Block 2				Item No. : DB-2			3
1.0	Type of Application			☑ Passenger Lift ☐ Goods Lift ☐ Service Lift ☐ Hospital Lift ☐ Dumbwaiter			4 5
2.0	Type			☐ ~~Conventional~~ ☑ MR Less ☐ ~~Hydraulic~~ ☐ Gearless ☐ ~~Others~~			6 7
3.0	Type of Operation			☑ Electric Traction ☐ Drum Drive ☐ Hydraulic ☐ Other Type _____			8 9
4.0	No. of Lift(s)			1			10
5.0	Lift Standard(s) as applicable			IS 14665 (Part 1 to 5) & IS 15330*			11
6.0	Lift Speed (m/s)			1 m/s			12
7.0	Lift Capacity / Minimum No. of persons per Lift				Kgs.	10 No. of Persons	13
8.0	Lift Travel(m) (Vendor to specify as per attached drawing)						14
9.0	No. of Stops			3			15
12.0	Headroom(mm)(Vendor to specify as per attached drawing)						18
13.0	Shaft Dimensions (mm)			1700	Width	2300 Length (Door side)	19
14.0	Car Entrance (mark appropriate option)			☑ Single Entrance ☐ Through Entrance ☐ Triple Entrance ☐ Adjacent Entrance ☐ Left ☐ Right			20 21
15.0	Type of Control (mark all applicable)			☐ Down Collective ☑ Selective Collective ☑ Simplex ☐ Duplex ☐ Triplex ☐ Other: _____			22 23 24
16.0	Fire Alarm Interface Facility			Required			25
17.0	Guide Fixing (Vendor to specify)			☐ SPIT ☐ Expanding Rawbolt ☐ Through Wall Bolt ☐ Chemical Fixing ☐ Screw to Fix Struc. ☐ Other _____			26 27 28
18.0	Mirrors			☐ ⅓ ☑ ½ ☐ Complete ☐ None			29
19.0	Power Supply(Vendor to specify)						30
20.0	Type of Structure(Vendor to specify)						31
21.0	Handrails			Required			32
22.0	Type of Ceiling (Vendor to specify)						33
23.0	Type of Walls			SS			34
24.0	Type of Floor			Natural Granite (Black sea) Flooring			35
25.0	Material of Construction of Car			SS			36
26.0	Control Panel Box Finish (Vendor to specify)						37
27.0	In Car Indicator Type (Vendor to specify)						38

*Note : Additional requirements for lifts in order that they are accessible for persons with disabilities shall be provid 2 conforming to IS 15330. Lift shall be operable by electronics/RFID cards 39

					PROJECT	Construction of Educational building for National Institute of Technology, Nagaland.
2	03.07.23	KBK	LA	RM	CLIENT	NIT, Nagaland
1	13.06.23	KBK	LA	RM	P.O No.	
0	05.04.23	KBK	LA	RM	VENDOR	
Rev	DATE	PRPD.	CHKD.	APPRD.		

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DATA SHEET	ELECTRIC TRACTION LIFT (Passenger)	8144-01-DA (DB-2)-004 PAGE 2 OF 2

28.0	Landing Indicator Type (Vendor to specify)		1
29.0	Car and landing operating panel type	Stylish	2
30.0	Car Enclosure Type (Vendor to specify)		3
31.0	Type of Brake Provided (Vendor to specify)		4
32.0	Inside Car dimensions LxBxH (mm) (Vendor to specify)		
33.0	Car Doors: Shall be Side or Central (Vendor to specify)	☐ Side Opening ☐ Central Opening	5
34.0	Car Door Clear Opening WxH (mm)	Min. 800 wide X 2000 high opening.	6
35.0	No. of Car Door Panels (Vendor to specify)		7
36.0	Car Door Finish	SS Hairline finish	8
37.0	Landing Doors:Shall be Side or Central(Vendor to specify)	☐ Side Opening ☐ Central Opening	9
38.0	Landing Door Clear Opening WxH (mm)	Min. 800 wide X 2000 high opening.	10
39.0	No. of Landing Door Panels (Vendor to specify)		11
40.0	Landing Door Finish	SS Hairline finish, (Fire rated - minimum 1 hour)	12
41.0	Other Accessories Required:		13
	- Door Opening	✓	14
	- Door Hold	✓	15
	- Arrival Gong	✓	16
	- Key access	✓	17
			18
			19
42.0	Safety devices Required:		22
	- Safety Door Shoe	✓	23
	- Automatic Rescue Device	✓	24
	- Intercom / Autodialler	✓	25
	- Overload Warning	✓	26
	- Car Position Indicator	✓	27
	- Emergency light & alarm	✓	28
	- Fireman's switch	✓	29
	- Full height infrared light curtain for door	✓	30
	- Safe Landing (to bring car to next nearest landing during emergency)	✓	31 32
	- Protection against power fluctuations.	✓	33
			34
43.0	Any other safety device for safe operation	✓	35
	Note: Variation in car length and breadth dimensions are permitted, however car inside dimensions shall be within the maximum and minimum area limits specified in IS 14665 (Part 3) SAFETY RULES		36 37
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DATA SHEET	ELECTRIC TRACTION LIFT (Passenger)	8144-01-DA (LB-1)-004 PAGE 1 OF 2

Applicable to : ☑ Proposal ☐ Purchase ☐ As built				TPS No. : 8144-01-PS-004		1
Site : NIT Campus, Nagaland				Job No : 8144		2
Unit : Libraryt Block 2				Item No. : LB-1		3
1.0	Type of Application			☑ Passenger Lift ☐ Goods Lift ☐ Service Lift ☐ Hospital Lift ☐ Dumbwaiter		4 5
2.0	Type			☐ ~~Conventional~~ ☑ MR Less ☐ ~~Hydraulic~~ ☐ Gearless ☐ ~~Others~~		6 7
3.0	Type of Operation			☑ Electric Traction ☐ Drum Drive ☐ Hydraulic ☐ Other Type _____		8 9
4.0	No. of Lift(s)			1		10
5.0	Lift Standard(s) as applicable			IS 14665 (Part 1 to 5) & IS 15330*		11
6.0	Lift Speed (m/s)			1 m/s		12
7.0	Lift Capacity / Minimum No. of persons per Lift			Kgs. 10	No. of Persons	13
8.0	Lift Travel(m) (Vendor to specify as per attached drawing)					14
9.0	No. of Stops			3		15
12.0	Headroom(mm)(Vendor to specify as per attached drawing)					18
13.0	Shaft Dimensions (mm)			1850 Width (Door sid 2350	Length	19
14.0	Car Entrance (mark appropriate option)			Single Entrance ☑ Through Entrance ☐ Triple Entrance ☐ Adjacent Entrance ☐ Left ☐ Right		20 21
15.0	Type of Control (mark all applicable)			☐ Down Collective ☑ Selective Collective ☑ Simplex ☐ Duplex ☐ Triplex ☐ Other: _____		22 23 24
16.0	Fire Alarm Interface Facility			Required		25
17.0	Guide Fixing (Vendor to specify)			☐ SPIT ☐ Expanding Rawbolt ☐ Through Wall Bolt ☐ Chemical Fixing ☐ Screw to Fix Struc. ☐ Other _____		26 27 28
18.0	Mirrors			☐ ⅓ ☑ ½ ☐ Complete ☐ None		29
19.0	Power Supply(Vendor to specify)					30
20.0	Type of Structure(Vendor to specify)					31
21.0	Handrails			Required		32
22.0	Type of Ceiling (Vendor to specify)					33
23.0	Type of Walls			SS		34
24.0	Type of Floor			Natural Granite (Black sea) Flooring		35
25.0	Material of Construction of Car			SS		36
26.0	Control Panel Box Finish (Vendor to specify)					37
27.0	In Car Indicator Type (Vendor to specify)					38

*Note : Additional requirements for lifts in order that they are accessible for persons with disabilities shall be provided conforming to IS 15330. Lift shall be operable by electronics/RFID cards

2

					PROJECT	Construction of Educational building for National Institute of Technology, Nagaland.
2	03.07.23	KBK	LA	RM	CLIENT	NIT, Nagaland
1	13.06.23	KBK	LA	RM	P.O No.	
0	05.04.23	KBK	LA	RM	VENDOR	
Rev	DATE	PRPD.	CHKD.	APPRD.		

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DATA SHEET	ELECTRIC TRACTION LIFT (Passenger)	8144-01-DA (LB-1)-004 PAGE 2 OF 2	
28.0	Landing Indicator Type (Vendor to specify)		1
29.0	Car and landing operating panel type	Stylish	2
30.0	Car Enclosure Type (Vendor to specify)		3
31.0	Type of Brake Provided (Vendor to specify)		4
32.0	Inside Car dimensions LxBxH (mm) (Vendor to specify)		
33.0	Car Doors: Shall be Side or Central (Vendor to specify)	☐ Side Opening ☐ Central Opening	5
34.0	Car Door Clear Opening WxH (mm)	Min. 800 wide X 2000 high opening.	6
35.0	No. of Car Door Panels (Vendor to specify)		7
36.0	Car Door Finish	SS Hairline finish	8
37.0	Landing Doors:Shall be Side or Central(Vendor to specify)	☐ Side Opening ☐ Central Opening	9
38.0	Landing Door Clear Opening WxH (mm)	Min. 800 wide X 2000 high opening.	10
39.0	No. of Landing Door Panels (Vendor to specify)		11
40.0	Landing Door Finish	SS Hairline finish, (Fire rated - minimum 1 hour)	12
41.0	Other Accessories Required:		13
	- Door Opening	✓	14
	- Door Hold	✓	15
	- Arrival Gong	✓	16
	- Key access	✓	17
			18
			19
42.0	Safety devices Required:		22
	- Safety Door Shoe	✓	23
	- Automatic Rescue Device	✓	24
	- Intercom / Autodialler	✓	25
	- Overload Warning	✓	26
	- Car Position Indicator	✓	27
	- Emergency light & alarm	✓	28
	- Fireman's switch	✓	29
	- Full height infrared light curtain for door	✓	30
	- Safe Landing (to bring car to next nearest landing during emergency)	✓	31 32
	- Protection against power fluctuations.	✓	33
			34
43.0	Any other safety device for safe operation	✓	35
	Note: Variation in car length and breadth dimensions are permitted, however car inside dimensions shall be within the maximum and minimum area limits specified in IS 14665 (Part 3) SAFETY RULES		36 37
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TECHNICAL PROCUREMENT SPECIFICATION	**EQUIPMENT LUBRICATION DATA**	8144-01-LD-004
		PAGE 1 OF 1

PROJECT : Construction of Educational building for National Institute of Technology, Nagaland.

PROJECT NO : 8144 LOCATION : Dimapur, Nagaland

TPS NO : 8144-01-PS-004 VENDOR :

CLIENT : NIT, Nagaland

SL NO	DESCRIPTION	ITEM NO	
1	Type of Lubrication System (State Grease-Gun, Grease Packed, Drip, Splash, Continuous)		
2	Recommended Lubrication for Break in (list two Indian alternatives by trade name and number)		
3	Quantity of Lubricant required for initial fill (Litres or Kg)		
4	Recommended Break - in period for Initial application (Hours)		
5	Recommended Lubrication for normal operation (List two Indian alternatives by trade name and number)		
6	Refill quantities if different from initial charge (Litres or Kg)		
7	Quantity of Lubricant shipped with initial order (Hours)		
9	Expected annual consumption of Lubricant (Litres or Kg)		

Remarks :

REV NO	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
0	05.04.23	First Issue	KBK	LA	RM

01FT304/03

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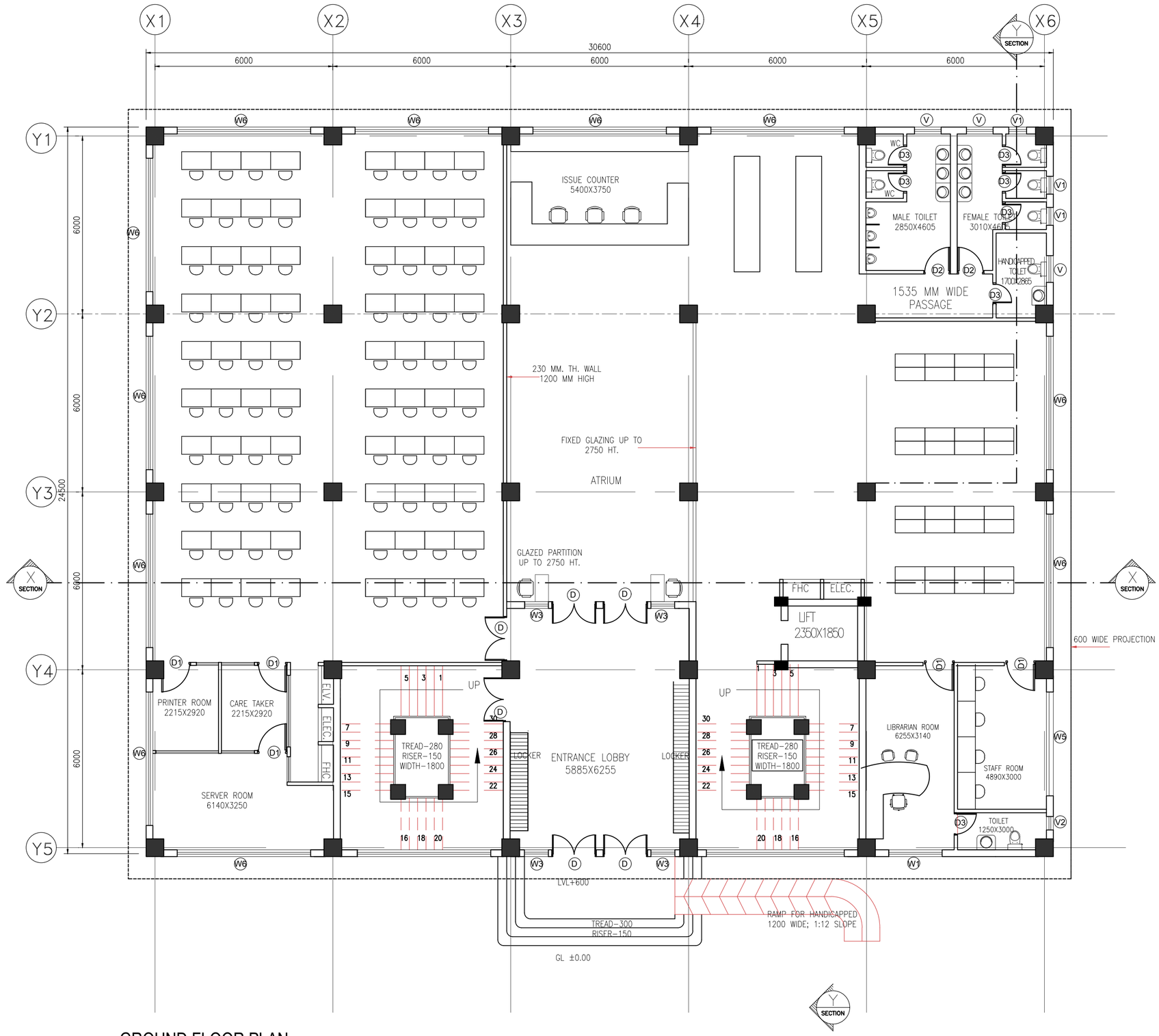


GROUND FLOOR PLAN

CLIENT:

M/S NIT NAGALAND

PROJECT:

PHASE II EXPANSION AT NIT NAGALAND

NOTES :-

01. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
02. WRITTEN DIMENSIONS ARE TO BE FOLLOWED. ANY DISCREPANCY IN THE DRAWINGS SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECT.
03. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT DRAWINGS

S.N.	TYPE	OPENINGS	SILL	LINTEL	LOCATION	REMARKS	QTY.
DOORS							
1.	D	1500 X 2750		2750	ENTRY DOOR	ALUMINIUM	5
2.	D1	1000 X 2100	-	2100	STA.+LIB.	FLUSH DOOR	2
3.	D2	900 X 2100	-	2100	TOILET	PVC DOOR	2
4.	D3	750 X 2100	-	2100	TOILET	PVC DOOR	7
WINDOWS							
1.	W	4860 X7800	-	-	READING HALL	STR.GLAZING	-
2.	W1	1800X1850	900	2750	LIB. ROOM	AL+GL+WM+SL	1
3.	W2	3220X1200	-	-		AL+GL+WM+SL	0
4.	W3	800X2750	-	2750	MAIN ENTRY	AL+GL+WM+SL	4
5.	W4	2000X1850	900	-	STAIRCASE	AL+GL+WM+SL	2
6.	W5	3500X1850	900	2750	STAFF ROOM	AL+GL+WM+SL	1
7.	W6	4500X1850	900	2750	READ. HALL	AL+GL+WM+SL	11
8.	V	900X1250	1500	2750	TOILET	AL+GL+WM+SL	4
9.	V1	600X1250	1500	2750	TOILET	AL+GL+WM+SL	3
10.	V2	450X1250	1500	2750	TOILET	AL+GL+WM+SL	

NOTE:-
ALL DIMENSIONS ARE IN MM.

WORKING DRAWING

PMC & EXECUTING AGENCY :-

FACT FEDO

FACT ENGINEERING &
DESIGN ORGANISATION
UDYOGMANDAL, KOCHI, KERALA - 683501

ASSOCIATE CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

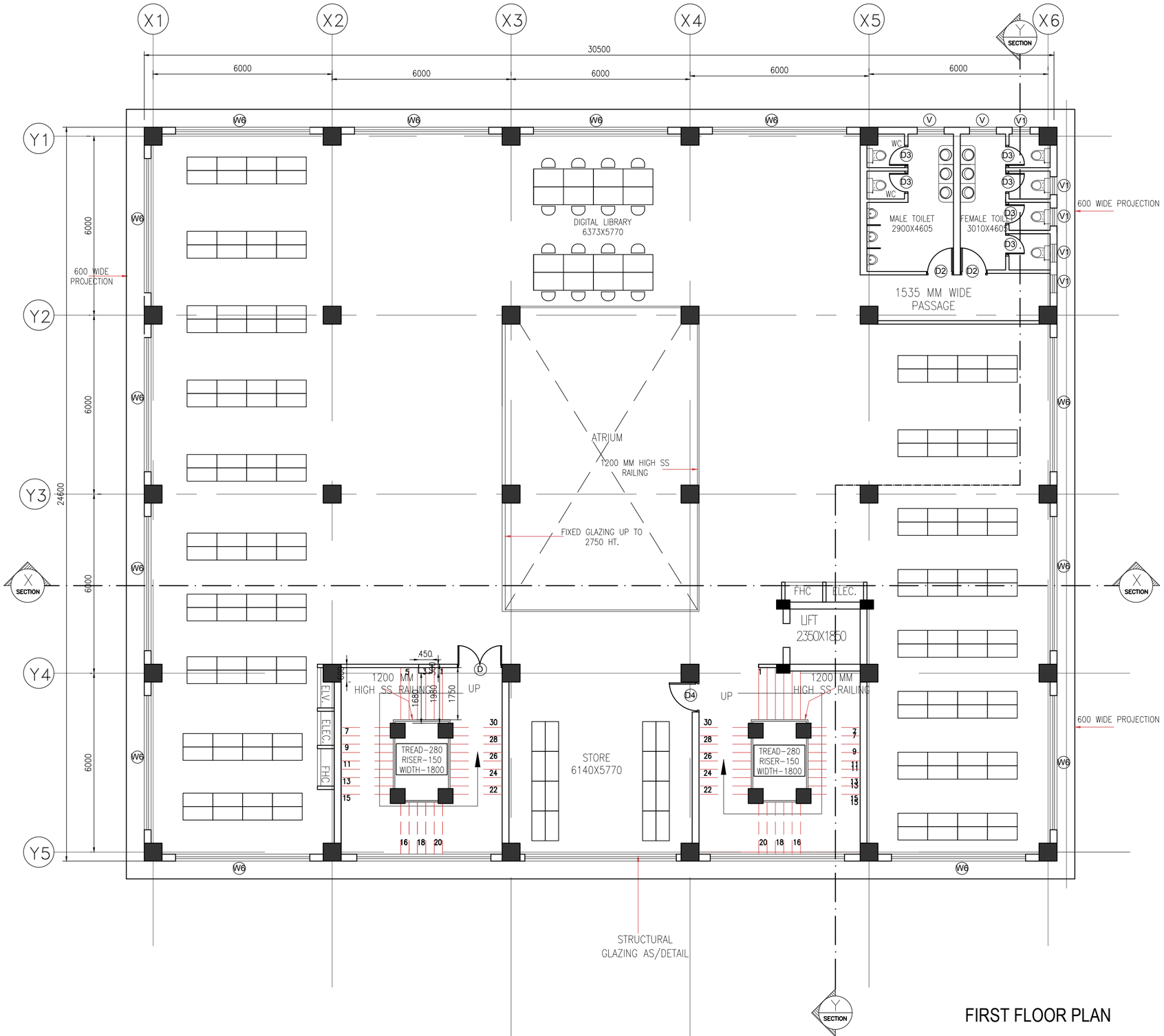
DRAWING TITLE:

LIBRARY BLOCK
GROUND FLOOR PLAN

DRAWING NO.-

8144-12-DG-00700

SCALE:		DATE:	18.8.2014
CHECKED BY: NITIN GAUTAM		APPROVED BY:	



CLIENT:

M/S NIT NAGALAND

PROJECT:

PHASE II EXPANSION AT NIT NAGALAND

NOTES :-

01. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
02. WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
ANY DISCREPANCY IN THE DRAWINGS SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECT.
03. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT DRAWINGS

S.N.	TYPE	OPENINGS	SILL	LINTEL	LOCATION	REMARKS	QTY.
DOORS							
1.	D	1500 X 2750	-	2750	ENTRY DOOR	ALUMINIUM	5
2.	D1	1000 X 2100	-	2100	STA.+LIB.	FLUSH DOOR	2
3.	D2	900 X 2100	-	2100	TOILET	PVC DOOR	2
4.	D3	750 X 2100	-	2100	TOILET	PVC DOOR	7
WINDOWS							
1.	W	4860 X7800	-	-	READING HALL	STR.GLAZING	-
2.	W1	1800X1850	900	2750	LIB. ROOM	AL+GL+WM+SL	1
3.	W2	3220X1200	-	-		AL+GL+WM+SL	0
4.	W3	800X2750	-	2750	MAIN ENTRY	AL+GL+WM+SL	4
5.	W4	2000X1850	900	-	STAIRCASE	AL+GL+WM+SL	2
6.	W5	3500X1850	900	2750	STAFF ROOM	AL+GL+WM+SL	1
7.	W6	4500X1850	900	2750	READ. HALL	AL+GL+WM+SL	11
8.	V	900X1250	1500	2750	TOILET	AL+GL+WM+SL	4
9.	V1	600X1250	1500	2750	TOILET	AL+GL+WM+SL	3
10.	V2	450X1250	1500	2750	TOILET	AL+GL+WM+SL	

NOTE:-
ALL DIMENSIONS ARE IN MM.

REVISIONS:-

WORKING DRAWING

PMC & EXECUTING AGENCY :-

FACT ENGINEERING &
DESIGN ORGANISATION
UDYOGMANDAL, KOCHI, KERALA - 683501

ASSOCIATE CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

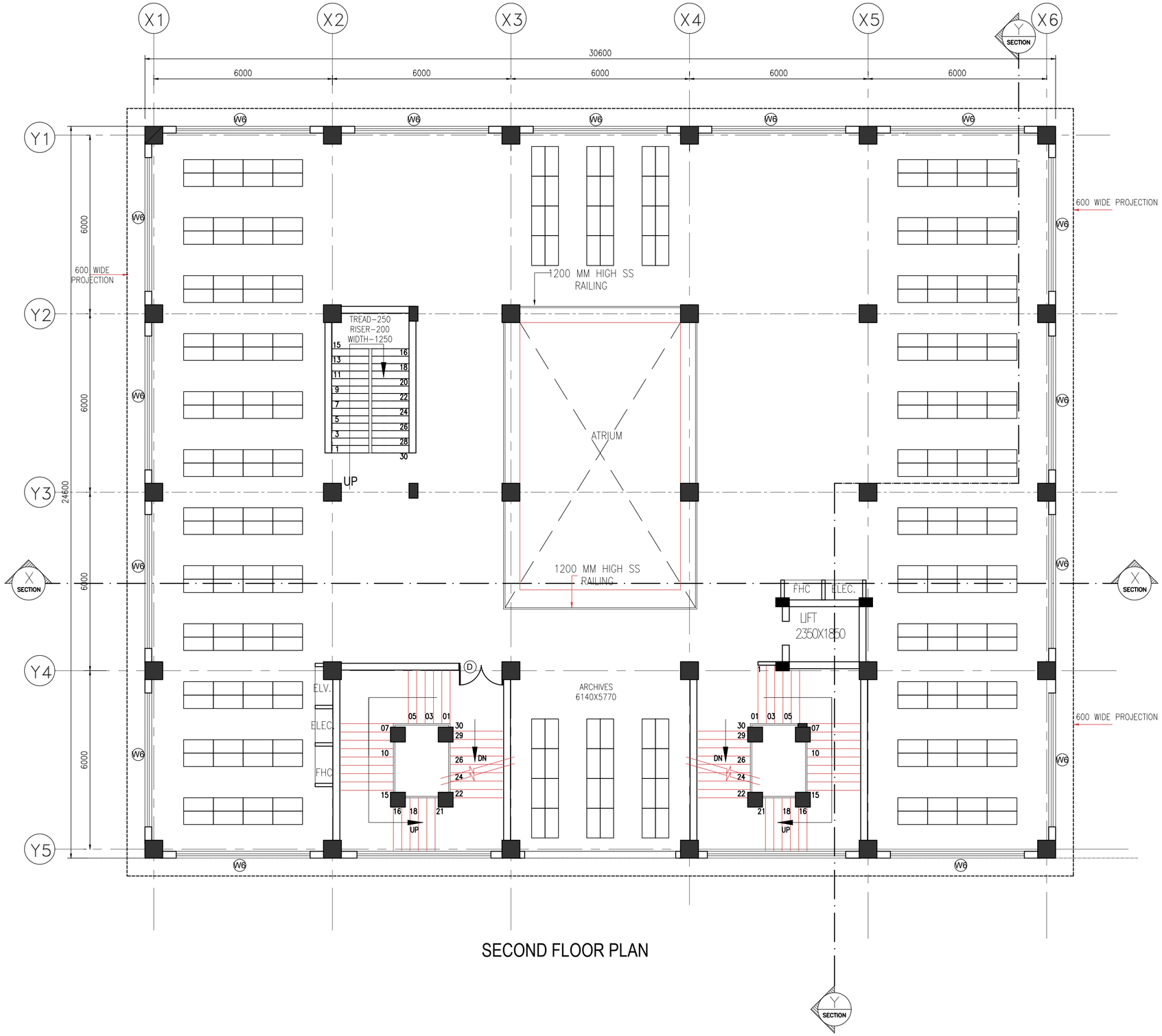
LIBRARY BLOCK
FIRST FLOOR PLAN

DRAWING NO.-

8144-12-DG-00701

SCALE: | DATE: 18.8.2014

CHECKED BY: NITIN GAUTAM | APPROVED BY:



CLIENT:

M/S NIT NAGALAND

PROJECT:

PHASE II EXPANSION AT NIT NAGALAND

NOTES :-

01. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
02. WRITTEN DIMENSIONS ARE TO BE FOLLOWED. ANY DISCREPANCY IN THE DRAWINGS SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECT.
03. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT DRAWINGS

S.N.	TYPE	OPENINGS	SILL	LINTEL	LOCATION	REMARKS	QTY.
DOORS							
1.	D	1500 X 2750	-	2750	ENTRY DOOR	ALUMINIUM	5
2.	D1	1000 X 2100	-	2100	STA.+LIB.	FLUSH DOOR	2
3.	D2	900 X 2100	-	2100	TOILET	PVC DOOR	2
4.	D3	750 X 2100	-	2100	TOILET	PVC DOOR	7
WINDOWS							
1.	W	4860 X7800	-	-	READING HALL	STR.GLAZING	-
2.	W1	1800X1850	900	2750	LIB. ROOM	AL+GL+WM+SL	1
3.	W2	3220X1200	-	-		AL+GL+WM+SL	0
4.	W3	800X2750	-	2750	MAIN ENTRY	AL+GL+WM+SL	4
5.	W4	2000X1850	900	-	STAIRCASE	AL+GL+WM+SL	2
6.	W5	3500X1850	900	2750	STAFF ROOM	AL+GL+WM+SL	1
7.	W6	4500X1850	900	2750	READ. HALL	AL+GL+WM+SL	11
8.	V	900X1250	1500	2750	TOILET	AL+GL+WM+SL	4
9.	V1	600X1250	1500	2750	TOILET	AL+GL+WM+SL	3
10.	V2	450X1250	1500	2750	TOILET	AL+GL+WM+SL	

NOTE:-
ALL DIMENSIONS ARE IN MM.

WORKING DRAWING

PMC & EXECUTING AGENCY :-

FACT ENGINEERING &
DESIGN ORGANISATION
UDYOGMANDAL, KOCHI, KERALA - 683501

ASSOCIATE CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

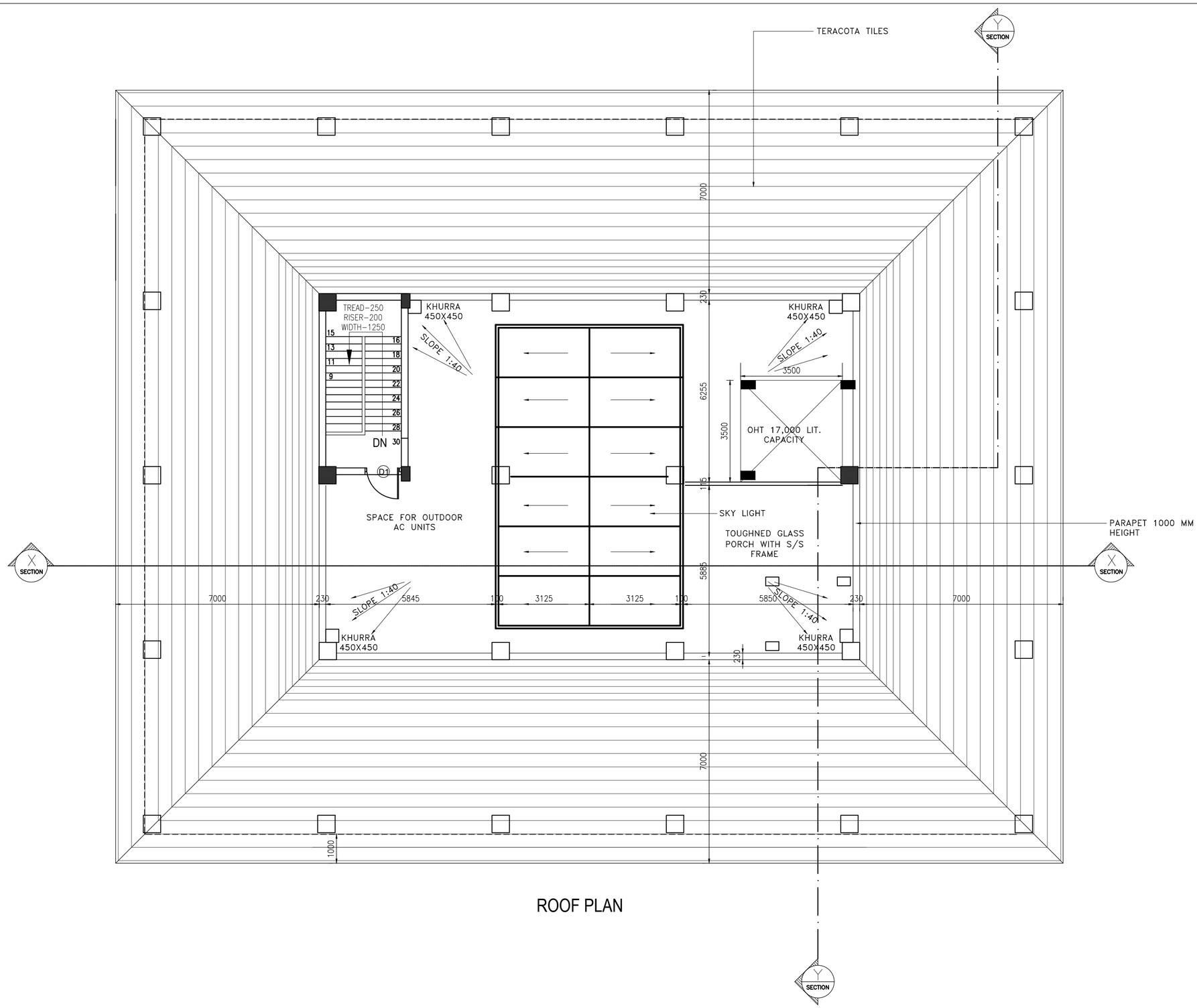
DRAWING TITLE:

LIBRARY BLOCK
SECOND FLOOR PLAN

DRAWING NO.-

8144-12-DG-00702

SCALE:		DATE:	18.8.2014
CHECKED BY: NITIN GAUTAM		APPROVED BY:	



ROOF PLAN

CLIENT:

M/S NIT NAGALAND

PROJECT:

PHASE II EXPANSION AT NIT NAGALAND

NOTES :-

01. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
02. WRITTEN DIMENSIONS ARE TO BE FOLLOWED. ANY DISCREPANCY IN THE DRAWINGS SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECT.
03. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT DRAWINGS

S.N.	TYPE	OPENINGS	SILL	LINTEL	LOCATION	REMARKS
DOORS						
1.	D	1500 X 2750	-	2750	ENTRY DOOR	ALUMINIUM
2.	D1	1000 X 2100	-	2100	STA.+LIB.	FLUSH DOOR
3.	D2	900 X 2100	-	2100	TOILET	PVC DOOR
4.	D3	750 X 2100	-	2100	TOILET	PVC DOOR
WINDOWS						
1.	W	4860 X7800			READING HALL	GLAZING
2.	W1	1800X1850	900	2750	LIB. ROOM	AL+GL+WM+SL
3.	W2	3220X1200			STAIRCASE	AL+GL+WM+SL
4.	W3	800X2750	-	2750	MAIN ENTRY	AL+GL+WM+SL
5.	W4	1800X1850			STAIRCASE	AL+GL+WM+SL
6.	W5	4650X1850	900	2750	COM. CENTRE	AL+GL+WM+SL
7.	W6	4500X1850	900	2750	READ. HALL	AL+GL+WM+SL
8.	V	900X1850	1500	2750	TOILET	AL+GL+WM+SL
9.	V1	600X1850	1500	2750	TOILET	AL+GL+WM+SL

NOTE:-
ALL DIMENSIONS ARE IN MM.

WORKING DRAWING

PMC & EXECUTING AGENCY :-

FACT ENGINEERING &
DESIGN ORGANISATION
UDYOGMANDAL, KOCHI, KERALA - 683501

ASSOCIATE CONSULTANTS :-

BUILDCON SOLUTIONS
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NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

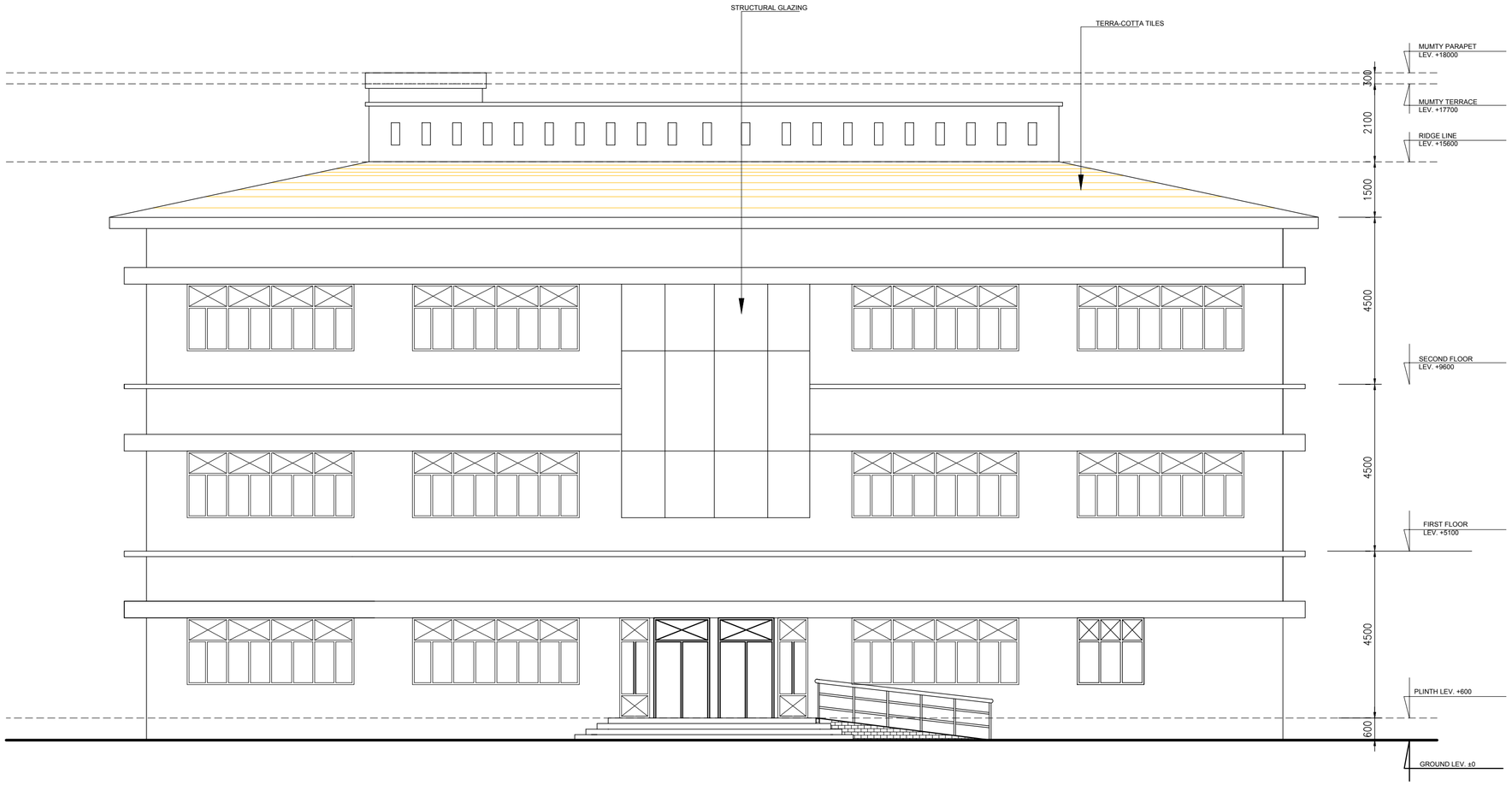
DRAWING TITLE:

LIBRARY BLOCK
ROOF PLAN

DRAWING NO.-

8144-12-DG-00703

SCALE:		DATE:	18.8.2014
CHECKED BY: NITIN GAUTAM		APPROVED BY:	



FRONT SIDE ELEVATION

CLIENT:

M/S NIT NAGALAND

PROJECT:

PHASE II EXPANSION AT NIT NAGALAND

NOTES :-

01. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
02. WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
ANY DISCREPANCY IN THE DRAWINGS SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECT.
03. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT DRAWINGS

S.N.	TYPE	OPENINGS	SILL	LINTEL	LOCATION	REMARKS
DOORS						
1.	D	1500 X 2750	-	2750	ENTRY DOOR	ALUMINIUM
2.	D1	1000 X 2100	-	2100	STA.+LIB.	FLUSH DOOR
3.	D2	900 X 2100	-	2100	TOILET	PVC DOOR
4.	D3	750 X 2100	-	2100	TOILET	PVC DOOR
WINDOWS						
1.	W	4860 X7800			READING HALL	GLAZING
2.	W1	1800X1850	900	2750	LIB. ROOM	AL+GL+WM+SL
3.	W2	3220X1200			STAIRCASE	AL+GL+WM+SL
4.	W3	800X2750	-	2750	MAIN ENTRY	AL+GL+WM+SL
5.	W4	1800X1850			STAIRCASE	AL+GL+WM+SL
6.	W5	4650X1850	900	2750	COM. CENTRE	AL+GL+WM+SL
7.	W6	4500X1850	900	2750	READ. HALL	AL+GL+WM+SL
8.	V	900X1850	1500	2750	TOILET	AL+GL+WM+SL
9.	V1	600X1850	1500	2750	TOILET	AL+GL+WM+SL

NOTE:-
ALL DIMENSIONS ARE IN MM.

WORKING DRAWING

PMC & EXECUTING AGENCY :-

FACT ENGINEERING &
DESIGN ORGANISATION
UDYOGMANDAL, KOCHI, KERALA - 683501

ASSOCIATE CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

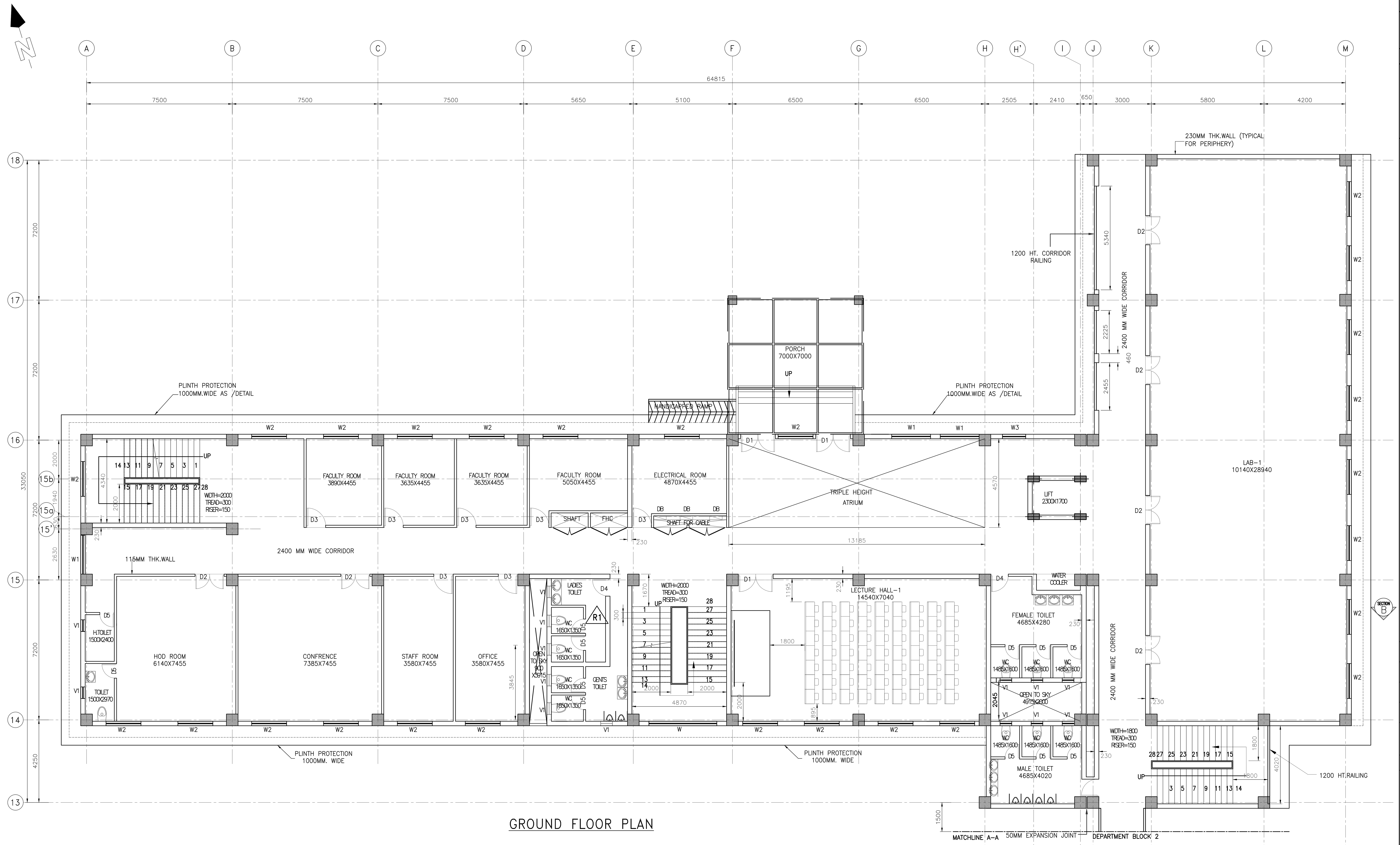
DRAWING TITLE:

LIBRARY BLOCK
FRONT SIDE ELEVATION

DRAWING NO.-

8144-12-DG-00704

SCALE:		DATE:	18.8.2014
CHECKED BY: NITIN GAUTAM		APPROVED BY:	



GROUND FLOOR PLAN

DOOR/WINDOW SCHEDULE

S.N.	TYPE	OPENINGS	SILL	LINTEL
DOORS				
1.	D1	1800 X 2100	–	2100
2.	D2	1500 X 2100	–	2100
3.	D3	1000 X 2750	–	2750
4.	D4	900 X 2750	–	2750
5.	D5	800 X 2100	–	2100
WINDOWS				
1.	W	3500 X1850	900	2750
2.	W1	2000 X1850	900	2750
3.	W2	1800 X1850	900	2750
4.	V1	600 X600	2100	2700
5.	V	750 X600	2100	2700

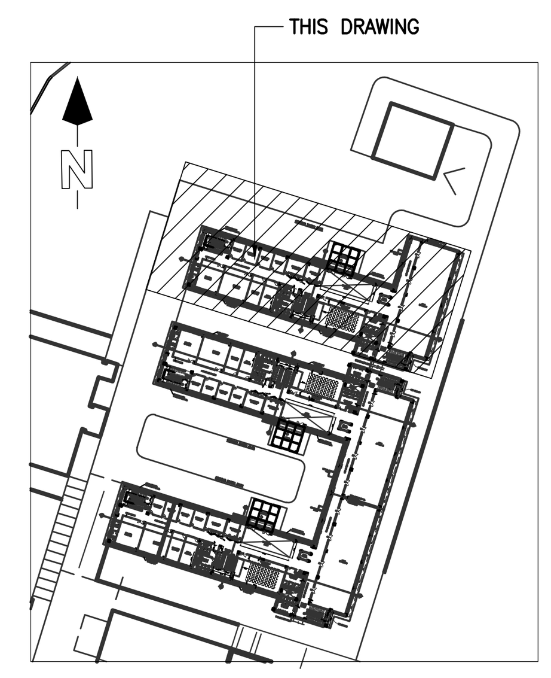
NOTES:-

1. ALL DIMENSIONS ARE IN MM.
2. ALL RCC WORKS SHALL BE OF GRADE M30.
3. BRICK MASONRY SHALL BE WITH BRICKS OF CLASS DESIGNATION 7.5 IN CM 1:6
4. DOORS AND WINDOWS SHALL BE OF POLYESTER POWDER COATED ALUMINIUM SECTIONS AND GLAZED WITH FLOAT GLASS
5. PLASTERING TO FAIR FACES OF MASONRY WALL SHALL BE 12MM THK.IN CM 1:4
6. PLASTERING TO ROUGH FACES OF MASONRY WALL SHALL BE 15MM THK.IN CM 1:4
7. EXTERNAL PAINTING SHALL BE WITH TWO COATS OF ACRYLIC SMOOTH EXTERIOR PAINT OVER A COAT OF EXTERIOR PRIMER
8. INTERNAL PAINTING SHALL BE WITH TWO COATS OF PREMIUM PLASTIC EMULSION PAINT OVER A COAT OF INTERIOR CEMENT PRIMER
9. ANTISKID CERAMIC TILE FLOORING AND GLAZED WALL TILE DADOING FOR A HEIGHT OF 2100MM. SHALL BE PROVIDED IN TOILETS

NIT NAGALAND

PROJECT:

PROPOSED NIT NAGALAND AT DIMAPUR



KEY PLAN

LEGENDS

EL. – ELEVATION(VERTICAL LEVEL)
LVL. – LEVEL(HORIZONTAL PROJECTION)
FL. – FLOOR
TYP – TYPICAL
THK – THICK

REV.	DATE.	DESCRIPTION
01	09.10.2015	RE ARRANGE TOILET

REVISIONS:-

WORKING DRAWING

EXECUTING AGENCY :-

FEDO
FACT ENGINEERING & DESIGN ORGANISATION (FEDO)
UDYOGMANDAL,KOCHI
683501

ASSOCIATES CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

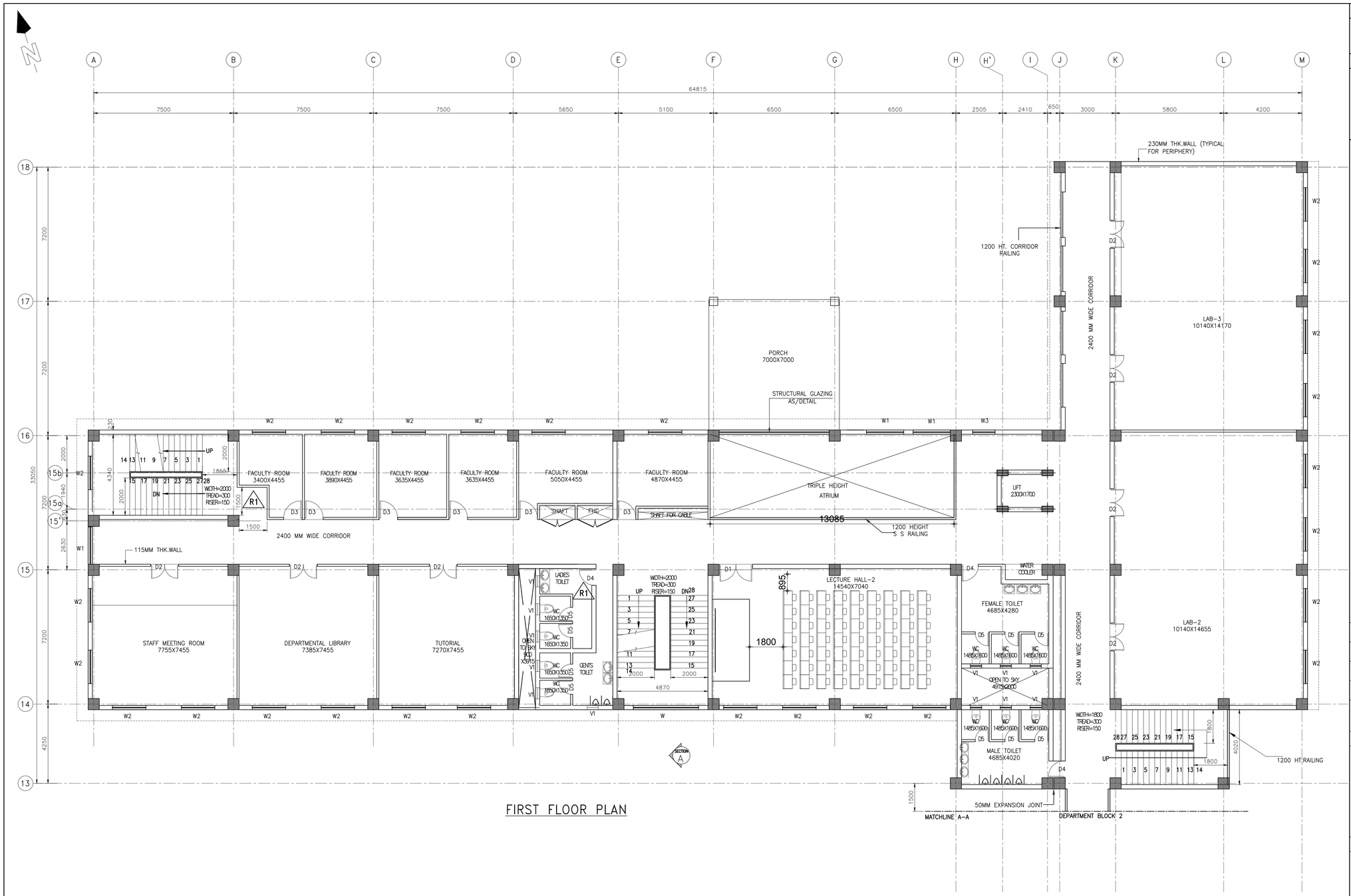
DEPARTMENT BLOCK -1
GROUND FLOOR PLAN

DRAWING NO.-

8144-12-DG-00500

SCALE: 1:100 DATE: 25.04.2015

CHECKED BY:NPM



FIRST FLOOR PLAN

DOOR/WINDOW SCHEDULE

S.N.	TYPE	OPENINGS	SILL	LINTEL
DOORS				
1.	D1	1800 X 2100	–	2100
2.	D2	1500 X 2100	–	2100
3.	D3	1000 X 2750	–	2750
4.	D4	900 X 2750	–	2750
5.	D5	800 X 2100	–	2100
WINDOWS				
1.	W	3500 X1850	900	2750
2.	W1	2000 X1850	900	2750
3.	W2	1800 X1850	900	2750
4.	V1	600 X600	2100	2700
5.	V	750 X600	2100	2700

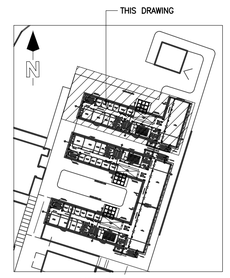
NOTES:–

1. ALL DIMENSIONS ARE IN MM.
2. ALL RCC WORKS SHALL BE OF GRADE M30.
3. BRICK MASONRY SHALL BE WITH BRICKS OF CLASS DESIGNATION 7.5 IN CM 1:6
4. DOORS AND WINDOWS SHALL BE OF POLYESTER POWDER COATED ALUMINIUM SECTIONS AND GLAZED WITH FLOAT GLASS
5. PLASTERING TO FAIR FACES OF MASONRY WALL SHALL BE 12MM THK.IN CM 1:4
6. PLASTERING TO ROUGH FACES OF MASONRY WALL SHALL BE 15MM THK.IN CM 1:4
7. EXTERNAL PAINTING SHALL BE WITH TWO COATS OF ACRYLIC SMOOTH EXTERIOR PAINT OVER A COAT OF EXTERIOR PRIMER
8. INTERNAL PAINTING SHALL BE WITH TWO COATS OF PREMIUM PLASTIC EMULSION PAINT OVER A COAT OF INTERIOR CEMENT PRIMER
9. ANTISKID CERAMIC TILE FLOORING AND GLAZED WALL TILE DADOING FOR A HEIGHT OF 2100MM. SHALL BE PROVIDED IN TOILETS

NIT NAGALAND

PROJECT:

PROPOSED NIT NAGALAND AT DIMAPUR



KEY PLAN

LEGENDS

EL. – ELEVATION(VERTICAL LEVEL)
LVL. – LEVEL(HORIZONTAL PROJECTION)
FL. – FLOOR
TYP – TYPICAL
THK – THICK

REV	DATE.	DESCRIPTION
01	09.10.2015	RE ARRANGE TOILET

REVISIONS:-

WORKING DRAWING

EXECUTING AGENCY :-

FACT ENGINEERING & DESIGN ORGANISATION (FEDO)
UDYOGMANDAL,KOCHI
683501

ASSOCIATES CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

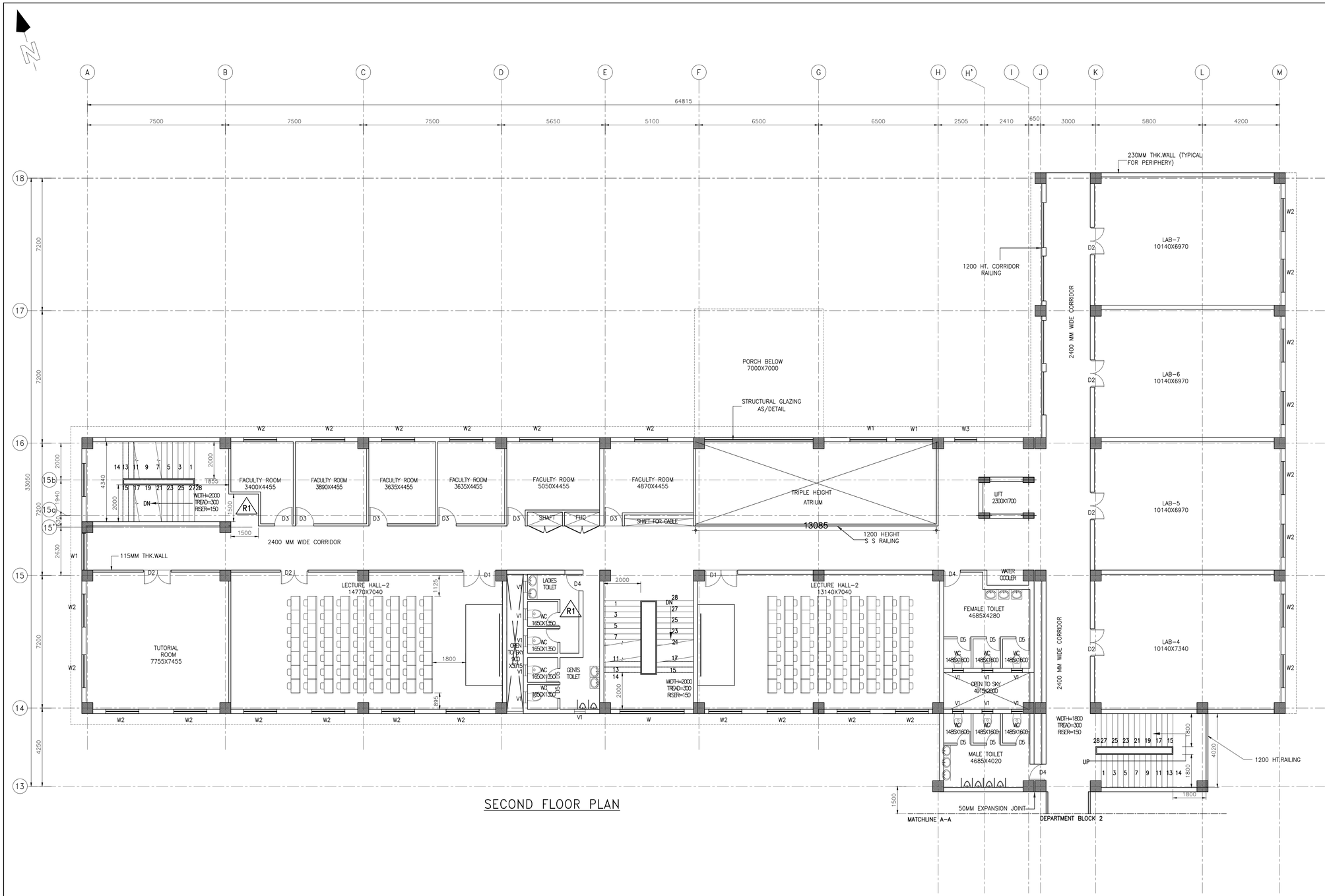
DEPARTMENT BLOCK-1
FIRST FLOOR PLAN

DRAWING NO.-

8144-12-DG-00501

SCALE: 1:100 DATE: 25.04.2015

CHECKED BY: NPM



SECOND FLOOR PLAN

DOOR/WINDOW SCHEDULE

S.N.	TYPE	OPENINGS	SILL	LINTEL
DOORS				
1.	D1	1800 X 2100	–	2100
2.	D2	1500 X 2100	–	2100
3.	D3	1000 X 2750	–	2750
4.	D4	900 X 2750	–	2750
5.	D5	800 X 2100	–	2100
WINDOWS				
1.	W	3500 X1850	900	2750
2.	W1	2000 X1850	900	2750
3.	W2	1800 X1850	900	2750
4.	V1	600 X600	2100	2700
5.	V	750 X600	2100	2700

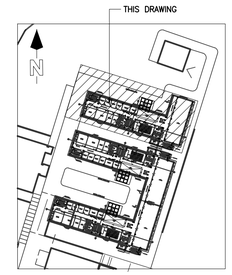
NOTES:–

1. ALL DIMENSIONS ARE IN MM.
2. ALL RCC WORKS SHALL BE OF GRADE M30.
3. BRICK MASONRY SHALL BE WITH BRICKS OF CLASS DESIGNATION 7.5 IN CM 1:6
4. DOORS AND WINDOWS SHALL BE OF POLYESTER POWDER COATED ALUMINIUM SECTIONS AND GLAZED WITH FLOAT GLASS
5. PLASTERING TO FAIR FACES OF MASONRY WALL SHALL BE 12MM THK.IN CM 1:4
6. PLASTERING TO ROUGH FACES OF MASONRY WALL SHALL BE 15MM THK.IN CM 1:4
7. EXTERNAL PAINTING SHALL BE WITH TWO COATS OF ACRYLIC SMOOTH EXTERIOR PAINT OVER A COAT OF EXTERIOR PRIMER
8. INTERNAL PAINTING SHALL BE WITH TWO COATS OF PREMIUM PLASTIC EMULSION PAINT OVER A COAT OF INTERIOR CEMENT PRIMER
9. ANTISKID CERAMIC TILE FLOORING AND GLAZED WALL TILE DADOING FOR A HEIGHT OF 2100MM. SHALL BE PROVIDED IN TOILETS

NIT NAGALAND

PROJECT:

PROPOSED NIT NAGALAND AT DIMAPUR



KEY PLAN

LEGENDS

EL. – ELEVATION(VERTICAL LEVEL)
LVL. – LEVEL(HORIZONTAL PROJECTION)
FL. – FLOOR
TYP – TYPICAL
THK – THICK

REV.	DATE.	DESCRIPTION
01	09.10.2015	RE ARRANGE TOILET

REVISIONS:-

WORKING DRAWING

EXECUTING AGENCY :-

FACT ENGINEERING & DESIGN ORGANISATION (FEDO)
UDYOGMANDAL,KOCHI
683501

ASSOCIATES CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

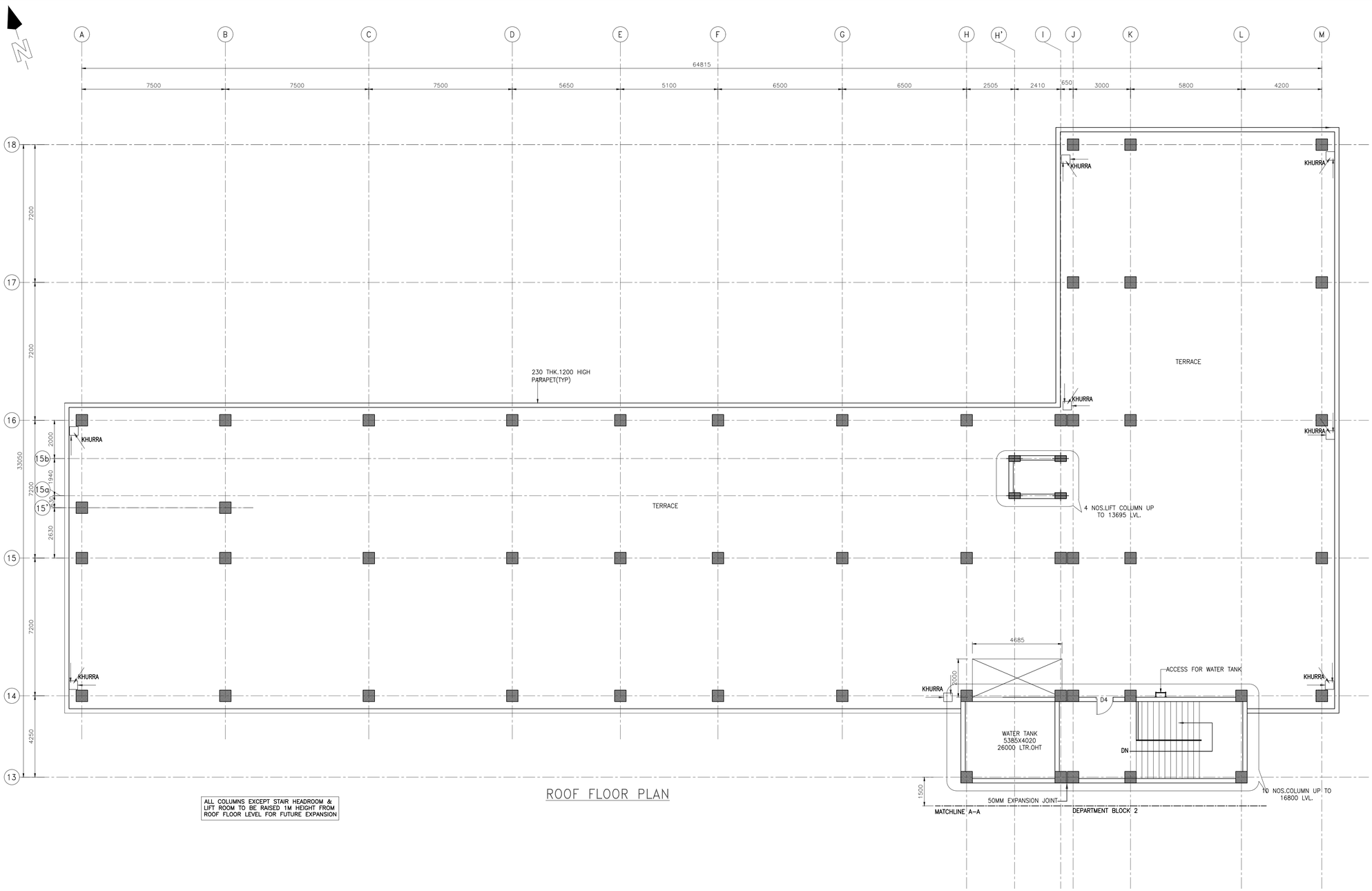
DEPARTMENT BLOCK-1
SECOND FLOOR PLAN

DRAWING NO.-

8144-12-DG-00502

SCALE: 1:100 DATE: 25.04.2015

CHECKED BY: NPM



ROOF FLOOR PLAN

ALL COLUMNS EXCEPT STAIR HEADROOM & LIFT ROOM TO BE RAISED 1M HEIGHT FROM ROOF FLOOR LEVEL FOR FUTURE EXPANSION

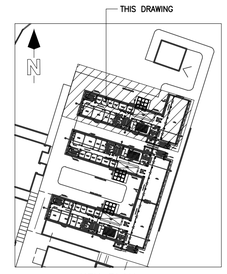
NOTES:-

1. ALL DIMENSIONS ARE IN MM.
2. ALL RCC WORKS SHALL BE OF GRADE M30.
3. BRICK MASONRY SHALL BE WITH BRICKS OF CLASS DESIGNATION 7.5 IN CM 1:6
4. DOORS AND WINDOWS SHALL BE OF POLYESTER POWDER COATED ALUMINIUM SECTIONS AND GLAZED WITH FLOAT GLASS
5. PLASTERING TO FAIR FACES OF MASONRY WALL SHALL BE 12MM THK.IN CM 1:4
6. PLASTERING TO ROUGH FACES OF MASONRY WALL SHALL BE 15MM THK.IN CM 1:4
7. EXTERNAL PAINTING SHALL BE WITH TWO COATS OF ACRYLIC SMOOTH EXTERIOR PAINT OVER A COAT OF EXTERIOR PRIMER
8. INTERNAL PAINTING SHALL BE WITH TWO COATS OF PREMIUM PLASTIC EMULSION PAINT OVER A COAT OF INTERIOR CEMENT PRIMER
9. ANTISKID CERAMIC TILE FLOORING AND GLAZED WALL TILE DADOING FOR A HEIGHT OF 2100MM. SHALL BE PROVIDED IN TOILETS

NIT NAGALAND

PROJECT:

PROPOSED NIT NAGALAND AT DIMAPUR



KEY PLAN

LEGENDS

EL.	–	ELEVATION(VERTICAL LEVEL)
LVL.	–	LEVEL(HORIZONTAL PROJECTION)
FL.	–	FLOOR
TYP	–	TYPICAL
THK	–	THICK

DATE.	DESCRIPTION
18.8.2014	

REVISIONS:-

WORKING DRAWING

EXECUTING AGENCY :-

FEDO

FACT ENGINEERING & DESIGN ORGANISATION (FEDO)
UDYOGMANDAL,KOCHI
683501

ASSOCIATES CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

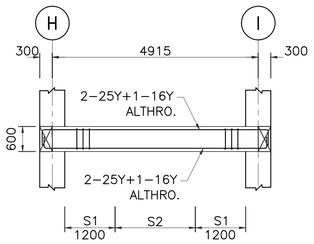
DEPARTMENT BLOCK-1
ROOF FLOOR PLAN

DRAWING NO.-

8144-12-DG-00503

SCALE:	1:100	DATE:	25.04.2015

CHECKED BY: NPM



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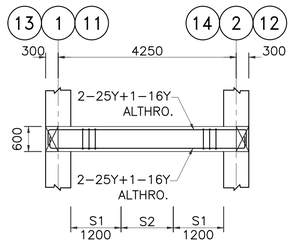

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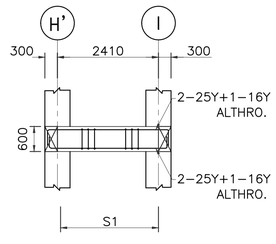

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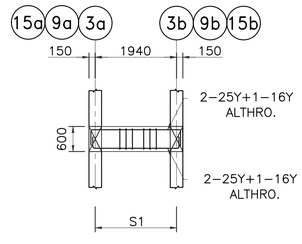

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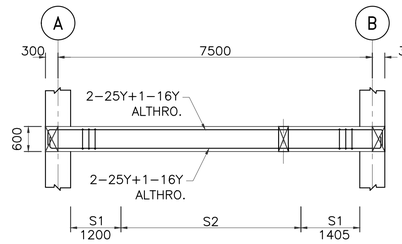

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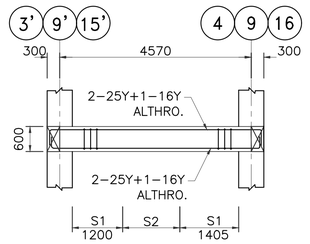

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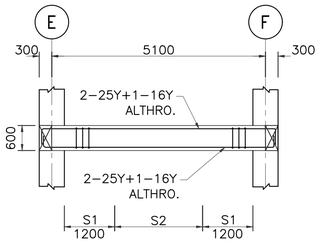

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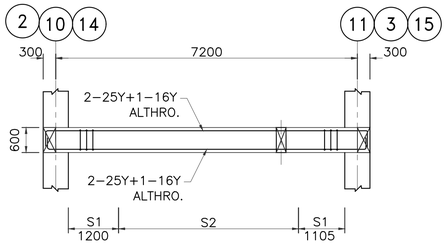

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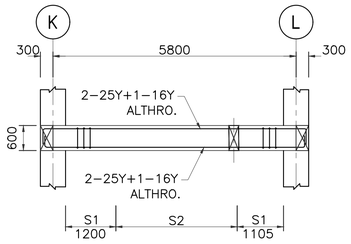

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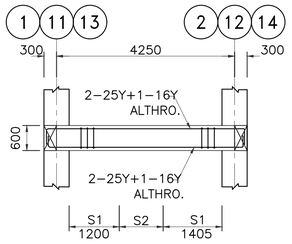

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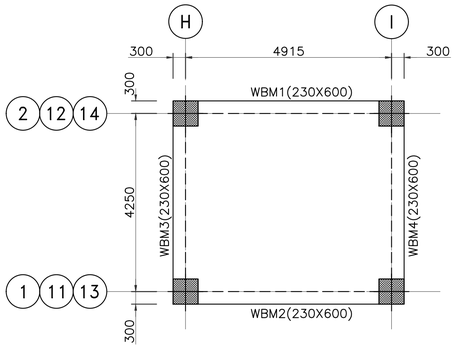
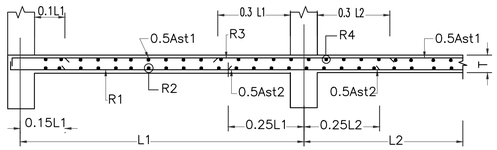
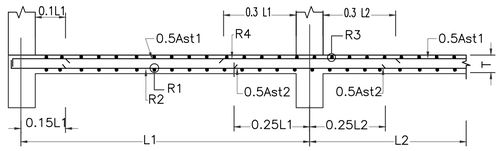


WATER TANK BEAM LAYOUT DEPARTMENT BLOCK 1,2&3 @ EL.+14.200M
SCALE 1:100



TYP. SEC. OF SLAB ALONG SHORTER DIRECTION

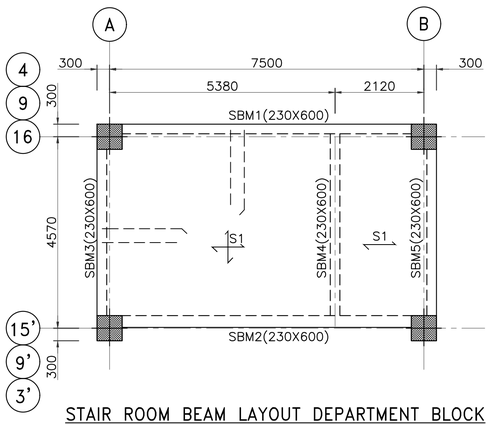


TYP. SEC. OF SLAB ALONG LONGER DIRECTION

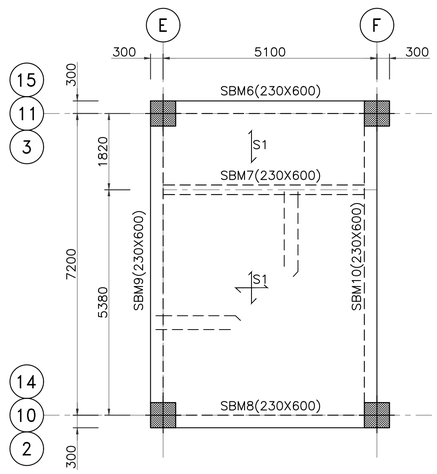
SLAB SCHEDULE					
SLAB NO.	THICKNESS T	BOTTOM THROUGH ALONG SHORTER SPAN R1(Ast2)	BOTTOM THROUGH ALONG LONG SPAN R2(Ast2)	TOP EXTRA ALONG SHORT SPAN R3(Ast1)	TOP EXTRA ALONG LONG SPAN R4(Ast1)
S1	120MM	8Y@150C/C	8Y@200C/C	8Y@150C/C	8Y@200C/C

NOTE:
REFER DRAWING 8144–12–DG–00591 TO 00593(DEPARTMENT BLOCK 1,2,3) FOR DETAIL OF WATER TANK SLAB

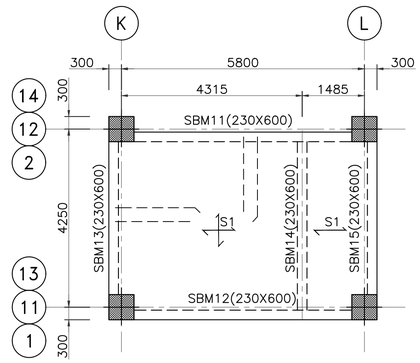
SCHEDULE OF STIRRUPS	
S1	8Y–2L–100C/C
S2	8Y–2L–180C/C



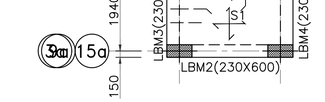
STAIR ROOM BEAM LAYOUT DEPARTMENT BLOCK 1,2&3 @ EL.+15.700M(STAIR 1)
SCALE 1:100



STAIR ROOM BEAM LAYOUT DEPARTMENT BLOCK 1,2&3 @ EL.+15.700M(STAIR 2)
SCALE 1:100



STAIR ROOM BEAM LAYOUT DEPARTMENT BLOCK 1,2&3 @ EL.+15.700M(STAIR 3)
SCALE 1:100



LIFT ROOM BEAM LAYOUT DEPARTMENT BLOCK 1,2&3 @ EL.+15.700M
SCALE 1:100

NOTES

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS ARE IN M.
2. GRADE OF CONCRETE FOR ALL RCC WORKS SHALL BE M30.
3. Y – DENOTES HIGH STRENGTH DEFORMED BARS OF GRADE Fe 500 CONFORMING TO IS 1786.
4. CLEAR COVER TO MAIN REINFORCEMENT IN RCC AS FOLLOWS.
   SLABS – 25 MM
   BEAMS – 30 MM

CIVIL ENGINEERING DEPARTMENT		
DRAWING		
FOR COMMENTS APPROVAL		
FOR TENDER PURPOSE ONLY		
PRELIMINARY ADVANCE COPY		
GOOD FOR CONSTRUCTION		

CLIENT M/S. NIT–NAGALAND

DRAWING NO.	TITLE	NO	ZONE	PARTICULARS	REVD.	CHKD.	APPRD.	DATE
REFERENCE DRAWING		REVISION						

SCALE	AS SHOWN
DATE	04–06–2015
DRAWN	CRS
CHECKED	
DESIGNED	
CHECKED	
APPROVED	

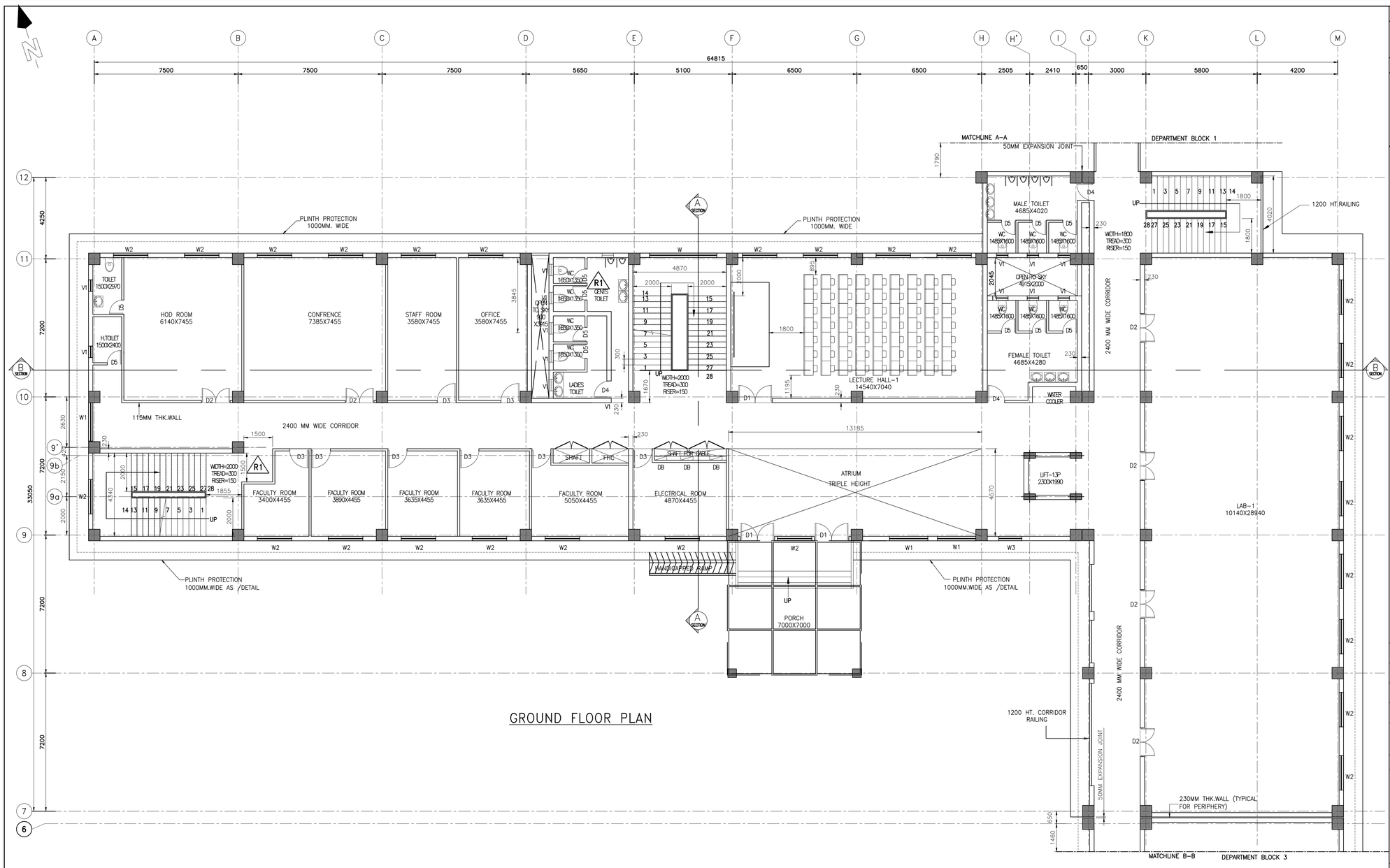
FACT ENGINEERING & DESIGN ORGANISATION
THE FERTILISERS & CHEMICALS TRAVANCORE LTD
UDYOGAMANDAL KERALA

PROJECT NAME: PHASE II EXPANSION AT NIT NAGALAND | PROJECT NO: 8144

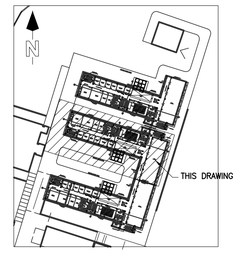
TITLE: DEPARTMENT BLOCKS –1,2&3 DETAILS OF WATER TANK,STAIR & LIFT ROOM BEAM & SLAB

SHEET 1 OF 1 | DRG. No. 8144–12–DG–00624 | REV. 0

00FT005/97



GROUND FLOOR PLAN



KEY PLAN

LEGENDS

EL. – ELEVATION(VERTICAL LEVEL)
LVL. – LEVEL(HORIZONTAL PROJECTION)
FL. – FLOOR
TYP – TYPICAL
THK – THICK

DOOR/WINDOW SCHEDULE

S.N.	TYPE	OPENINGS	SILL	LINTEL
DOORS				
1.	D1	1800 X 2100	–	2100
2.	D2	1500 X 2100	–	2100
3.	D3	1000 X 2750	–	2750
4.	D4	900 X 2750	–	2750
5.	D5	800 X 2100	–	2100
WINDOWS				
1.	W	3500 X1850	900	2750
2.	W1	2000 X1850	900	2750
3.	W2	1800 X1850	900	2750
4.	V1	600 X600	2100	2700
5.	V	750 X600	2100	2700

NOTES:–

1. ALL DIMENSIONS ARE IN MM.
2. ALL RCC WORKS SHALL BE OF GRADE M30.
3. BRICK MASONRY SHALL BE WITH BRICKS OF CLASS DESIGNATION 7.5 IN CM 1:6
4. DOORS AND WINDOWS SHALL BE OF POLYESTER POWDER COATED ALUMINIUM SECTIONS AND GLAZED WITH FLOAT GLASS
5. PLASTERING TO FAIR FACES OF MASONRY WALL SHALL BE 12MM THK.IN CM 1:4
6. PLASTERING TO ROUGH FACES OF MASONRY WALL SHALL BE 15MM THK.IN CM 1:4
7. EXTERNAL PAINTING SHALL BE WITH TWO COATS OF ACRYLIC SMOOTH EXTERIOR PAINT OVER A COAT OF EXTERIOR PRIMER
8. INTERNAL PAINTING SHALL BE WITH TWO COATS OF PREMIUM PLASTIC EMULSION PAINT OVER A COAT OF INTERIOR CEMENT PRIMER
9. ANTISKID CERAMIC TILE FLOORING AND GLAZED WALL TILE DADOING FOR A HEIGHT OF 2100MM. SHALL BE PROVIDED IN TOILETS

NIT NAGALAND

PROJECT:

PROPOSED NIT NAGALAND AT DIMAPUR

REV.	DATE.	DESCRIPTION
01	09.10.2015	RE ARRANGE TOILET

REVISIONS:-

WORKING DRAWING

EXECUTING AGENCY :-

FACT ENGINEERING & DESIGN ORGANISATION (FEDO)
UDYOGMANDAL,KOCHI
683501

ASSOCIATES CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

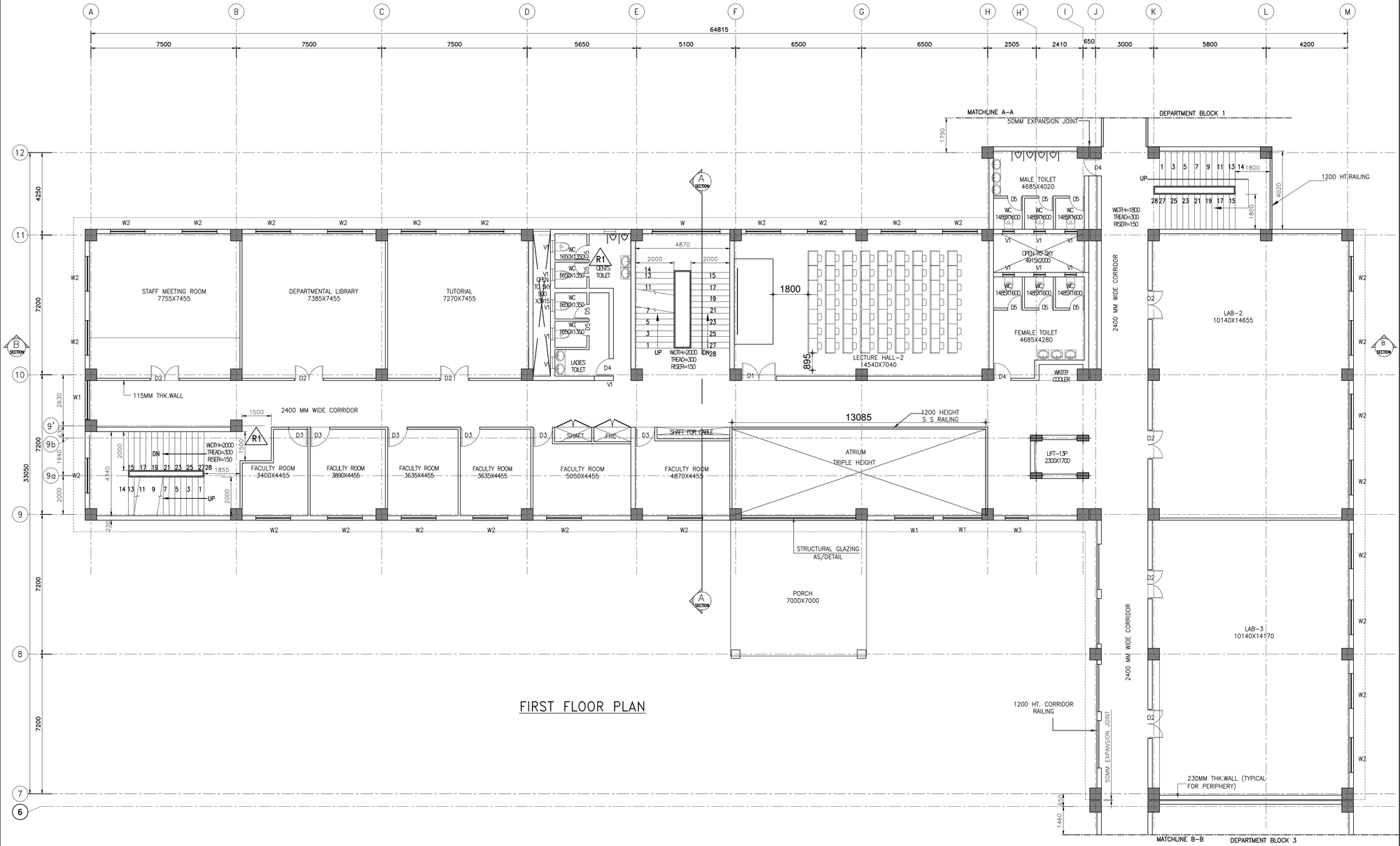
DEPARTMENT BLOCK -2
GROUND FLOOR PLAN

DRAWING NO.-

8144-12-DG-00504

SCALE: 1:100 | DATE: 25.04.2015

CHECKED BY:NPM

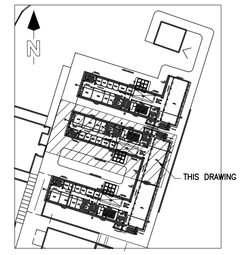


DOOR/WINDOW SCHEDULE

S.N.	TYPE	OPENINGS	SILL	LINTEL
DOORS				
1.	D1	1800 X 2100	–	2100
2.	D2	1500 X 2100	–	2100
3.	D3	1000 X 2750	–	2750
4.	D4	900 X 2750	–	2750
5.	D5	800 X 2100	–	2100
WINDOWS				
1.	W	3500 X1850	900	2750
2.	W1	2000 X1850	900	2750
3.	W2	1800 X1850	900	2750
4.	V1	600 X600	2100	2700
5.	V	750 X600	2100	2700

NOTES:–

1. ALL DIMENSIONS ARE IN MM.
2. ALL RCC WORKS SHALL BE OF GRADE M30.
3. BRICK MASONRY SHALL BE WITH BRICKS OF CLASS DESIGNATION 7.5 IN CM 1:6
4. DOORS AND WINDOWS SHALL BE OF POLYESTER POWDER COATED ALUMINIUM SECTIONS AND GLAZED WITH FLOAT GLASS
5. PLASTERING TO FAIR FACES OF MASONRY WALL SHALL BE 12MM THK.IN CM 1:4
6. PLASTERING TO ROUGH FACES OF MASONRY WALL SHALL BE 15MM THK.IN CM 1:4
7. EXTERNAL PAINTING SHALL BE WITH TWO COATS OF ACRYLIC SMOOTH EXTERIOR PAINT OVER A COAT OF EXTERIOR PRIMER
8. INTERNAL PAINTING SHALL BE WITH TWO COATS OF PREMIUM PLASTIC EMULSION PAINT OVER A COAT OF INTERIOR CEMENT PRIMER
9. ANTISKID CERAMIC TILE FLOORING AND GLAZED WALL TILE DADOING FOR A HEIGHT OF 2100MM. SHALL BE PROVIDED IN TOILETS



KEY PLAN

LEGENDS

EL. – ELEVATION(VERTICAL LEVEL)
LVL. – LEVEL(HORIZONTAL PROJECTION)
FL. – FLOOR
TYP – TYPICAL
THK – THICK

REV.	DATE.	DESCRIPTION
01	09.10.2015	RE ARRANGE TOILET

REVISIONS:-

WORKING DRAWING

EXECUTING AGENCY :-

FEDO
FACT ENGINEERING & DESIGN ORGANISATION (FEDO)
UDYOGMANDAL,KOCHI
683501

ASSOCIATES CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

DEPARTMENT BLOCK-2
FIRST FLOOR PLAN

DRAWING NO.-

8144-12-DG-00505

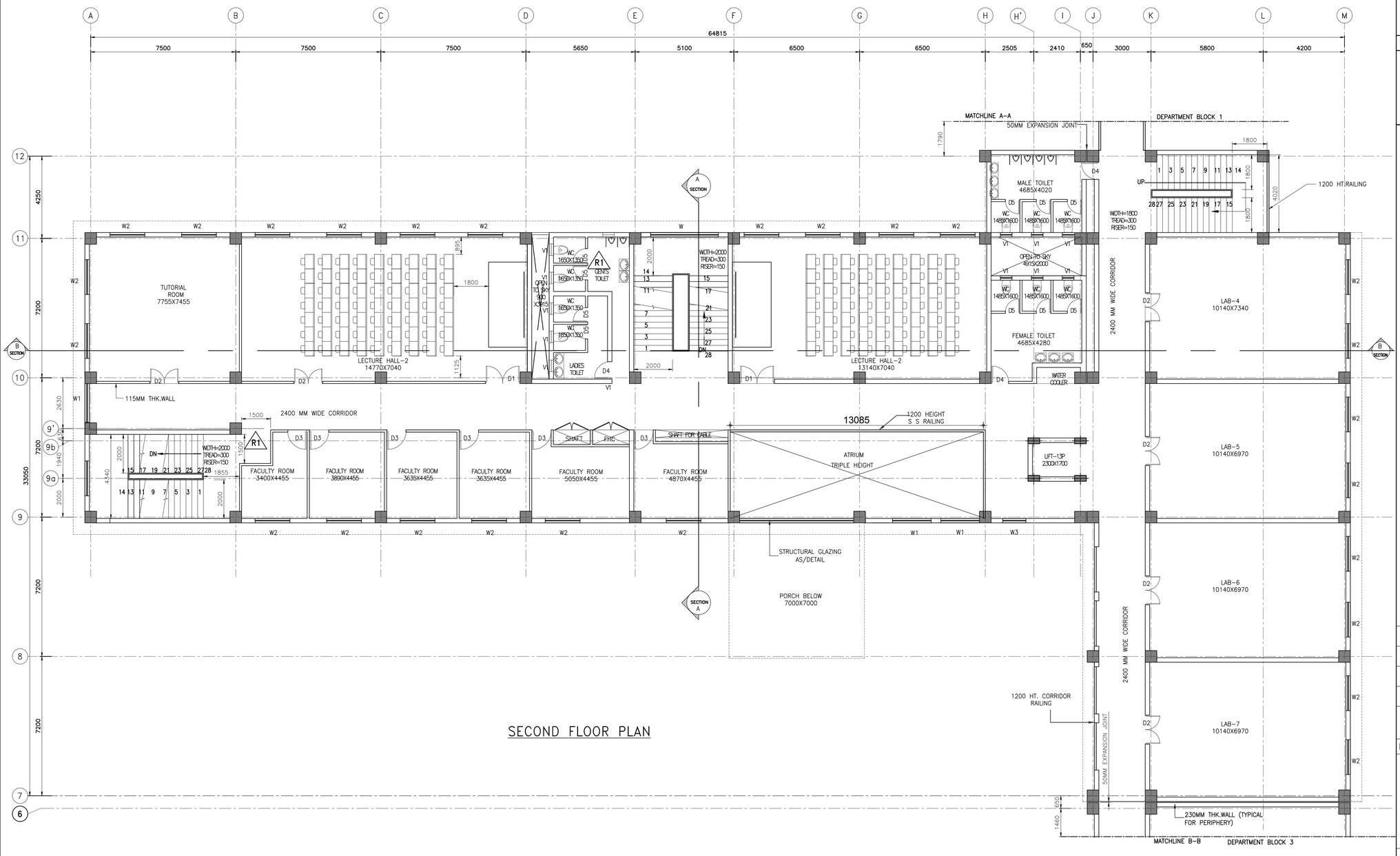
SCALE: 1:100 DATE: 25.04.2015

CHECKED BY: NPM

NIT NAGALAND

PROJECT:

PROPOSED NIT NAGALAND AT DIMAPUR



SECOND FLOOR PLAN

DOOR/WINDOW SCHEDULE

S.N.	TYPE	OPENINGS	SILL	LINTEL
DOORS				
1.	D1	1800 X 2100	–	2100
2.	D2	1500 X 2100	–	2100
3.	D3	1000 X 2750	–	2750
4.	D4	900 X 2750	–	2750
5.	D5	800 X 2100	–	2100
WINDOWS				
1.	W	3500 X1850	900	2750
2.	W1	2000 X1850	900	2750
3.	W2	1800 X1850	900	2750
4.	V1	600 X600	2100	2700
5.	V	750 X600	2100	2700

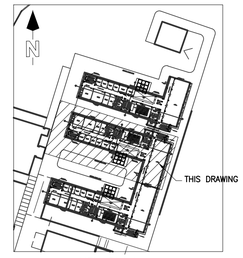
NOTES:–

1. ALL DIMENSIONS ARE IN MM.
2. ALL RCC WORKS SHALL BE OF GRADE M30.
3. BRICK MASONRY SHALL BE WITH BRICKS OF CLASS DESIGNATION 7.5 IN CM 1:6
4. DOORS AND WINDOWS SHALL BE OF POLYESTER POWDER COATED ALUMINIUM SECTIONS AND GLAZED WITH FLOAT GLASS
5. PLASTERING TO FAIR FACES OF MASONRY WALL SHALL BE 12MM THK.IN CM 1:4
6. PLASTERING TO ROUGH FACES OF MASONRY WALL SHALL BE 15MM THK.IN CM 1:4
7. EXTERNAL PAINTING SHALL BE WITH TWO COATS OF ACRYLIC SMOOTH EXTERIOR PAINT OVER A COAT OF EXTERIOR PRIMER
8. INTERNAL PAINTING SHALL BE WITH TWO COATS OF PREMIUM PLASTIC EMULSION PAINT OVER A COAT OF INTERIOR CEMENT PRIMER
9. ANTISKID CERAMIC TILE FLOORING AND GLAZED WALL TILE DADOING FOR A HEIGHT OF 2100MM. SHALL BE PROVIDED IN TOILETS

NIT NAGALAND

PROJECT:

PROPOSED NIT NAGALAND AT DIMAPUR



KEY PLAN

LEGENDS

EL. – ELEVATION(VERTICAL LEVEL)
LVL. – LEVEL(HORIZONTAL PROJECTION)
FL. – FLOOR
TYP – TYPICAL
THK – THICK

REV.	DATE.	DESCRIPTION
01	09.10.2015	RE ARRANGE TOILET

REVISIONS:-

WORKING DRAWING

EXECUTING AGENCY :-

FEDO
FACT ENGINEERING & DESIGN ORGANISATION (FEDO)
UDYOGMANDAL,KOCHI
683501

ASSOCIATES CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

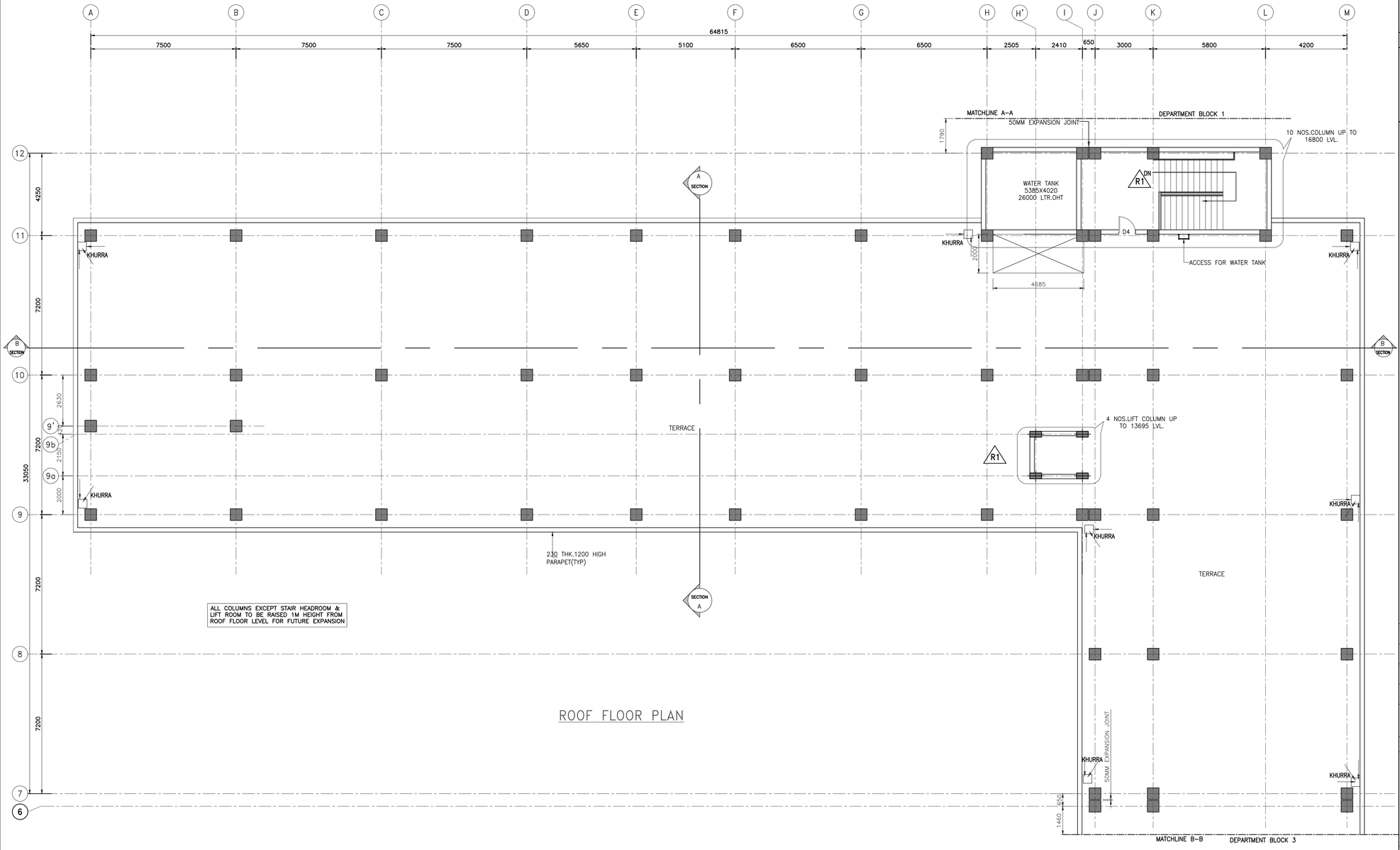
DEPARTMENT BLOCK-2
SECOND FLOOR PLAN

DRAWING NO.-

8144-12-DG-00506

SCALE: 1:100 DATE: 25.04.2015

CHECKED BY: NPM



ROOF FLOOR PLAN

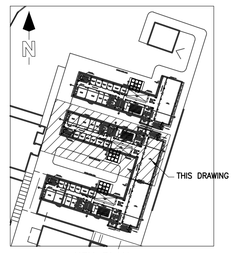
NOTES:–

1. ALL DIMENSIONS ARE IN MM.
2. ALL RCC WORKS SHALL BE OF GRADE M30.
3. BRICK MASONRY SHALL BE WITH BRICKS OF CLASS DESIGNATION 7.5 IN CM 1:6
4. DOORS AND WINDOWS SHALL BE OF POLYESTER POWDER COATED ALUMINIUM SECTIONS AND GLAZED WITH FLOAT GLASS
5. PLASTERING TO FAIR FACES OF MASONRY WALL SHALL BE 12MM THK.IN CM 1:4
6. PLASTERING TO ROUGH FACES OF MASONRY WALL SHALL BE 15MM THK.IN CM 1:4
7. EXTERNAL PAINTING SHALL BE WITH TWO COATS OF ACRYLIC SMOOTH EXTERIOR PAINT OVER A COAT OF EXTERIOR PRIMER
8. INTERNAL PAINTING SHALL BE WITH TWO COATS OF PREMIUM PLASTIC EMULSION PAINT OVER A COAT OF INTERIOR CEMENT PRIMER
9. ANTISKID CERAMIC TILE FLOORING AND GLAZED WALL TILE DADOING FOR A HEIGHT OF 2100MM. SHALL BE PROVIDED IN TOILETS

NIT NAGALAND

PROJECT:

PROPOSED NIT NAGALAND AT DIMAPUR



KEY PLAN

LEGENDS

EL.	–	ELEVATION(VERTICAL LEVEL)
LVL.	–	LEVEL(HORIZONTAL PROJECTION)
FL.	–	FLOOR
TYP	–	TYPICAL
THK	–	THICK

	DATE.	DESCRIPTION
01	19.10.2015	STAIR WIDTH CHANGED

REVISIONS:-

WORKING DRAWING

EXECUTING AGENCY :-

FEDO
FACT ENGINEERING & DESIGN ORGANISATION (FEDO)
UDYOGMANDAL,KOCHI
683501

ASSOCIATES CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

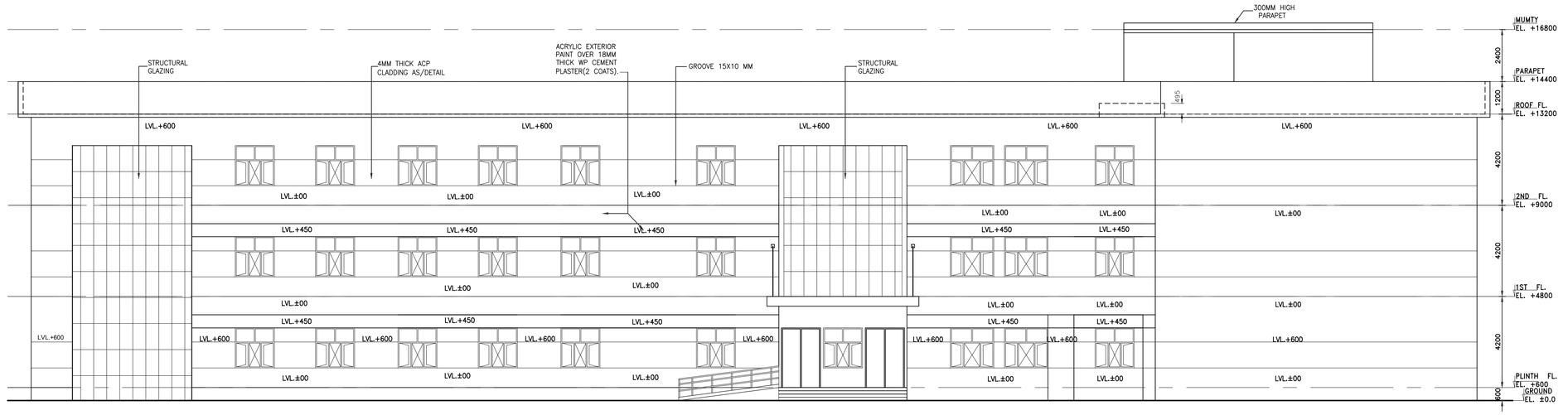
DEPARTMENT BLOCK-2
ROOF FLOOR PLAN

DRAWING NO.-

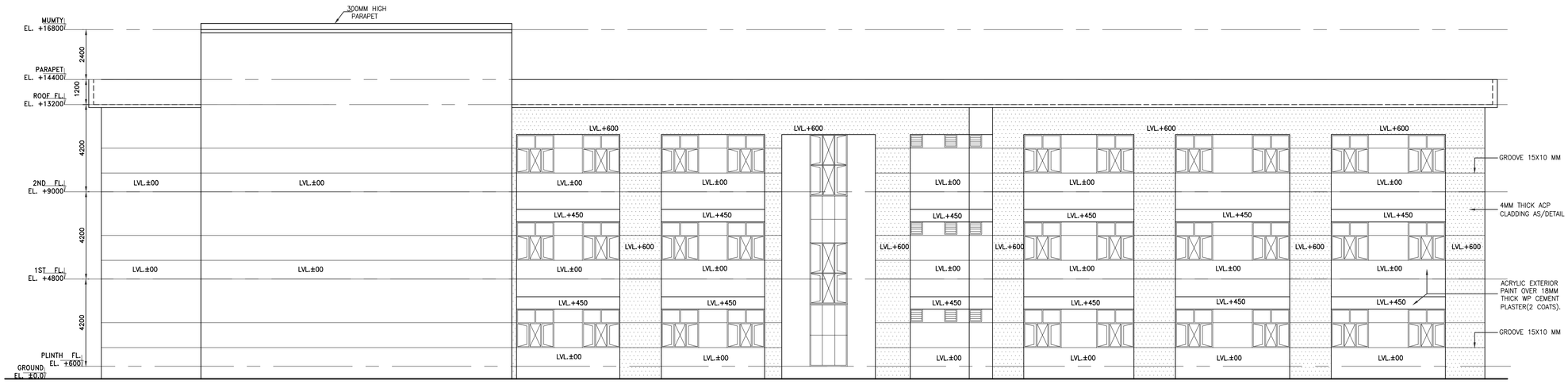
8144-12-DG-00507

SCALE: 1:100 | DATE: 25.04.2015

CHECKED BY: NPM



FRONT ELEVATION



REAR ELEVATION

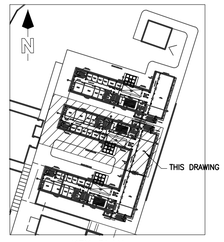
NOTES:–

1. ALL DIMENSIONS ARE IN MM.
2. ALL RCC WORKS SHALL BE OF GRADE M30.
3. BRICK MASONRY SHALL BE WITH BRICKS OF CLASS DESIGNATION 7.5 IN CM 1:6
4. DOORS AND WINDOWS SHALL BE OF POLYESTER POWDER COATED ALUMINIUM SECTIONS AND GLAZED WITH FLOAT GLASS
5. PLASTERING TO FAIR FACES OF MASONRY WALL SHALL BE 12MM THK.IN CM 1:4
6. PLASTERING TO ROUGH FACES OF MASONRY WALL SHALL BE 15MM THK.IN CM 1:4
7. EXTERNAL PAINTING SHALL BE WITH TWO COATS OF ACRYLIC SMOOTH EXTERIOR PAINT OVER A COAT OF EXTERIOR PRIMER
8. INTERNAL PAINTING SHALL BE WITH TWO COATS OF PREMIUM PLASTIC EMULSION PAINT OVER A COAT OF INTERIOR CEMENT PRIMER
9. ANTISKID CERAMIC TILE FLOORING AND GLAZED WALL TILE DADOING FOR A HEIGHT OF 2100MM. SHALL BE PROVIDED IN TOILETS

NIT NAGALAND

PROJECT:

PROPOSED NIT NAGALAND AT DIMAPUR



KEY PLAN

LEGENDS

EL. – ELEVATION(VERTICAL LEVEL)
LVL. – LEVEL(HORIZONTAL PROJECTION)
FL. – FLOOR
TYP – TYPICAL
THK – THICK

REV.	DATE.	DESCRIPTION

REVISIONS:-

WORKING DRAWING

EXECUTING AGENCY :-

FEDO
FACT ENGINEERING & DESIGN ORGANISATION (FEDO)
UDYOGMANDAL,KOCHI
683501

ASSOCIATES CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
NEW DELHI-110076
TELE FAX :- 011-40506870
EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

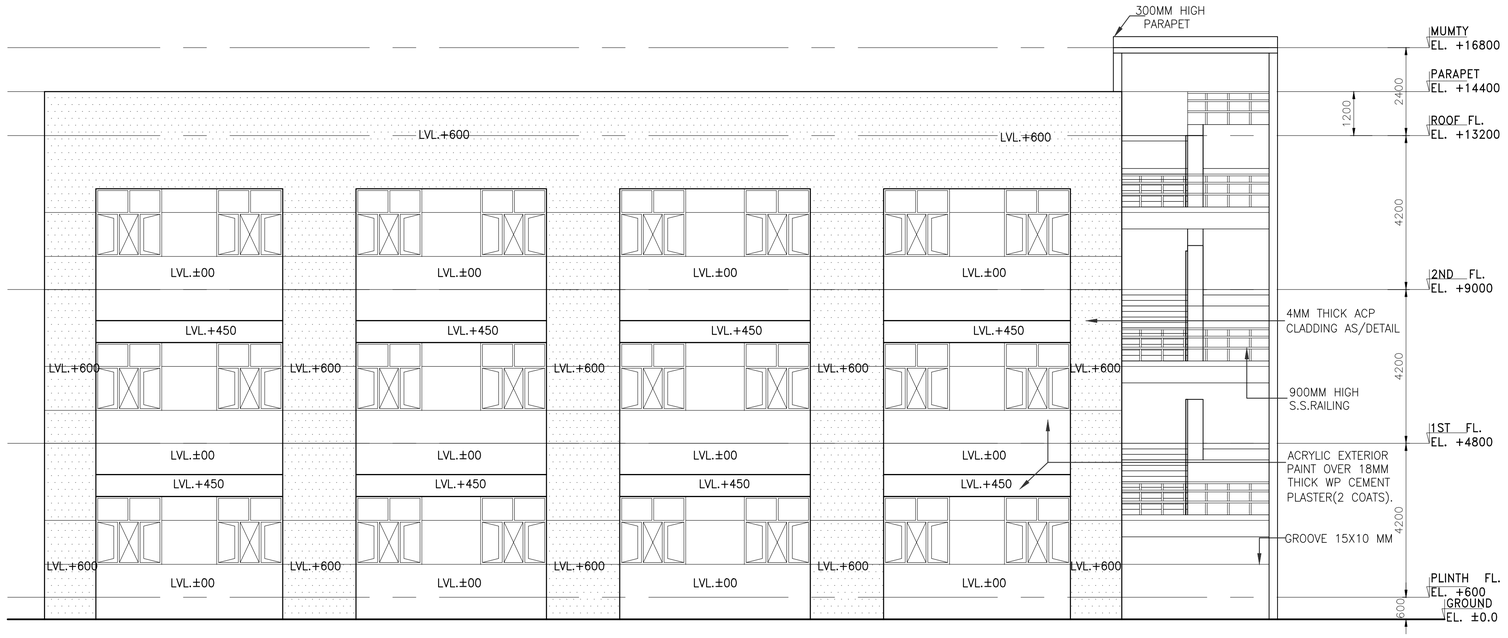
DEPARTMENT BLOCK-2
FRONT AND REAR
ELEVATIONS

DRAWING NO.-

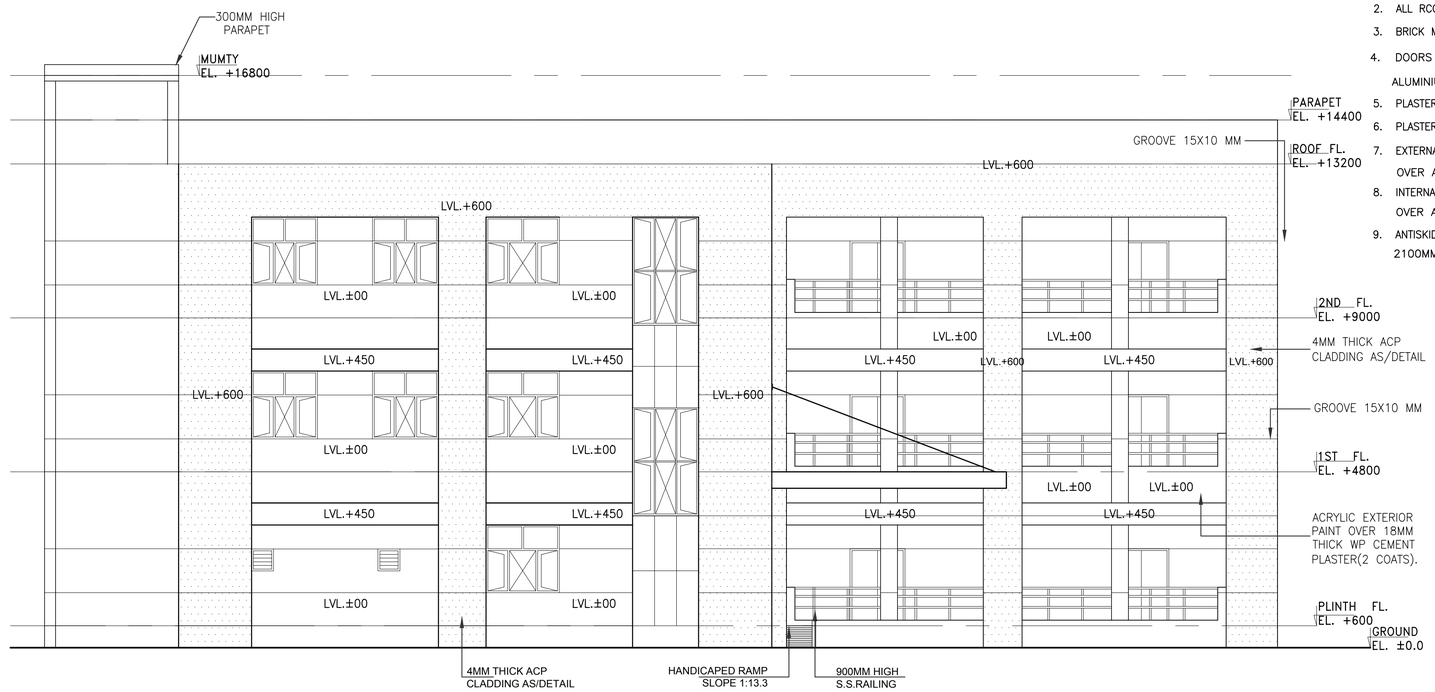
8144-12-DG-00508

SCALE:	1:100	DATE:	25.04.2015

CHECKED BY: NPM



RIGHT SIDE ELEVATION



LEFT SIDE ELEVATION

NOTES:–

1. ALL DIMENSIONS ARE IN MM.
2. ALL RCC WORKS SHALL BE OF GRADE M30.
3. BRICK MASONRY SHALL BE WITH BRICKS OF CLASS DESIGNATION 7.5 IN CM 1:6
4. DOORS AND WINDOWS SHALL BE OF POLYESTER POWDER COATED ALUMINIUM SECTIONS AND GLAZED WITH FLOAT GLASS
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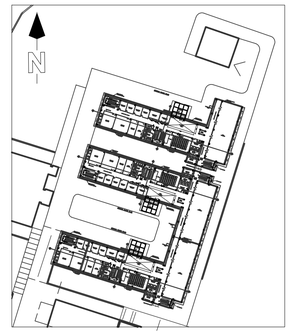
9. ANTISKID CERAMIC TILE FLOORING AND GLAZED WALL TILE DADOING FOR A HEIGHT OF 2100MM. SHALL BE PROVIDED IN TOILETS

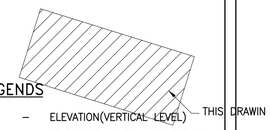
NIT NAGALAND

PROJECT:

PROPOSED NIT NAGALAND AT DIMAPUR



KEY PLAN



LEGENDS

EL.	–	ELEVATION(VERTICAL LEVEL)
LVL.	–	LEVEL(HORIZONTAL PROJECTION)
FL.	–	FLOOR
TYP	–	TYPICAL
THK	–	THICK

REV.	DATE.	DESCRIPTION

REVISIONS:-

WORKING DRAWING

EXECUTING AGENCY :-

FEDO

FACT ENGINEERING & DESIGN ORGANISATION (FEDO)
UDYOGMANDAL,KOCHI
683501

ASSOCIATES CONSULTANTS :-

BUILDCON SOLUTIONS
HEAD OFFICE :L-11,SARITA VIHAR,
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EMAIL-buildconsolutions@gmail.com

DISCIPLINE:-

ARCHITECTURE

DRAWING TITLE:

DEPARTMENT BLOCK-2
RIGHT SIDE AND LEFT
SIDE ELEVATIONS

DRAWING NO.-

8144-12-DG-00509

SCALE:	1:100	DATE:	25.04.2015

CHECKED BY: NPM

TECHNICAL PROCUREMENT SPECIFICATION	SCHEDULE OF ITEMS OF WORK PART A - SUPPLY	8144-01-SIW-004
		PAGE 1 OF 2

PROJECT : Construction of Educational building for National Institute of Technology, Nagaland.
PROJECT No : 8144 VENDOR :
CLIENT : NIT, Nagaland
Enq. No. : DATE :

SL. No.	DESCRIPTION OF ITEM	UNIT	QTY	UNIT RATE (Rs.) Fig.	UNIT RATE (Rs.) Words	TOTAL AMOUNT (Rs.)
(1)	**General**	(3)	(4)	(5)		(6)
a)	The entire work shall be carried out as per details given in various specifications,data sheets, drawings, documents, etc enclosed, relevant Indian standards,regulations, code of practices, requirements of various statutory bodies,manufacturer's instruction manuals of individual equipment and as directed by owner's representatives/ FEDO site in Charge.					
b)	Refer doc. No. 8144-01-PS-004 for detailed scope of work and complete lift system requirements					
1.1	**Supply**					
	Design and Supply of electricity operated passenger lift ,with simplex collective selective control suitable for operation with or without attendant to serve ground floor and upto two upper floors, to be operated on micro processor controls complete with standard fitments, safety control and indicators. The system shall be complete with power driven automatic steel sliding door with 2 hr. fire rating, automatic electric leveling device, automatic rescue devices, a screen of infra red beam acting as a curtain across the door entrance, hairline finished stainless steel enclosures as specified including all steel works in machine room such as machine beam, bearing plate with beam and in pit necessary buffer support channel and ladder.					
1.1.1	Supply of 10 Passenger Lift, 3 stop and 3 opening, Speed 1 m/s. (Lift Well Size 1640 x 2410 mm)	No.	1			
1.1.2	Supply of 10 Passenger Lift, 3 stop and 3 opening, Speed 1 m/s. (Lift Well Size 1700x 2300 mm)	No.	1			
1.1.3	Supply of 10 Passenger Lift, 3 stop and 3 opening, Speed 1 m/s. (Lift Well Size 1850 x 2350 mm)	No.	1			
	Grand Total Amount in INR (Fig)					
	Grand Total Amount in INR (Words)					

GST:

Lumpsum Price : .....

OR ..... % of Rs. ..... (Final Lumpsum Price) (A) : .....

Note :

i) All items specified are indicative only. Vendor may provide superior quality to achieve desired conditions after providing clear description of the same

ii) All items specified in the Enquiry shall be included by Vendor / Contractor whether or not specifically indicated in the schedule.

iii) Vendor shall indicate bill of quantities against each item in Technical Bid. Price break up shall be furnished only with Price Bid.

iv) Vendor shall furnish un priced schedule along with the Technical Bid.

Rev.No	Date	Description	PRPD	CHKD	APPRD
2	06.09.23	Third Issue	NK	LA	RM
1	13.06.23	Second Issue	KBK	LA	RM
0	05.04.23	First Issue	KBK	LA	RM

TECHNICAL PROCUREMENT SPECIFICATION	SCHEDULE OF ITEMS OF WORK PART B - ERECTION	8144-01-SIW-004
		PAGE 2 OF 2

PROJECT : Construction of Educational building for National Institute of Technology, Nagaland. PROJECT No : 8144 VENDOR :

CLIENT : NIT, Nagaland Enq. No. : DATE :

SL. No.	DESCRIPTION OF ITEM	UNIT	QTY	UNIT RATE (Rs.) Fig.	UNIT RATE (Rs.) Words	TOTAL AMOUNT (Rs.)
(1)	(2)	(3)	(4)	(5)		(6)
2	**ERECTION & COMMISSIONING - GENERAL**	(3)	(4)	(5)		(6)
a)	The scope of ERECTION shall cover transportation, site handling, Installation,Testing, comissioning, Handing over etc. as per details given in various schedules, specifications and data sheets enclosed, relevant Indian Standards, regulations, Code of practices, requirement of various statutory bodies,manufacturer's instruction manual of individual equipment/item and as directedby FEDO engineers at site, as required for successful completion and handing over of the entire job.					
b)	The Contractor shall carry out all the pre-commissioning tests at site on all equipment covered under the scope of this contract as per the relevant Standards and as directed by Engineer-in-Charge.					
1	Erection, testing and Commissioning of 10 Passenger Lift, 3 stop and 3 opening, Speed 1 m/s. (Lift Well Size 1640 x 2410 mm)	No.	1			
2	Erection, testing and Commissioning of 10 Passenger Lift, 3 stop and 3 opening, Speed 1 m/s. (Lift Well Size 1700 x 2300 mm)	No.	1			
3	Erection, testing and Commissioning of 10 Passenger Lift, 3 stop and 3 opening, Speed 1 m/s. (Lift Well Size 1850 x 2350 mm)	No.	1			
	Grand Total Amount in INR (Fig)					
	Grand Total Amount in INR (Words)					

GST:

OR

Lumpsum Price : .....

…….. % of Rs. ..... (Final Lumpsum Price) (B) : .....

Note:

i) All items specified are indicative only. Vendor may provide superior quality to achieve desired conditions after providing clear description of the same

ii) All items specified in the Enquiry shall be included by Vendor / Contractor whether or not specifically indicated in the schedule.

iii) Vendor shall indicate bill of quantities against each item in Technical Bid. Price break up shall be furnished only with Price Bid.

iv) Vendor shall furnish un priced schedule along with the Technical Bid.

Rev.No	Date	Description	PRPD	CHKD	APPRD
2	06.09.23	Third Issue	NK	LA	RM
1	13.06.23	Second Issue	KBK	LA	RM
0	05.04.23	First Issue	KBK	LA	RM

FACT ENGINEERING AND DESIGN ORGANISATION

FEDO

TECHNICAL PROCUREMENT SPECIFICATION	**COMPLIANCE STATEMENT**	8144-01-CS-004
		PAGE 1 OF 1

TPS NO.	8144-01-CS-004

We state that our Quotation No. **.....** is in full compliance with the documents issued against the Enquiry No. .. except for the deviations listed below.

LIST OF DEVIATIONS

The scope of work for the equipments listed above shall include design, manufacture, supply of materials and engineering work as detailed below.

Sl. No	Description	Reasons for Deviation

Name of vendor :

Date Name and designation Seal & Signature