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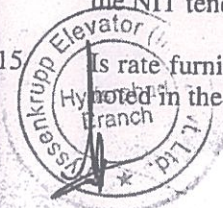


**NATIONAL ACADEMY OF LEGAL STUDIES AND RESEARCH UNIVERSITY,  
SHAMEERPET, HYDERABAD**

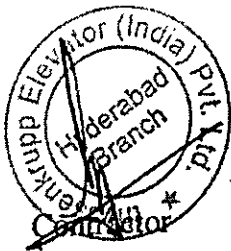
Forwarding slip to accompany Original  
agreement No


: 05/13 passengers capacity lift/GH-VII  
/NALSAR/2019-20 Dt: 22/01/2021

- |    |   |   |  |
|----|---|---|--|
| 1  | Name of work  | : | Supply, transportation, installation, testing and commissioning of 2 nos (13 passengers capacity with 6 stops) Gearless & Machine Room Lift for Girls Hostel-VII at NALSAR University of Law, Shameerpet, Hyderabad. |
| 2  | Amount of Estimate  | : | Rs.38,90,000/- (Rupees Thirty Eight Lakhs Ninety Thousand only)  |
| 3  | Ref. to Administrative Sanction   | : | Rs.38,90,000/- (Rupees Thirty Eight Lakhs Ninety Thousand only)  |
| 4  | Ref. to Technical Sanction  | : | 05/13 passengers capacity lift/GH-VII /NALSAR/2019-20 Dt: 11/09/2019   |
| 5  | Name & address of the Contractor  | : | M/s. ThyssenKrupp Elevator(India) Pvt Ltd, New D.No. S.C.B.6-06-063(Old No.25), Ground Floor, Bandan Arcade, Chandragiri Colony, Tirumalagiri, Secunderabad, Telangana State 500015.                                 |
| 6  | Estimate Contract Value   | : | NIL  |
| 7  | Percentage of tender  | : | NIL Since it is open tender  |
| 8  | Approximate value of work to be done under this agreement.                              | : | Rs.30,90,000/- (Rupees Thirty Lakhs Ninety Thousand only)  |
| 9  | Is this supplemental agreement  | : | Original agreement   |
| 10 | Is this is supplemental please give ref.to original agreement No & date                 | : | --   |
| 11 | If tenders have been called for is the Lowest tender accepted if not, reasons recorded: | : | Lowest tender accepted.  |
| 12 | Had the contractor signed the APDSS copy and its agenda brought up-date                 | : | Yes  |
| 13 | Time allowed in tender notice in response to the tender notice                          | : | 3 months   |
| 14 | No. of tenders received in response to the NIT tender                                   | : | 01   |
| 15 | Is rate furnished for all items of work noted in the agreement                          | : | Yes  |



- 16 Reference to approval of higher authority : Approval note dt: 11/09/2019 of the Hon'ble Vice-Chancellor
- a) Rate of recovery of Steel and place of issue : NIL
- b) Rate of recovery of cement and place of issue : NIL
- c) Names of technical assistants to be appointed : -NA-
- d) Time fixed for completion : 90 days from the date of issue of work order
- e) Rate of recovery water charges : As per conditions of contract
- f) Rate of recovery electrical charges : As per conditions of contract
- g) Rate of recovery NAC charges : NIL
- h) Rate of recovery Labour cess : 1%
- i) Other recoveries if any :
- 17 No. of items in Schedule – A : 01.
18. EMD paid 2.5% on tender quote amount : The 2.5% of the amount will be deducted from I RAR payment.



  
 REGISTRAR,  
 NALSAR UNIVERSITY,  
 SHAMEERPET, HYDERABAD.



7.1.7  
2

**NATIONAL ACADEMY OF LEGAL STUDIES AND RESEARCH UNIVERSITY,  
SHAMEERPET, HYDERABAD**

Forwarding slip to accompany Original agreement No : 07/ Renovation of PC Toilets /NALSAR/2016 Dt: 26/05/2016.

1 Name of work : Renovation of **PC Toilets** at NALSAR University of Law, Shameerpet, Hyderabad.

2 Amount of Estimate : Rs.6,58,356/-(Rupees Six Lakhs Fifty Eight Thousand Three Hundred and Fifty Six only)

3 Ref. to Administrative Sanction : Rs.7,34,000/- (Rupees Seven Lakhs Thirty Four Thousand only)

4 Ref. to Technical Sanction : 07/ Renovation of PC Toilets / NALSAR/2016 Dt:26/05/2016.

5 Name & address of the Contractor : Vishwnath Maheshwar, H.No: 3-1-28, Patelpura, Siddipet Medak, Telangana - 502103

6 Estimate Contract Value : Rs.6,58,356 (Rupees Six Lakhs Fifty Eight Thousand Three Hundred and Fifty Six only)

7 Percentage of tender : (-) 12.06% Less than the ECV

8 Approximate value of work to be done under this agreement. : Rs.5,75,403.14 (Rupees Five Lakhs Seventy Five Thousand Four Hundred and Three and Fourteen Piasa only)

9 Is this supplemental agreement : Original agreement

10 Is this is supplemental please give ref.to original agreement No & date : --

11 If tenders have been called for is the Lowest tender accepted if not, reasons recorded: : Lowest tender accepted.

12 Had the contractor signed the APDSS copy and its agenda brought up-date : Yes

**Vishwanath Maheshwar**  
Civil & Elec. Contractor

- 13 Time allowed in tender notice in response to the tender notice : 9 Days
- 14 No. of tenders received in response to the NIT tender : Seven
- 15 Is rate furnished for all items of work noted in the agreement : Yes
- 16 Reference to approval of higher authority : Approval note dt: 26/05/2016 of the Hon'ble Vice-Chancellor
- a) Rate of recovery of Steel and place of issue : NIL
- b) Rate of recovery of cement and place of issue : NIL
- c) Names of technical assistants to be appointed : -NA-
- d) Time fixed for completion : Three months from the date of issue of work order
- e) Rate of recovery water charges : As per conditions of contract
- f) Rate of recovery electrical charges : As per conditions of contract
- g) Rate of recovery NAC charges : NIL
- h) Rate of recovery Labour cess : 1%
- i) Other recoveries if any :
- 17 No. of items in Schedule - A : 36.
- 18 EMD paid 1 (along with Tender) *vide R no. 6908 / 25/6/16* : D.D.No.673016, dated: 13/06/2016  
Andhra Bank, for Rs.6,600/-  
(Rupees Six Thousand Six Hundred only)
- 19 EMD paid 1 ½ ( at the time of agreement) : D.D.No.673074 dated 27/06/2016  
, for Rs.8,700/- (Rupees Eight Thousand Seven Hundred only)

*A. Maheshwar*  
Vishwanath Maheshwar  
Civil & Elec. Contractor

*W. S. S.*  
REGISTRAR,  
NALSAR UNIVERSITY,  
SHAMEERPET, HYDERABAD.



**EXTRACT FROM THE MINUTES OF THE 72<sup>nd</sup> MEETING OF THE  
EXECUTIVE COUNCIL HELD ON NOVEMBER 3, 2021**

**ITEM NO.17**

**REPORT ON CONDUCT OF ACCESS AUDIT AND RATIFICATION OF  
CONSULTANCY CHARGES AND OTHERS APPROVED BY THE VICE-  
CHANCELLOR & APPROVAL FOR IMPLEMENTATION OF THE  
RECOMMENDATIONS IN PHASED MANNER**

The Executive Council took note of the Access Audit Report conducted at NALSAR.

The Executive Council considering the recommendations of the Building Committee and the Finance Committee ratified the payment of the Consultancy Charges for the Access Audit i.e., Rs.5,10,000/- (excluding transportation, lodging and boarding charges).

Further, the Executive Council considering the recommendations of the Building Committee and the Finance Committee accorded its approval for implementation of the recommendations made in the Access Audit Report in phased manner and approved to undertake initially the works recommended in Phase – I for the estimated cost of Rs. 72.9 Lakhs.

Further, the Executive Council considering the recommendations of the Building Committee and the Finance Committee authorized the Vice-Chancellor to finalise the detailed estimated costs and implement the same after following due procedure as per the Regulations.



# Access Audit Report and Action Plan for Enhancing Built Environment Accessibility of



## **NALSAR**

Hyderabad

**PREPARED BY-**

Ar. Kavita Murugkar

Design Bridge Foundation

Contact : +91 9767439947

Email : [murugkar@gmail.com](mailto:murugkar@gmail.com)

Contact Address : Row House 7, Ishan Sanskriti, Warje, Pune 411058

Website : [www.designbridgefoundation.org](http://www.designbridgefoundation.org)



NAME OF THE BUILDING : NATIONAL ACADEMY OF LEGAL STUDIES AND RESEARCH

BUILDING TYPE AND USE : INSTITUTE BUILDING

ADDRESS : HYDERABAD

DATE OF AUDIT: 8<sup>TH</sup> TO 11<sup>TH</sup> FEBRUARY 2021



#### AUDIT AND AUDIT REPORT TEAM

- |   |                                       |
|---|---------------------------------------|
| 1. Kavita Murugkar – Architect and Access Auditor     | 4. Simran Saini – Junior Architect    |
| 2. Abhijit Murugkar – Project Head and Access Auditor | 5. Guddu Mishra – Field Assistant     |
| 3. Radhika Dhekne – Senior Architect                  | 6. Shantanu Ladkat – User Expert (VI) |

## OUR APPROACH

A universal design strategy has been applied to every part and the whole of the site, while formulating the recommendations for enhancing Universal Accessibility in the site. The aim is to achieve the following goals wherever practicable:

- Pre-visit information available in accessible formats and providing information about the accessibility of the site and services
- Staff and guides trained in disability and equality awareness
- Well designed and legible signage
- An accessible principal entry point
- An accessible external landscape
- Simple and intuitive way finding and orientation
- Access for everyone to all parts of site or, where this is not possible, alternative access provided
- Information available in a variety of formats
- Accessible visitor facilities and public conveniences
- Emergency evacuation for everyone

## KEY DESIGN CONCEPTS



“Accessibility”  
Providing access to ALL.



Application of universal  
design principles for  
social sustenance.



Reversibility of design  
solutions to achieve  
physical and intellectual  
access.

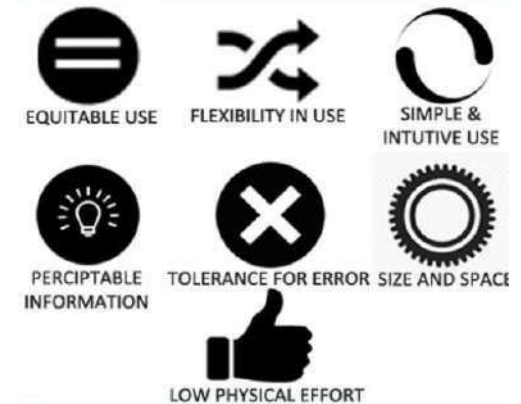


Minimizing environmental  
pollution for well being of  
the site and all types of  
students and visitors.

### Key issues addressed :

Anthropometrics (Wheelchair user)  
Continuity  
Connectivity  
Equality  
Safety  
Sustainability

### 7 PRINCIPLES OF UNIVERSAL DESIGN



## PREPARED BY

### Design Bridge Foundation

Ar. Kavita Murugkar

Contact: 09767439947

Email: [murugkar@gmail.com](mailto:murugkar@gmail.com)

Address: Row House No.7, Ishan Sanskruti,  
Warje, Pune- 411 058



# OUR APPROACH

## ***“Successful Creation of an Accessible Environment is Possible only by Giving Attention to Detail”***

### **MAIN CONSIDERATIONS:**

1. Comprehensive Study and Graphical Summary of Key findings.
2. Stress on assessment of finer details of Site planning, Architectural design of building elements, Materials and Finishes.
3. Usability of Built Environment keeping in mind PwD's as Visitors as well as Staff .
4. Disaster Preparedness and Evacuation Provisions.

### **METHODOLOGY:**

1. The audit consisted of Physical survey of the External and Internal Environment of the Building, recording Observations in the form of notes and checklists, Photographic documentation, Measurements of some building elements and a brief survey with the Nodal officer.
2. A group of 5-6 team members including atleast one architect and one PwD, headed by an Access Auditor, conducted this study.

### **TOOLS USED:**

#### A. External Environment

##### I. Access Route to Premises and Building gate

OBSERVATIONS	REMARK	PRIORITY
1. An accessible route connects the approach road to the footpath and entrance gate		
2. There is a footpath on both sides of the entrance gate		
3. The width of the footpath is 1800mm		
4. The footpath has firm, leveled and non-slippery flooring		
5. The footpath connects the entrance gate to the nearest bus stop		
6. There is a zebra crossing on either side of the gate connecting footpaths on both sides of the road		
7. The footpath is free of any barriers/obstacles like trees, protruding drainage chamber, light poles, electrical junction box, vehicles, stalls, etc		
8. The footpath flooring is in good condition without any broken tiles		
9. The edge of the footpath at the entrance gate has a curb ramp		
10. There is sufficient signage on the footpath to guide towards the building		
11. There are no bollards on the footpath		

#### MEASUREMENT SHEET

##### BUILDING NAME \_\_\_\_\_

SR.NO	ITEM	MEASUREMENT IN CM
1	Distance between entrance gate and nearest bus stop	
2	Width of pedestrian gate if any	
3	Width of footpath outside entrance gate	
4	Width of pathways inside campus	
5	Size of accessible parking bay	
6	Number of floors in the building (G+ ----)	
7	Number of staircases in the building	

#### QUESTIONNAIRE – EMERGENCY EVACUATION

18.a Is there an emergency evacuation provision in the building?

18.b Does emergency evacuation provision takes into account people with disabilities?

If yes:

- Is there a step free or ramped accessible evacuation route identified leading to the exit or the ramp or to the refuge area?
- Is the alerting system both visual and audible?
- The alerting buttons are between 600 mm and 1200mm from the floor and have a high contrast with the background wall.

**Ar. Kavita Murugkar**

DesignBridge Foundation, Pune

Address: Row House No.7, Ishan Sanskruti, Warje, Pune- 411 058

Contact: 09767439947

Email ID: [murugkar@gmail.com](mailto:murugkar@gmail.com)

## 1. ENTRANCE GATE TO CAMPUS



CAMPUS SIGNAGE NOT LEGIBLE DUE TO POOR CONTRAST



WATCHMAN CABIN BLOCKING PATHWAY

### KEY ISSUES

- An accessible route does not connect the approach road to the walkway and entrance gate.
- The name/signage of the building at the entrance gate is not legible due to poor colour contrast.
- There is no footpath on either side of the entrance gate.
- It does not have a tactile guiding path including directional, hazard warning and positional tiles directing till the entrance gate.
- There is no beeper or audio signal at the entrance gate to guide PwVI.
- There are no directional signs indicating location of accessible facilities at the entrance gate.
- There is no multi lingual, tactile pictographic site map of the campus at the entrance gate.



# 1. ENTRANCE GATE TO CAMPUS

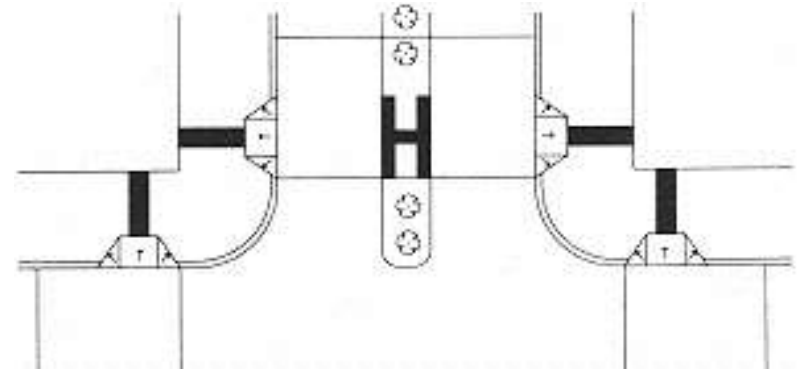
## RECOMMENDATIONS

- The principal public entry point to the campus should be made accessible.
- Provision of a large eye-catching road sign showing visitors the direction to the site's main entrance .
- Provide beeper or audio signal at entrance gate.
- Footpath to be provided on both sides of the entrance gate.
- The same footpath to be continued inside the campus through the pedestrian gate.
- Provision of Accessible path for PWD's from entrance gate to the building entrances.
- Provide Kerb ramps in footpaths where the accessible path intercepts with road / kerbs.(refer adjoining details)
- Provide tactile guiding path in the footpath and at the entrance for independent navigation for PwVI.
- Following two types of tactile guiding surface indicator (TGSI) should be provided to guide and alert PwVI.

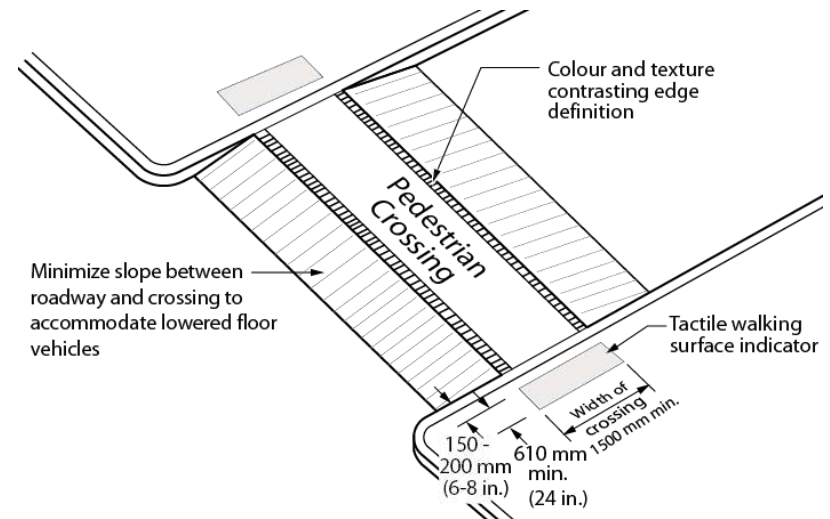
**Directional tile:** It consists of raised parallel bars to guide people along the direction of a tactile path.

**Warning tile:** It consists of raised truncated domes arranged in square grid parallel to the sides of the tile to alert people of potential hazards such as top and bottom of stairs, door openings and at pedestrian crossings.

- A tactile pictographic map of the campus to be provided at the gate.(refer details in section )
- Where an entrance cannot be made entirely accessible trained staff can be on hand to assist people with disabilities.
- Accessible directional, multilingual and tactile signage to be provided as per standards.



FOOTPATH AND KERB RAMP DETAIL AT ENTRANCE GATE



RAISED PEDESTRIAN CROSSING BETWEEN WALKWAYS INSIDE CAMPUS

## 2. PATHWAYS IN CAMPUS



### KEY ISSUES

- There is a separate pedestrian pathway from entrance gate on either side of vehicular pathway to the building entrances, however the plinth of the same is very high, making it inaccessible for wheelchair users and inconvenient for general pedestrians.
- Edge of pathway not provided with curb for safety.
- Pedestrian pathway is stepped and broken at some locations.
- Trees and lamp posts blocking the continuity of the path and posing as barriers.





## 2. ABSENCE OF PATHWAYS AND DEMARKATED PARKING



### KEY ISSUES

- Pedestrian pathway not provided along some vehicular paths.
- There is no tactile guiding path including directional, hazard warning and positional tiles provided for independent navigation across all the external pathways / landscape surrounding the site.
- The pathway is not free of any barriers/obstacles like trees, potted plants, light poles, electrical junction box, vehicles, furniture etc
- There are no tactile warning blocks/ kerbs / guardrails around trees/ poles.
- Directional signage not provided at all junctions and as per standards.



## 2. EXTERNAL PATHWAYS

### RECOMMENDATIONS

#### **Walkways/pathways**

- Provision of continuous accessible pathways for PWD's throughout the external / landscaped areas of the site.
- All pathways should be firm and slip-resistant.
- Pathways should be wide enough for wheelchair users. (min. 1500 mm. width) and not more than 150 mm in height.
- Pylon signage for directions to be provided at all junctions along with beepers for easy navigation.
- Pylon signage to incorporate site map and high contrast for legibility from distance.
- If a pathway / corridor is less than 1500mm.(minimum clear turning space), turning space should be located at reasonable intervals.
- If a pathway leads to a spatial change or a change in level , directional cues such as signage , kerbs , handrails , fences , hedges, or other continuous elements etc. should be provided at strategic locations to maintain travel continuity for the user. This is particularly important for visually impaired users to continue along the travel path to reach their destination.
- Kerb ramps with tactile warning and color contrast to be provided at the end of pathways or to reach the road level at crossings, where at grade crossings cannot be provided.
- Edges of pathways should be clearly defined by using different colours / textures. Street furniture, trees, lighting and dustbins should be located on one side of pathways.
- Texture, color and pattern of the change in floor surfaces, as well as the lighting effect on the floor surface, should not be too sudden as to cause hazard or discomfort to users. Junction between the different floor surfaces should be leveled; any gaps or expansion joints between different materials should not exceed 13mm wide.

- Continuous tactile guide path should be provided on all the pathways right from the entrance to all major facilities, information counters, Braille maps/directories , ramps , steps and lifts , for independent navigation PwVI.
- Provide a raised zebra crossing at the same height as that of accessible pathway to cross the vehicular road.
- Paths and routes should be monitored and maintained.

#### **Signage**

- Accessible directional, multilingual and tactile signage to be provided as per standards.
- Signage for way finding and orientation should be provided at key junctions to clearly indicate directions. Visual, audio and tactile information should be provided as appropriate.

#### **Tactile ground surface indicators**

- All tactile guiding paths should continue from one area to the next along the travel route to maintain the continuity .If there is a change in the use of way finding tool, adequate notice should be provided to alert users to the change.
- The tactile guiding tiles/ surface indicator (TGSi) should be robust , corrosion resistant, wear resistant, having high contrast value and should also be discernible by sense of sound.
- Directional, location and hazard warning tactile surfaces should be correctly laid to convey correct information.

## 2. EXTERNAL PATHWAYS

- Following two types of tactile guiding surface indicator (TGSI) should be provided to guide and alert PwVI (refer to details given in section 2 ).

**Directional tile:** It consists of raised parallel bars to guide people along the direction of a tactile path.

**Warning tile:** It consists of raised truncated domes arranged in square grid parallel to the sides of the tile to alert people of potential hazards such as top and bottom of stairs, door openings and at pedestrian crossings.

- Places to install tactile tiles:
  - In front of an area where traffic is present.
  - In front of an entrance / exit.
  - To and from a staircase or multi-level crossing facility.
  - In open space to orient PwVI.
- Tactile warning tiles should be provided where there is a change in levels, e.g., at top and bottom of stairways and ramps.
- Tactile surfaces should be laid at a distance from wall surfaces to facilitate left handed or right handed persons with guiding sticks.
- Tactile surfaces should preferably be apart from pathways for wheelchair users to avoid conflict between the two user groups.
- Avoid any door swings into the tactile surfaces.

### Waste bins

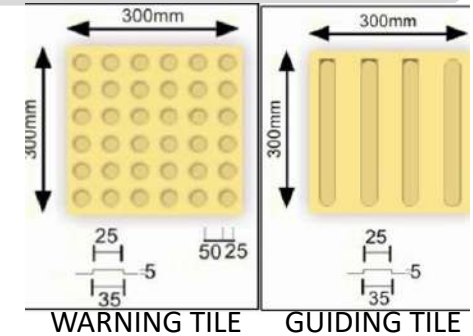
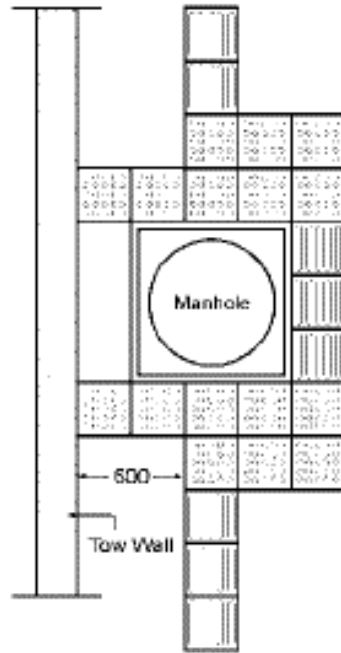
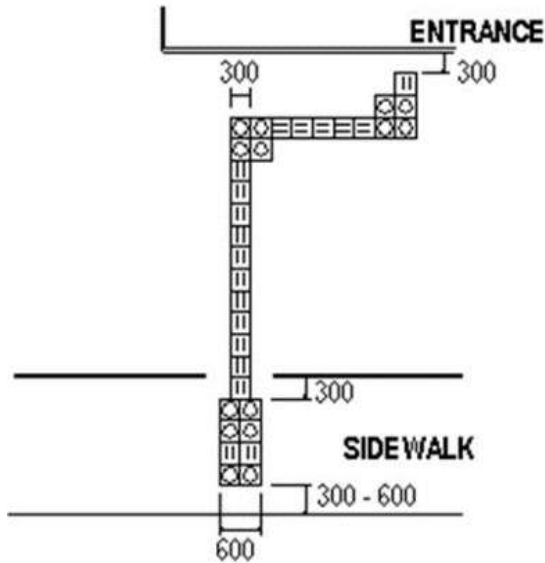
- Waste bins should be provided at strategic locations and at max. 30m distance in between.
- Waste bins should be accessible to all users and be permanently located to one side of any path or walkway so as not to encroach on walkway width.
- Waste receptacles should be securely mounted on firm level pads.
- Waste bins should be clearly identified by suitable signs and colors.
- Where lids are provided on waste receptacles, they should be easy to operate with one hand and have big openings mounted no higher than 1065 mm from grade.



RECOMMENDED WASTE BINS

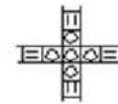
## 2. EXTERNAL PATHWAYS - TACTILE GUIDING PATH, WARNING TILES AND TREE GRATINGS

### Guiding path and approaching sidewalk to the building



### Arrangement of guiding blocks for persons with visual impairment

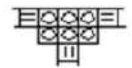
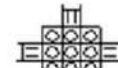
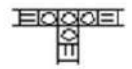
#### EXAMPLE OF INTERSECTION



#### EXAMPLE OF L-SHAPED INTERSECTION

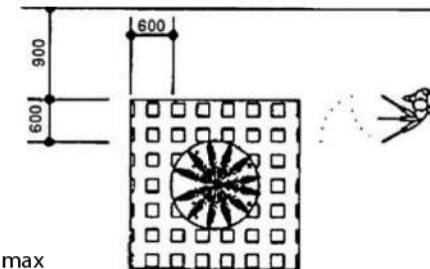
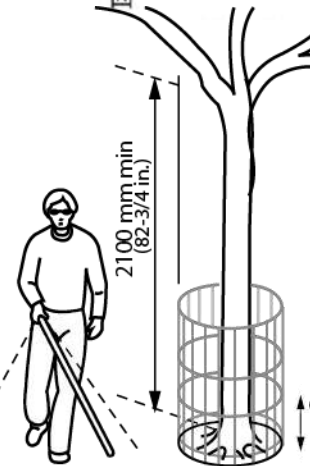


#### EXAMPLE OF T-SHAPED INTERSECTION



#### Specification

- Each Tree Surround consists of 4 Nos panels of 750mm X 750mm X 40mm/100mm Thickness or 900mm X 900mm X 40/100mm Thickness
- Overall dimensions: 1500mm X 1500mm X 40/100 mm (Thickness) or 1800mm X 1800mm X 40/100mm Thickness
- Suitably reinforced for long use and to prevent damage during transportation & handling.



WARNING BLOCKS AROUND TREE

**RECOMMENDED BRAND FOR GRATING**  
K.K.Manhole & Gratings Co.(P) Ltd.  
New Delhi



### 3. PARKING



#### KEY ISSUES

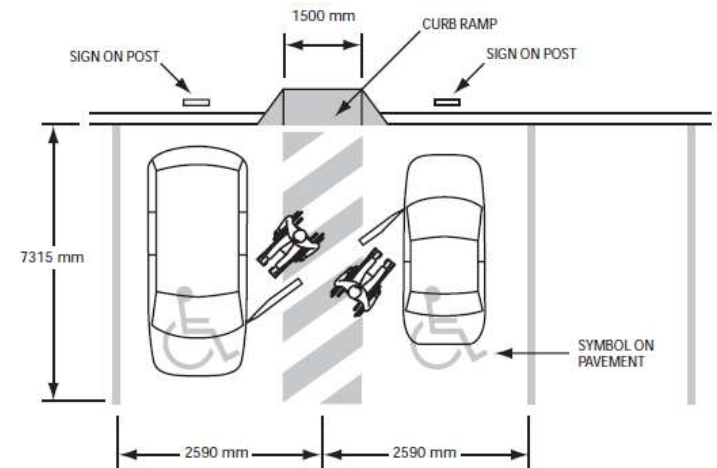
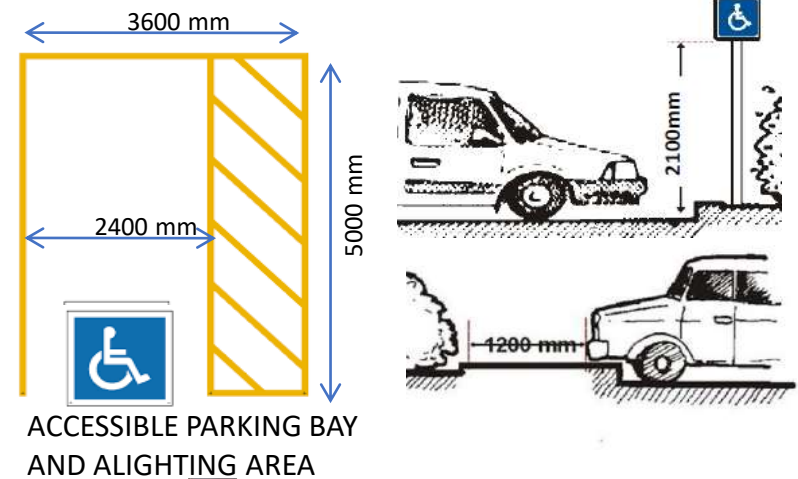
- There is no demarcated parking lot available for visitors and staff, random parking observed on few internal roads.
- Accessible Parking bays not provided near any entrance in the building complex.
- Inadequate size of parking spaces.
- The parking area does not have firm and leveled surface.
- There is no demarcated drop off point for Persons with disabilities next to the parking.
- There is no covered shelter for the parking .Naturally shaded parking on ground is observed.
- There is no firm, covered, leveled, step free pathway and tactile guiding path minimally 1200mm wide connecting the parking bay with the building entrance.
- There is no tactile floor guidance in the parking area for independent mobility for persons with blindness and low vision specifically routes guiding from parking area to entry points of buildings, emergency exits.
- There is no multi lingual, tactile pictographic site map of the campus at the parking.
- Signage of the parking not present at the entrance gate .

### 3. ACCESSIBLE PARKING



#### RECOMMENDATIONS

- Accessible parking bays to be provided within 30m to the principal public entry point to all the buildings in the campus.
- Accessible parking space should be located nearest to the entrance gate or adjoining an accessible pedestrian route that leads directly to one of the main entrances of the building.
- There should be clear information accessible to all, discouraging the misuse of accessible parking bays.
- Each accessible parking bay should be of dimension (3600 x 5000 mm) including alighting space of 1200mm and should be clearly demarcated on floor and signposted as indicated in the adjoining detail.
- Signpost of international symbol of accessible parking should be provided at 2100mm height and of 600mm x 600mm size for easy visibility from driver's seat.
- The parking bays should have firm and leveled surface.
- Accessible parking bays should have side and rear transfer zones for removal and set up of a wheelchair from the boot of a vehicle or for use of a rear-, or side-, mounted wheelchair hoist.
- Parking area should be well lit and, where practicable, covered.
- There should be well defined step free and barrier free route with a tactile guiding path to the main accessible entrance from the parking bays.
- Trees in parking to be provided with a grating cover and guardrails as shown in the detail on previous page.
- Accessible directional, multilingual and tactile signage to be provided as per standards on the floor and on the wall / post.
- All security guides/ guards should be sensitized and well informed about reserved parking for PWDs.



ACCESSIBLE PARKING BAY WITH ALIGHTING AREA FOR TWO



### 3. PROPOSED LOCATIONS FOR ACCESSIBLE PARKING



ADMIN BLOCK



NEAR DINING AREA



NEAR CLASSROOM & CMS BLOCK



NEAR BOYS HOSTEL



NEAR GIRLS HOSTEL



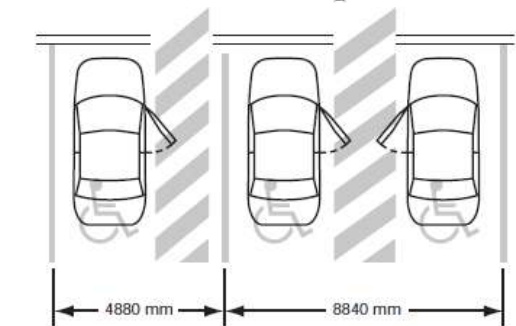
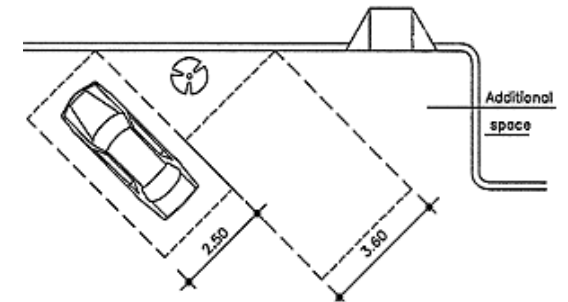
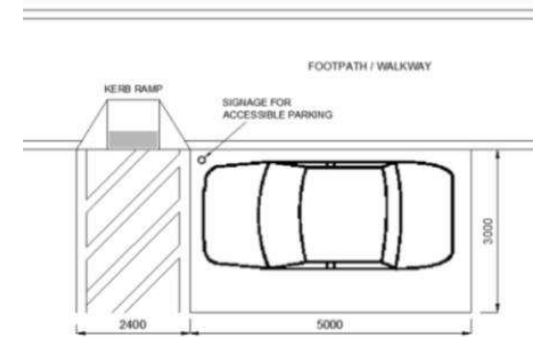
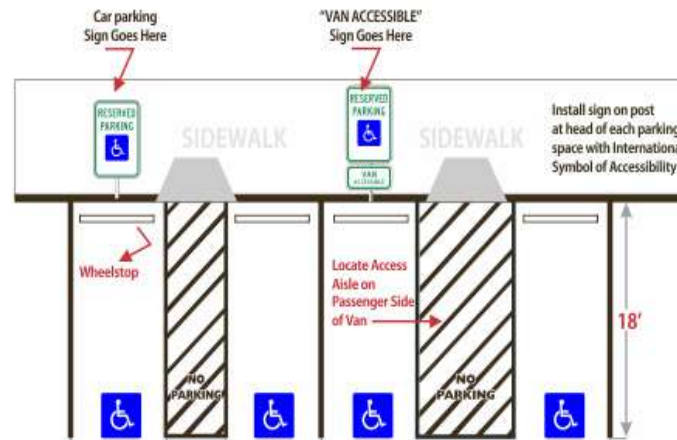
### 3. ACCESSIBLE PARKING DETAILS



ACCESSIBLE PARKING BAY IF PROVIDED IN EXISTING COVERED SHEDS

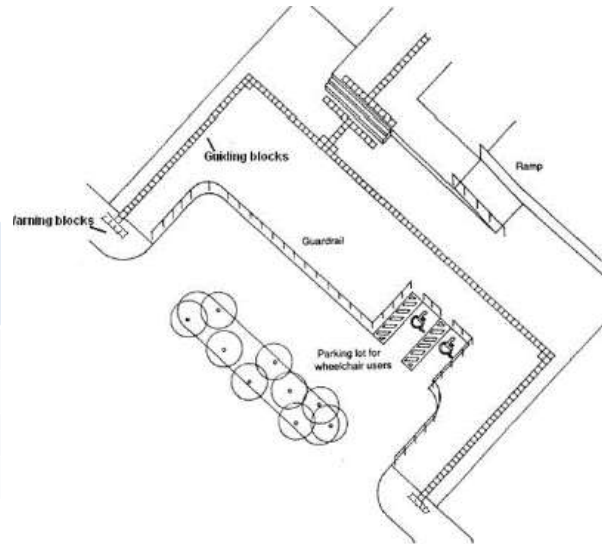


RECOMMENDED SIGNAGES

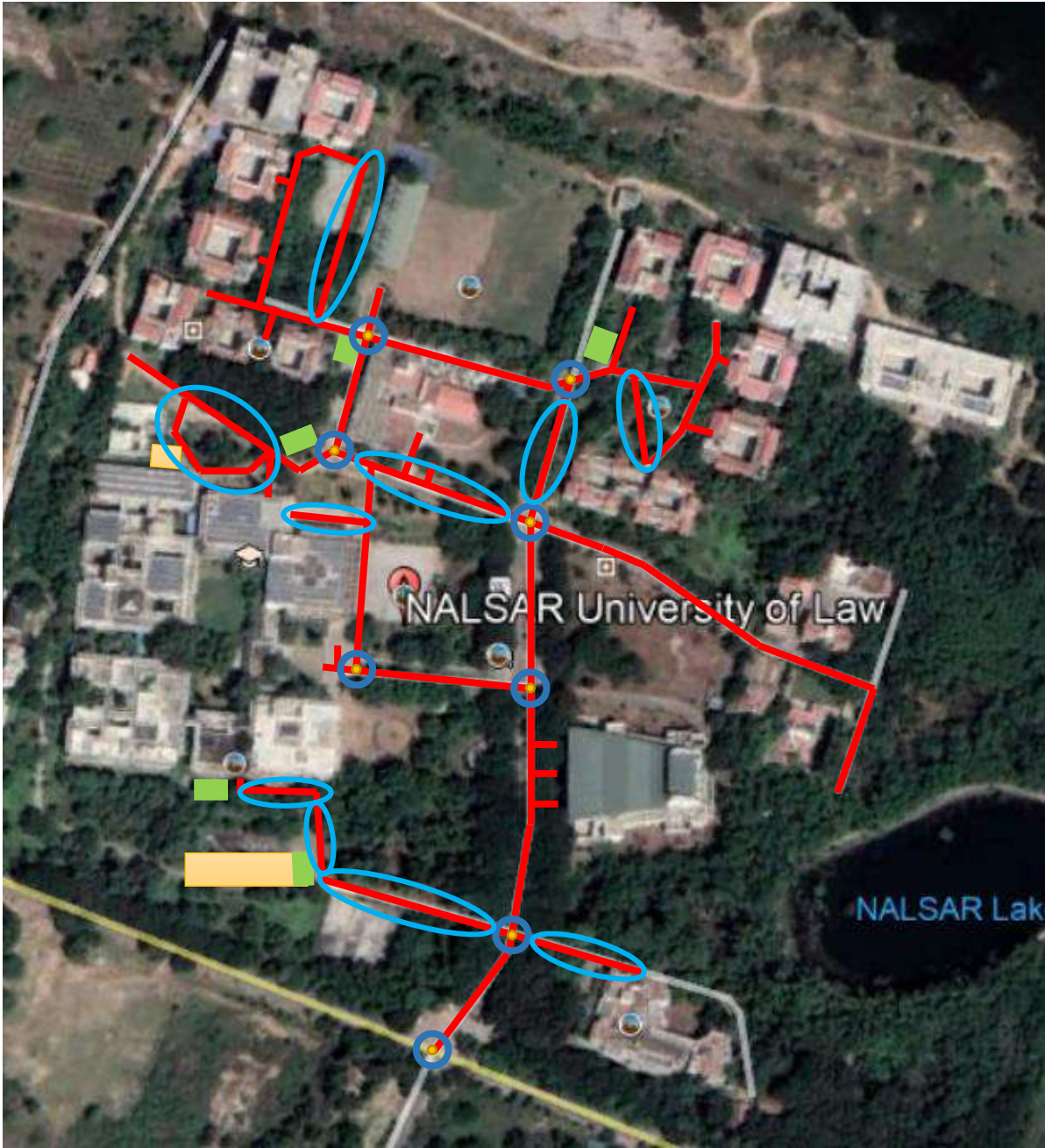


Total number of parking spaces in open car parks or car park buildings:	Required minimum number of accessible spaces:
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4






RECOMMENDED PARKING BAYS



PROPOSED SITE PLAN FOR CAMPUS LEVEL ACCESSIBILITY



EXAMPLE OF PYLON SIGNAGE WITH MAP

	PYLON SIGNAGE, SITE MAP & BEEPERS (8)
	PARKING
	ACCESSIBLE PARKING (5)
	PROPOSED PATHWAY
	TACTILE PATH ON PAVEMENTS ON BOTH SIDES OF ROAD



# PROPOSED LOCATIONS FOR PYLON SIGNAGE, SITE MAP AND BEEPERS



ENTRANCE GATE



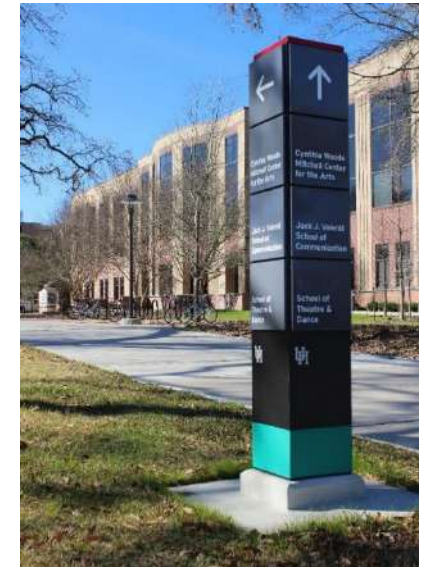
TOWARDS LIBRARY



TOWARDS PARKING



TOWARDS LIBRARY FROM HOSTEL SIDE



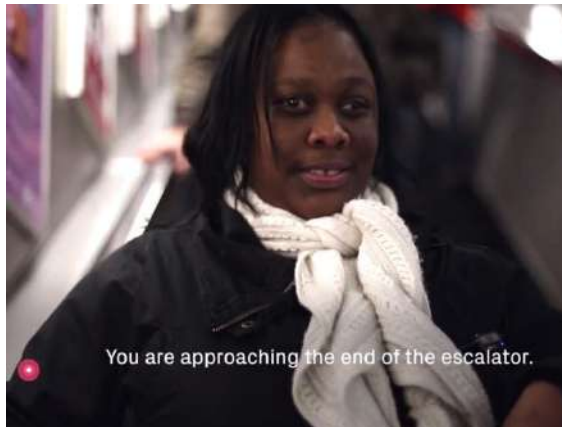
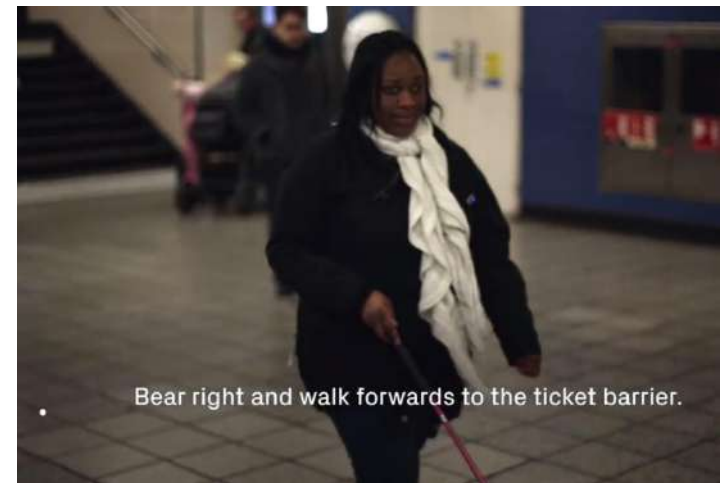
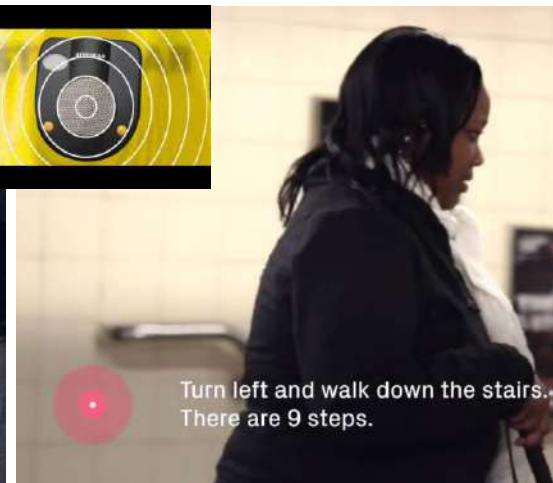
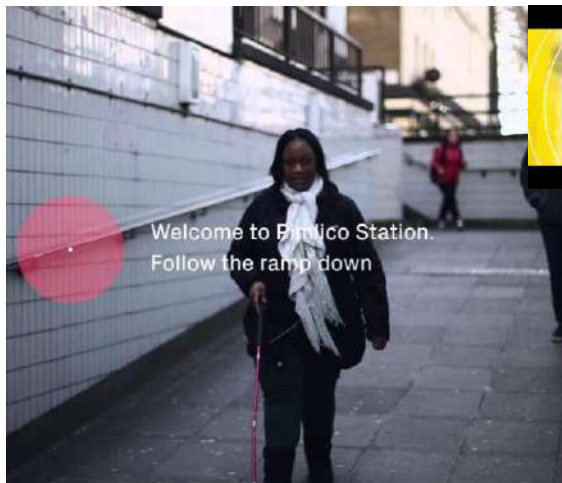
EXAMPLES OF PYLON SIGNAGE



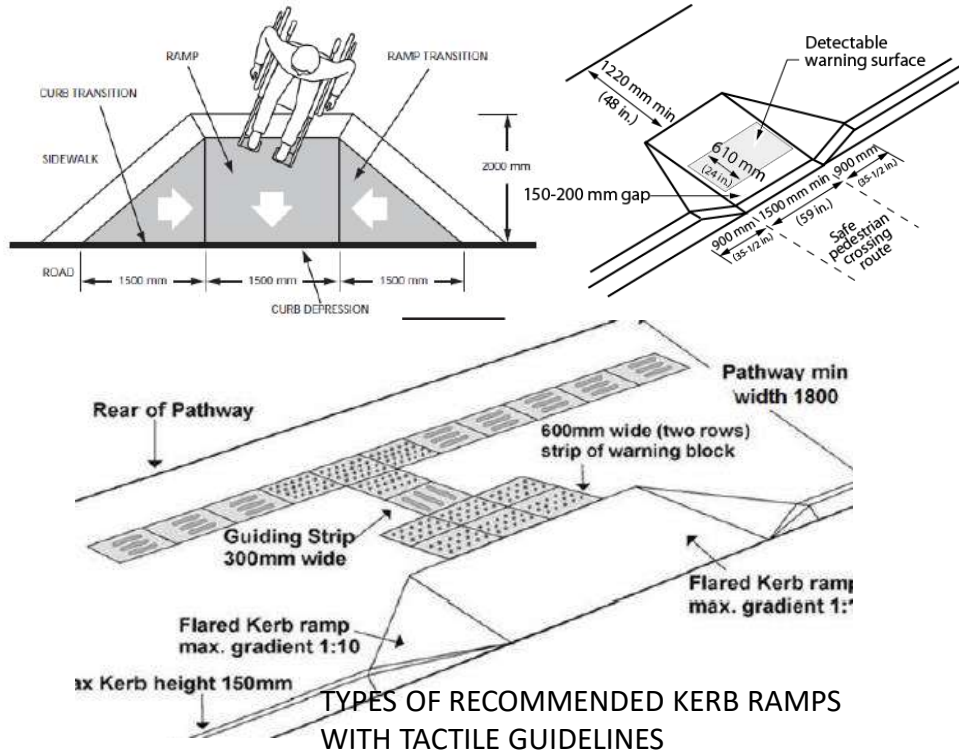
# PROVISION OF AN ELECTRONIC AUDIO NAVIGATION SYSTEM INSIDE THE CAMPUS FOR EASY WAY-FINDING

## RECOMMENDATIONS

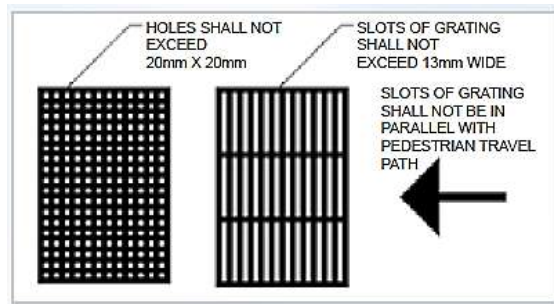
- Provision of an electronic audio navigation system at appropriate locations which give out Audio Signals with the help of the app on Android / iOS Smartphones to make navigation inside the building easy for the people with vision impairment.
- The navigation device will give audio information of important locations in the building like accessible entrances, accessible toilet, lift, staircase, reception / help desks, important rooms / sections of the building, etc.
- In the exteriors, the system will give indications like the nearest public toilet, distance of specific buildings from the location, direction of the accessible entrances of the building, nearest resting space etc.



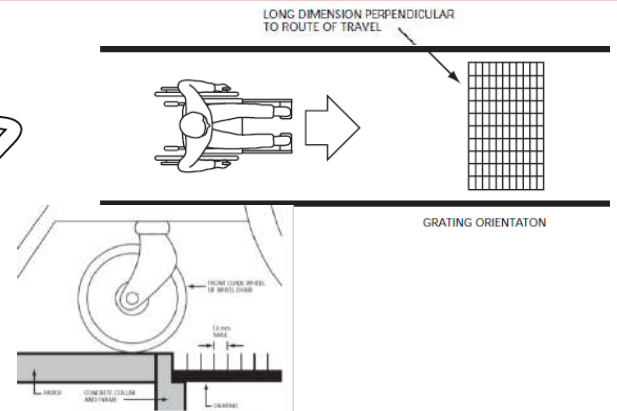
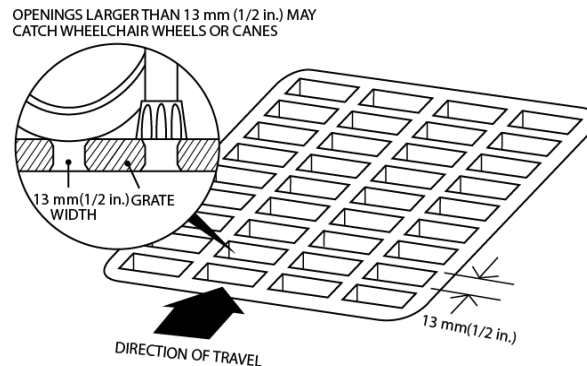
# DETAILS FOR KERB RAMP, GRATINGS AND ENTRANCE SIGNAGE



RECOMMENDED SIGNAGES



TYPES OF RECOMMENDED GRATINGS ON OPEN GUTTER



## 4. ACCESS ISSUES IN THE QUADRANT BLOCK

### KEY ISSUES

- Existing ramp access provided for wheelchair users is not as per NBC standards.
- Wayfinding and navigation through the quadrant is a challenge in absence of maps / signage.
- Tactile guiding path not provided in circulation areas.
- Accessible toilet not provided in the entire quadrant.
- Accessible lifts not provided for reaching first floor. Existing lift provided only in classroom block.
- Directional signage is absent.
- Multilingual braille and tactile signage not provided at doors / service areas.
- Drinking water fountains not as per standards.
- Hazardous parapet design considering persons with visual impairment.
- Audio tactile floor maps, floor directories not provided at strategic points for information.
- Handrails not provided near some stepped entries.
- Conspicuity edge strips not provided for distinction between riser and treads.
- Thresholds found at many door openings.
- Emergency evacuation measures such as evacuation maps, emergency exits not provided.









## 4. QUADRANT BLOCK - PROPOSED ACCESS MEASURES



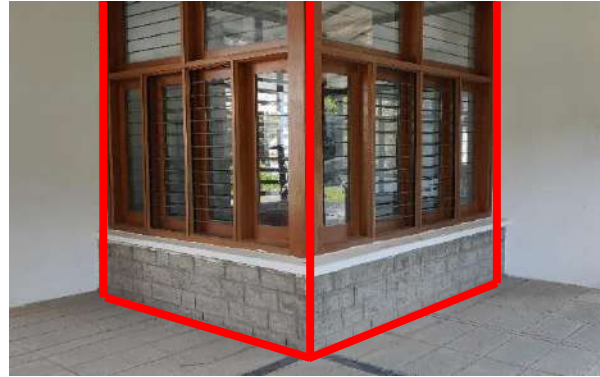
### LEGEND

	PROPOSED LIFT
	PROPOSED RAMP
	PROPOSED ACCESSIBLE TOILET
	PYLON SIGNAGE FOR DIRECTIONS

## 4. QUADRANT BLOCK - LOCATION OF ACCESS PROVISIONS



LIFT BETWEEN ADMIN & ACADEMIC BLOCK



ACCESSIBLE TOILET IN CAFETERIA



LIFT BETWEEN ADMIN & ACADEMIC BLOCK



ACCESSIBLE TOILET IN ACADEMIC BLOCK



ACCESSIBLE TOILET FOR STAFF  
IN ACADEMIC BLOCK



LIFT IN ADMIN BLOCK



#### 4. QUADRANT BLOCK - LOCATION OF ACCESS PROVISIONS



RAMP CONNECTING EXISTING AND EXTENDED CLASSROOMS



BRIDGE CONNECTING BOTH SIDES

## 5. ADMIN BLOCK - RAMP ACCESS TO BLOCK FROM PARKING AND CAFETARIA



### KEY ISSUES

- Ad-hoc ramp provided to access admin block from basement, but no lift to reach upper floors.
- Ramp access provided from cafeteria, however slope provided is 1 : 10, thus steeper than required.
- Grooves in the floor finish of ramps make wheelchair manoeuvring difficult and hazardous.
- Signage to reach ramps not provided.
- Handrails not provided to ramp in admin block.



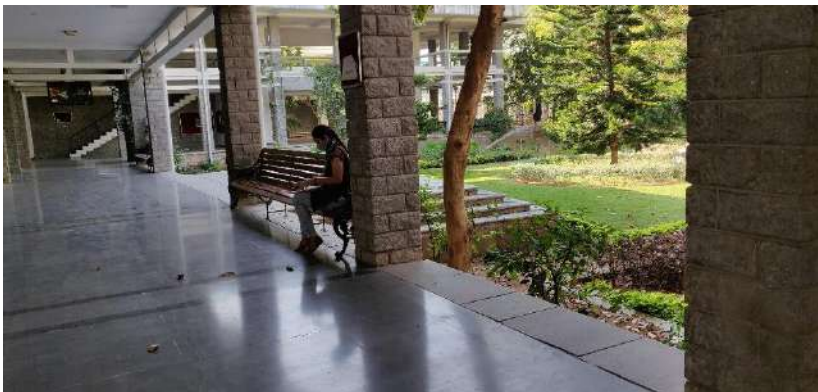
## 5. ADMIN - ACCESS INSIDE THE BLOCK



### KEY ISSUES

- Tactile guiding path not provided in circulation areas.
- Thresholds at door openings.
- Level difference in waiting area.
- Counselling room is provided in basement.
- Handrails not provided at the staircase landing level.
- Conspicuity edge strips not provided for distinction between riser and treads.

## 5. ACCESS INSIDE ADMIN BLOCK



### KEY ISSUES

- Accounts table should be at lower height to accommodate wheelchair user.
- Hazardous parapet design considering persons with visual impairment.
- Dustbin blocking the entry for toilet.
- No curb provided to open corridors at the courtyard side.



## 5. ACCESS INSIDE ADMIN BLOCK



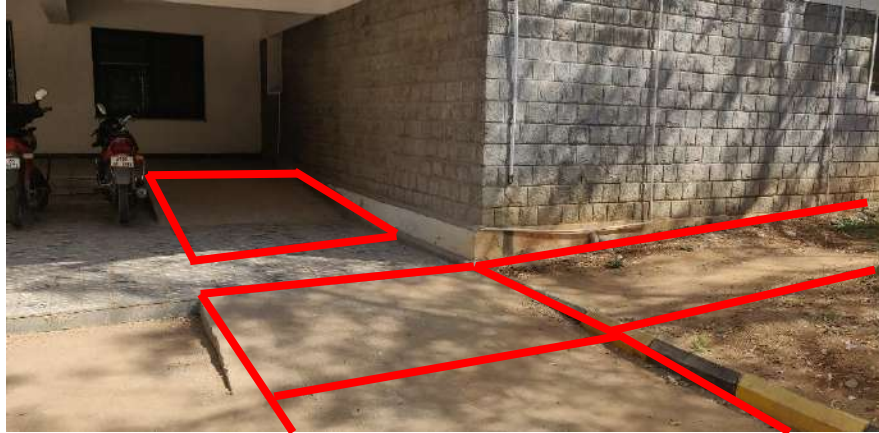
### KEY ISSUES

- Accessible lift not provided.
- No grab bars in existing toilets.
- Handrails not provided for auditorium stage as per NBC standards.
- Accessible toilet not provided.

## 5. ADMIN BLOCK – PROPOSED MODIFICATION TO RAMP ACCESS TO ADMIN BLOCK FROM PARKING



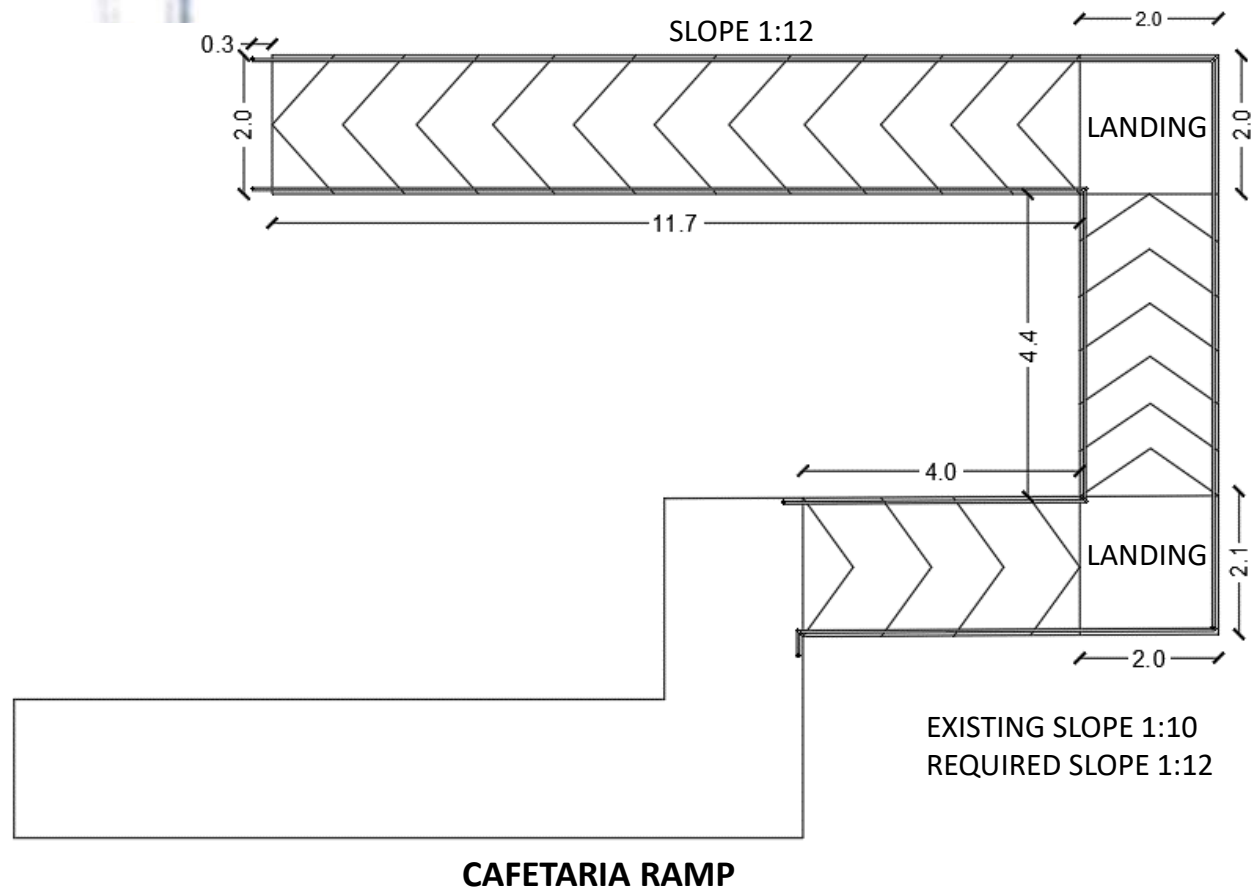
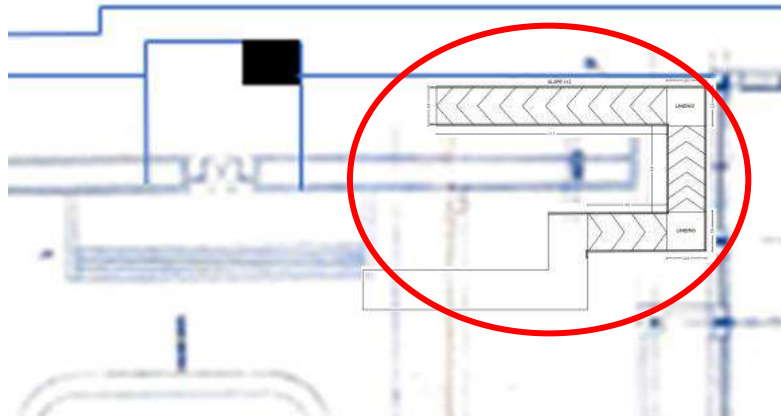
LEVELLED PATHWAY CONNECTING PARKING AREA TO MAIN BUILDING ENTRANCE STEPS



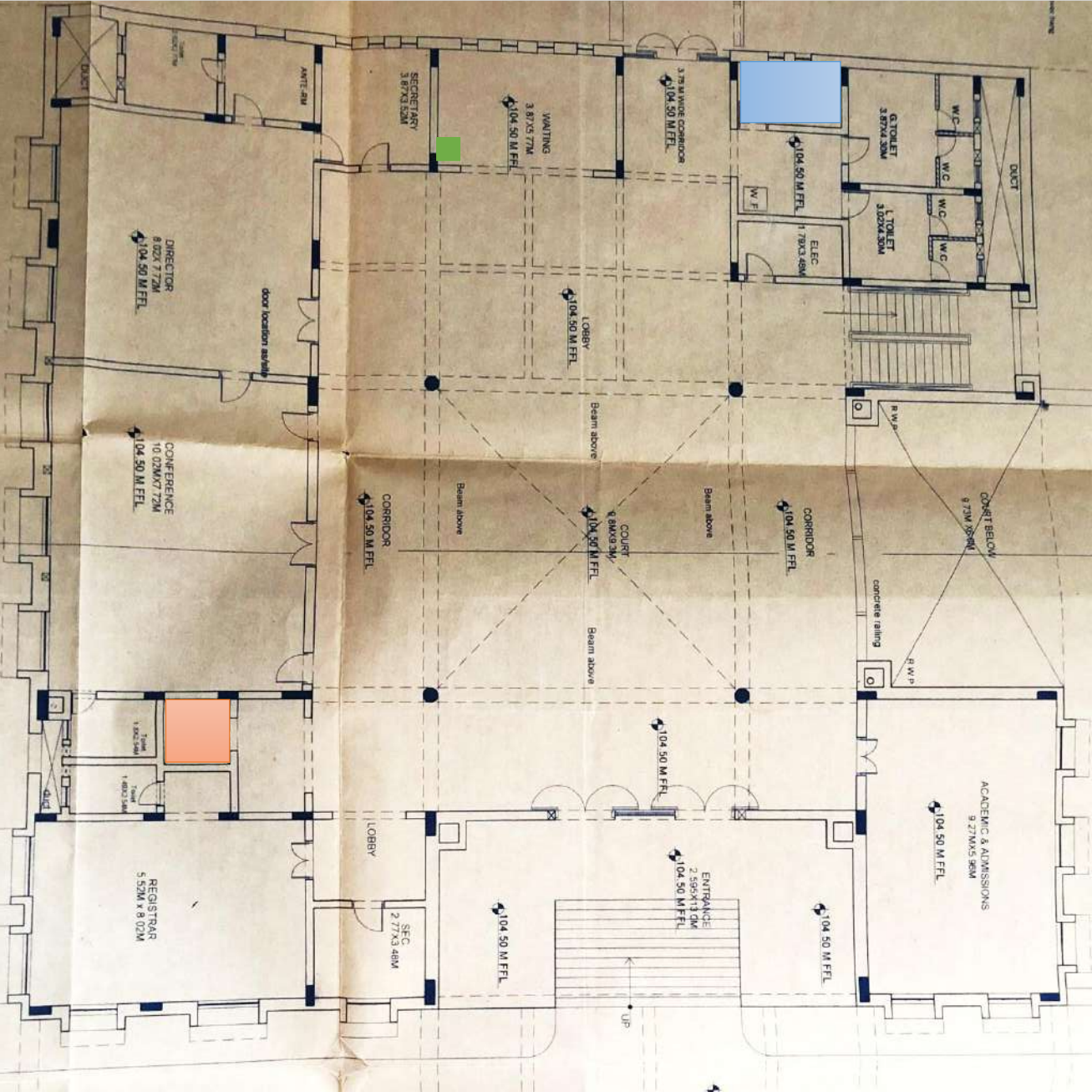
RAMPS LEADING TO PLINTH LEVEL FROM PARKING SIDE WITH A SLOPE OF MIN. 1:12






## 5. ADMIN BLOCK – PROPOSED MODIFICATION TO RAMP ACCESS FROM CAFETARIA



5. ADMIN BLOCK – PROPOSED ACCESS MEASURES



LEGEND

	PROPOSED LIFT
	PROPOSED ACCESSIBLE TOILET ON FIRST FLOOR
	PROPOSED/RELOCATION OF D.W.F



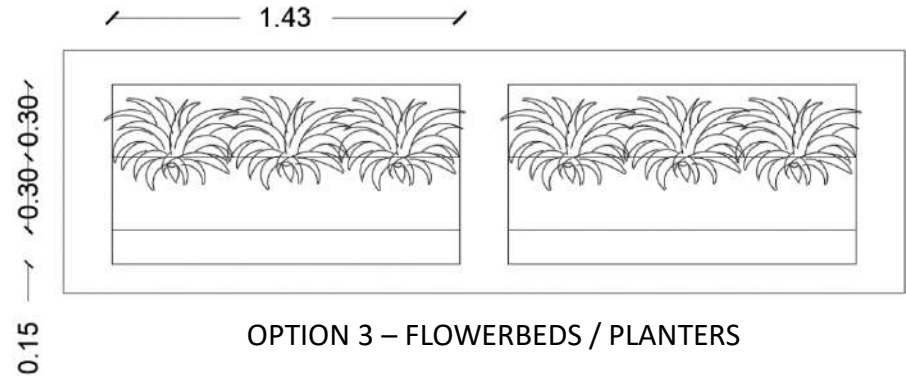
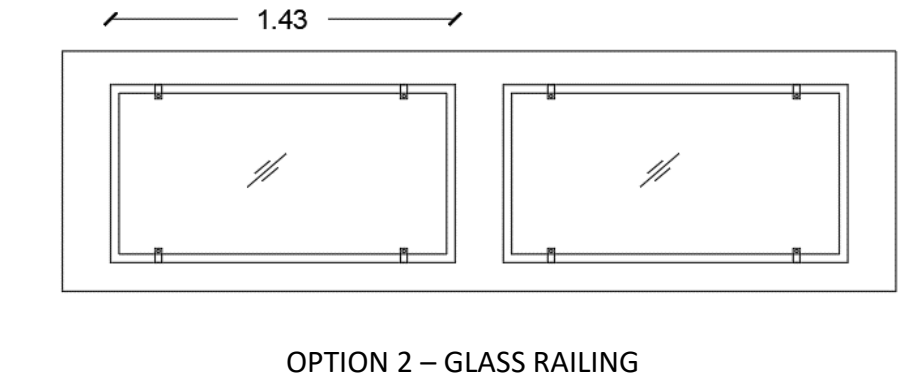
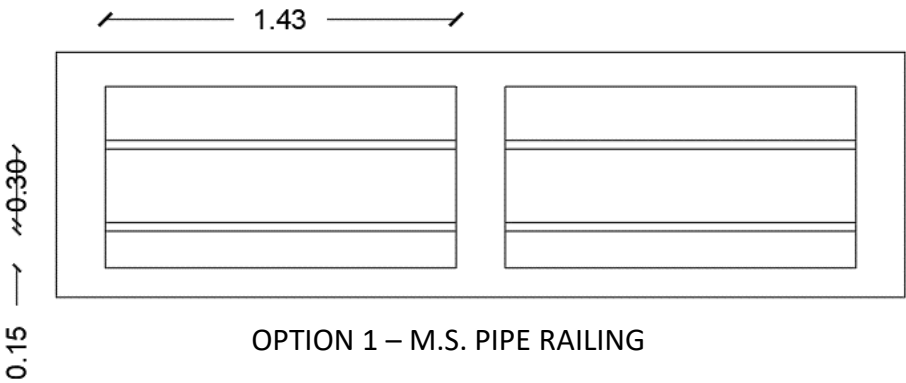
## 5. ADMIN BLOCK – PROPOSED TACTILE GUIDING PATH



5. ADMIN BLOCK PROPOSED RAILING MODIFICATION FOR SAFETY



EXISTING





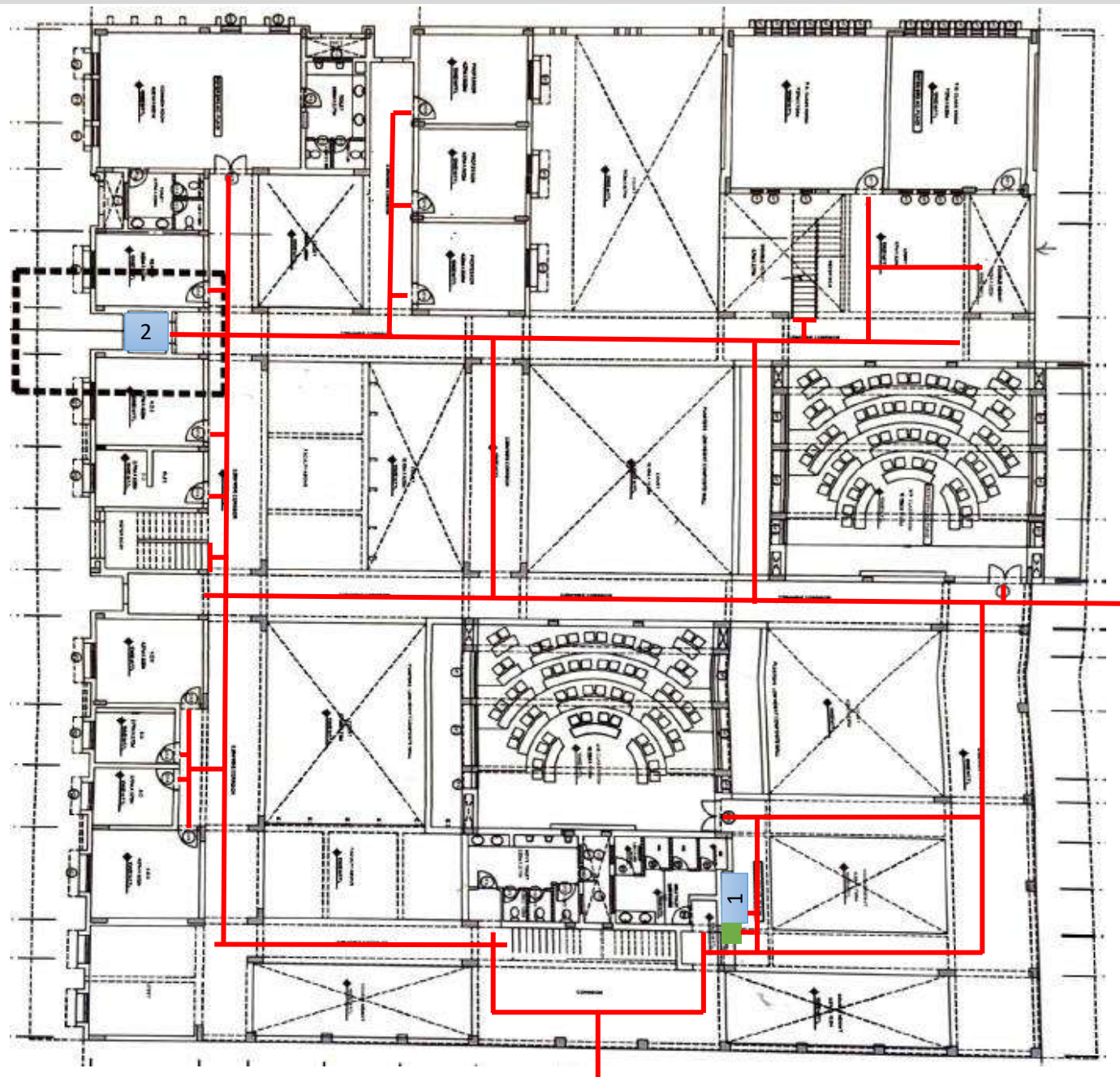
## 6. ACADEMIC BLOCK - ACCESS INSIDE BLOCK



### KEY ISSUES




- Handrail not provided on wall side of staircase.
- Accessible lift not provided.
- Directional signage is absent.
- No curb provided at the courtyard side for safety.
- Existing signages are reflective and not per NBC standards.
- No grab bars provided in existing toilets.
- Accessible toilet not provided.
- No handrail provided below the staircase to prevent hazard considering visual impairment.

## 6. ACADEMIC BLOCK – PROPOSED ACCESS MEASURES



- Toilets:  
1<sup>st</sup> for students  
2<sup>nd</sup> for faculty

### LEGEND

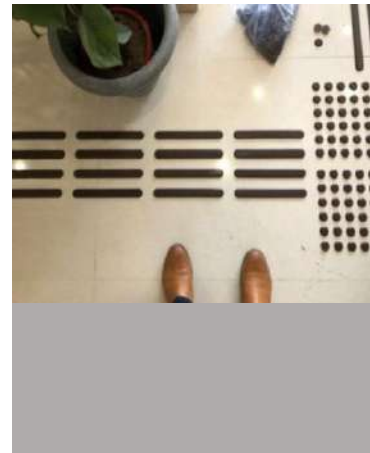
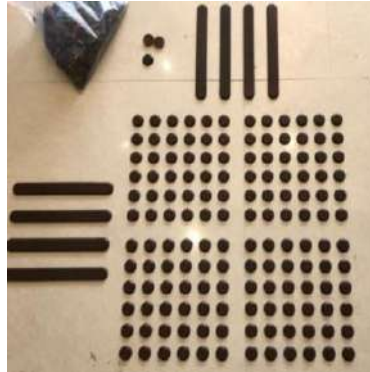
	PROPOSED ACCESSIBLE TOILET
	EXISTING D.W.F
	TACTILE GUIDING PATH



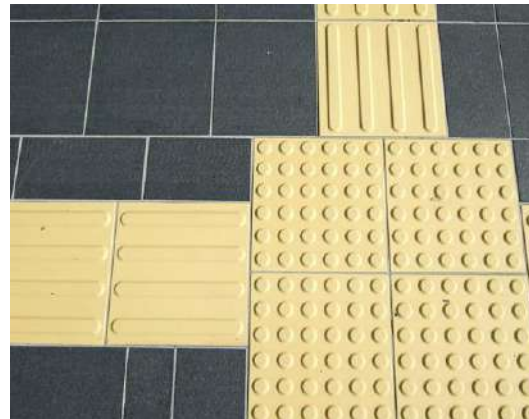
## 6. PROVISION OF A NEW TACTILE PATH COMPLYING TO ACCESSIBILITY STANDARDS



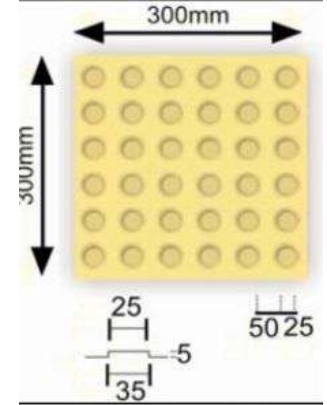
EXAMPLES OF SS STUDS AND STRIPS



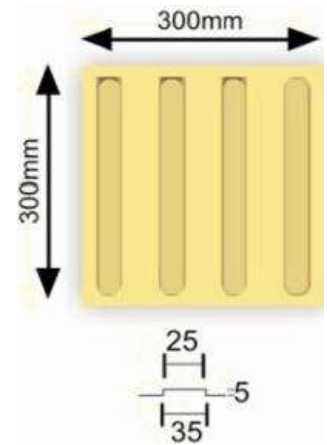
EXAMPLES OF PVC STUDS AND STRIPS



EXAMPLES OF VITRIFIED TACTILE TILES



WARNING TILE

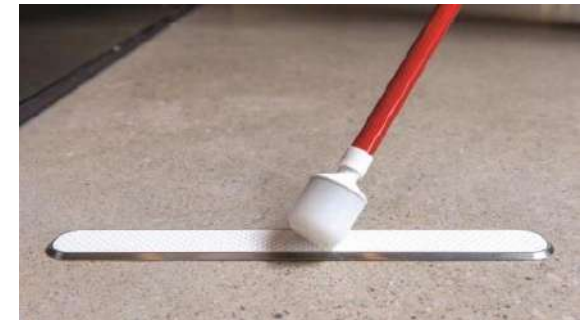


DIRECTIONAL TILE

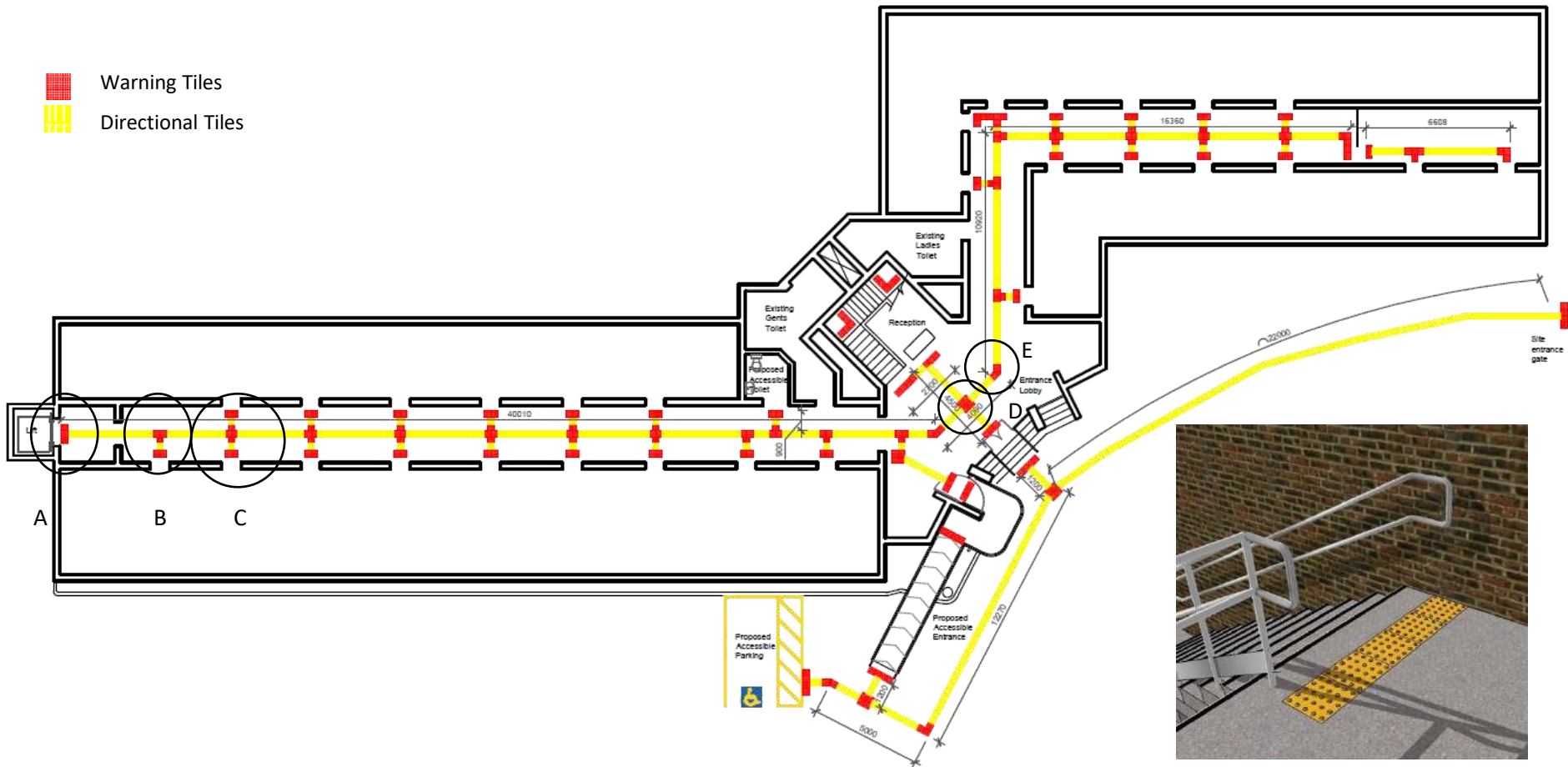
TACTILE TILE DESIGN AND PROTRUSION

EXAMPLES OF A TACTILE PATH

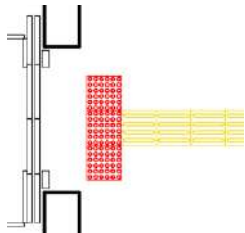
TAPPING BARS TO BE PROVIDED ALONG OPEN EDGE OF CORRIDORS FOR SAFETY OF THE BLIND



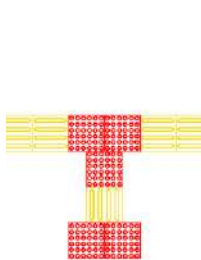
## 6. PROVISION OF A NEW TACTILE PATH COMPLYING TO ACCESSIBILITY STANDARDS



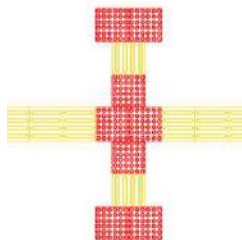
WARNING INDICATORS AT STAIRCASE



DETAIL AT A



DETAIL AT B



DETAIL AT C



DETAIL AT D



DETAIL AT E

**SAMPLE TACTILE PATH LAYOUT (FOR REFERENCE ONLY)**



## 7. CLASSROOMS - RAMP ACCESS FROM HOSTEL SIDE



### KEY ISSUES

- Existing ramp access provided for wheelchair users is not as per NBC standards.
- Handrails not provided near the ramps.
- Directional signage is absent.
- Tactile guiding path not provided.

## 7. CLASSROOMS - RAMP ACCESS TO NEW BLOCK



### KEY ISSUES

- Directional signage is absent.
- Existing ramp access provided for wheelchair users is not as per NBC standards.
- Grooves in the floor finish of ramps make wheelchair manoeuvring difficult and hazardous.
- Multilingual braille and tactile signage not provided at doors.



## 7. CLASSROOMS - ACCESS INSIDE CLASSROOMS BLOCK INCLUDING NEW



### KEY ISSUES

- Hazardous parapet design considering persons with visual impairment.
- Thresholds at door openings.
- Narrow door width to lift.
- Only steps to access new classroom block.
- Conspicuity edge strips not provided for distinction between riser and treads.
- Handrails not provided near steps.
- Drinking water fountain not as per standards.

## 7. CLASSROOMS - ACCESS INSIDE CLASSROOMS BLOCK INCLUDING NEW

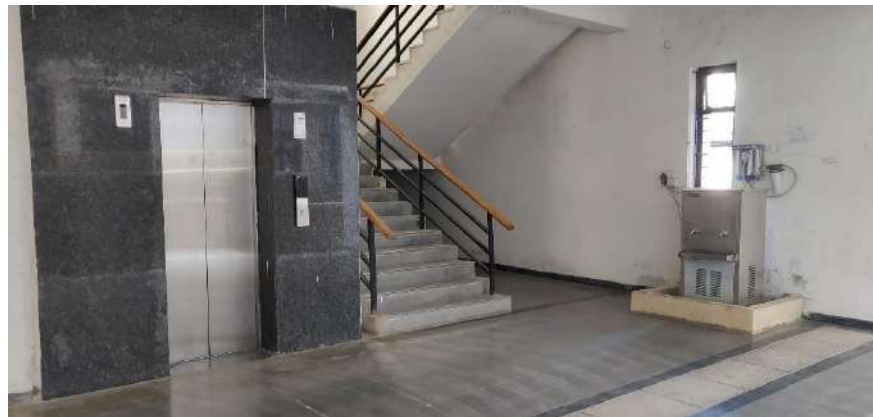


### KEY ISSUES

- Only steps to access new classroom block at both levels from academic / classroom block.
- Conspicuity edge strips not provided for distinction between riser and treads.
- Handrails not provided.
- Accessible toilet not provided.
- Threshold found at door openings.
- Directional signage is absent.
- Multilingual braille and tactile signage not provided at doors / service areas.



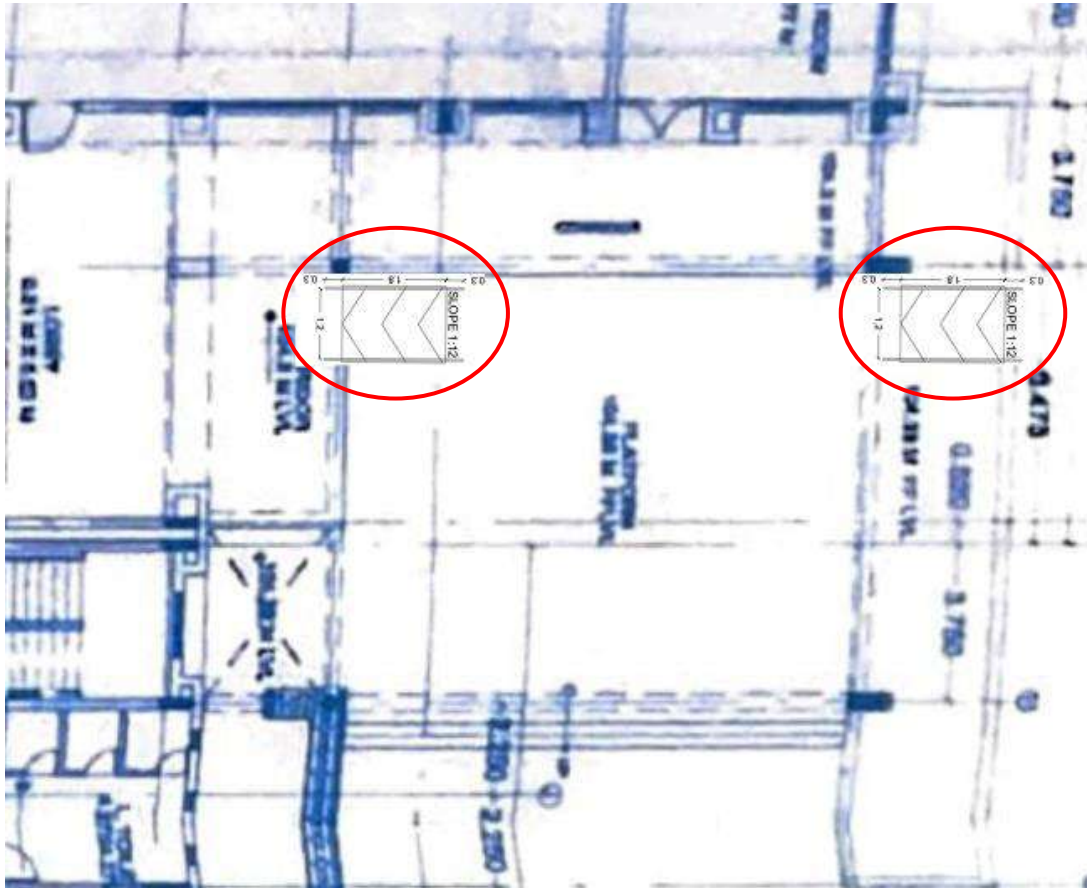
## 7. CLASSROOMS - ACCESS INSIDE CLASSROOMS BLOCK INCLUDING NEW



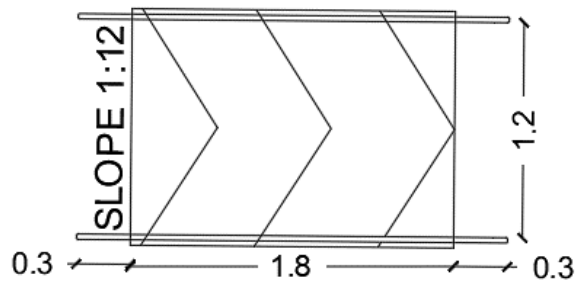
### KEY ISSUES

- Threshold found at door openings.
- Directional signage is absent.
- Multilingual braille and tactile signage not provided at doors / service areas.
- Handrails not provided under staircase to prevent hazard considering visual impairment.
- Tactile guiding path not provided in corridors.
- Conspicuity edge strips not provided for distinction between riser and treads.
- Drinking water fountains not as per standards.

7. CLASSROOMS - PROPOSED RAMP ACCESS TO QUADRANT BLOCK AND CLASSROOMS FROM HOSTEL SIDE



AT THE ENTRANCE FROM HOSTEL BLOCK



ADHOC RAMP TO BE REMOVED

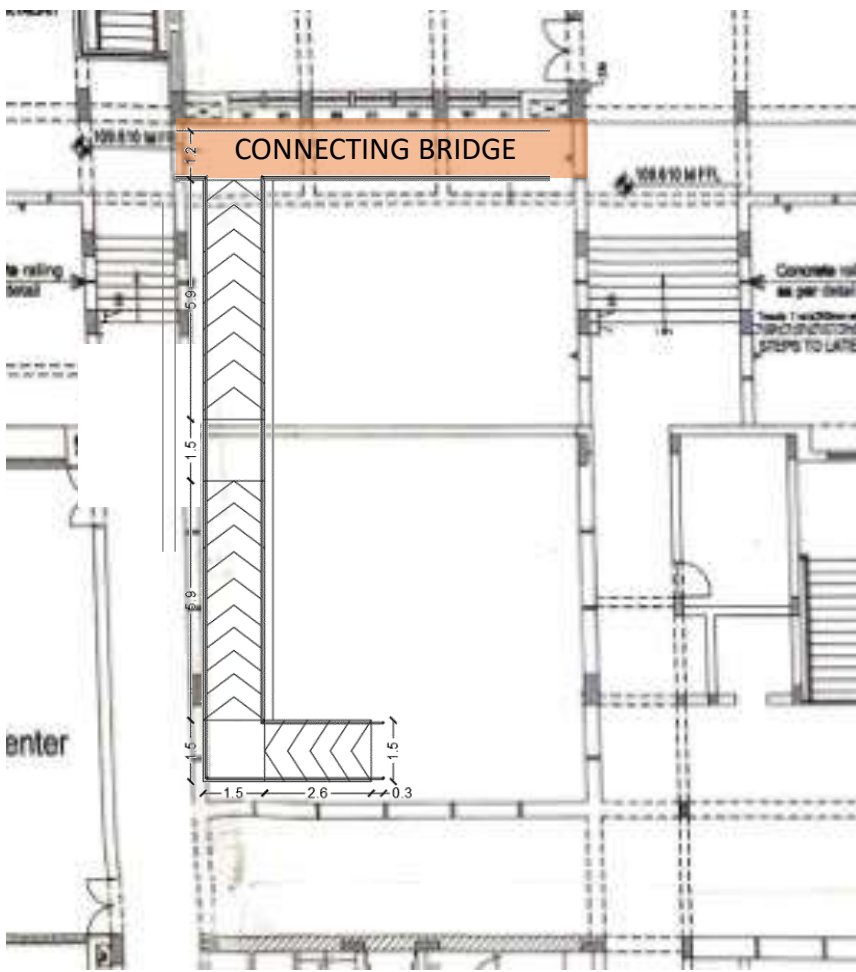


ADHOC RAMP TO BE REMOVED

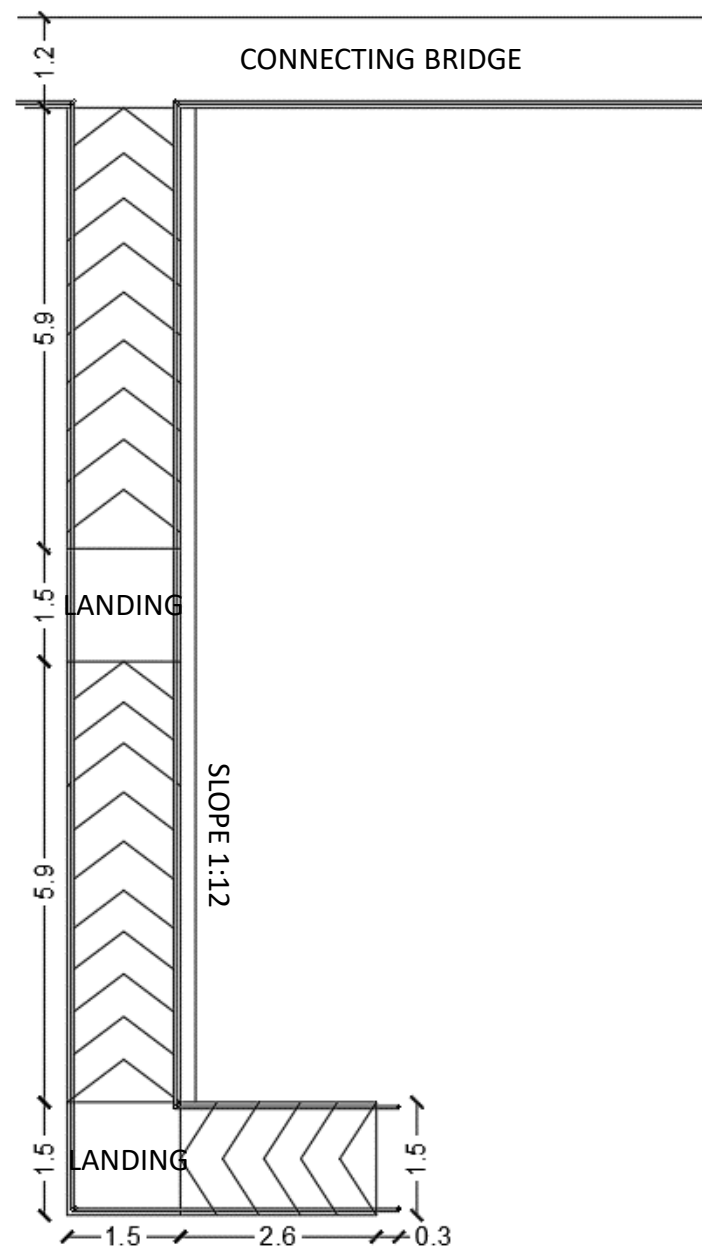




7. CLASSROOMS - PROPOSED NEW RAMP AND BRIDGE LINK CONNECTING EXISTING AND NEW CLASSROOMS



REQUIRED SLOPE 1:12  
RECOMMENDED FINISH – PLAIN BROOM FINISH CONCRETE



NEW RAMP AND BRIDGE LINK CONNECTING EXISTING AND NEW CLASSROOMS



## 7. CLASSROOMS - PROPOSED NEW RAMP AND BRIDGE LINK CONNECTING EXISTING AND NEW CLASSROOMS



RAMP CONNECTING EXISTING AND EXTENDED CLASSROOMS

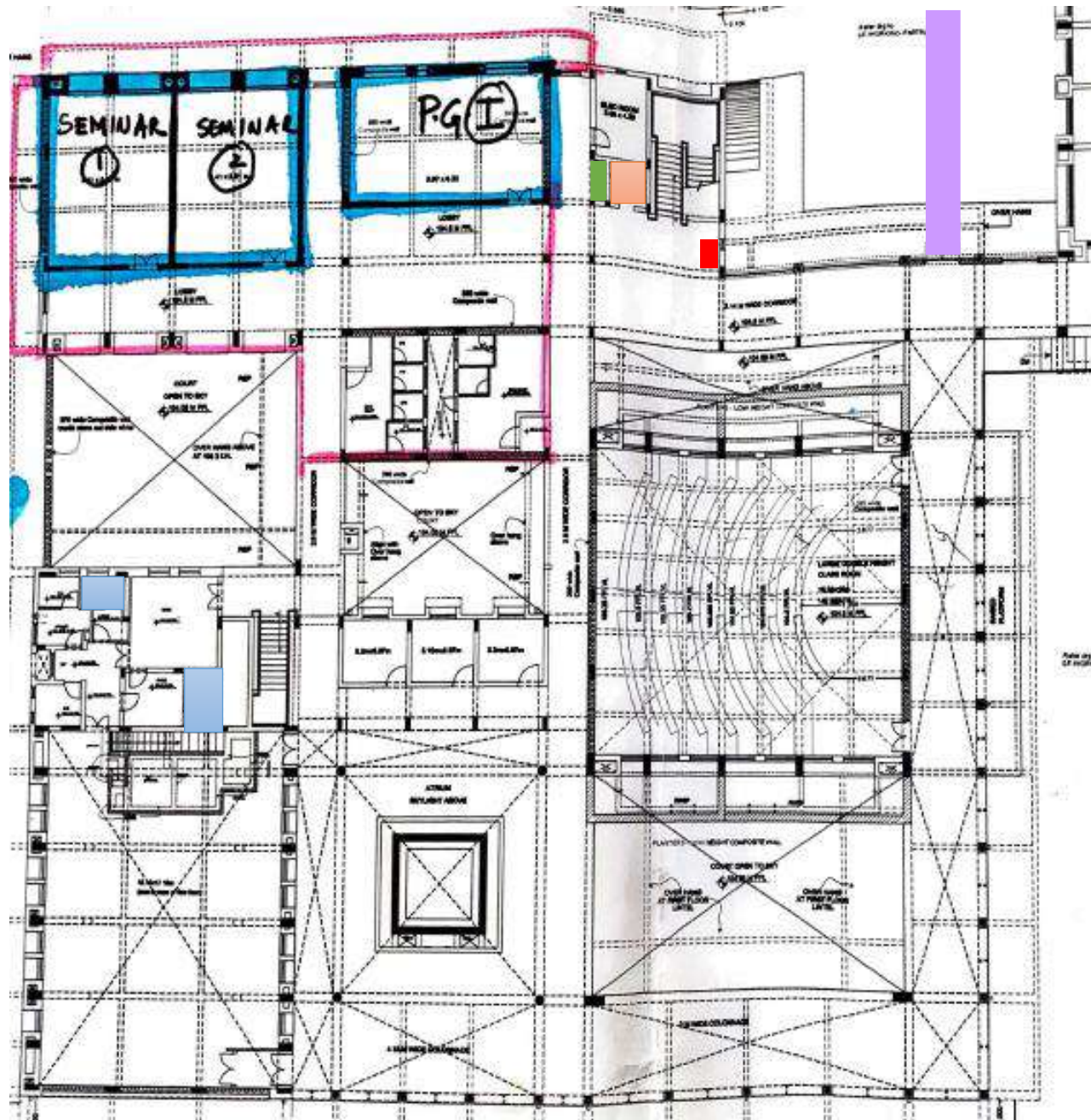


BRIDGE CONNECTING BOTH SIDES








REFERENCE IMAGE FOR PROPOSED METAL BRIDGE

## 7. CLASSROOM BLOCK GROUND FLOOR – PROPOSED ACCESS MEASURES

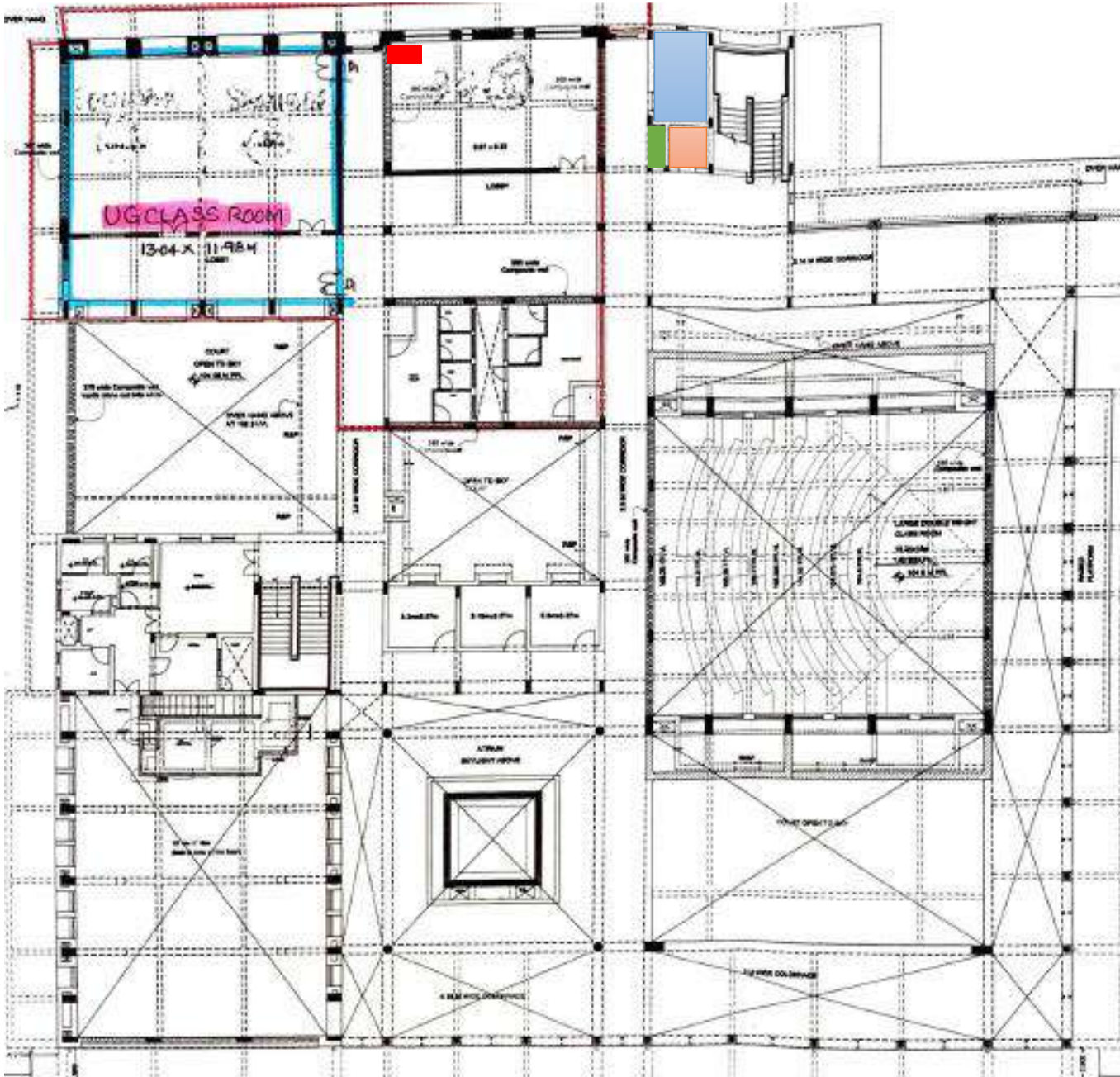


### LEGEND





	PROPOSED LIFT
	PROPOSED RAMP
	PROPOSED ACCESSIBLE TOILET
	EXISTING D.W.F.
	PROPOSED/RELOCATION OF D.W.F.



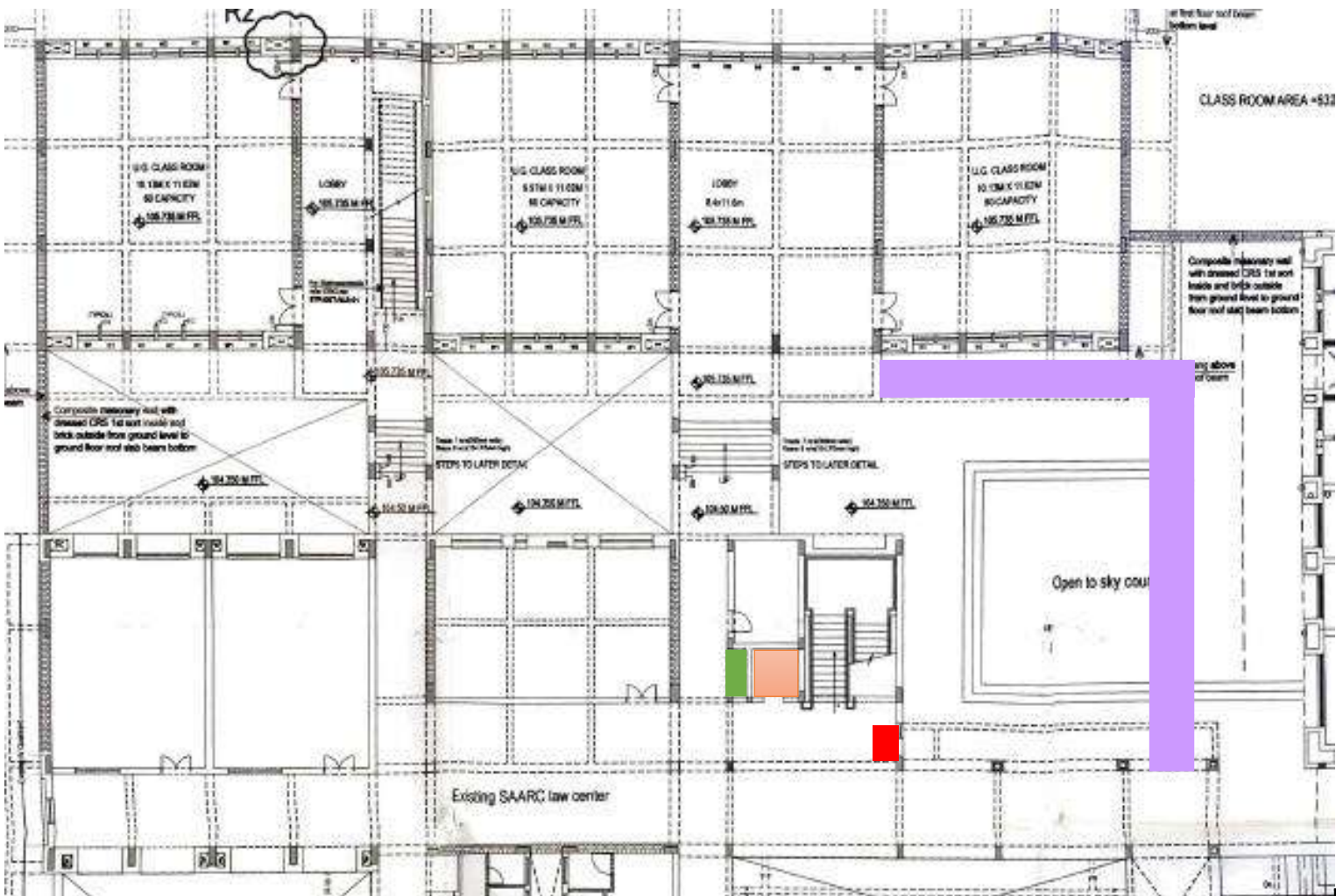
## 7. CLASSROOM BLOCK FIRST FLOOR – PROPOSED ACCESS MEASURES






## LEGEND

	PROPOSED LIFT
	PROPOSED ACCESSIBLE TOILET
	EXISTING D.W.F
	PROPOSED/ RELOCATION OF D.W.F

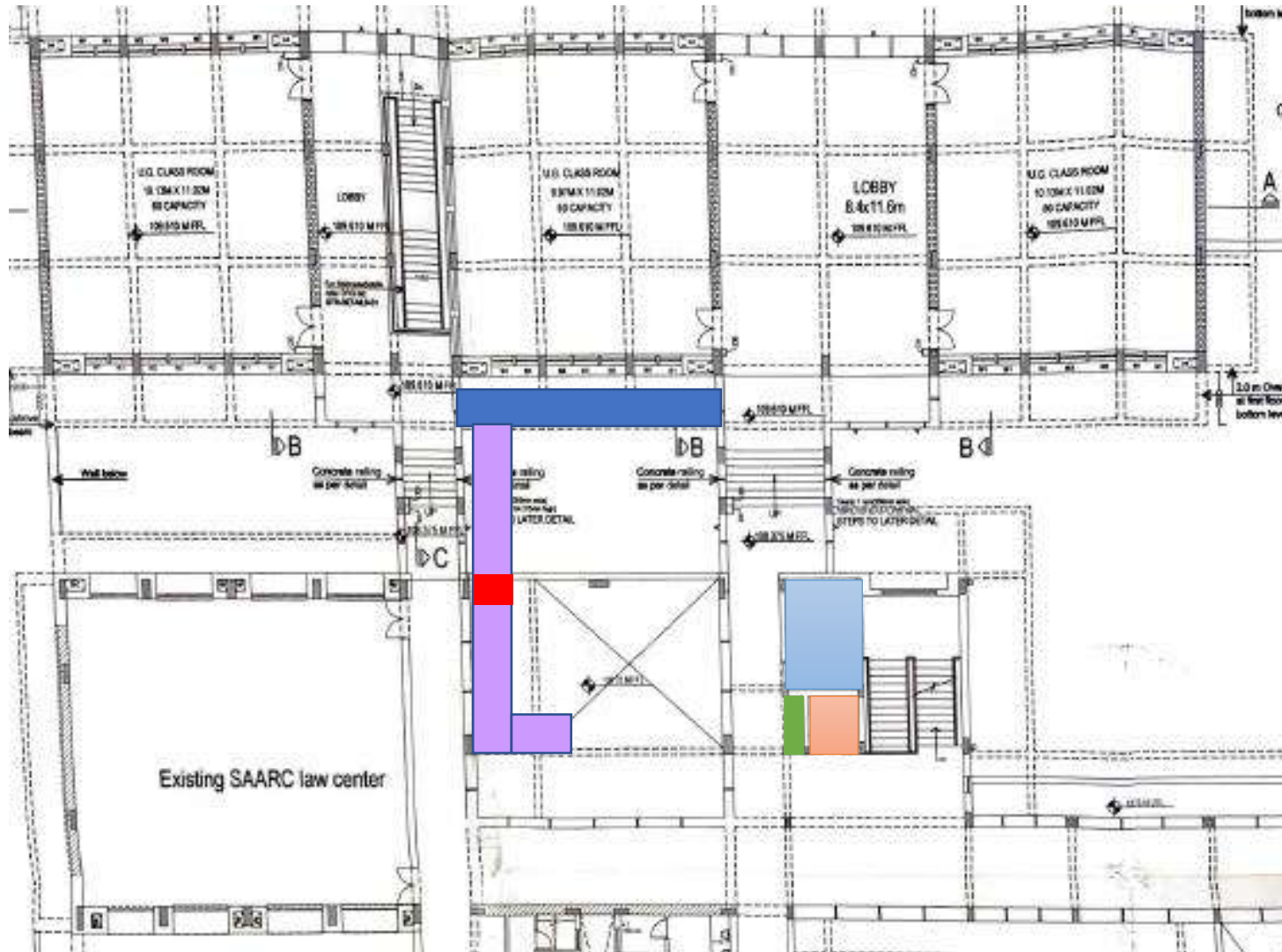
## 7. CLASSROOM EXTENSION GROUND FLOOR – PROPOSED ACCESS MEASURES









LEGEND	
	PROPOSED LIFT
	PROPOSED RAMP
	EXISTING D.W.F
	PROPOSED/ RELOCATION OF D.W.F



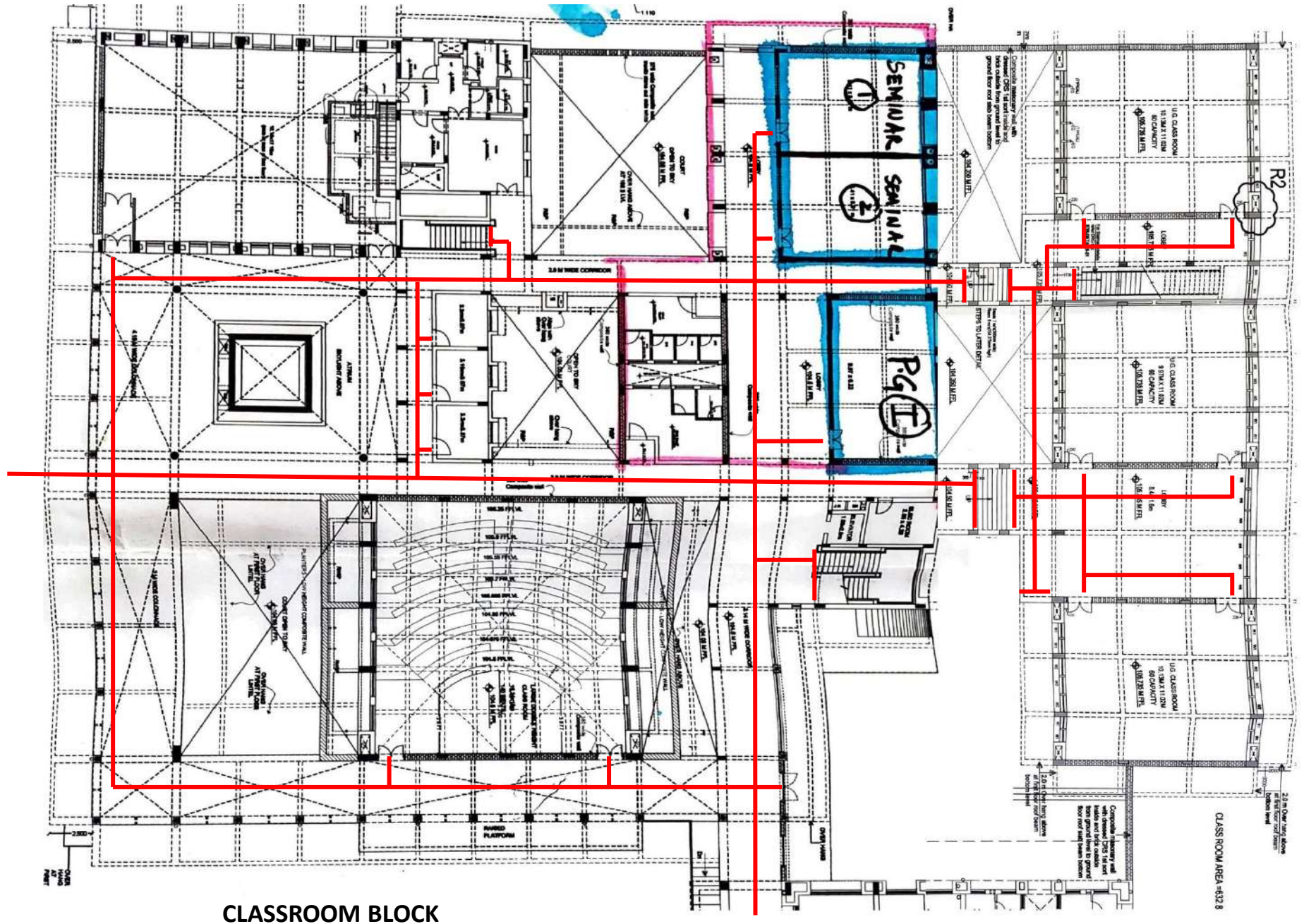
## 7. CLASSROOM EXTENSION FIRST FLOOR – PROPOSED ACCESS MEASURES



### LEGEND

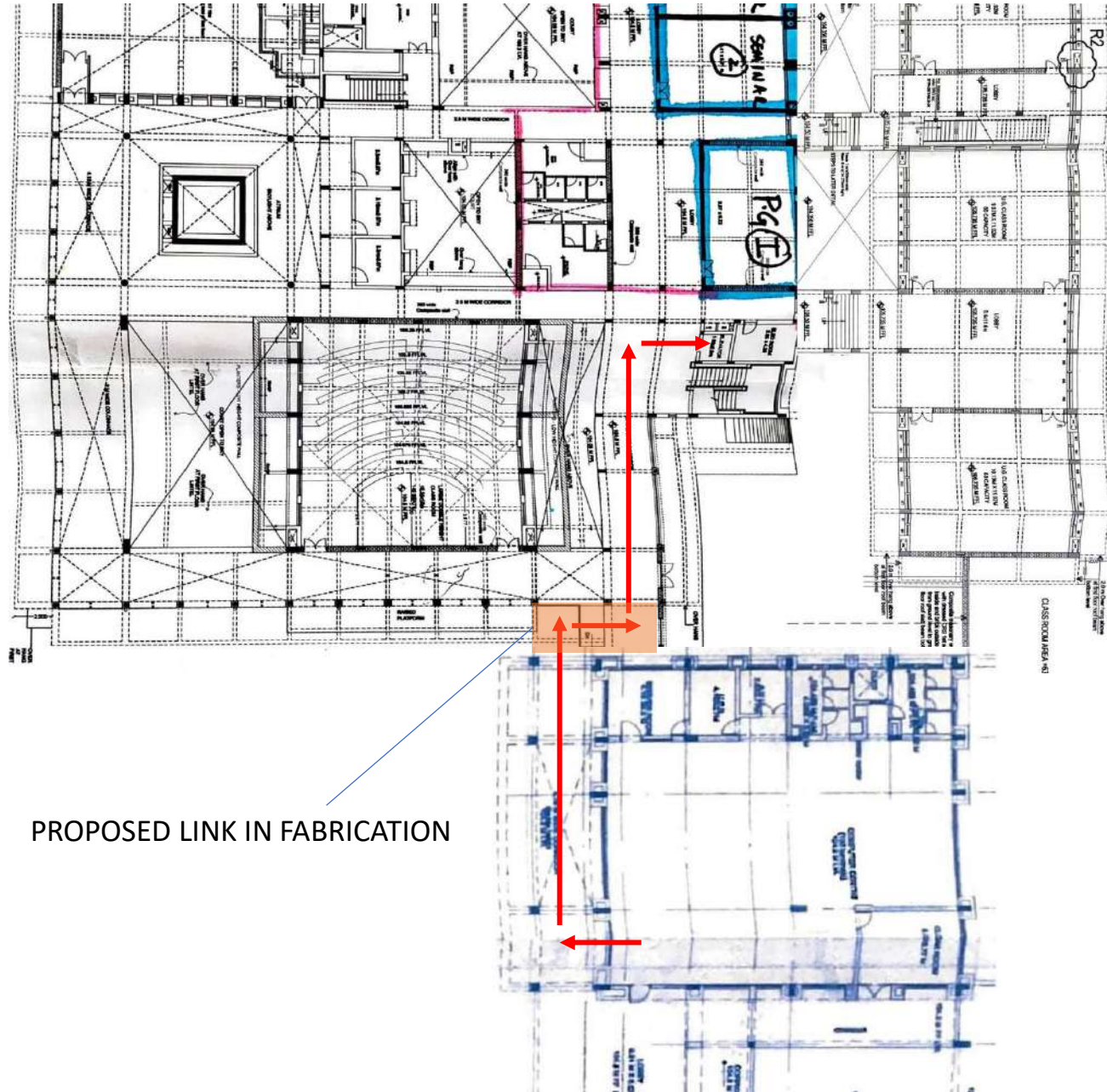
	PROPOSED LIFT
	PROPOSED ACCESSIBLE TOILET
	EXISTING D.W.F
	PROPOSED/RELOCATION OF D.W.F
	CONNECTING BRIDGE
	RAMP

## 7. CLASSROOMS - PROPOSED TACTILE GUIDING PATH





## 7. ACCESS TO CMS - PROPOSED LINK BETWEEN CLASSROOM BLOCK & CMS ON 1<sup>ST</sup> FLOOR



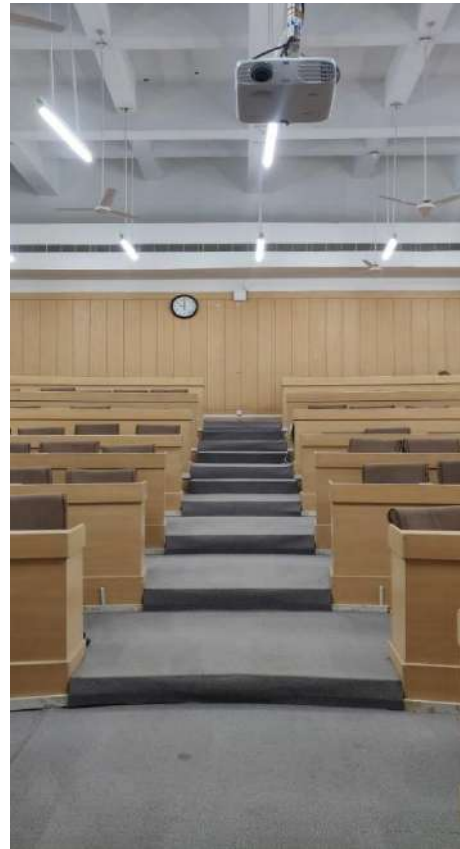
## 7. CLASSROOMS – OTHER RECOMMENDATIONS



PROVISION OF  
HANDRAILS TO MOOT  
COURT RAMP



REMOVAL OF  
THRESHOLDS AT NABHAR  
HALL, MOOT COURT  
AND SEMINAR HALLS



PROVISION OF  
CONSPICUITY / RADIUM  
STRIPS ON TREADS TO  
IDENTIFY STEPS IN DARK



PROVISION OF AN  
ADJUSTABLE /  
WHEELCHAIR FRIENDLY  
PODIUM



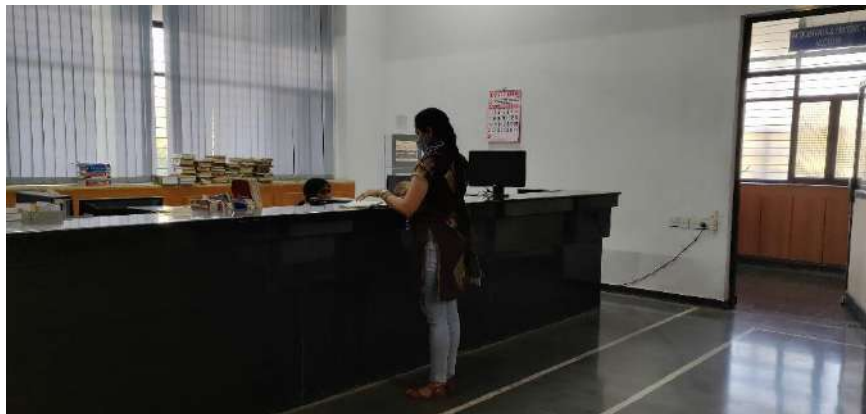
## 8. LIBRARY & COMPUTER BLOCK - RAMP ACCESS FROM HOSTEL AND QUADRANT SIDE



### KEY ISSUES

- Directional signage is absent.
- Existing ramp access provided for wheelchair users is not as per NBC standards.
- Handrails not provided.
- No curb provided at the open side of corridor for safety.

## 8. LIBRARY - ACCESS INSIDE

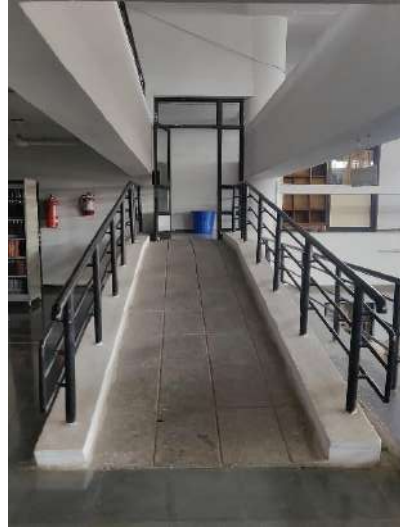


### KEY ISSUES

- Multilingual braille and tactile signage not provided at doors / service areas.
- Narrow entry to the library.
- Conspicuity edge strips not provided for distinction between riser and treads.
- Reception desk not per NBC standards to accommodate wheelchair users.
- Existing accessible toilet not as per NBC standards.
- The computers do not have reading software's.
- Accessible lift not provided.



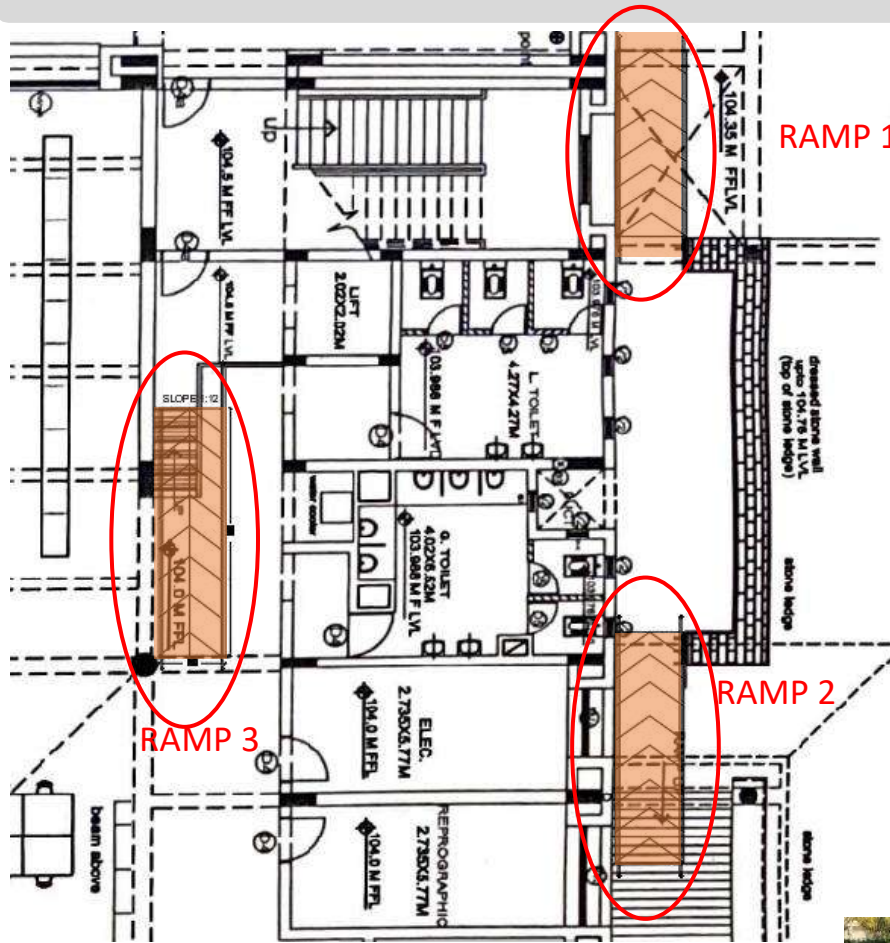
## 8. LIBRARY - ACCESS INSIDE



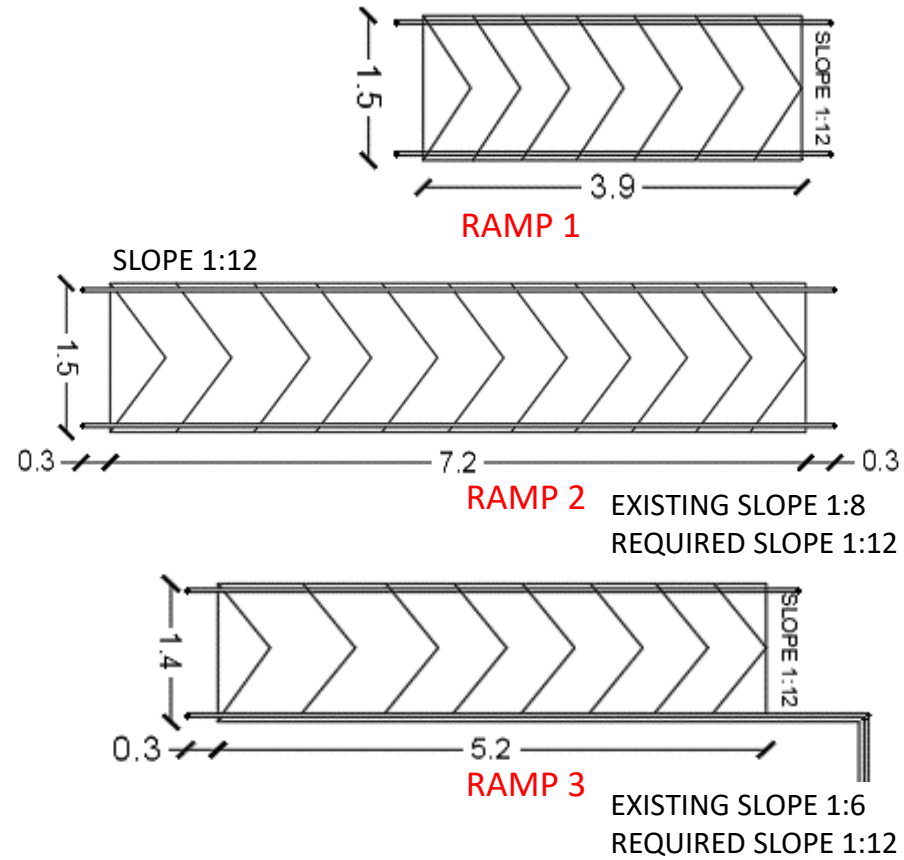
### KEY ISSUES

- Existing ramp is not as per NBC standards.
- Lift not provided.
- Fire exit door is always locked.
- Accessible lift is not provided.
- Tables have the metal strip at the bottom, thus difficult for wheelchair users.
- The entry to upper level reading hall is narrow considering wheelchair users.

## 8. LIBRARY & COMPUTER BLOCK - PROPOSED MODIFICATIONS TO RAMPS



LIBRARY



RAMP 1



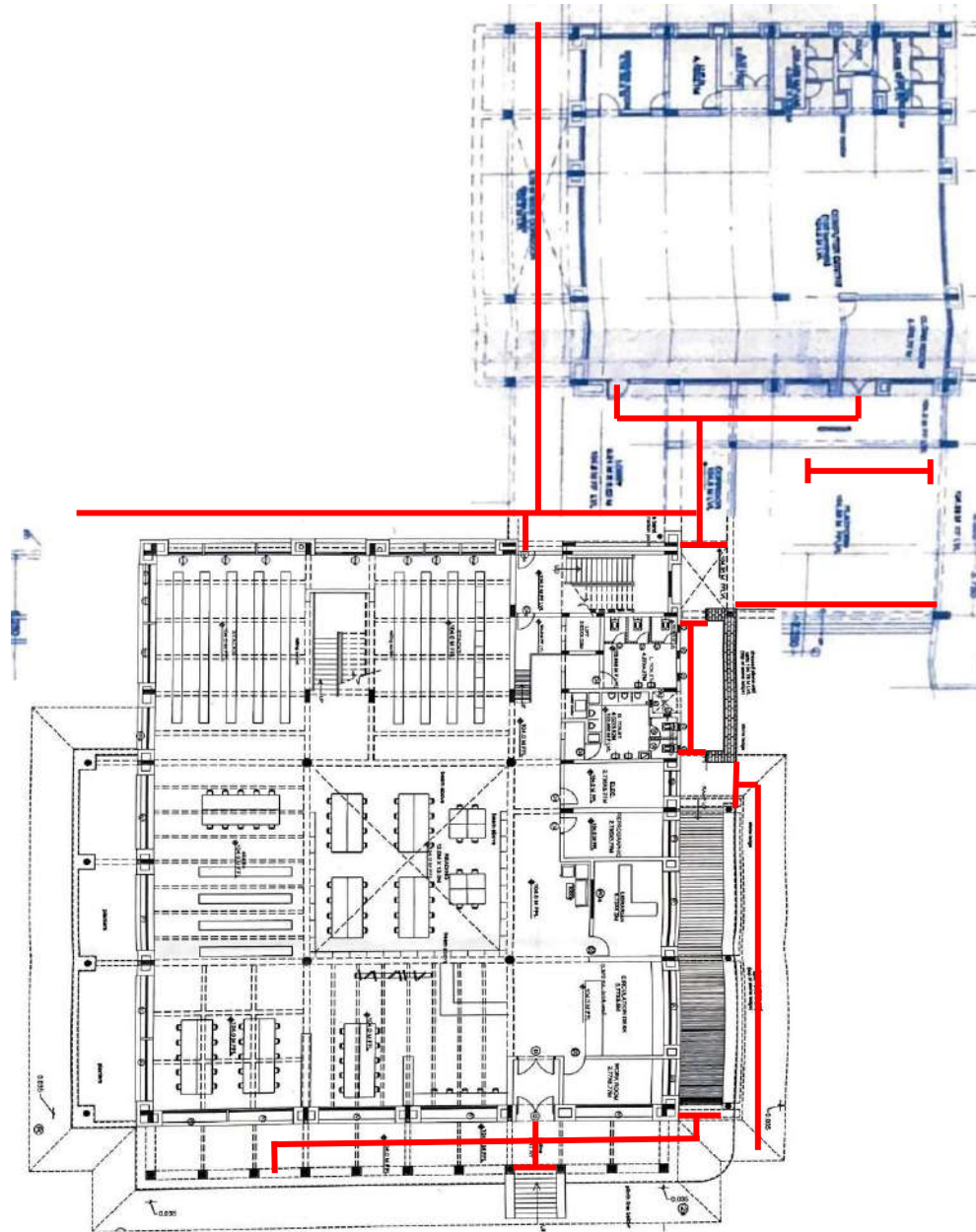
RAMP 2



RAMP 3

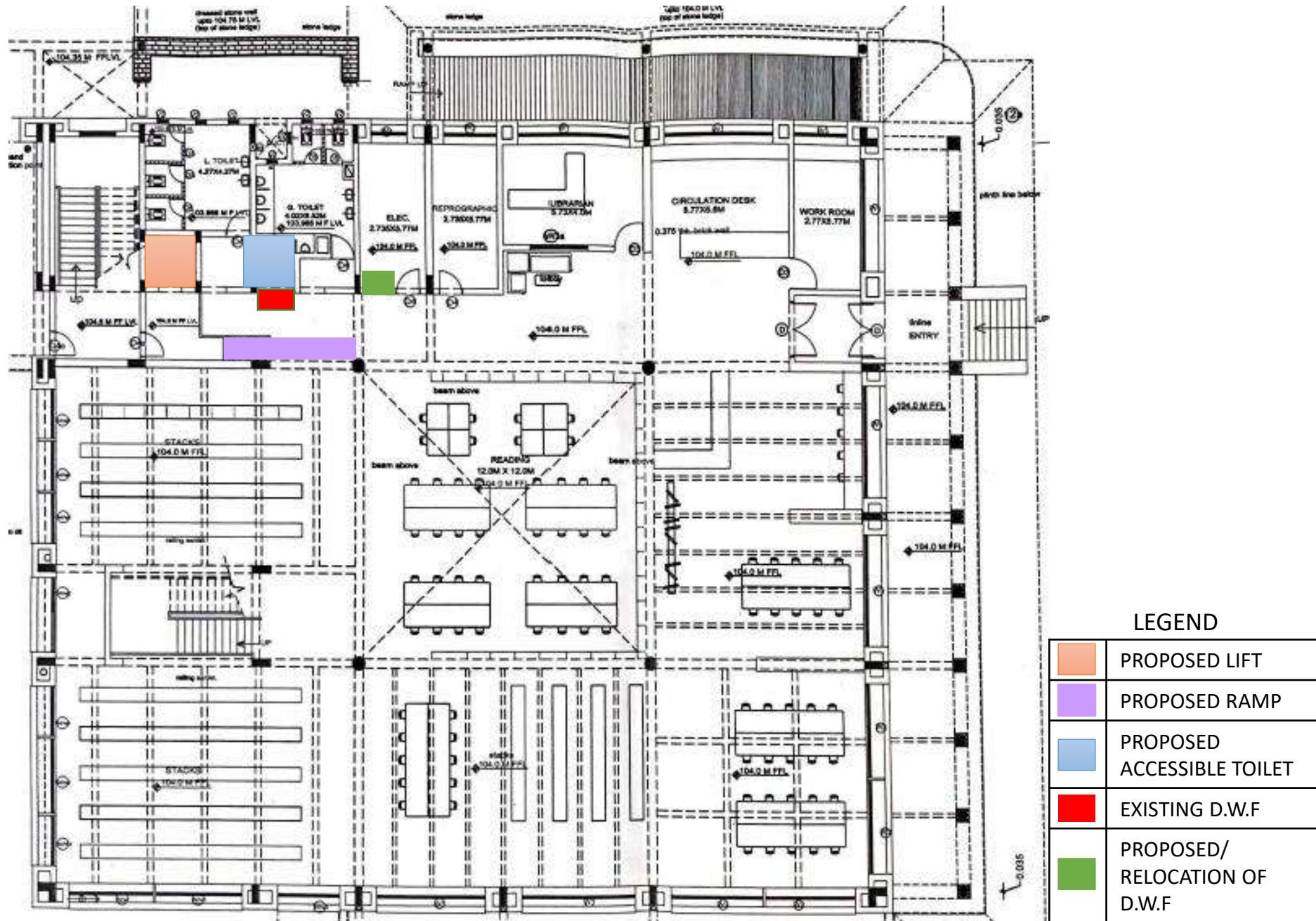


## 8. LIBRARY & COMPUTER BLOCK - PROPOSED TACTILE GUIDING PATH



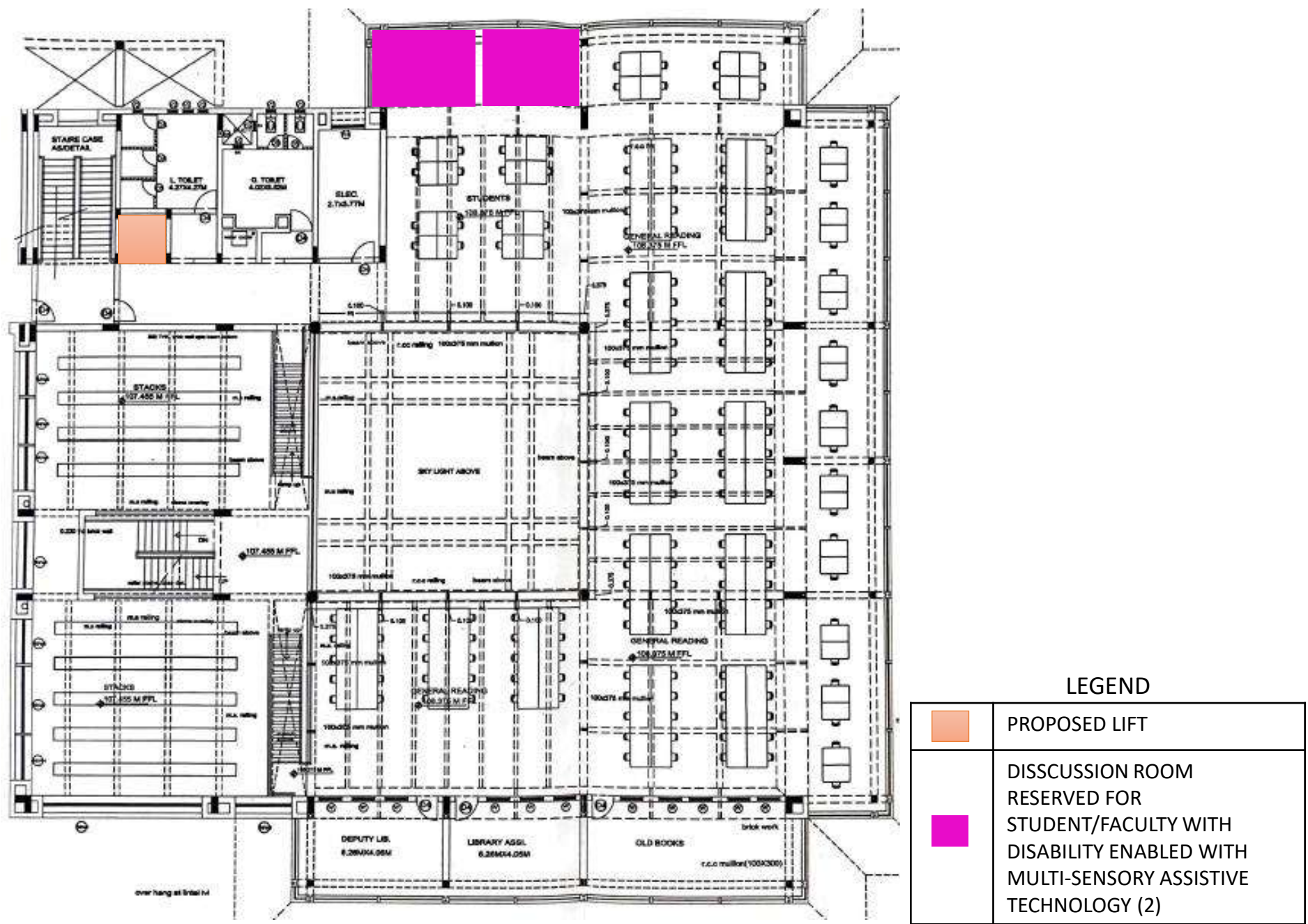
**LIBRARY & COMPUTER BLOCK**

## 8. LIBRARY & COMPUTER BLOCK GROUND FLOOR - PROPOSED ACCESS MEASURES

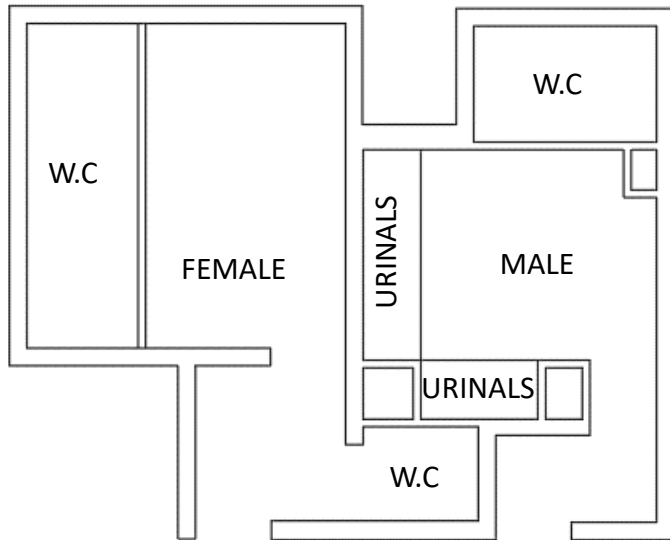




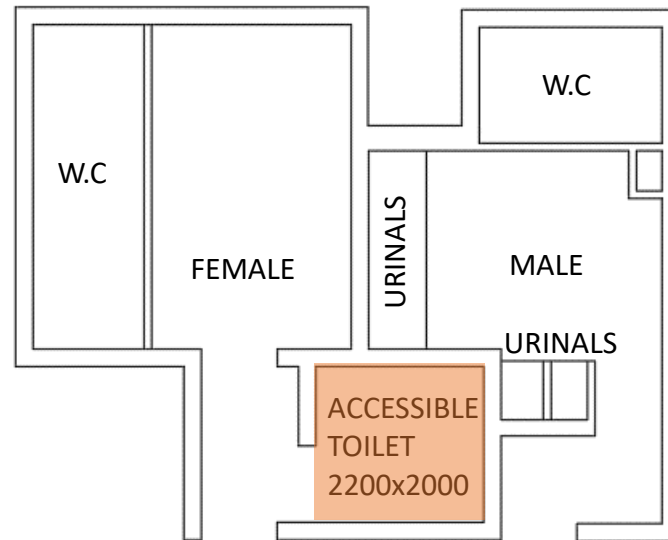
8. LIBRARY & COMPUTER BLOCK FIRST FLOOR – PROPOSED ACCESS MEASURES



## 8. LIBRARY & COMPUTER BLOCK - PROPOSED UNISEX ACCESSIBLE TOILET IN LIBRARY



**EXISTING TOILET ON  
GROUND FLOOR**



**MODIFIED TOILET**



## 8. LIBRARY – WEB / IT ACCESSIBILITY

### KEY ISSUES

For Visually impaired students the library is currently inaccessible.

- The Computer section is physically accessible, however the computers are not installed with screen reading software.
- Braille version of books not available.
- E library facility also has very limited number of books.
- Braille printer is available but no signage related to it provided.
- Scanner available but of very low resolution, not serving the purpose.

### RECOMMENDATIONS

People with visual impairment require reading material in “accessible formats” such as Braille, large print, audio recordings and electronic formats including digital talking books.

Following softwares / equipments to be immediately installed in library to address this need –

1. Jaws software and Pearl Camera - Open reading and scanning software to be procured. It helps with scanning the material and converting it into accessible word format.
2. Zoom text Magnifier – it helps magnify the text and is useful for students with low vision.
3. High resolution Scanner
4. Index Basic-D V5 Braille Embosser
5. Braille Paper Tractor Feed
6. Duxbury Braille Translator

## HOSTEL BLOCKS - SUMMARY OF ACCESS ISSUES

### KEY ISSUES

- Accessible parking not provided nearby.
- External pathways are undulating, with steep slopes and without railing.
- Existing ramp access provided for wheelchair users in all hostel blocks is not as per NBC standards.
- Wayfinding and navigation through the hostel blocks is a challenge in absence of maps / signage.
- Tactile guiding path not provided in circulation areas.
- Accessible rooms and toilets not provided in any of the hostel blocks.
- Grab bars not provided in common toilets.
- Accessible lifts not provided for reaching floors above.
- Directional signage is absent in the external and internal areas.
- Multilingual braille and tactile signage not provided at doors / service areas.
- Drinking water fountains not as per standards.
- Audio tactile floor maps, floor directories not provided at strategic points for information.
- Handrails not provided on both sides at some stepped entries / staircases.
- Conspicuity edge strips not provided for distinction between riser and treads.
- High thresholds found at almost all door openings.
- No firm pathway leading to basketball court in both the hostel complexes.
- Emergency evacuation measures such as evacuation maps, emergency exits not provided.





## HOSTEL COMPLEX – OTHER ACCESS ISSUES



RESTING BENCHES NOT ACCESSIBLE

GRATING NOT ACCORDING TO NBC STANDARDS AND IN HAZARDOUS CONDITION



THRESHOLD TO NEARLY ALL DOORS, SIGNAGE INCONSPICUOUS



NO TACTILE GUIDING PATH IN CORRIDORS



## 9. BOYS HOSTEL COMPLEX - ENTRY





## 9. BOYS HOSTEL COMPLEX - PATHWAYS INSIDE

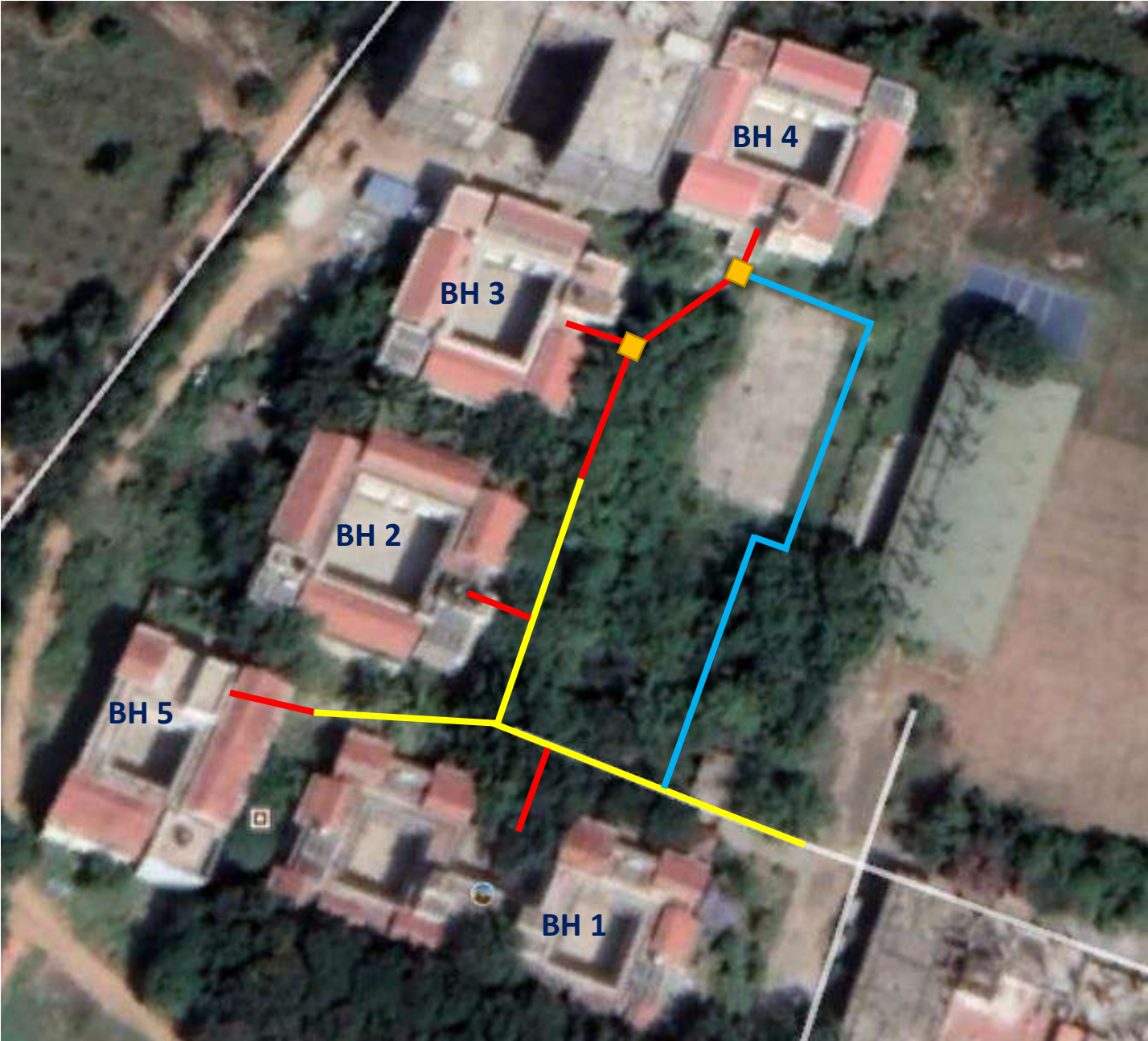


### KEY ISSUES





- Narrow pedestrian entry to the hostel block.
- External pathways are undulating, with steep slopes and without railing.
- Resting bench is not accessible.
- No firm pathway leading to basketball court.
- Directional signage is absent in the external and internal areas.
- Grooves in the floor finish of ramps make wheelchair manoeuvring difficult and hazardous.
- Tactile guiding path not provided in circulation areas.



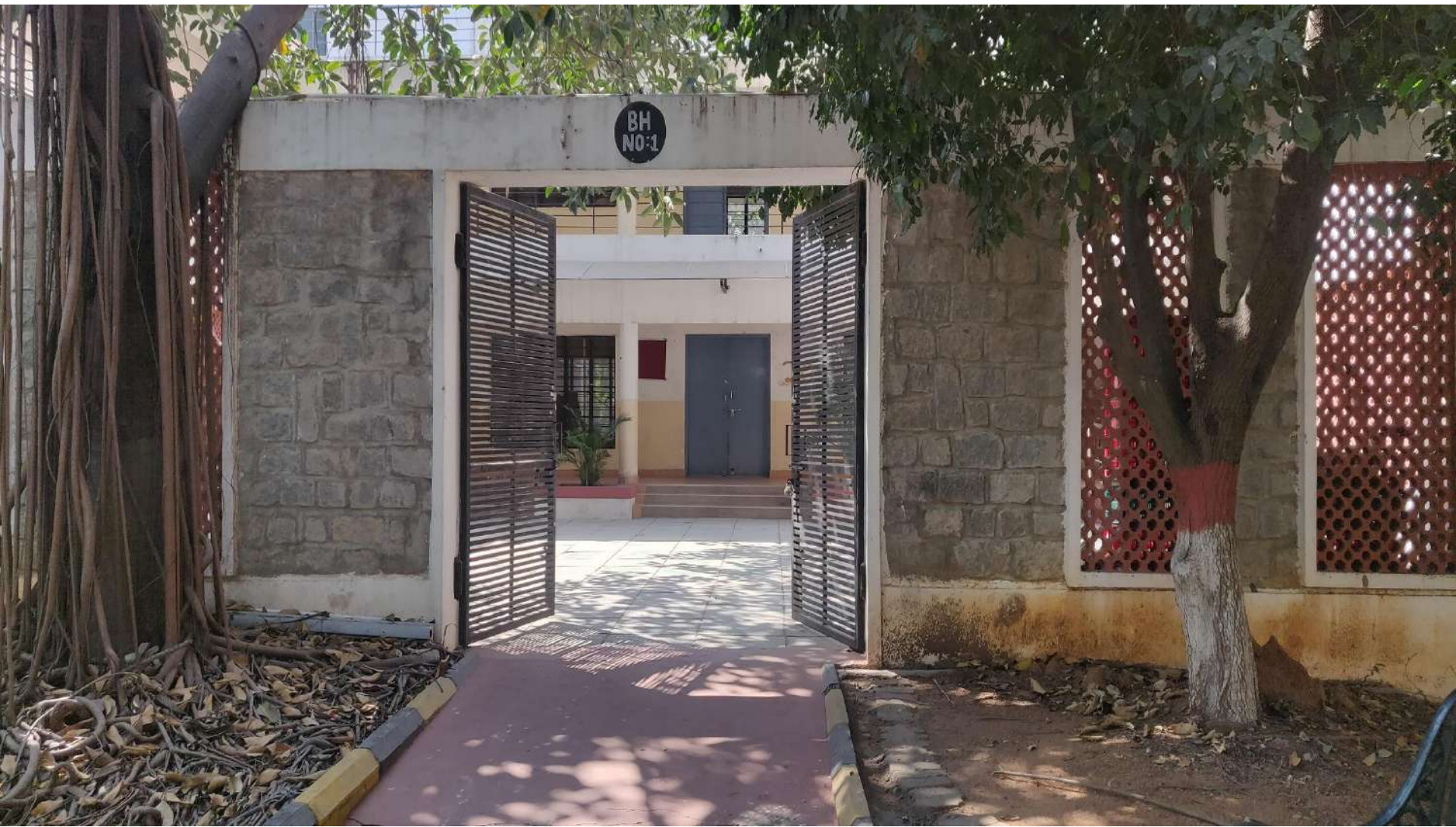
9. BOYS HOSTEL COMPLEX – PROPOSED ACCESS MEASURES AT SITE LEVEL



LEGEND

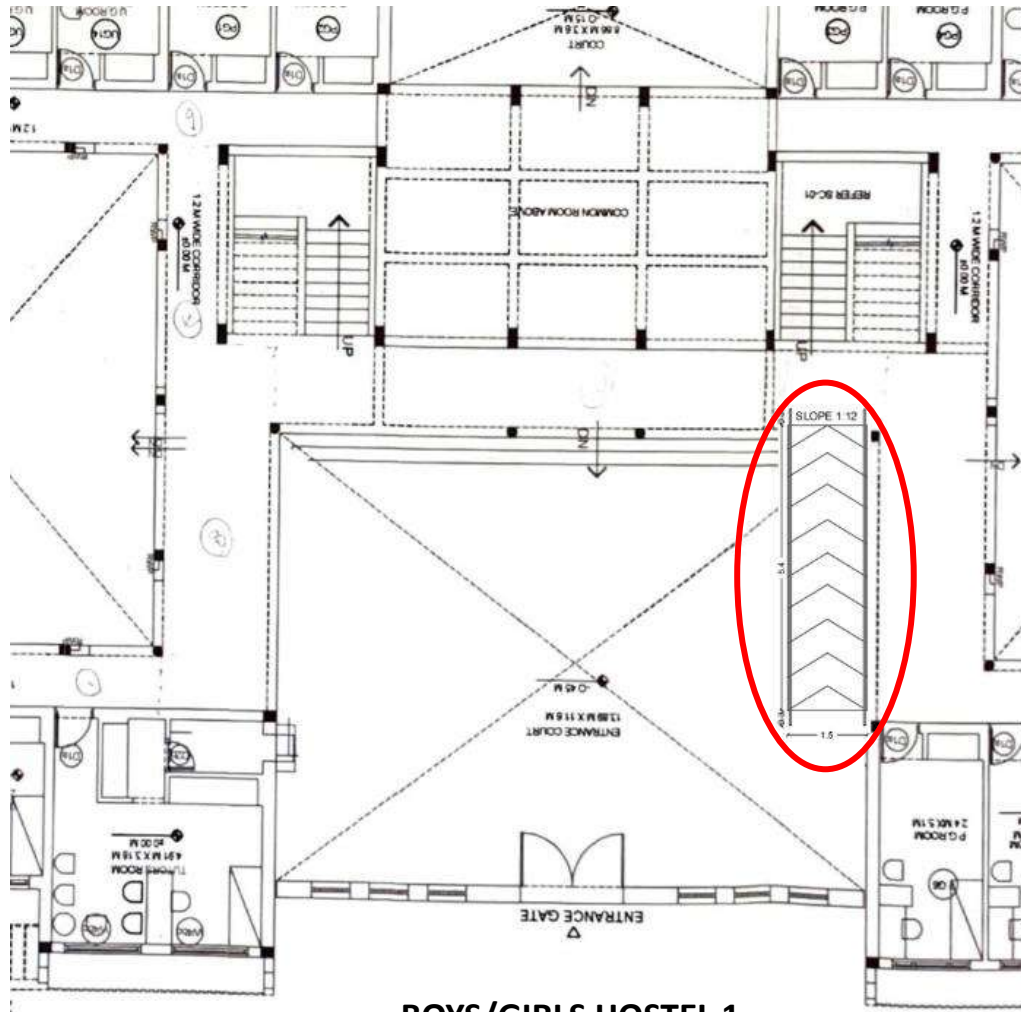
	RAMPS WITH RAILING ON BOTH SIDES
	FLAT PATHWAYS
	PROPOSED NEW PATHWAY
	FLAT LANDING SPACE



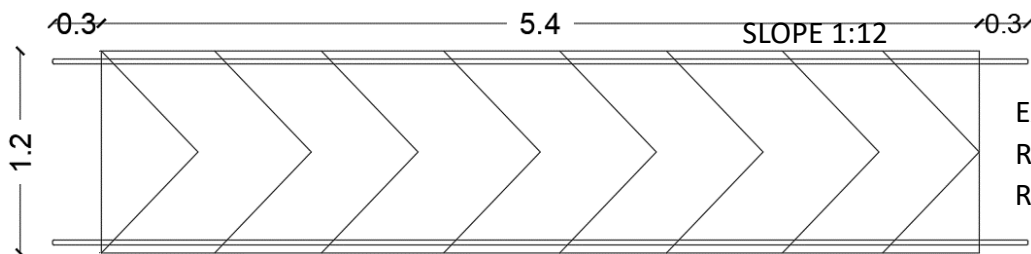
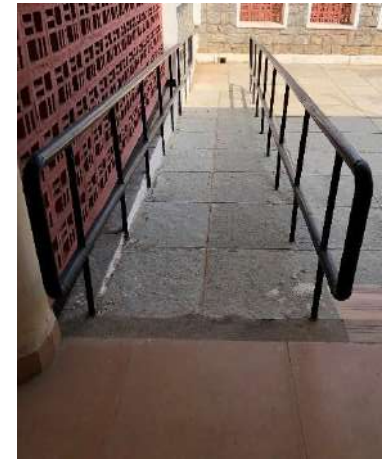




## 10. BOYS HOSTEL BLOCK 1 – PROPOSED MODIFICATION TO ENTRANCE RAMP



**BOYS/GIRLS HOSTEL 1**



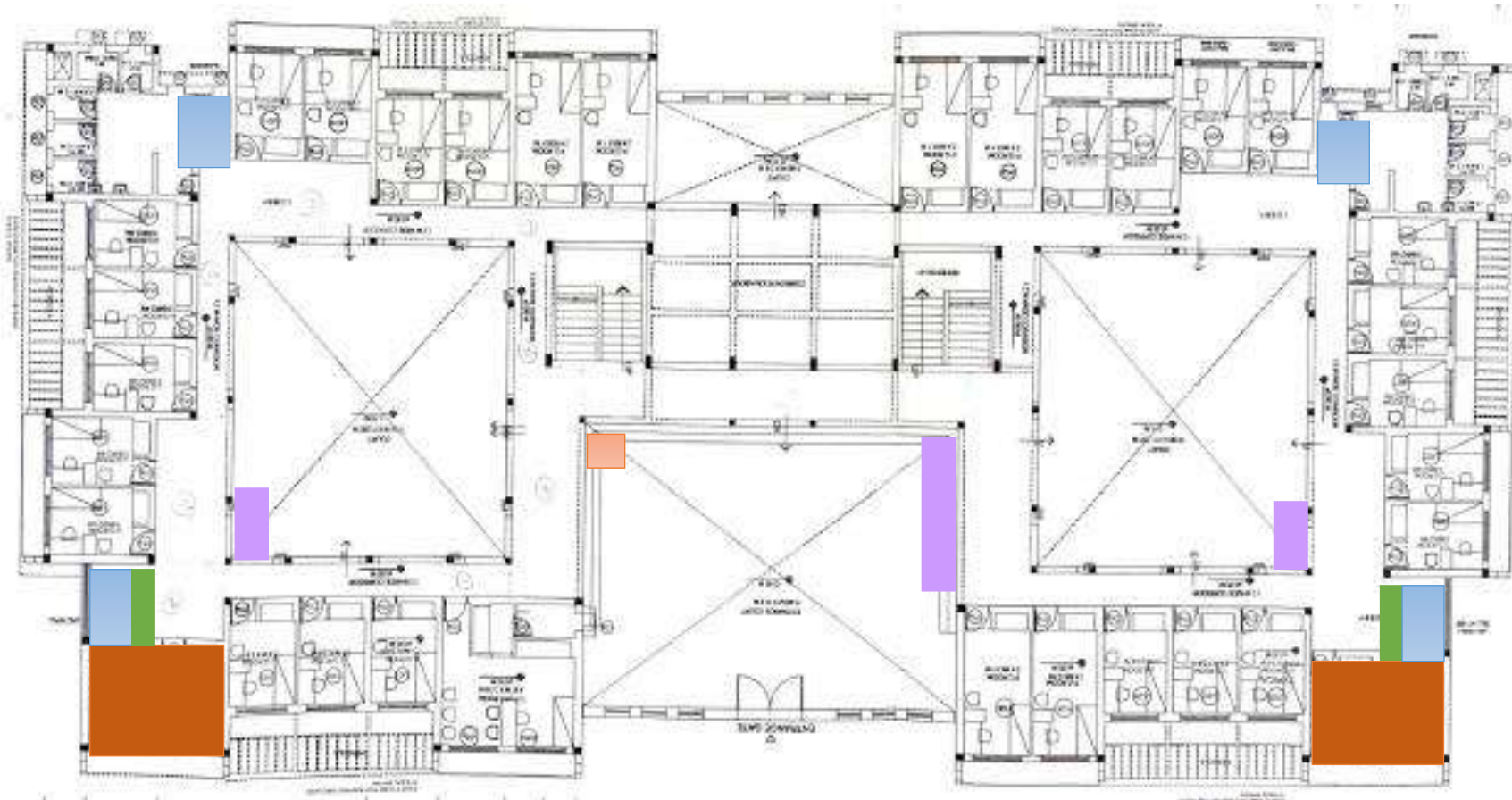
EXISTING SLOPE 1:10

REQUIRED SLOPE 1:12






RECOMMENDED FINISH – PLAIN BROOM FINISH CONCRETE



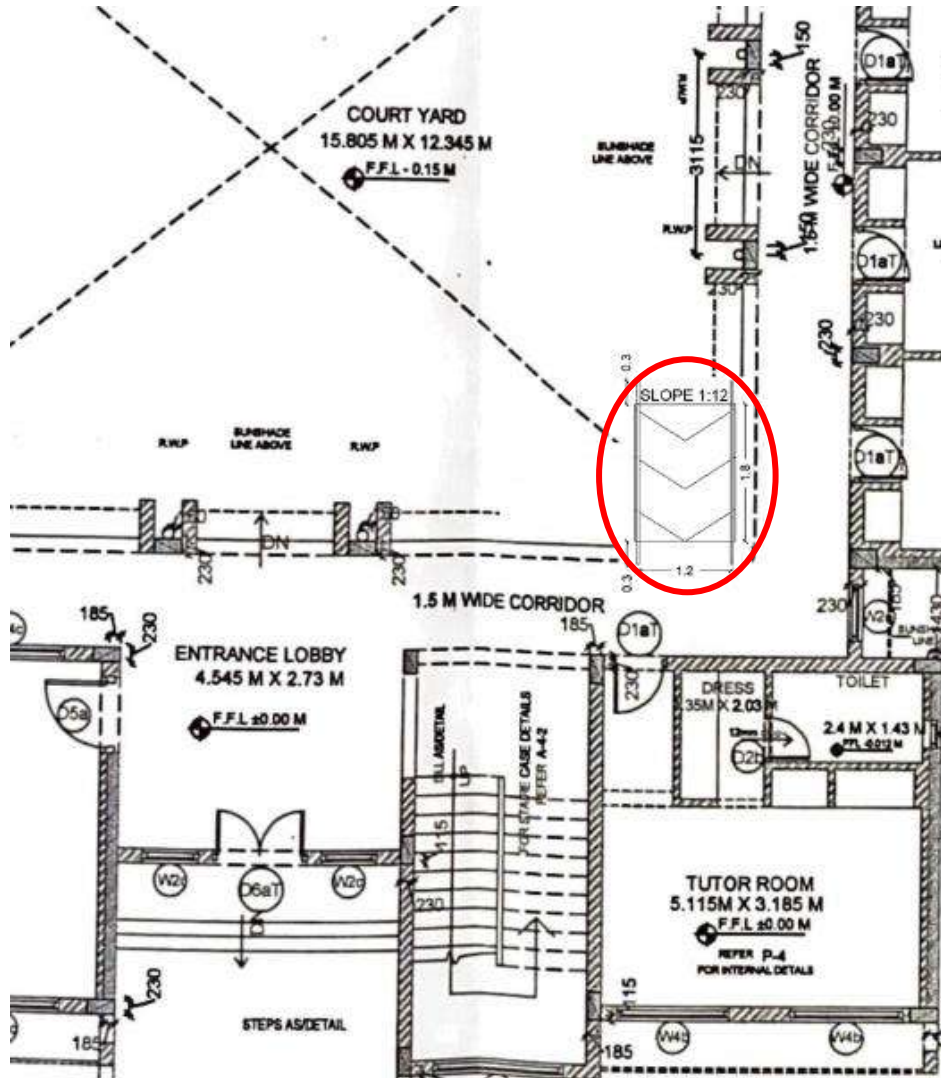
## 10. BOYS HOSTEL 1 – PROPOSED ACCESS MEASURES



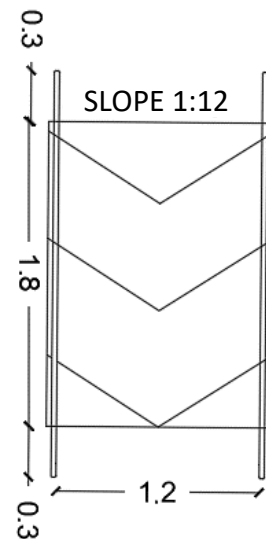
### LEGEND

	PROPOSED LIFT
	PROPOSED RAMP
	PROPOSED ACCESSIBLE TOILET
	PROPOSED ACCESSIBLE ROOM
	PROPOSED/ RELOCATION OF D.W.F

## 10. BOYS HOSTEL BLOCK 1 – PROPOSED RAMP TO ACCESS COURTYARD

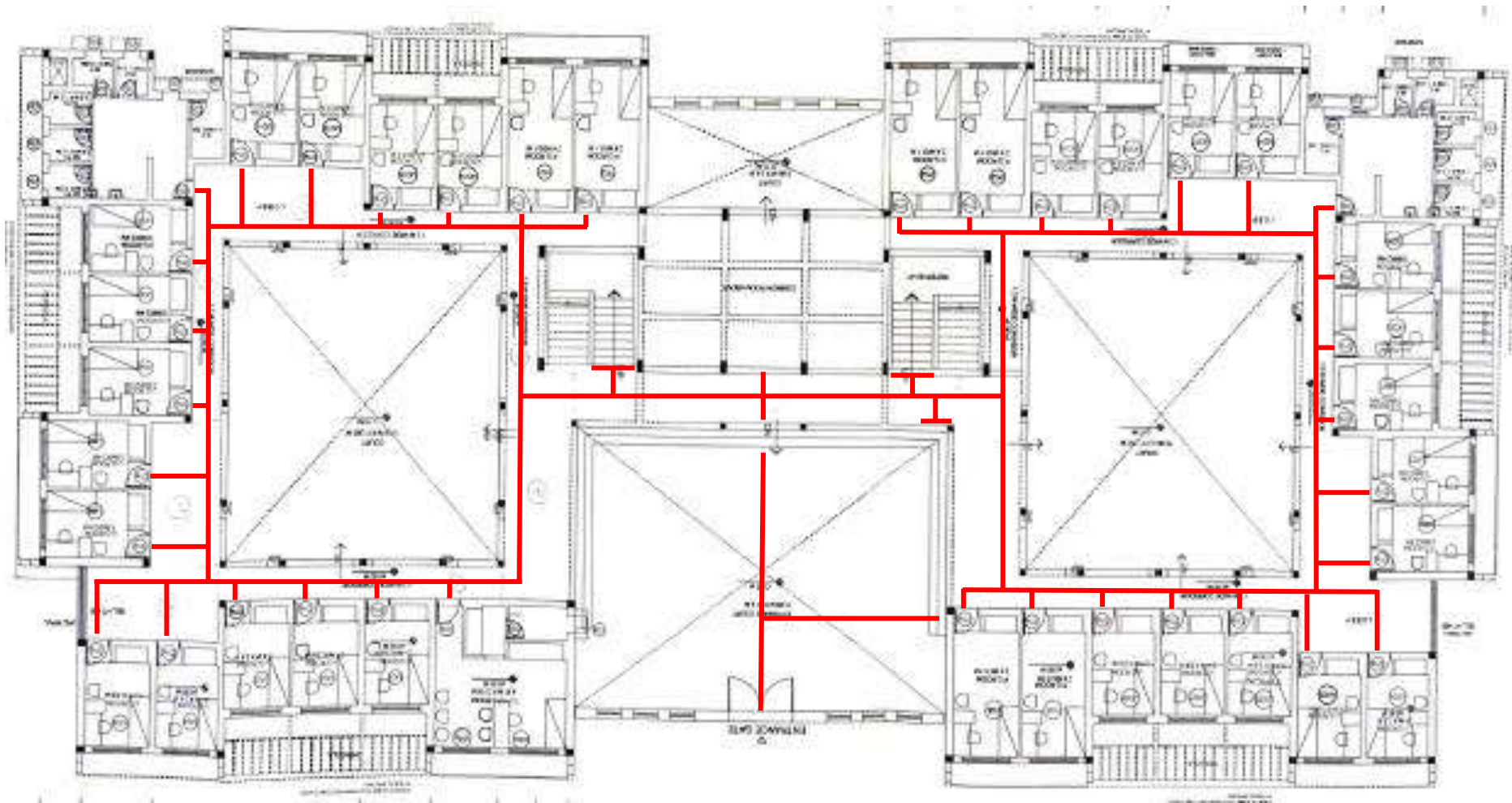


**TYPICAL RAMP TO ACCESS CENTRAL COURTYARD IN HOSTEL BLOCKS**





## 10. BOYS HOSTEL BLOCK 1 – PROPOSED TACTILE GUIDING PATH

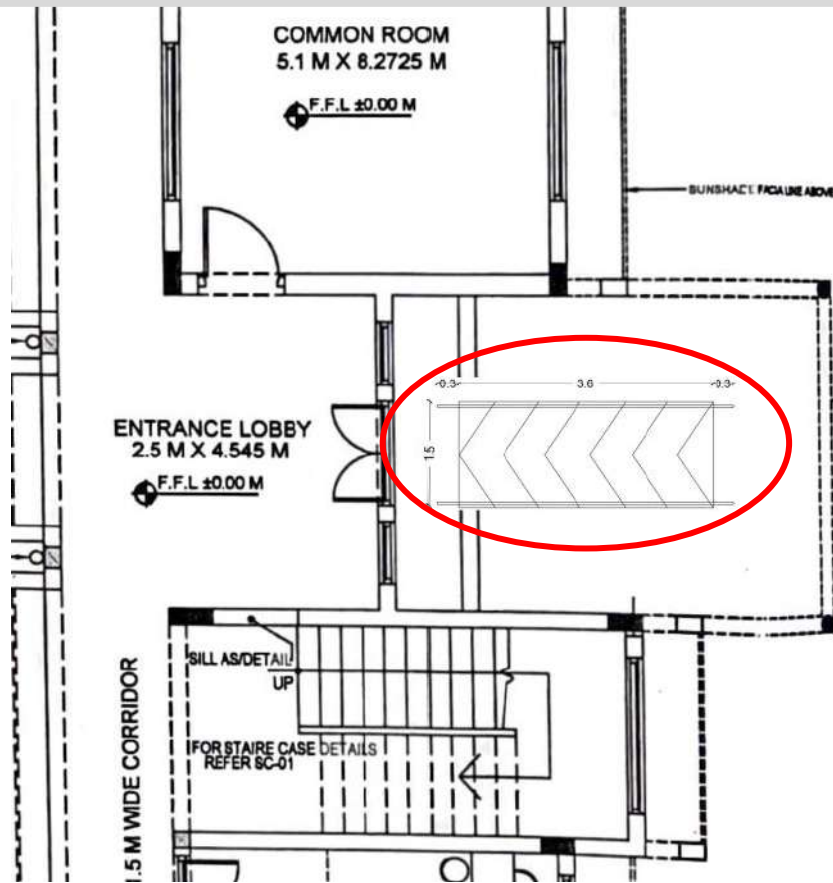


HOSTEL BLOCK 1

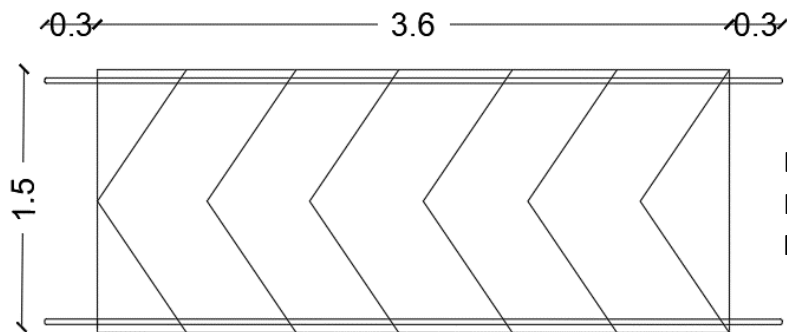




## 11. BOYS HOSTEL 2 – PROPOSED MODIFICATION TO ENTRANCE RAMP



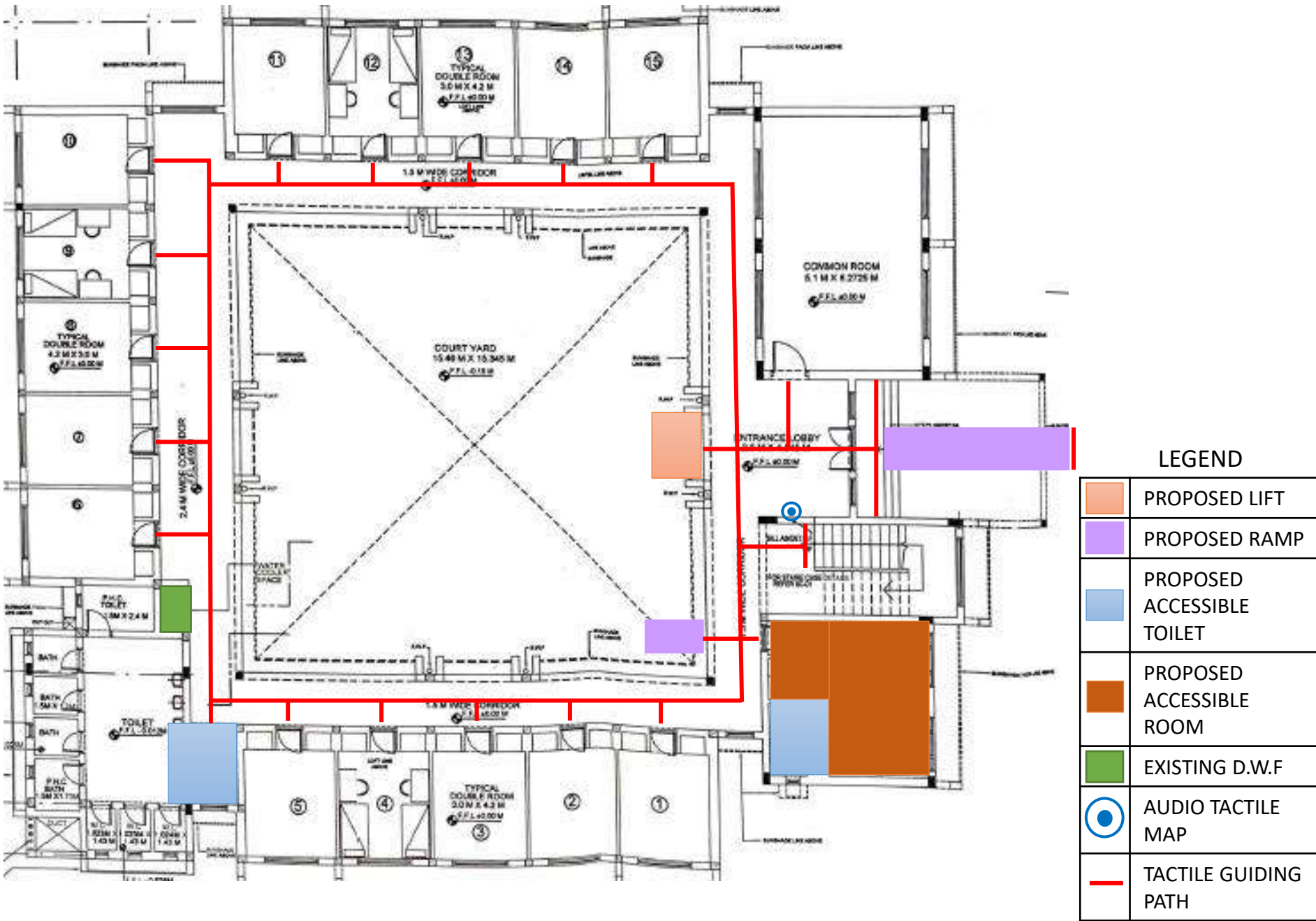
**BOYS HOSTEL 2**



**SLOPE 1:12**

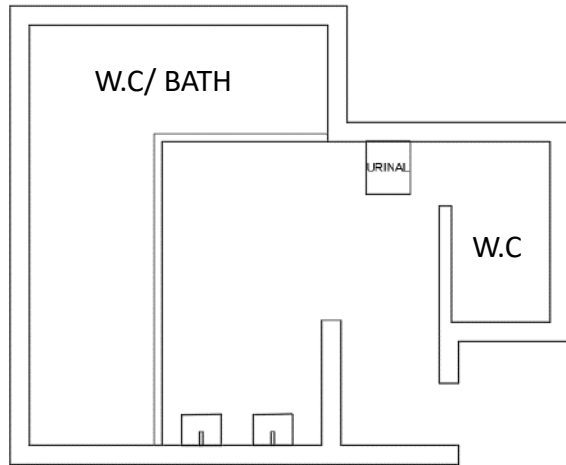
EXISTING SLOPE 1:10  
REQUIRED SLOPE 1:12  
RECOMMENDED FINISH – PLAIN BROOM FINISH CONCRETE

## 11. BOYS HOSTEL 2 – PROPOSED ACCESS MEASURES

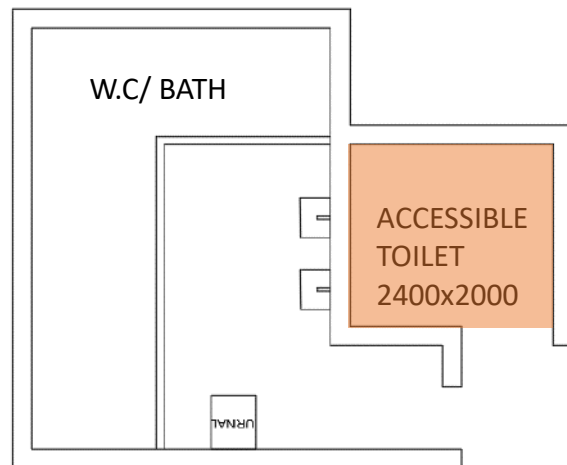




## 11. BOYS HOSTEL 1 AND 2 – PROPOSED ACCESSIBLE TOILETS

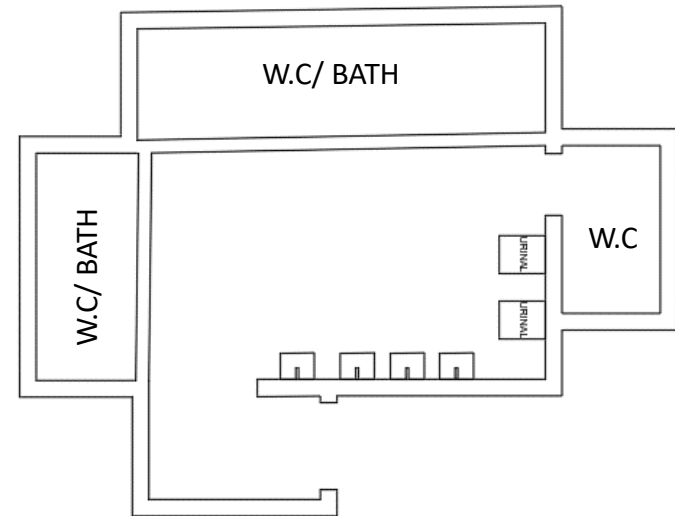


**EXISTING TOILET**

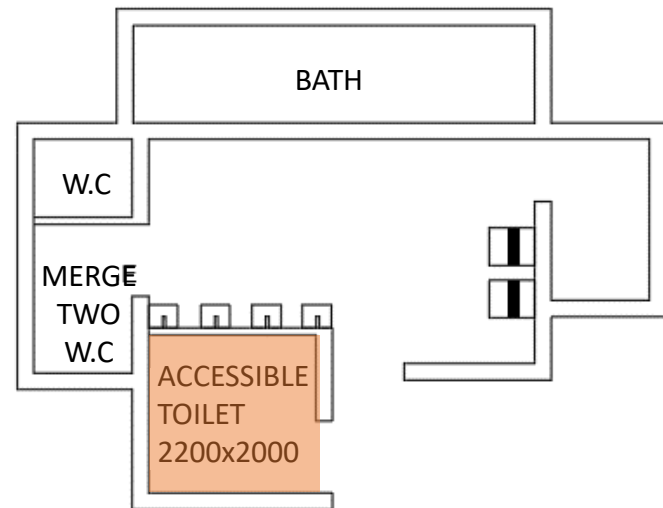


**MODIFIED TOILET**

**BOYS HOSTEL 1**



**EXISTING TOILET**



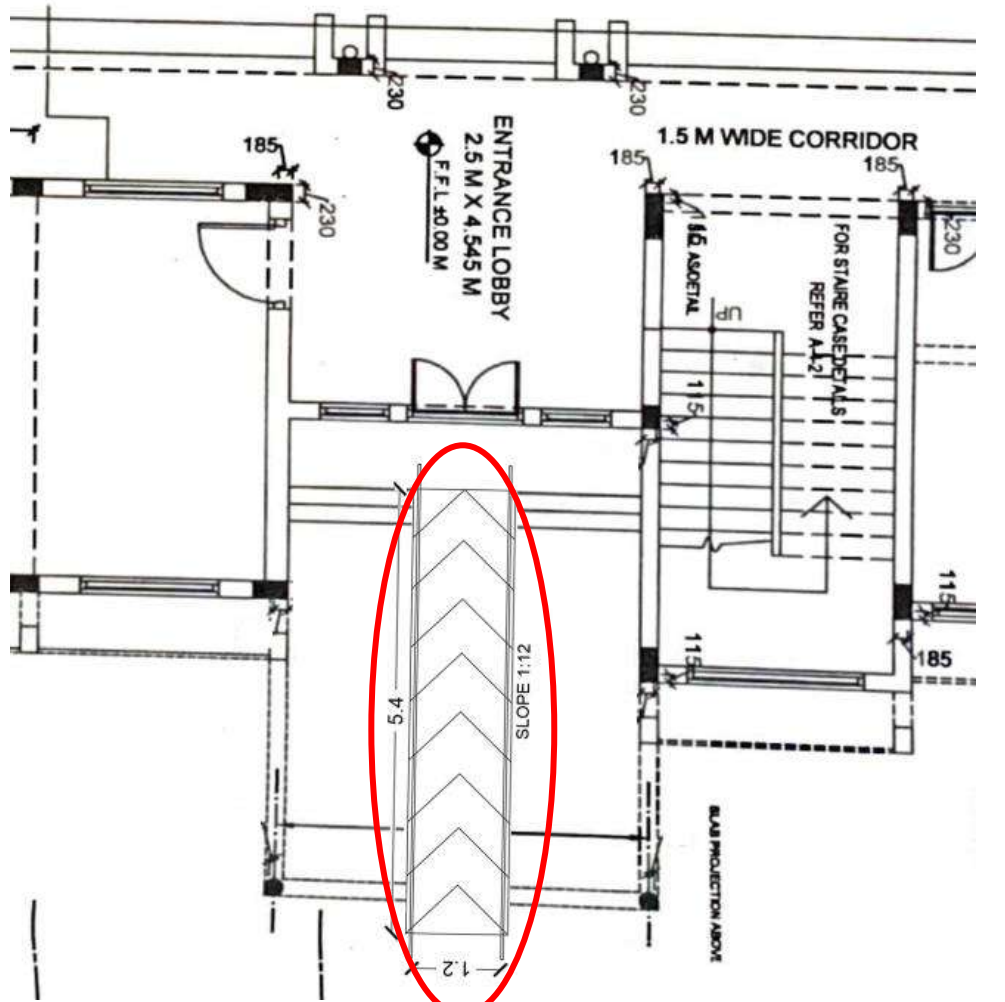
**MODIFIED TOILET**

**BOYS HOSTEL 2**

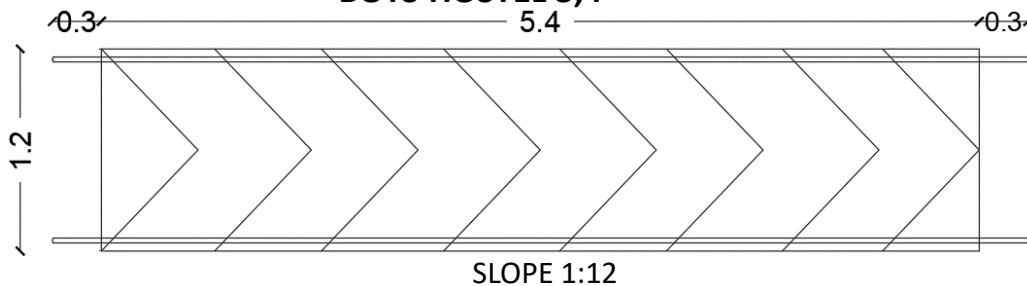




## 12. BOYS HOSTEL 3 & 4 – PROPOSED MODIFICATION TO ENTRANCE RAMP



**BOYS HOSTEL 3,4**

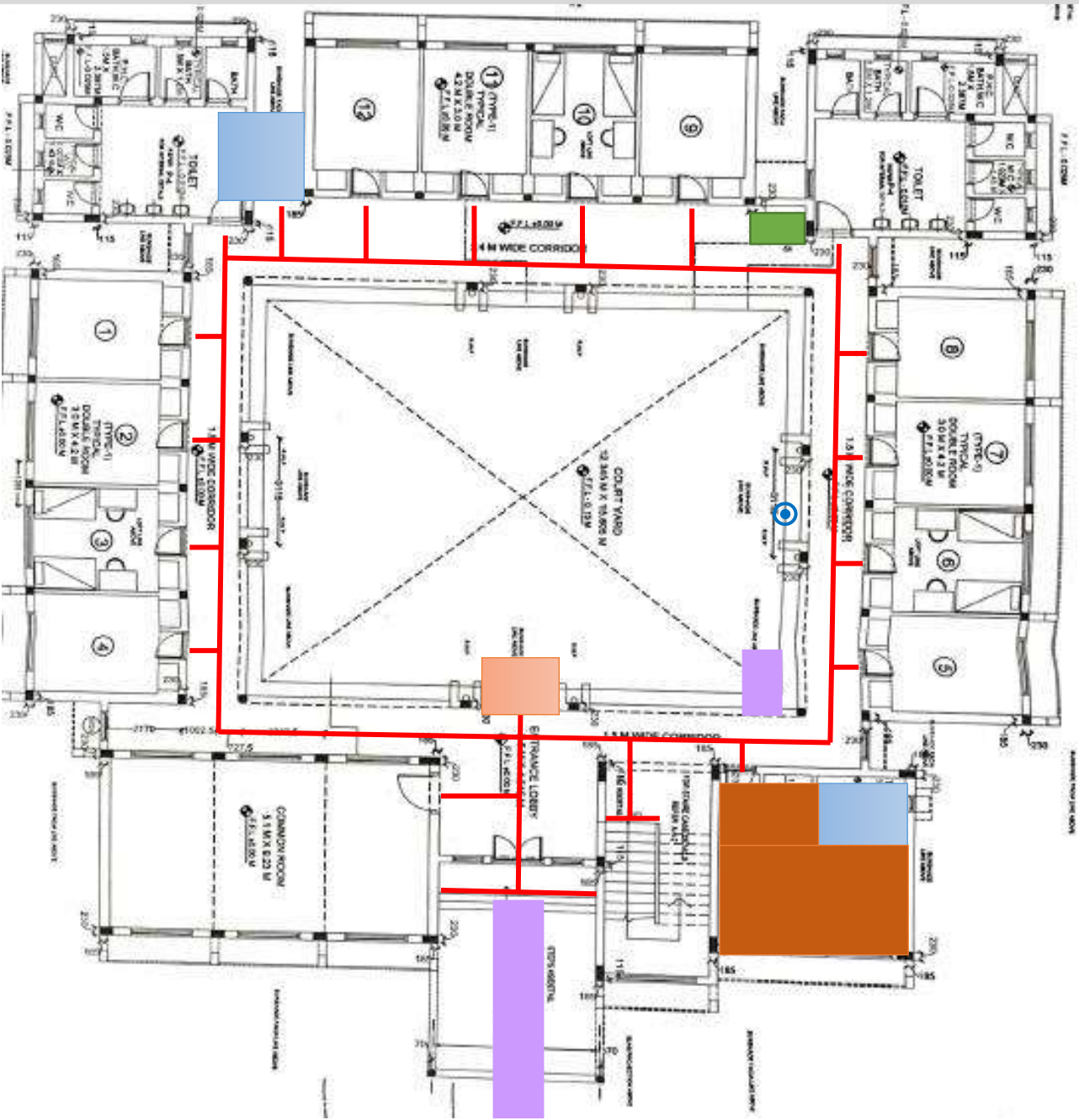


EXISTING SLOPE 1:10








REQUIRED SLOPE 1:12

RECOMMENDED FINISH – PLAIN BROOM FINISH CONCRETE

12. BOYS HOSTEL 3 – PROPOSED ACCESS MEASURES



LEGEND

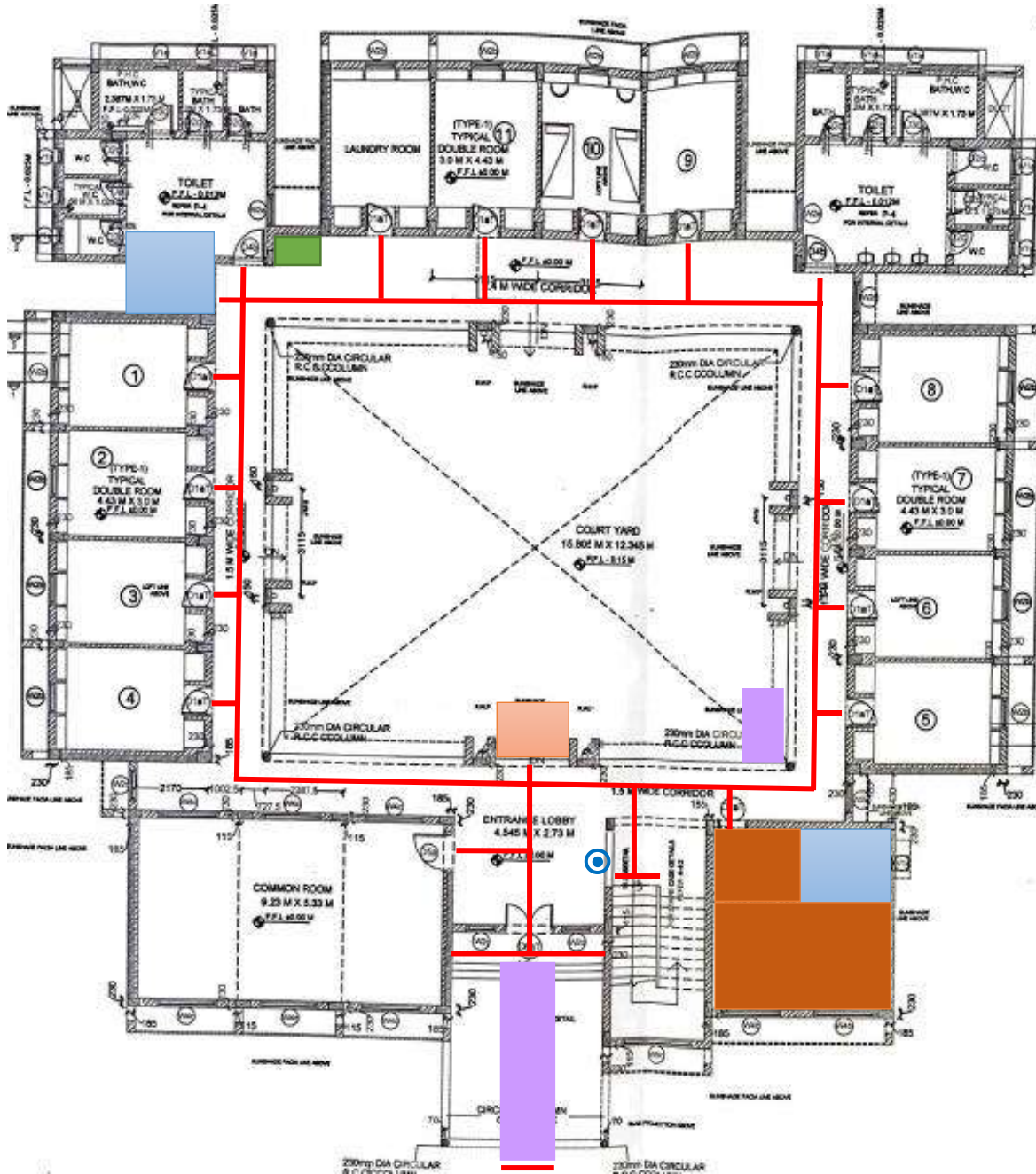
	PROPOSED LIFT
	PROPOSED RAMP
	PROPOSED ACCESSIBLE TOILET
	PROPOSED ACCESSIBLE ROOM
	EXISTING D.W.F
	AUDIO-TACTILE MAP
	TACTILE GUIDING PATH












BH  
NO 4

### 13. BOYS HOSTEL 4 – PROPOSED ACCESS MEASURES



## LEGEND

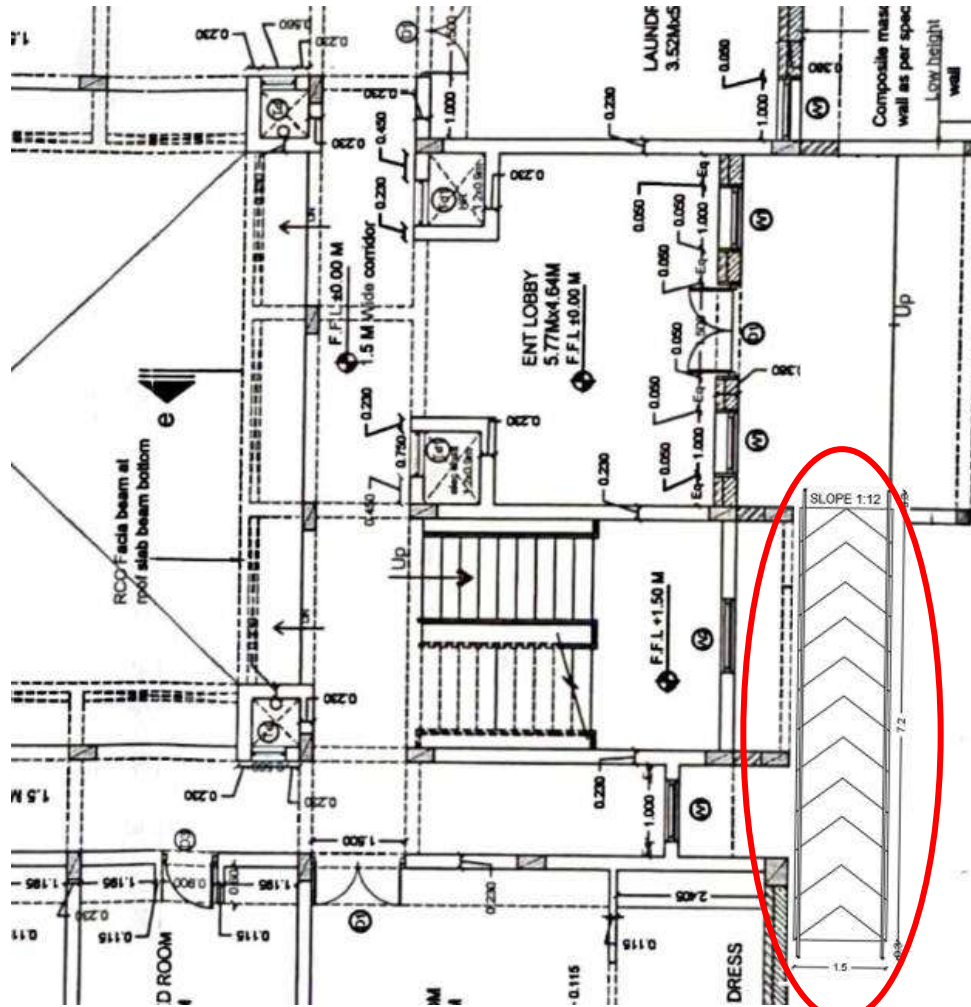
	PROPOSED LIFT
	PROPOSED RAMP
	PROPOSED ACCESSIBLE TOILET
	PROPOSED ACCESSIBLE ROOM
	EXISTING D.W.F
	AUDIO-TACTILE MAP
	TACTILE GUIDING PATH





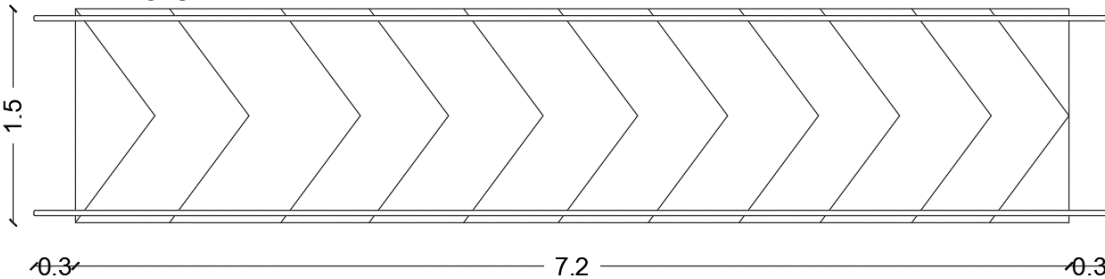


## 14. BOYS HOSTEL 5 - PROPOSED MODIFICATION TO ENTRANCE RAMP



**BOYS HOSTEL 5**

SLOPE 1:12



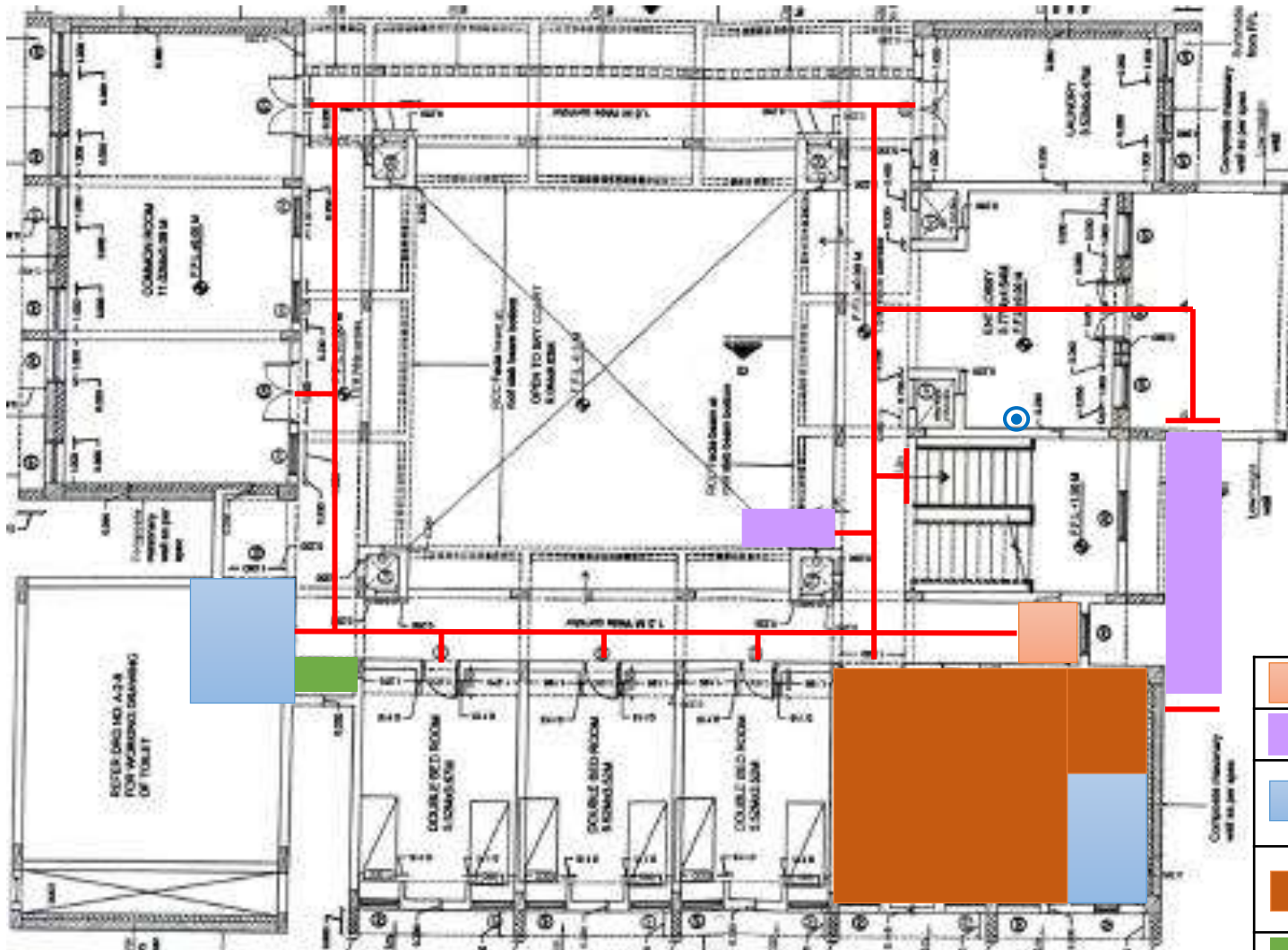
EXISTING SLOPE 1:10

REQUIRED SLOPE 1:12








RECOMMENDED FINISH – PLAIN BROOM FINISH CONCRETE



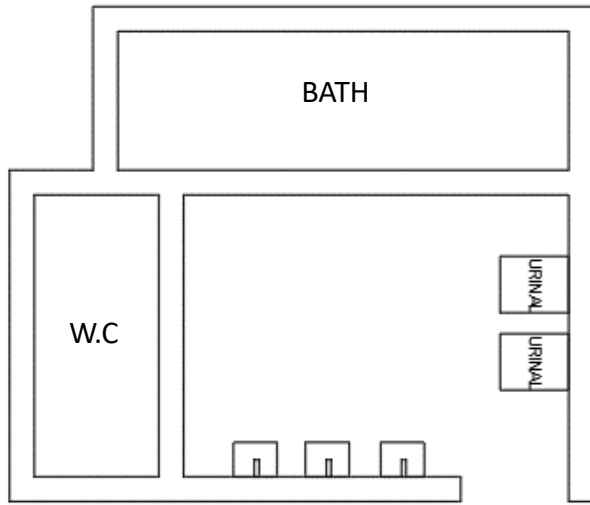
## 14. BOYS HOSTEL 5 – PROPOSED ACCESS MEASURES



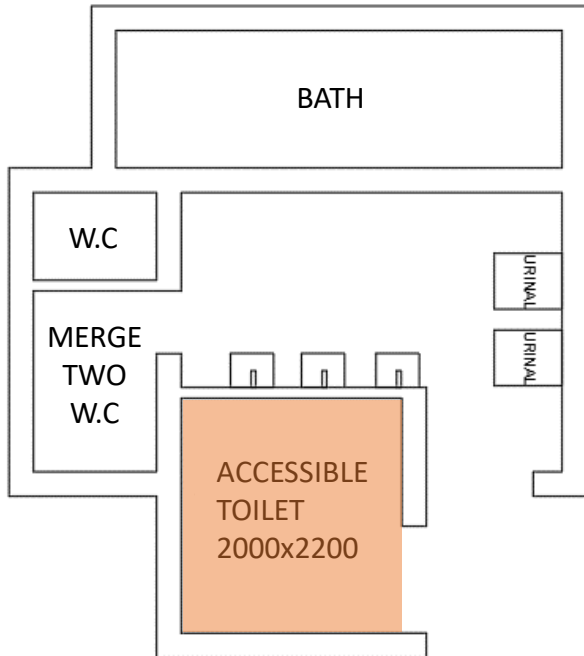
### LEGEND

	PROPOSED LIFT
	PROPOSED RAMP
	PROPOSED ACCESSIBLE TOILET
	PROPOSED ACCESSIBLE ROOM
	EXISTING D.W.F
	AUDIO-TACTILE MAP
	TACTILE GUIDING PATH

## BOYS HOSTEL 3, 4, 5 – PROPOSED ACCESSIBLE TOILETS

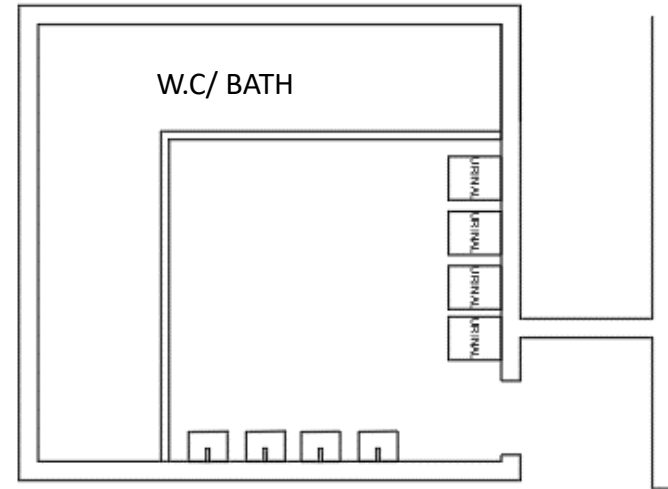


**EXISTING TOILET**

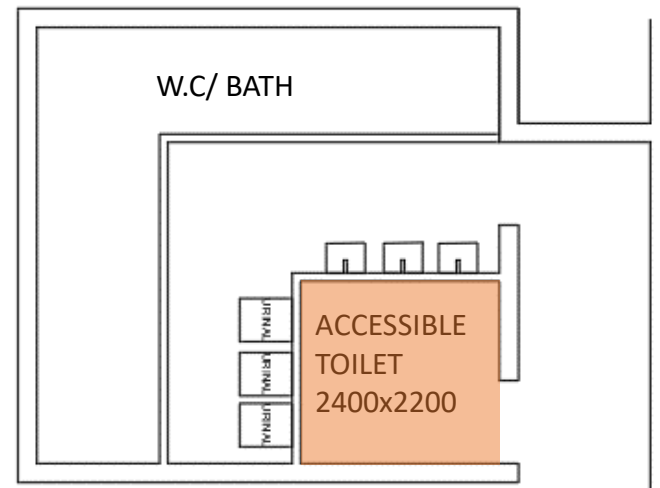


**MODIFIED TOILET**

**BOYS HOSTEL 3,4**



**EXISTING TOILET**



**MODIFIED TOILET**

**BOYS HOSTEL 5**



## 15. ENTRY TO GIRLS COMPLEX



### KEY ISSUES

- No proper pedestrian pathway provided to access hostel block.
- Existing pathway have obstructions.
- Accessible parking not provided nearby.
- External pathways are undulating.
- Grating is not as per NBC standards considering wheelchair users.
- Wayfinding and navigation through the hostel blocks is a challenge in absence of maps / signage.
- Tactile guiding path not provided in circulation areas.
- Directional signage is absent in the external and internal areas.
- No firm pathway leading to basketball court.



## 15. PATHWAYS INSIDE GIRLS HOSTEL COMPLEX

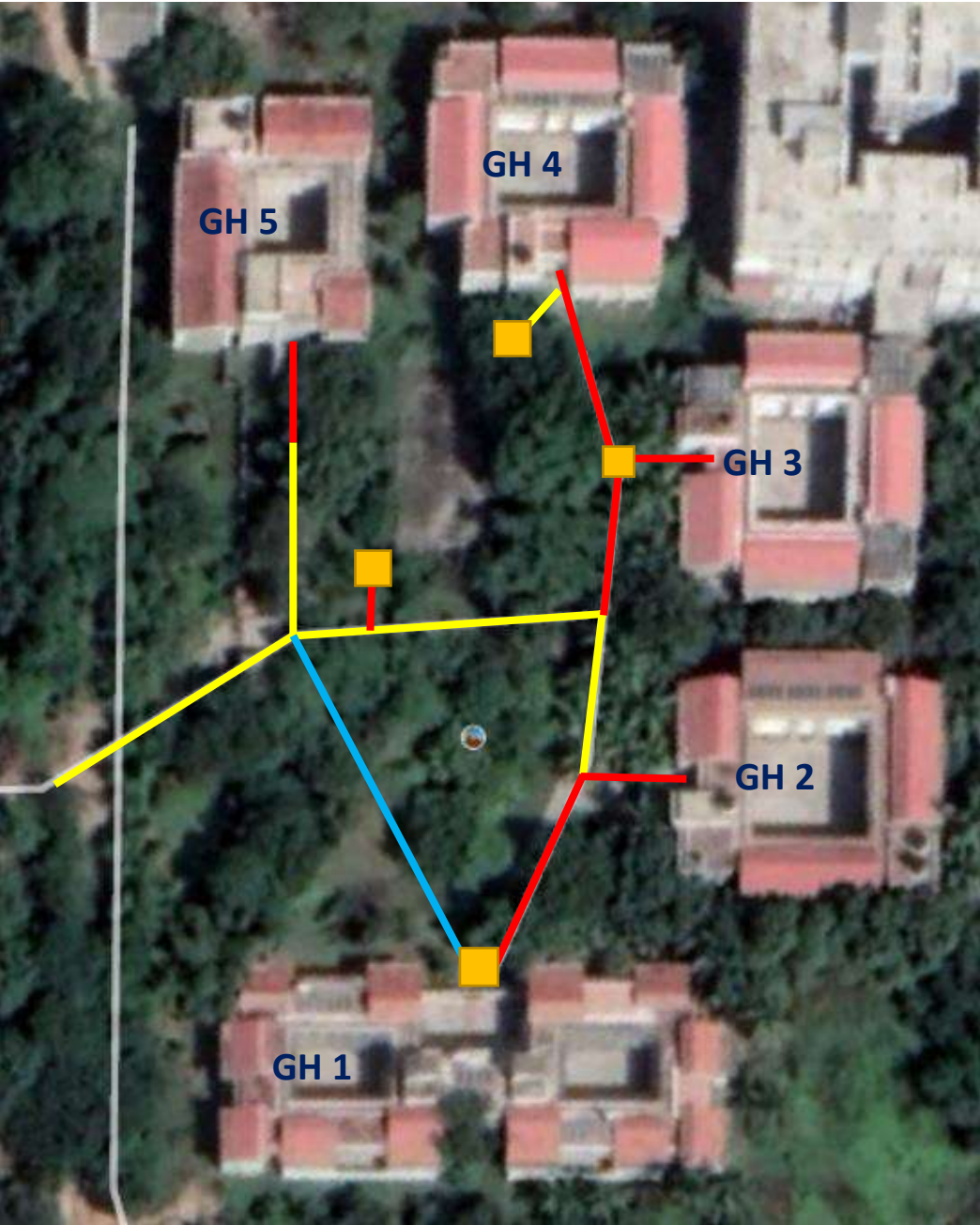


### KEY ISSUES





- External pathways are undulating and without railing.
- Existing ramp access provided for wheelchair users is not as per NBC standards.
- Wayfinding and navigation through the hostel block is a challenge in absence of maps / signage.
- Tactile guiding path not provided in circulation areas.
- Directional signage is absent in the external and internal areas.



15. GIRLS HOSTEL COMPLEX - PROPOSED ACCESS MEASURES AT SITE LEVEL



LEGEND

	RAMPS WITH RAILING ON BOTH SIDES
	FLAT PATHWAYS
	PROPOSED NEW PATHWAY
	FLAT LANDING SPACE







## 16. GIRLS HOSTEL BLOCK 1 – PROPOSED MODIFICATION TO ENTRANCE

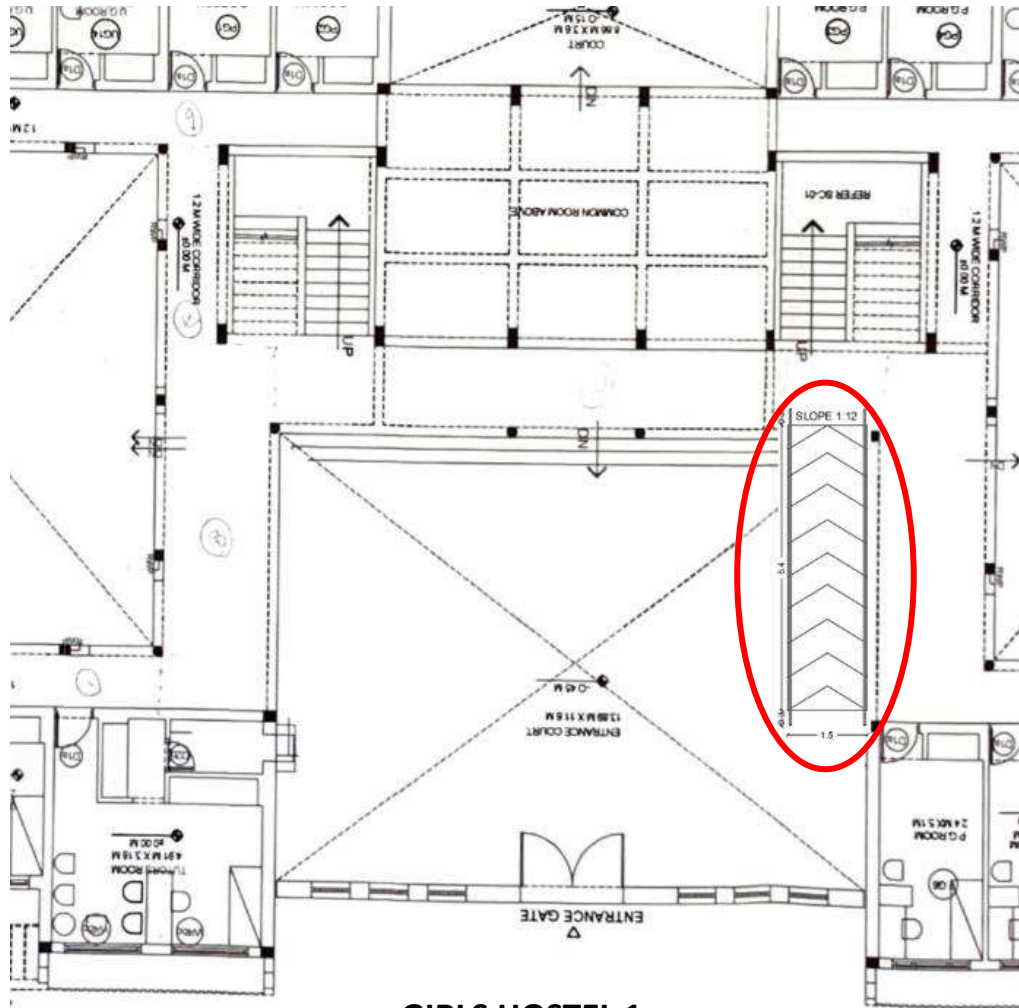


ISSUE - STEEP RAMPS ON BOTH SIDES OF ENTRANCE, MAKING IT EXTREMELY HAZARDOUS AND INACCESSIBLE.

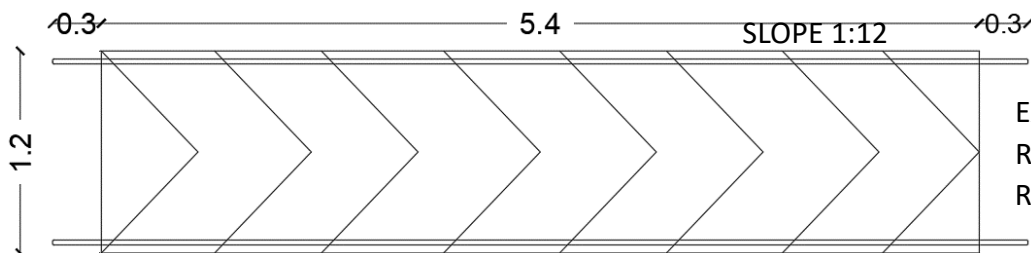
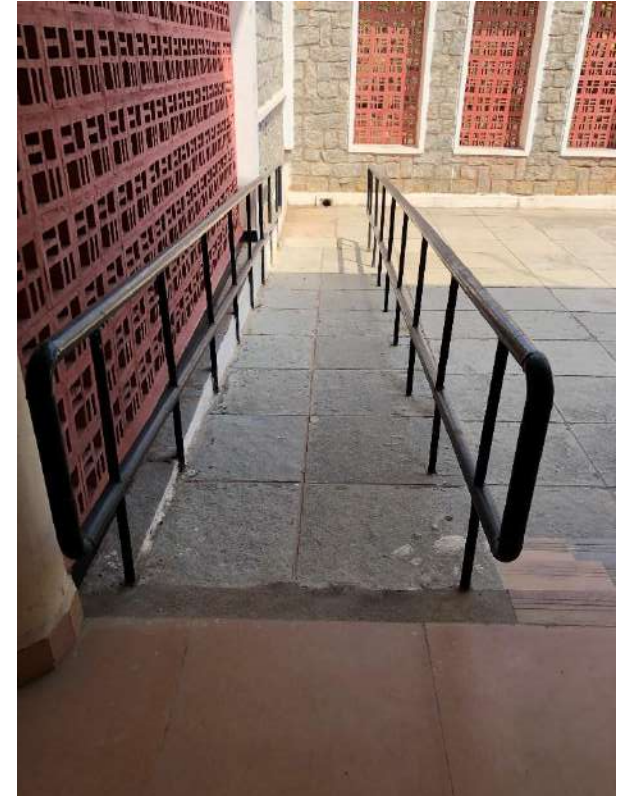
RECOMMENDATION –

RAISED PLINTH BEAM AND BOTH RAMPS TO BE REMOVED, TO ALLOW LEVELED ENTRY INTO THE HOSTEL BLOCK FROM PATHWAY.

## 16. GIRLS HOSTEL BLOCK 1 – PROPOSED MODIFICATION TO ENTRANCE RAMP



**GIRLS HOSTEL 1**



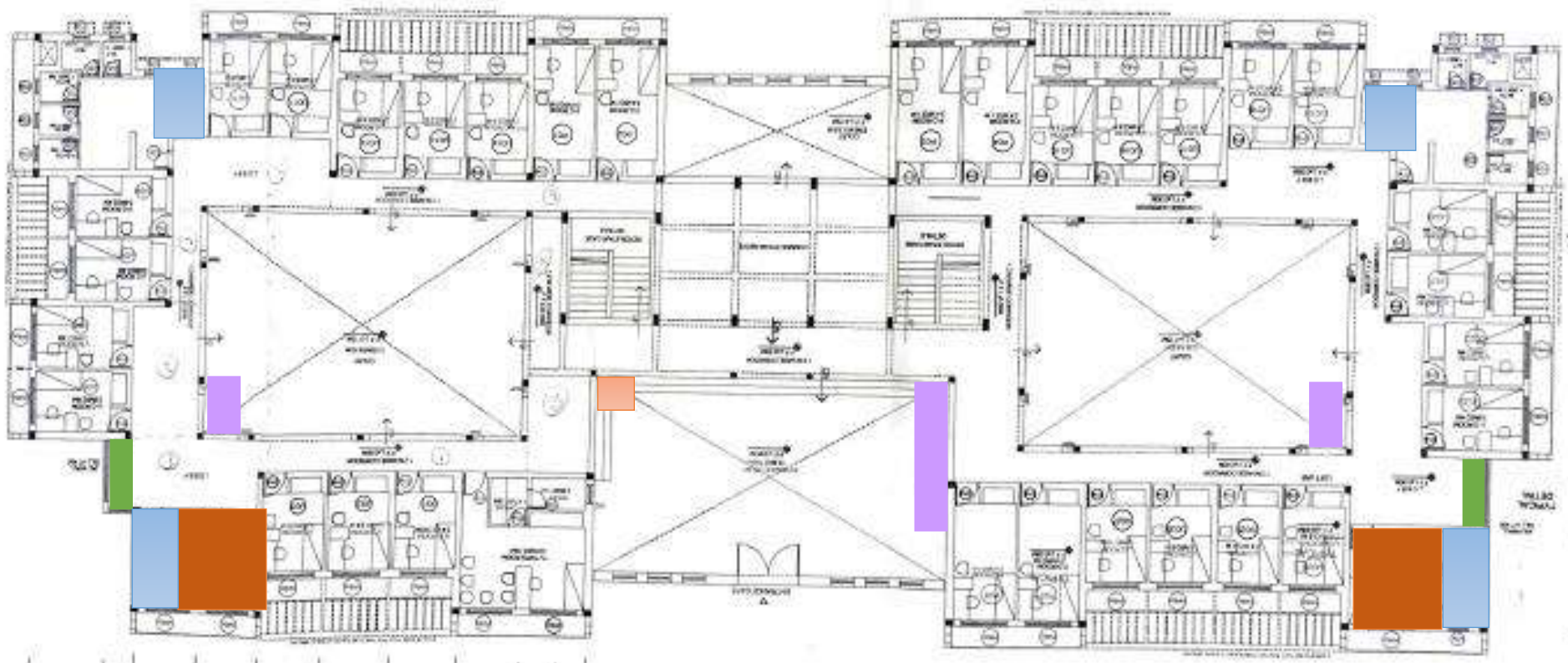
EXISTING SLOPE 1:10

REQUIRED SLOPE 1:12






RECOMMENDED FINISH – PLAIN BROOM FINISH CONCRETE



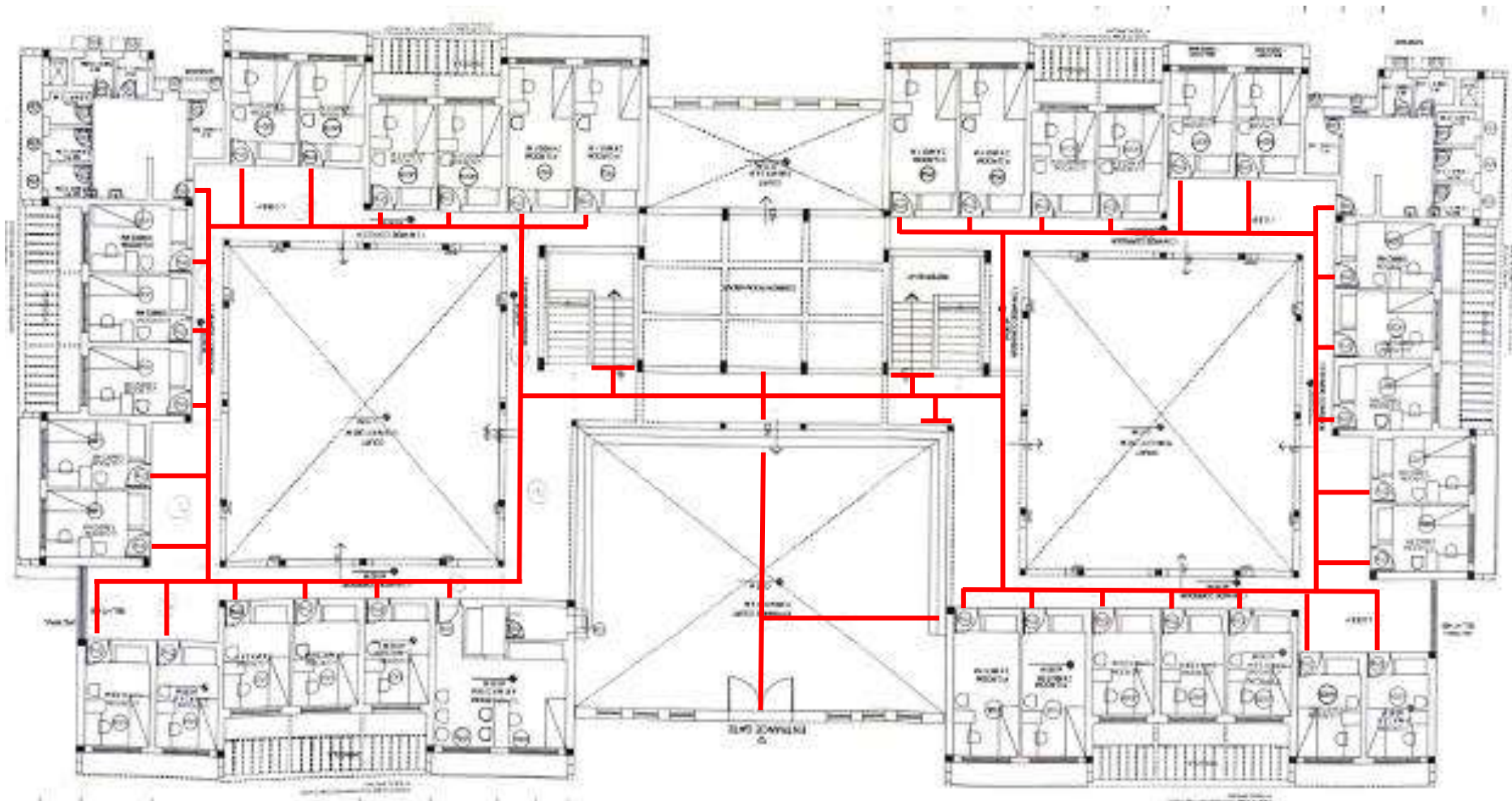
## 16. GIRLS HOSTEL 1 – PROPOSED ACCESS MEASURES



### LEGEND

	PROPOSED LIFT
	PROPOSED RAMP
	PROPOSED ACCESSIBLE TOILET
	PROPOSED ACCESSIBLE ROOM
	PROPOSED/ RELOCATION OF D.W.F

## 16. GIRLS HOSTEL BLOCK 1 – PROPOSED TACTILE GUIDING PATH

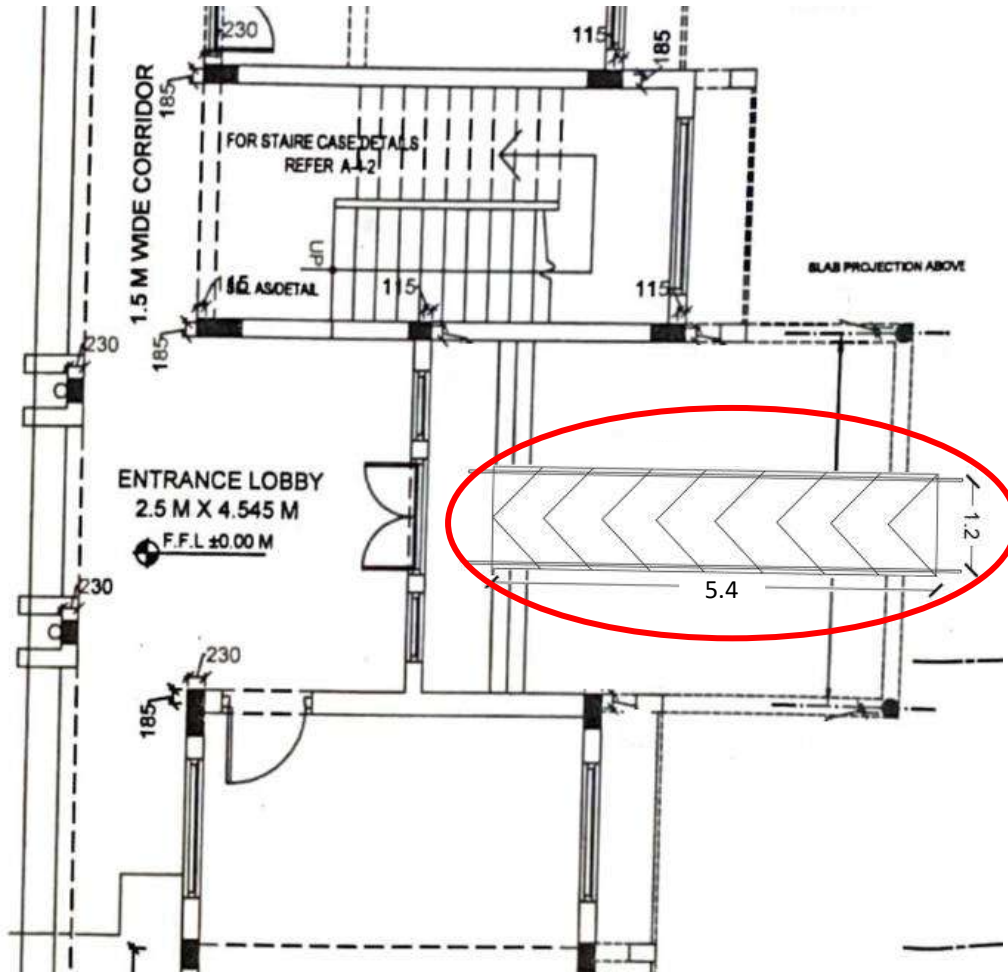


HOSTEL BLOCK 1

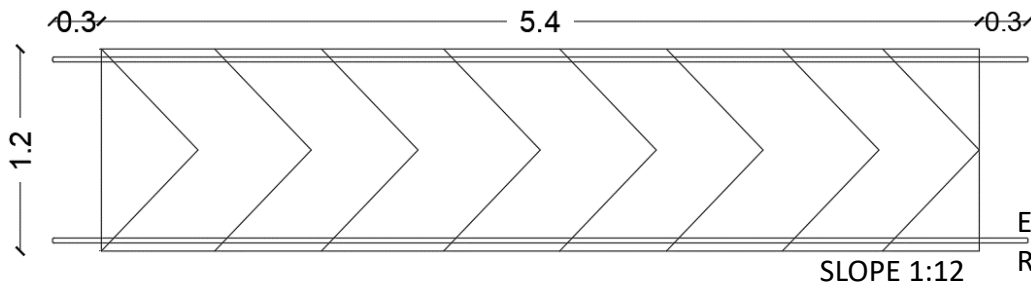




## 17. GIRLS HOSTEL 2 – PROPOSED MODIFICATION TO ENTRANCE RAMP



**GIRLS HOSTEL 2**

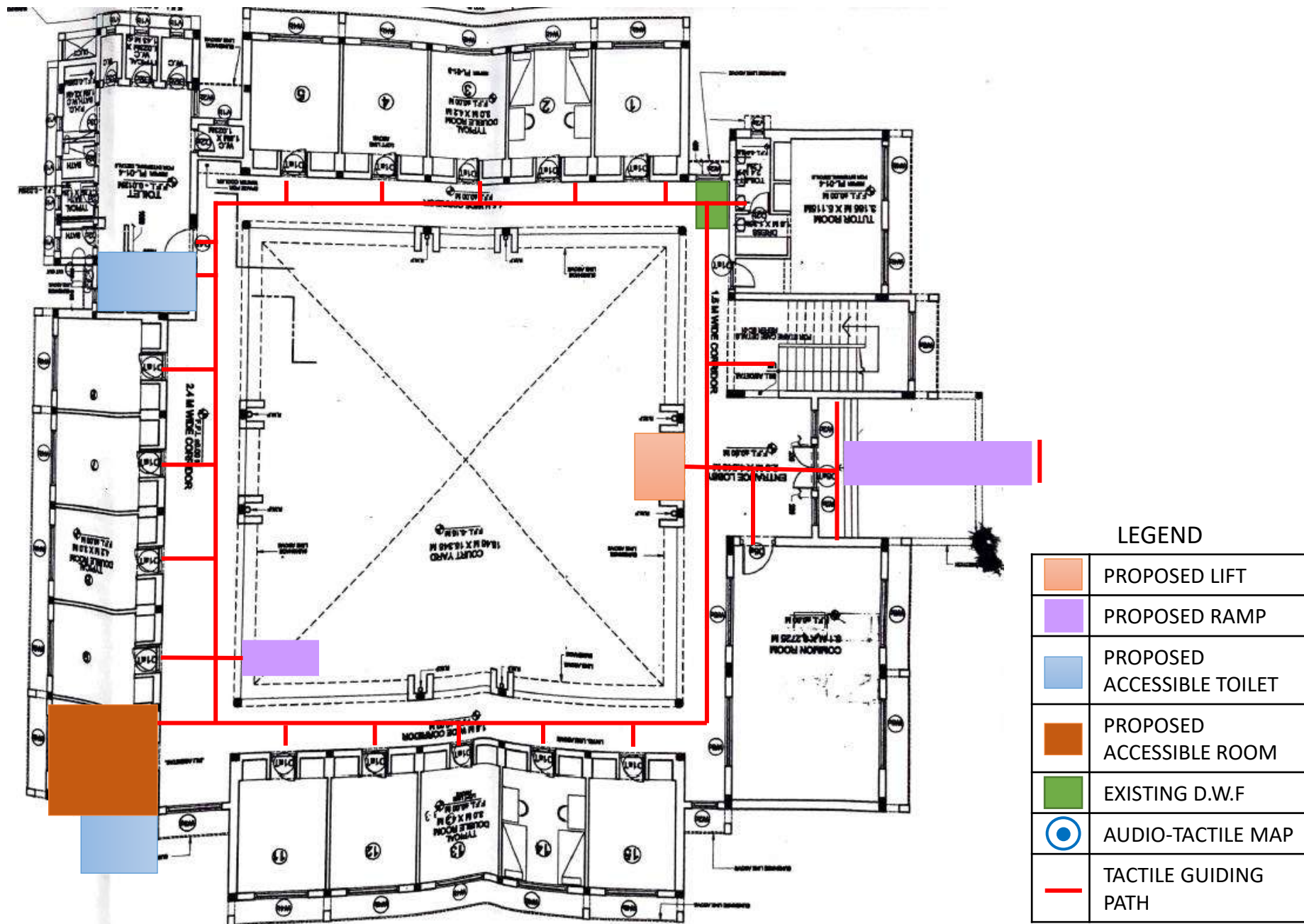


EXISTING SLOPE 1:10  
REQUIRED SLOPE 1:12

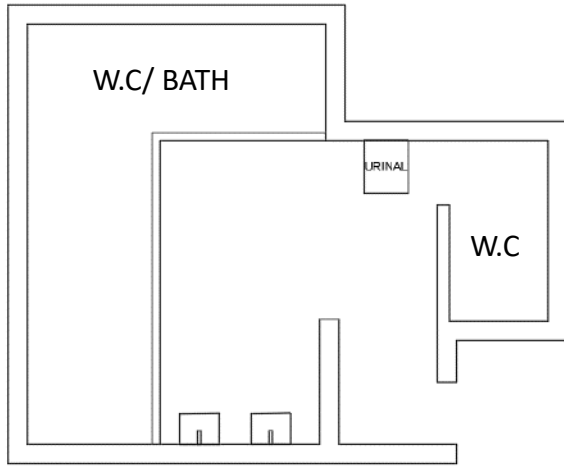




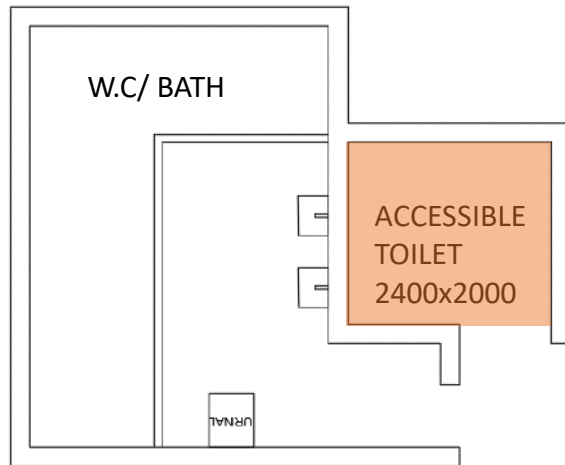
## 17. GIRLS HOSTEL 2 – PROPOSED ACCESS MEASURES



## 17. GIRLS HOSTEL 1 AND 2 – PROPOSED ACCESSIBLE TOILETS

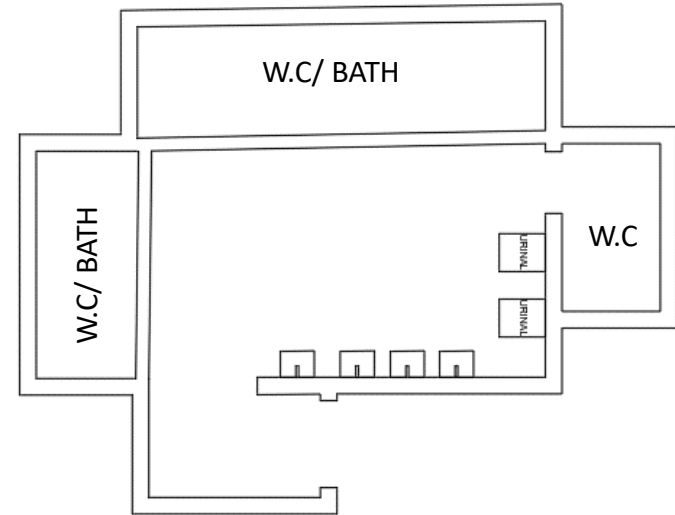


**EXISTING TOILET**

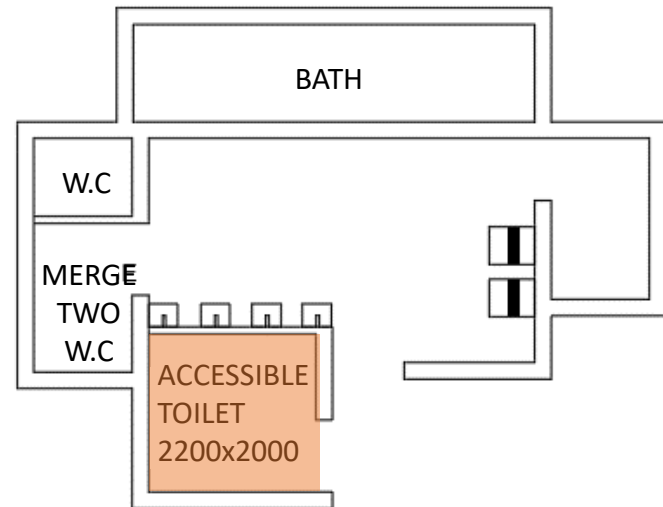


**MODIFIED TOILET**

**GIRLS HOSTEL 1**



**EXISTING TOILET**



**MODIFIED TOILET**

**GIRLS HOSTEL 2**

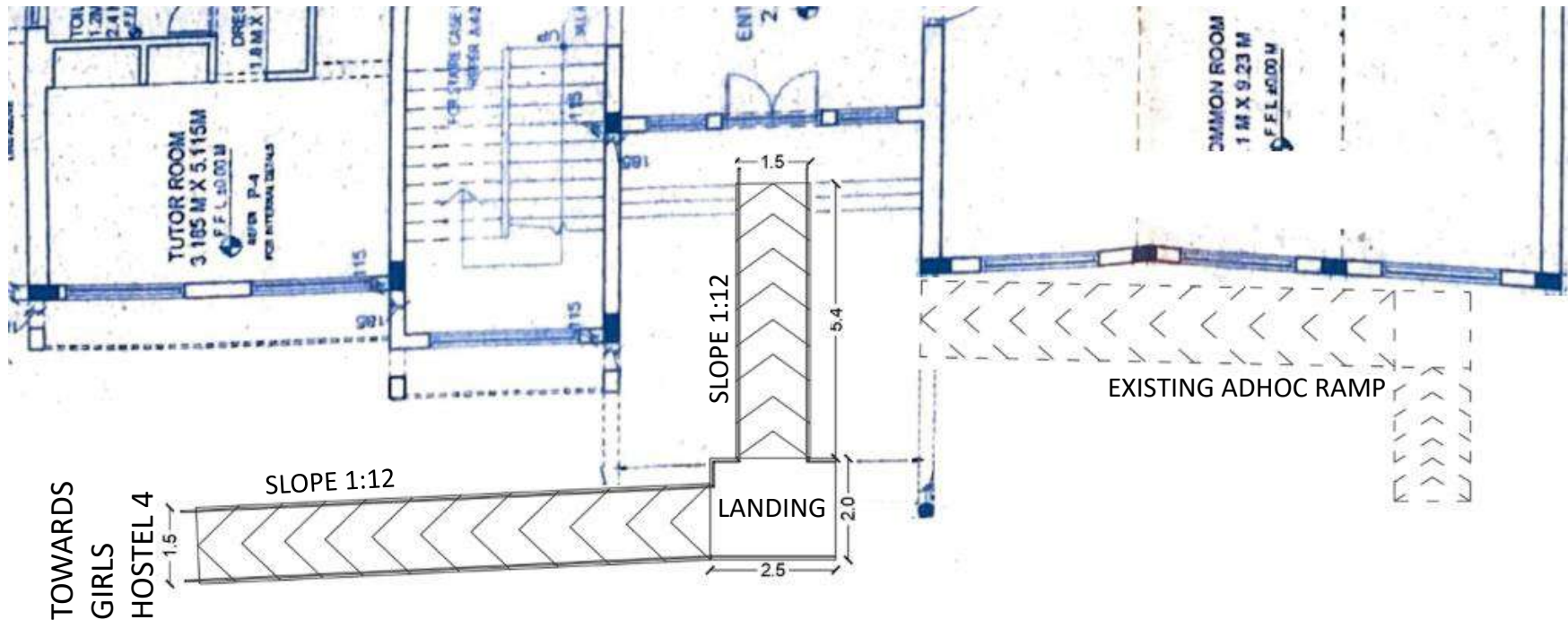






18. GIRLS HOSTEL 3 – PROPOSED MODIFICATION TO ENTRANCE RAMP

GIRLS HOSTEL 3



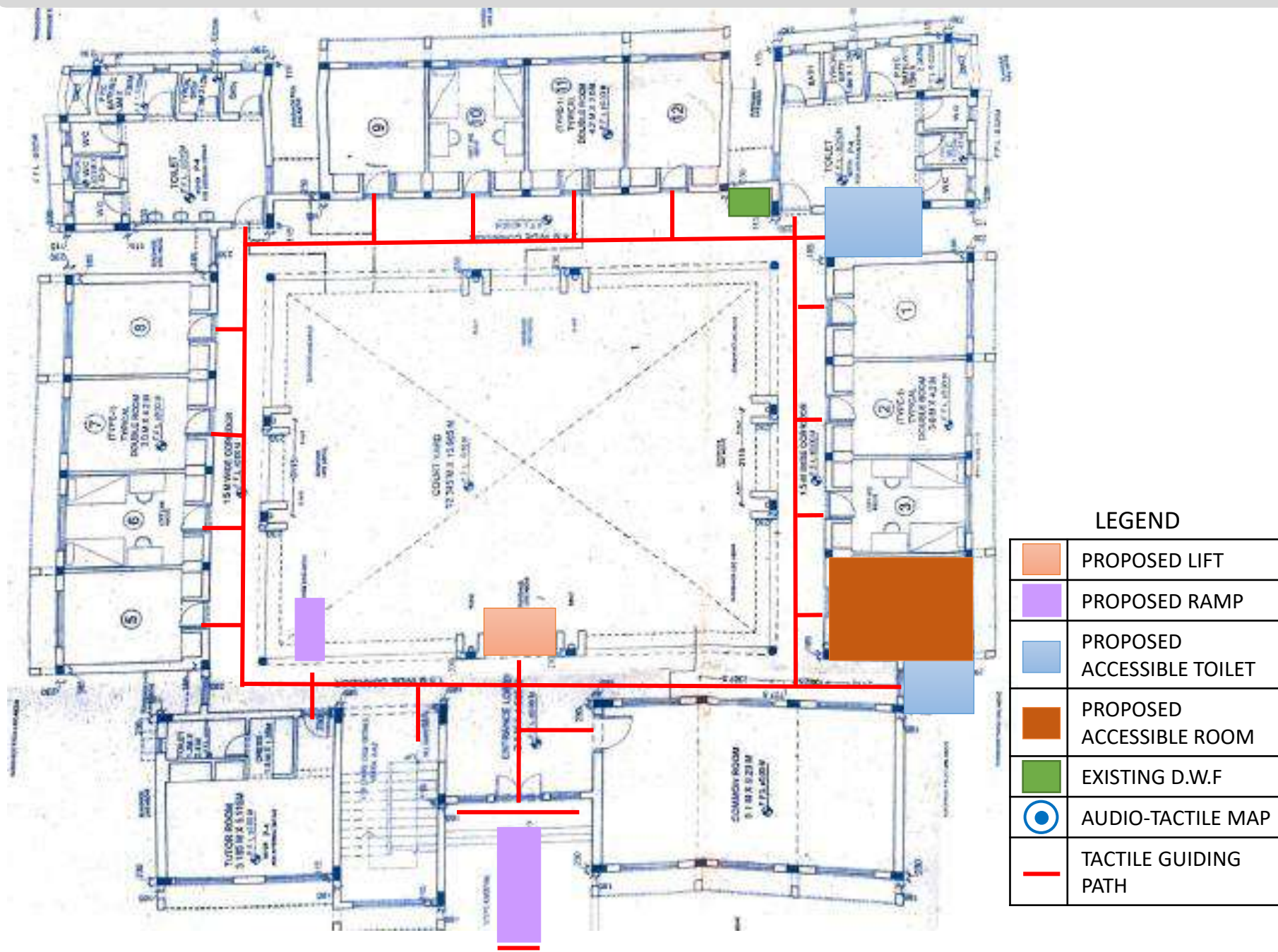
NEW RAMP CONNECTING GIRLS HOSTEL 3 & 4



EXISTING ADHOC RAMP



## 18. GIRLS HOSTEL 3 – PROPOSED ACCESS MEASURES



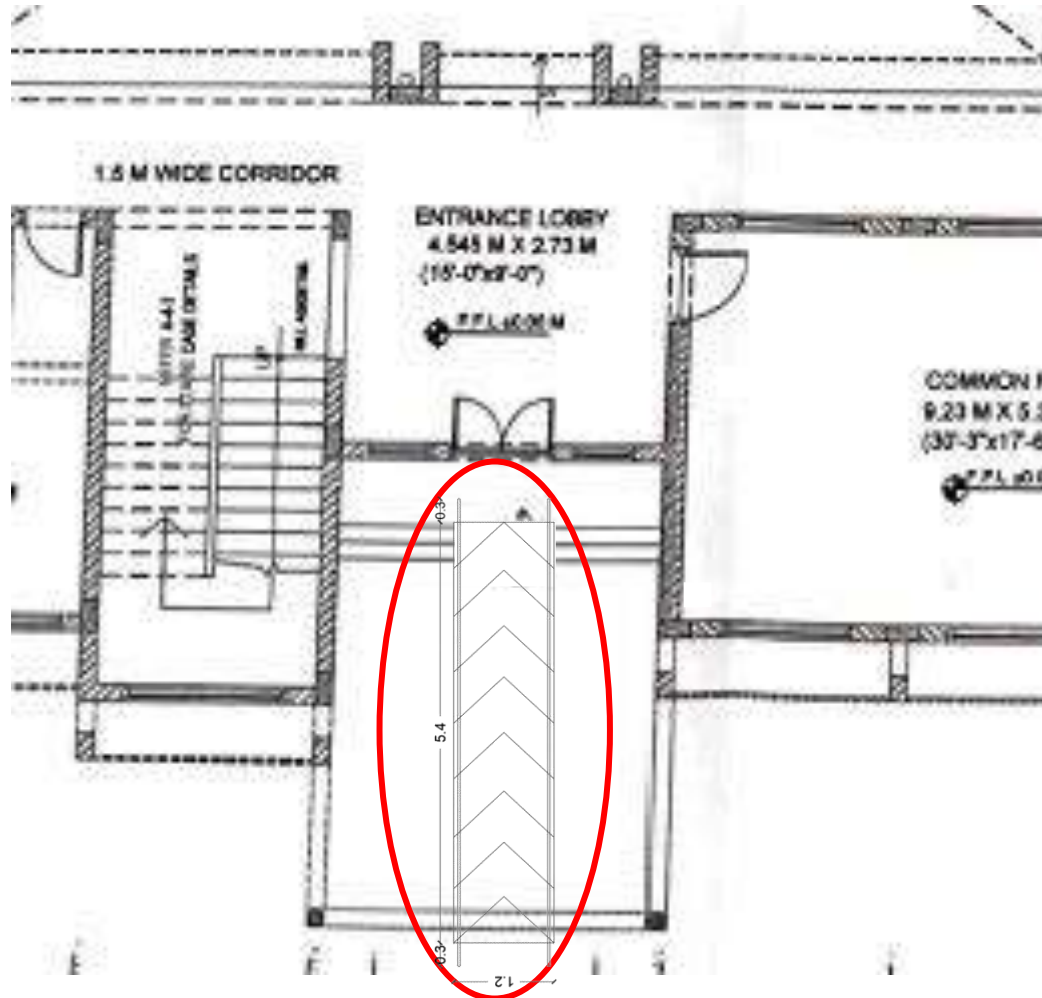




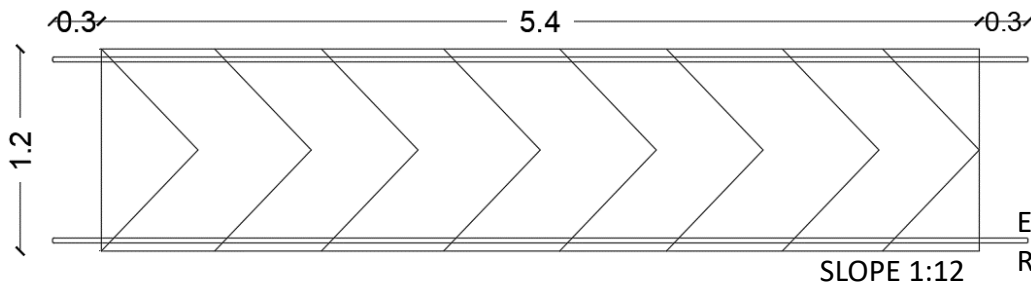
GH  
NO 4



## 19. GIRLS HOSTEL 4 – PROPOSED MODIFICATION TO ENTRANCE RAMP



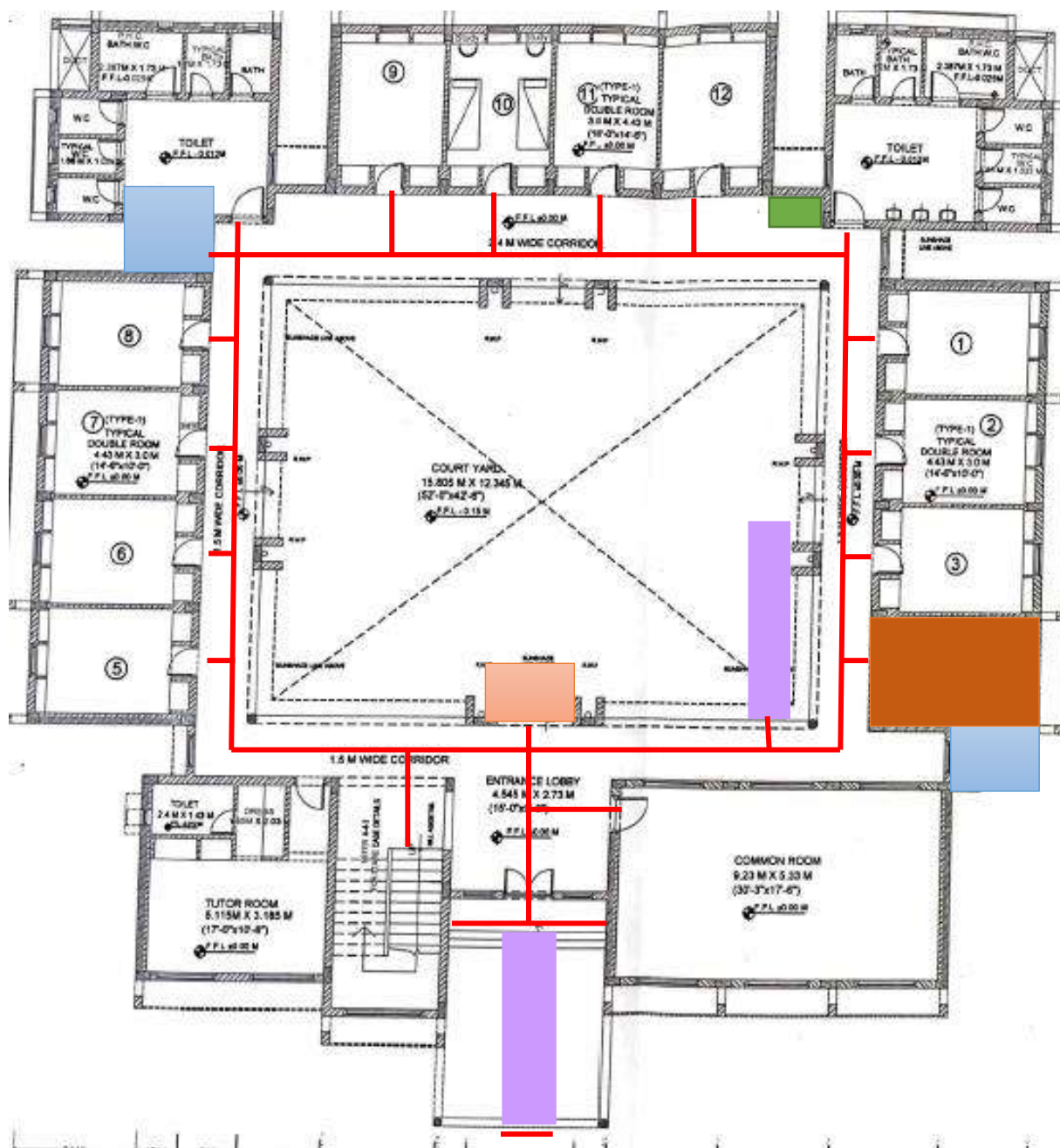
**GIRLS HOSTEL 4**



EXISTING SLOPE 1:10  
REQUIRED SLOPE 1:12



## 19. GIRLS HOSTEL 4 – PROPOSED ACCESS MEASURES

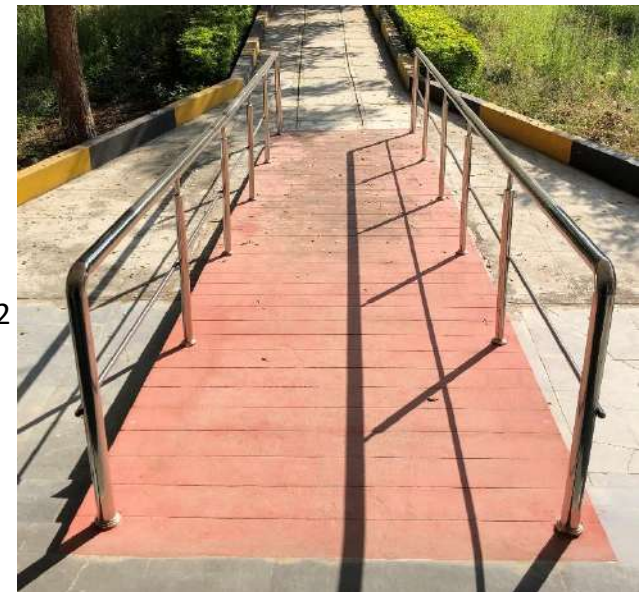
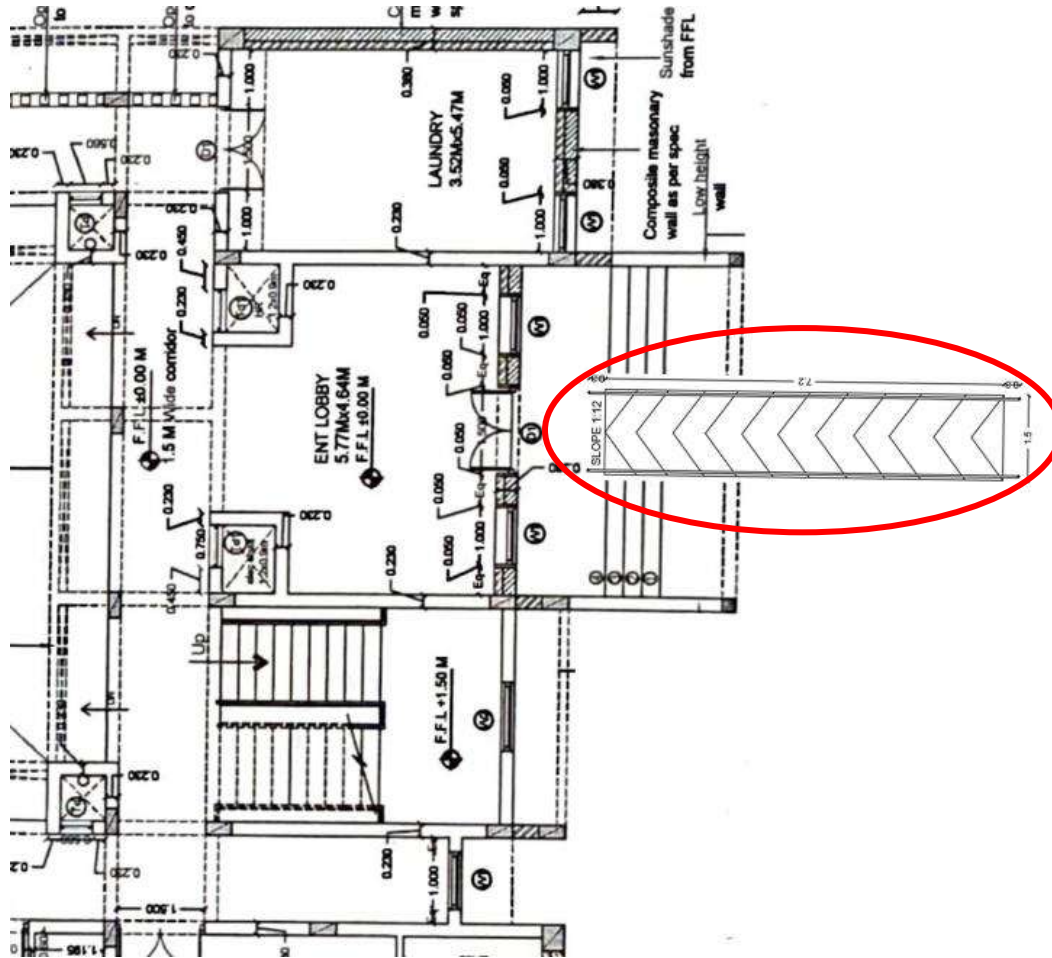








## 20. GIRLS HOSTEL 5 – PROPOSED MODIFICATION TO ENTRANCE RAMP

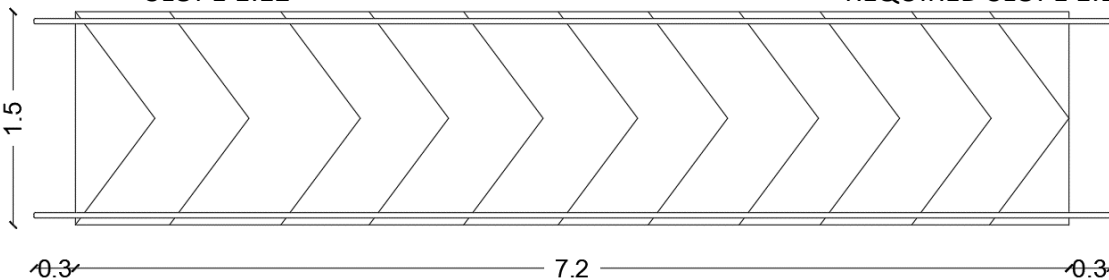


SLOPE 1:12

**GIRLS HOSTEL 5**

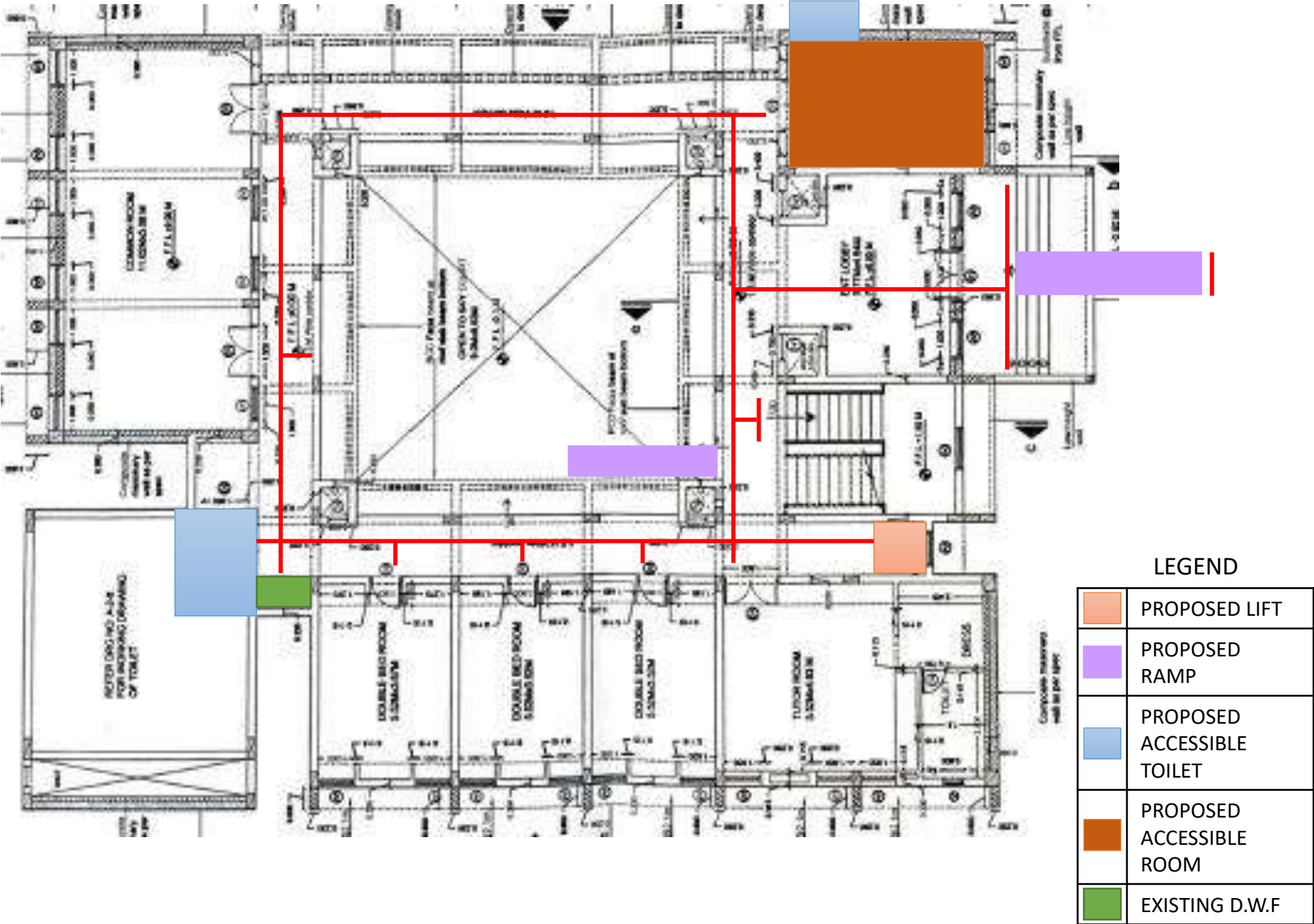
EXISTING SLOPE 1:10

REQUIRED SLOPE 1:12

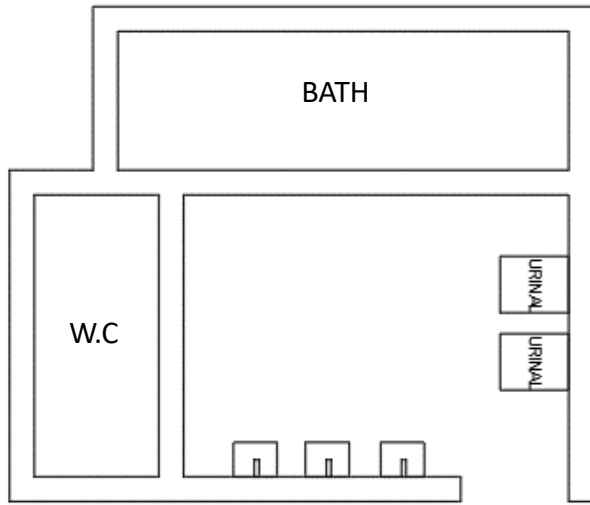




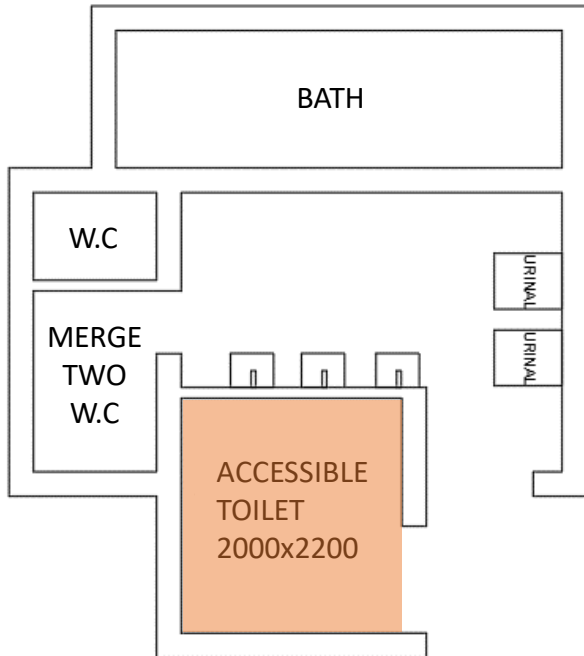
20. GIRLS HOSTEL 5 – PROPOSED ACCESS MEASURES



## GIRLS HOSTEL 3, 4, 5 – PROPOSED ACCESSIBLE TOILETS

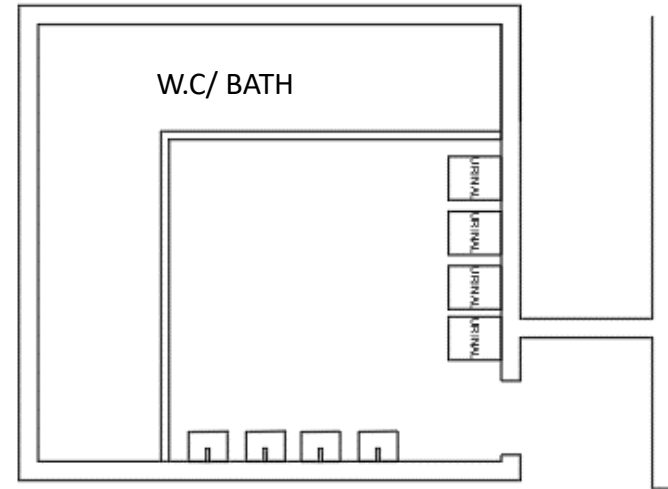


**EXISTING TOILET**

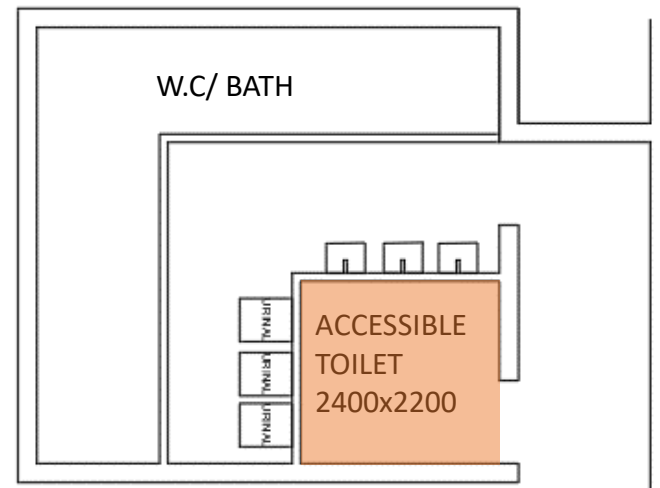


**MODIFIED TOILET**

**GIRLS HOSTEL 3,4**



**EXISTING TOILET**

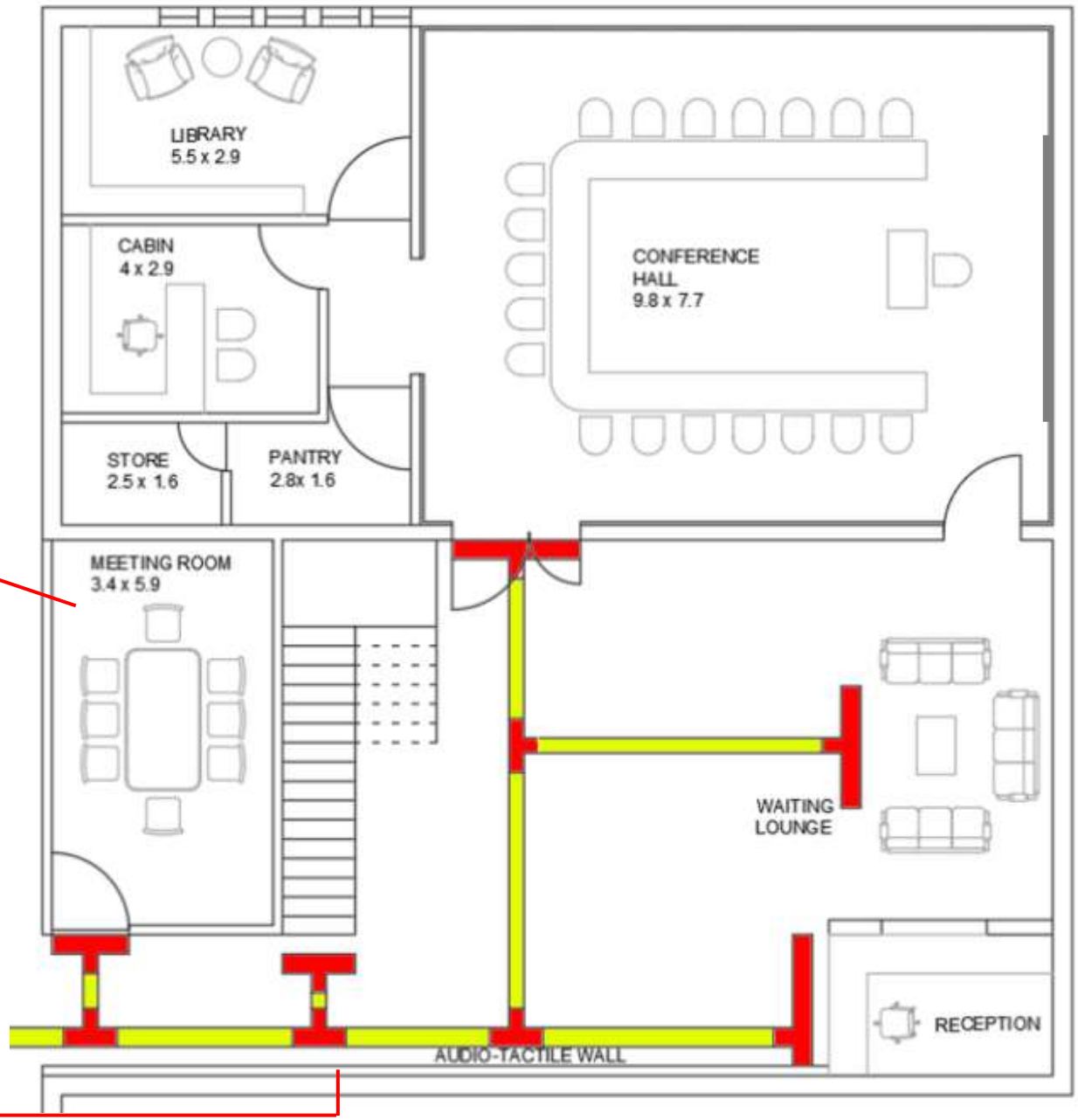


**MODIFIED TOILET**

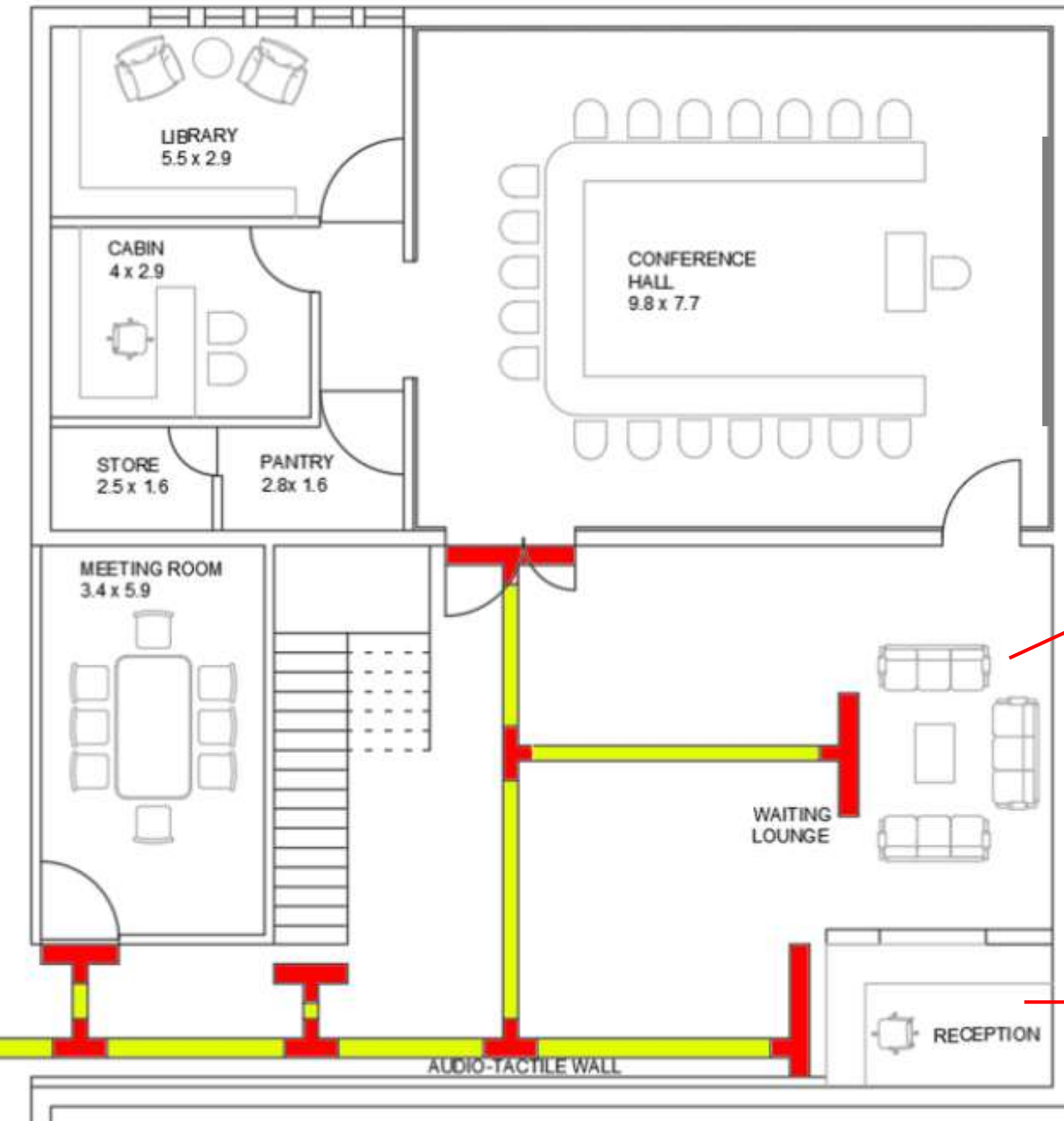
**GIRLS HOSTEL 5**



## 21. CENTER FOR DISABILITY STUDIES – PROPOSED SCHEMATIC LAYOUT

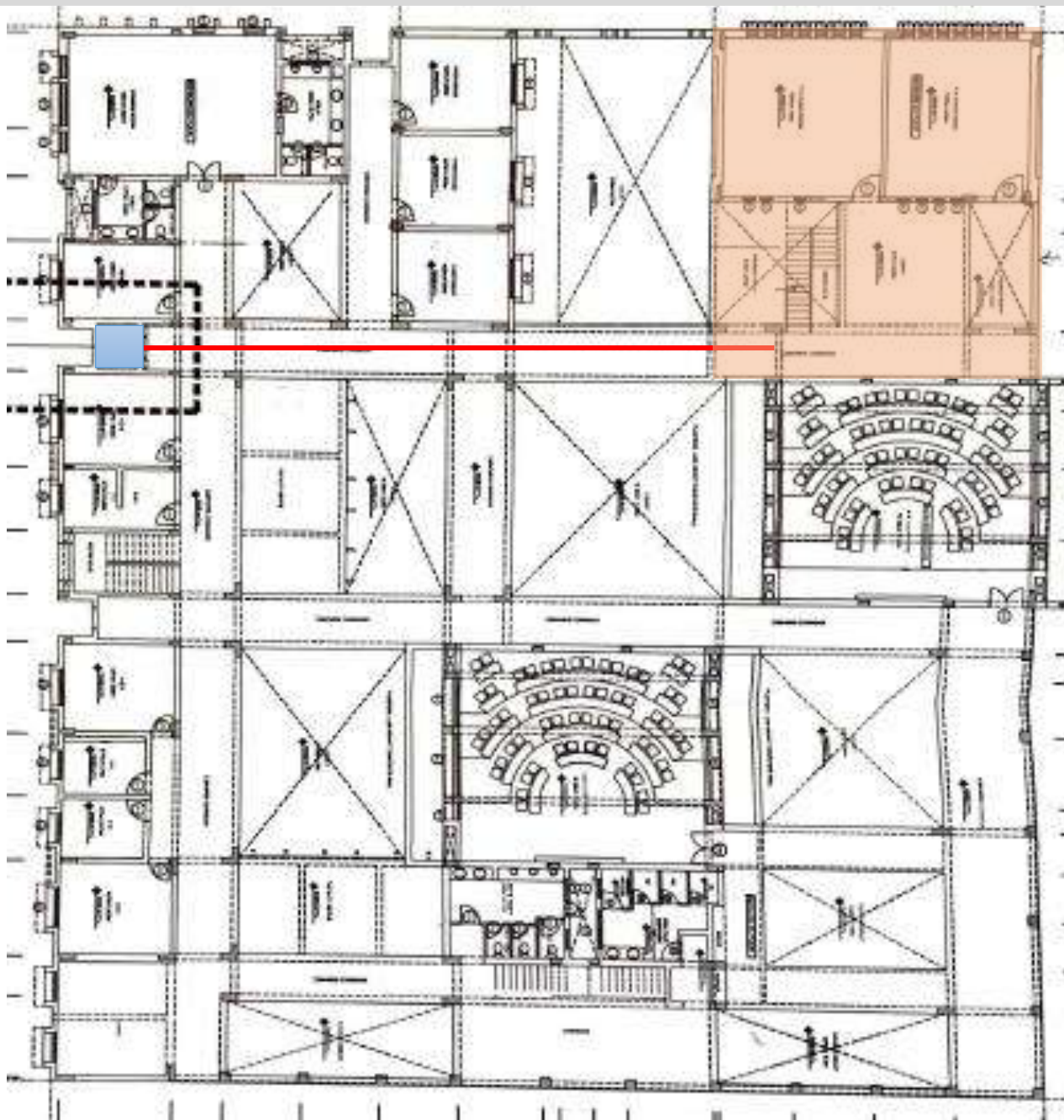


## 21. CENTER FOR DISABILITY STUDIES – PROPOSED SCHEMATIC LAYOUT







## 21. CENTRE FOR DISABILITY STUDIES AND ACCESS TO TOILET



### LEGEND

	PROPOSED ACCESSIBLE TOILET
	C.D.S

## 22. CENTER FOR DISABILITY STUDIES – IDEA BOARD





1. ACCESSIBLE ENTRANCES
2. TOILETS
3. STEPS AND STAIRCASES
4. HANDRAILS
5. DOORS AND DOORWAYS
6. LIFTS
7. DRINKING WATER FOUNTAINS
8. ACCESSIBLE ROOMS (HOSTELS)
9. LIBRARY
10. SERVICE COUNTERS
11. SIGNAGE AND WAYFINDING
12. EMERGENCY EVACUATION

# 1. ACCESSIBLE BUILDING ENTRANCES

## RECOMMENDED SIGNAGE

### RECOMMENDATIONS

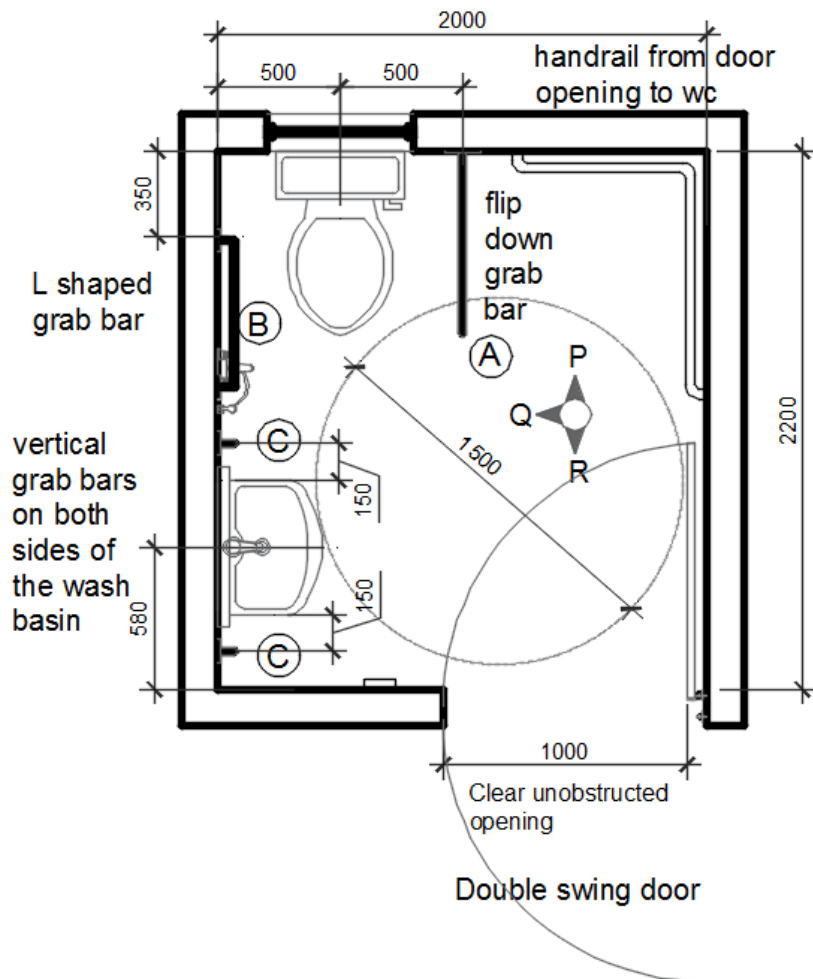
- Provision of continuous accessible path for PWD's to reach the entrances of all buildings in the campus.
  - Provide tactile guiding path in the floor leading to the accessible entrances .
  - Entrances should be marked by accessible signage in a recognizable and welcoming way.
  - Entrances should not have any cross over with vehicular traffic .
  - Entrances/ exits should be made accessible by providing ramps and steps to allow widest spectrum of users to pass through.
1. Width of ramp should be min. 1500 mm and preferably covered
  2. Gradient of ramp to not exceed 1 :12 for new ramps.
  3. All ramps to be provided with broom finish concrete surface and handrails on both sides at 900 mm and 760 mm along entire stretch of ramp and landing
  4. A tactile guiding path in the floor to be provided for navigation for PwVI till and through the ramp if rebelling strips not provided.
  5. Provide warning tiles in floor at beginning and end of ramp
- Handrails to be provided along both sides of the ramps / steps.
  - A tactile pictographic map of the respective building to be provided at the entrance, with the tactile guiding path leading to the same.
  - Any free barrier such as furniture / potted plants / door mats etc. at the entrance to be removed.
  - Accessible directional , multilingual and tactile signage to be provided as per standards leading to the accessible entrances.





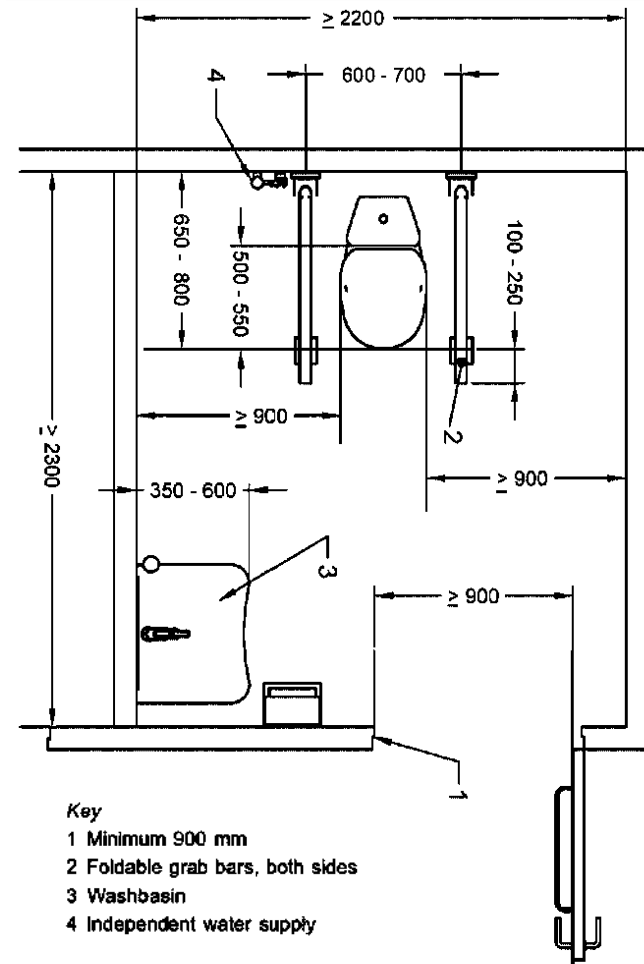
## 2. ACCESSIBLE TOILETS

### LAYOUT OPTIONS FOR SIZE – 2200 X 2000 MM



TYPICAL ACCESSIBLE TOILET: PLAN

OPTION 1

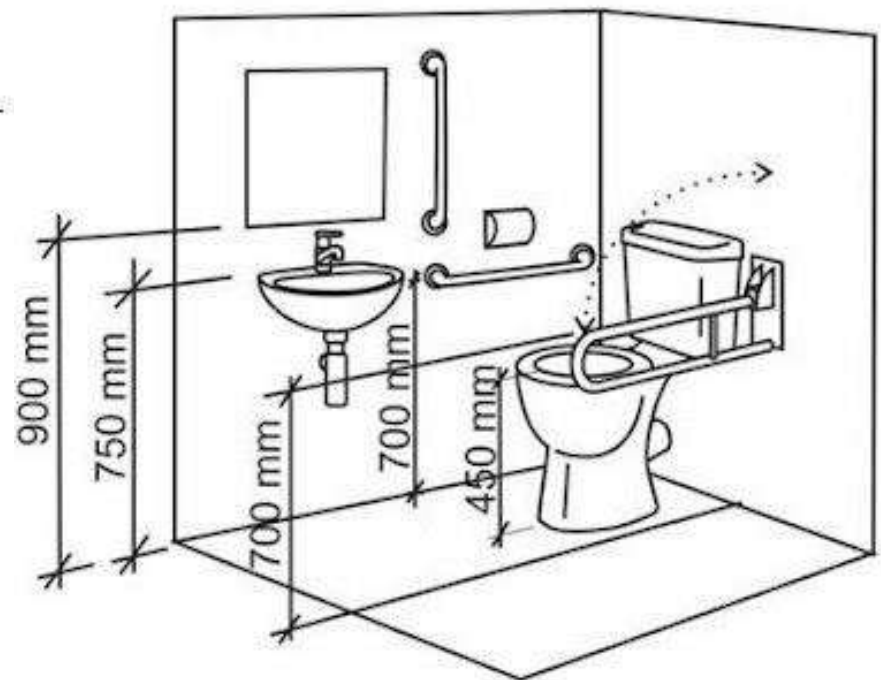
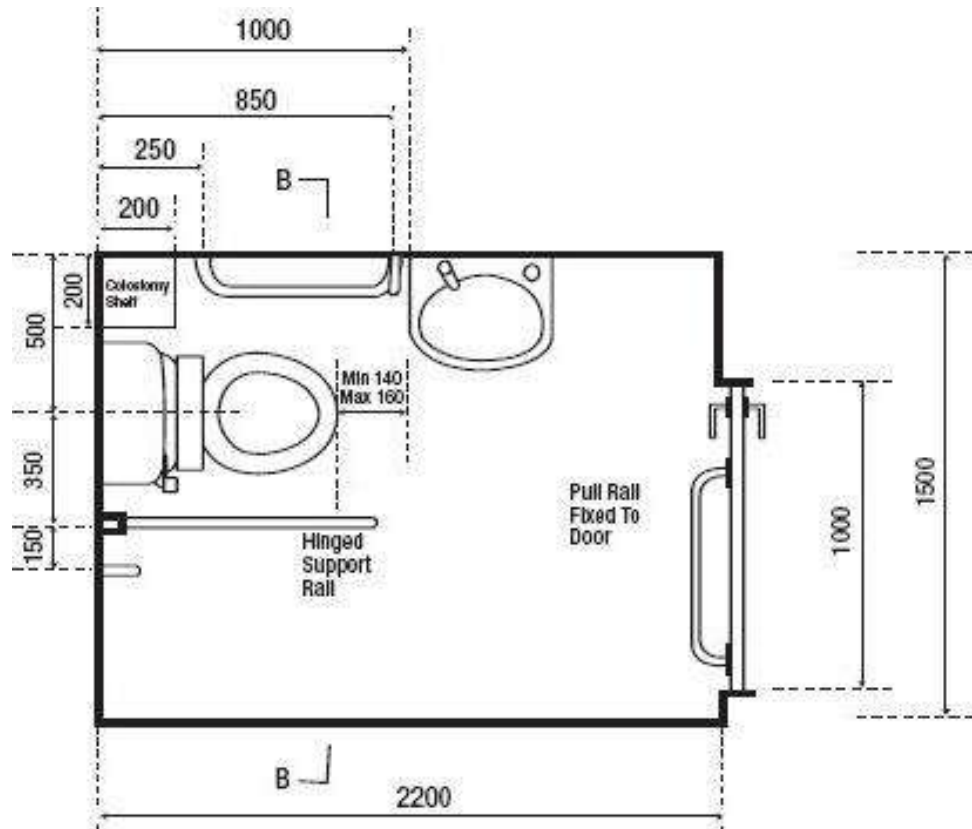


#### Key

- 1 Minimum 900 mm
- 2 Foldable grab bars, both sides
- 3 Washbasin
- 4 Independent water supply

OPTION 2

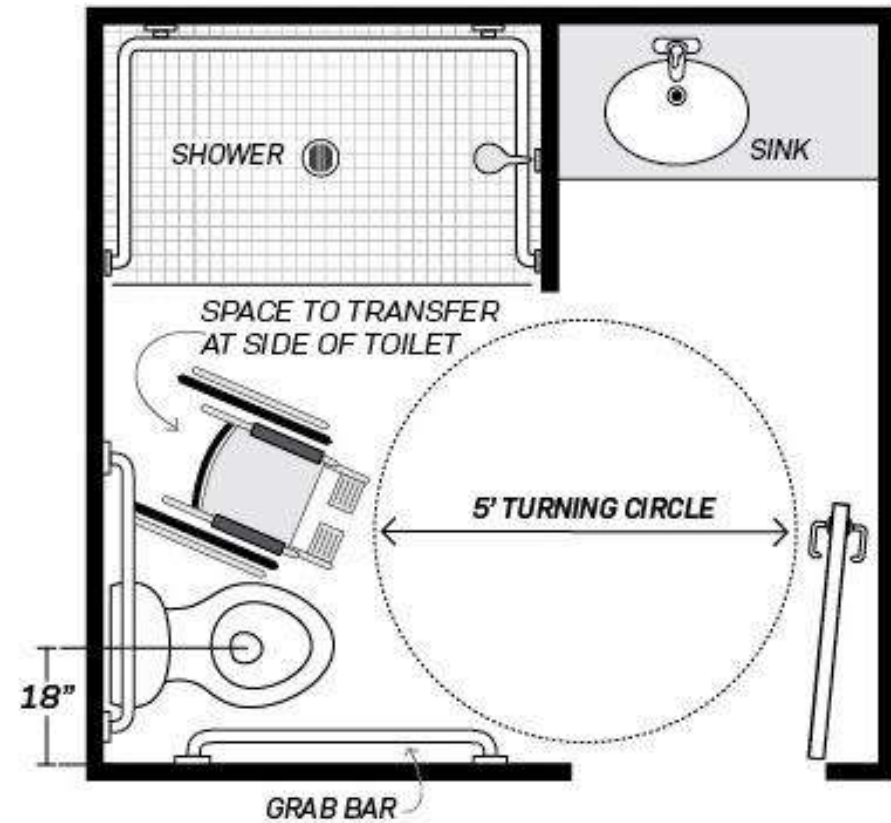
## 2. ACCESSIBLE TOILETS LAYOUT OPTIONS FOR SIZE – 1500-1800 X 2000 MM





## 2. ACCESSIBLE TOILET LAYOUT WITH SHOWER AREA IN HOSTEL BLOCKS

SIZE – 2200 X 2000 MM

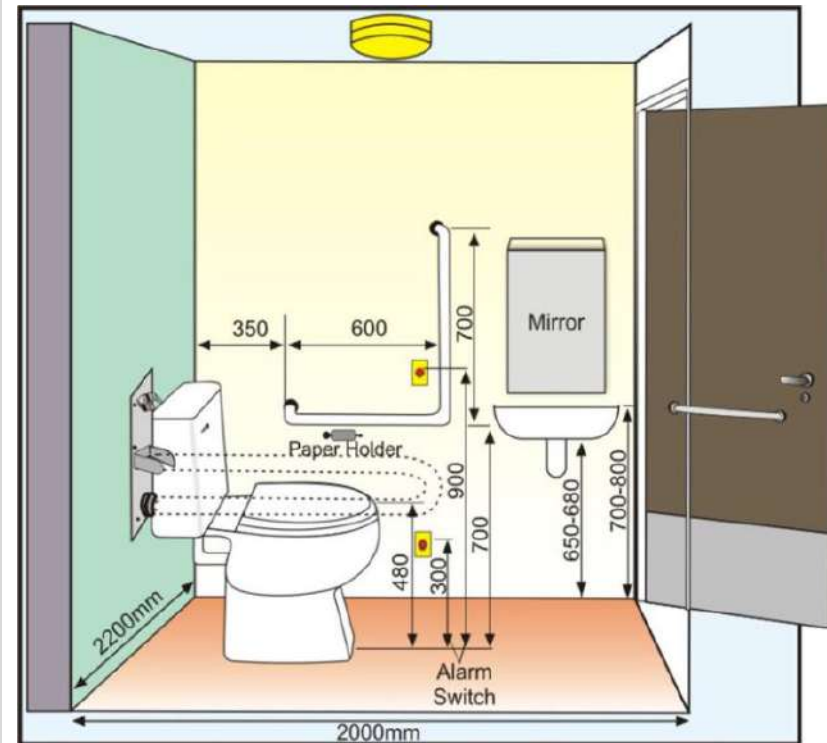


## 2. ACCESSIBLE TOILETS

### RECOMMENDATIONS

#### ALL PROPOSED ACCESSIBLE TOILETS SHOULD CONFORM TO THE FOLLOWING STANDARDS :

- A full range of user-friendly provisions should be made to reach the toilet blocks including tactile guide path, floor plan with illustrations in written text and Braille, and large information signs.
- Accessible toilets should have the universally adopted symbol for wheelchair access displayed outside.
- Location of general / accessible toilets to be marked on all tactile pictographic maps.
- Recommended clear floor space for accessible toilet is -2000mm x 2200mm minimum.
- Where provision of independent unisex accessible toilet blocks is not feasible, Accessible toilet cubicles should be provided within the existing ladies and gents toilets by reconfiguring internal layout to achieve an ideal size of 2000mm x 2200mm. An example of desirable layout is shown in the following pages.
- Drinking water fountains of two mounting heights should be provided and preferably located near the toilet blocks but away from the toilet entrances.(refer to section 10 for details)
- A step free, levelled tactile guiding path to be provided in the floor from corridors / walkways leading to the accessible toilet blocks.
- The main entrance door / opening to the toilet and internal cubicles should be minimum 900mm in width.
- There should be no level differences inside all toilet blocks. Existing level differences to be removed or beveled to facilitate easy wheelchair movement.
- Facilities should have wide and level layouts with good colour contrasts providing enough space for wheelchairs and other mobility aids.
- There should be signage using the international symbol of accessibility to identify the accessible toilets. Signage should be multi lingual and tactile.



ACCESSIBLE TOILET DETAILS



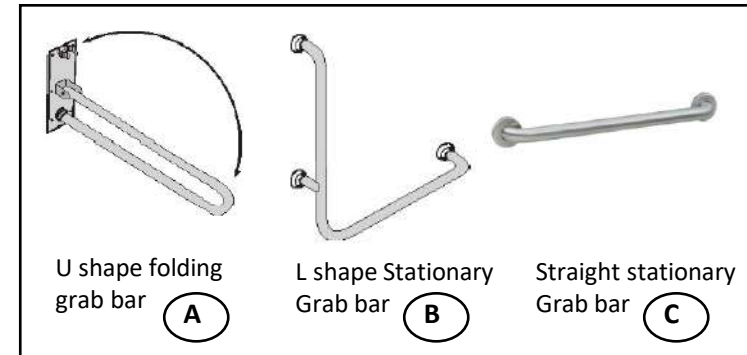
## 2. ACCESSIBLE TOILETS

### In the Accessible Toilet –

- Floor surface material must be non-slippery but should not trap dirt or water.
- **There should be colour contrast between the floor and the walls.**
- Effective floor drainage should be provided to maintain a dry floor surface.
- Floor drain covers should be fixed flat on the floor surface without any projections to prevent people from tripping over.

### WC and urinals

- WC or toilet compartments should have enough floor space and 900 mm wide step-free doors for wheelchair users to enter and exit.
- The WC should be preferably wall hung and in a position as to permit easy approach by wheelchair users.
- The seat of the WC should be at the correct height for the wheelchair users.
- WC compartments should have support rails / grab bars at a position and height suitable for wheelchair users and other persons with physical disabilities. Upward-folding grab bars (lift-up grab bars) are recommended to allow lateral transfer from the wheelchair.
- Recommended sizes : Grab Bar A: 600mm length, Grab Bar B: 600mm x 600mm, Grab bar C: 600mm length.
- Grab bars to be installed firmly with stable mechanism to prevent falling / loosening of the fixed ends.
- The accessible toilet to be provided with an emergency call bell.
- Water Closets (WC) Should ideally be at 550mm height as per ADA norms. The existing WCs are at a height of 450mm, thus some removable WC seat raisers to be kept in the housekeeping dept of each block (atleast 1 in each block) and to be used whenever required.
- There should be 900mm of clear transfer space next to the WC.
- The WC should be installed in a corner with centerline of the WC at a distance of 450mm to 500mm from the adjacent wall and to have supports on both sides.
- Flushing equipment should be easy to operate and lever type.
- An L shaped grab bar should be installed on the adjacent wall, at a height of 200mm from the WC seat.
- Urinal (if any) base height of the urinal should be not more than 450mm from FFL.

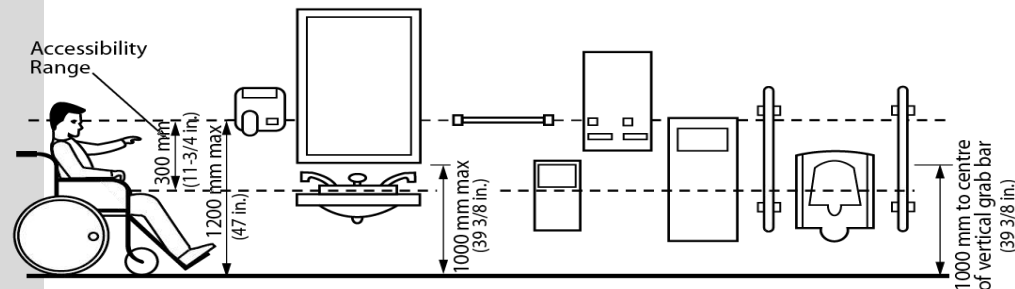
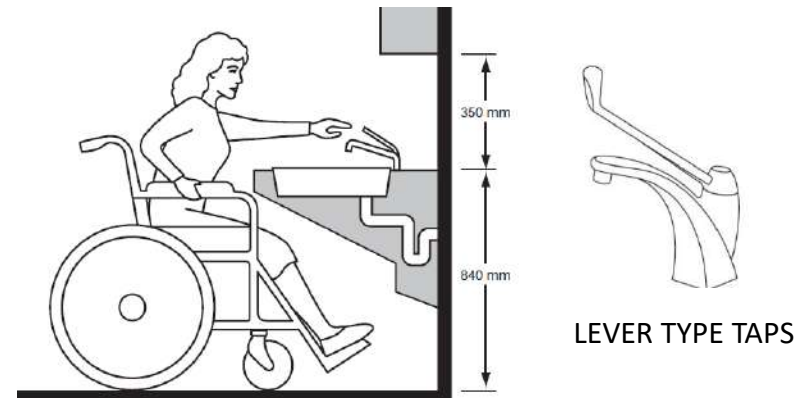
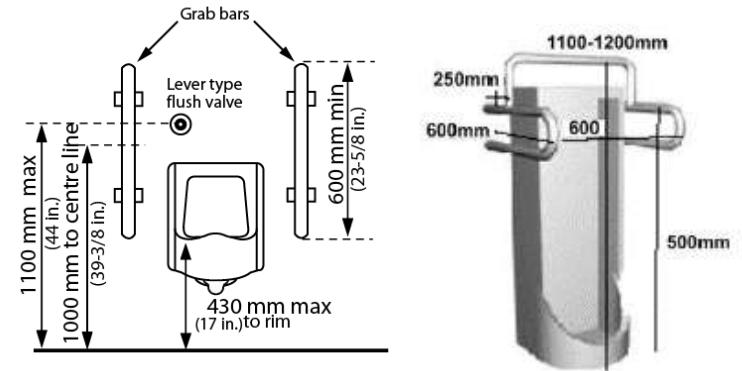


## 2. ACCESSIBLE TOILETS

- A toilet paper dispenser should be so installed as to be easily used by a person with physical impairments sitting on the toilet.
- Fittings, such as soap dispenser, electric hand dryer and mirror, should be low enough for a wheelchair user to use comfortably.
- The accessible Toilet cubicle / WC doors should have double swing (should open outside also) and lever handles.
- Locks to toilet doors or cubicle should be a type that can be opened from outside in case of emergency. Lock lever should be of the type that can be easily opened by person with weak grip power.
- Accessible directional , multilingual and tactile signage to be provided as per standards.

### Wash Basin And Mirrors

- The accessible washbasin should be mounted at a height between 750– 850mm. The washbasin should be installed at a distance of at least 400mm from the side wall. There should be clear knee space of at least 650-750mm height x 750mm width x 200mm depth under the wash basin.
- At-least 1 basin height to be lowered to 650mm keeping children in mind.
- The wash basin should have lever type taps. Basin taps should be placed at the centre of the basin.
- Mirror to be provided and installed at a height of 900 mm.
- Mirror inside accessible toilet should be slightly tilted towards the floor for use by the wheelchair users.
- Basins can be provided with counters or a flat surface for placing things.
- U-shaped folding grab bars are proposed on the both side of the wash basins.





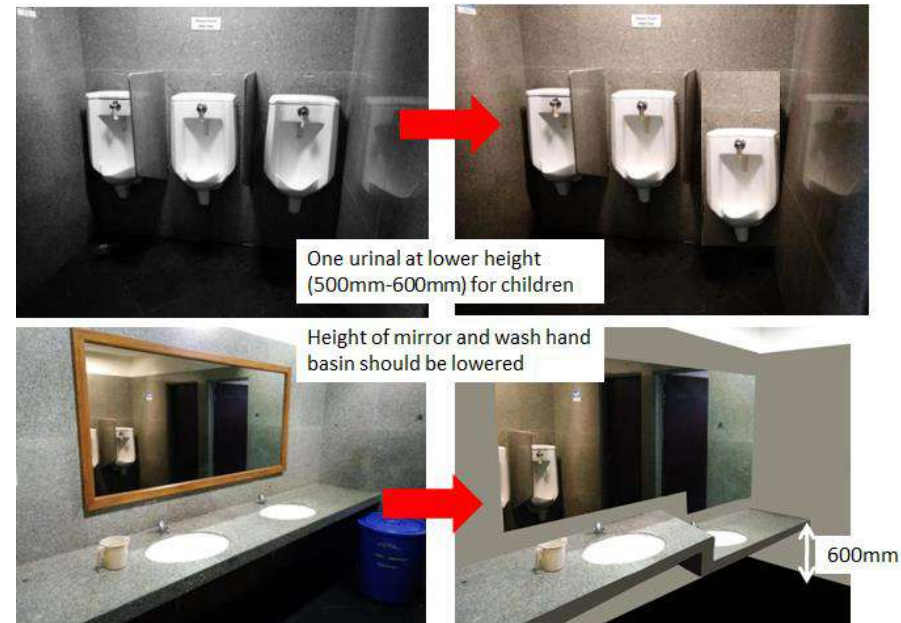
## 2. TOILETS – PROPOSED MODIFICATIONS IN EXISTING TOILETS

### Provisions for Persons with Physical Disability in General Toilets

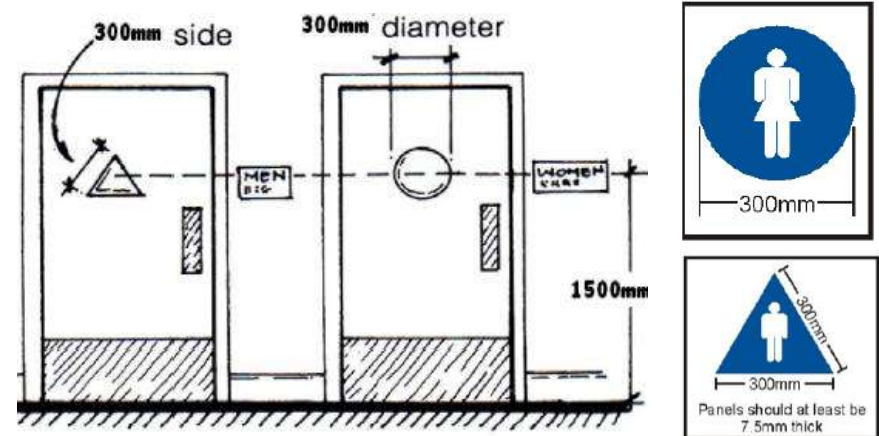
- At least one western WC to be provided in every general toilet block.
- Grab bars should be provided to one urinal, one basin and inside one toilet cubicle.
- At least one basin and mirror and one urinal should be mounted at a lower level.

### Grab bars

- A grab bar should be of preferably in SS, 32 mm diameter/width and strength such that it may easily be grabbed and used as a support.
- Grab bars should be in a colour that contrasts with the surrounding area.
- Grab bars should be installed to resist a force of at least 1.3 KN (130 KG) applied vertically or horizontally.



### SIGNAGE GUIDELINES FOR TOILET DOORS



### 3. STEPS AND STAIRCASES



#### KEY ISSUES

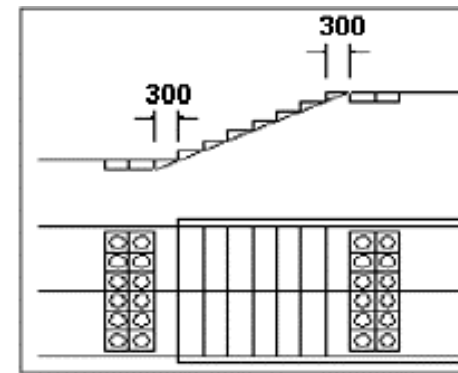
- Steps / stairs lack contrast in risers and treads, making their identification difficult for PwVI.
- No tactile guiding path provided for navigating till the steps / stairs for PwVI.
- No warning tiles in floor at beginning and end of steps/ stairs.
- Handrails mostly not provided or only on one side at 900 mm.
- Insufficient and inaccessible directional and general signage.
- Handrails in some places are not circular and easy to grip



### 3. STEPS AND STAIRCASES

#### RECOMMENDATIONS

- A tactile guiding path to be provided in the floor for navigating till the steps / stairs for PwVI.
- Provide warning tiles in floor 300mm at beginning and end of steps/ stairs, landing also to have row of warning strip.
- Contrast colour edge strips / grooves of minimum 50mm should be provided on nosing of treads.
- Handrails to be provided on both sides of the steps and along entire stretch of stairs and landing.
- Handrails should be in SS, circular in section and 38-50 mm dia.
- In addition to the handrails provided on both sides of the staircases, intermediate handrails should be provided for staircases with a width wider than, say, 3600mm for external staircases or 2400mm for internal staircases. The intermediate handrails should be capable of being used from both sides.
- It would be of further benefit if the handrail is extended beyond the top and bottom steps.
- When handrails are not continuous, they should return to the wall, floor or post, so that they do not become obtrusions.
- Cordon off the underside of staircases, where the headroom is 2000mm or less from the finished floor level, with a guard rail or design in such a way to stop people from walking underneath that part of the staircase. Generally, people with a guide stick can detect an area of obstruction up to 685mm high from the ground level.
- Accessible directional, multilingual and tactile signage to be provided as per standards.
- Floor wise key plans are proposed next to steps.

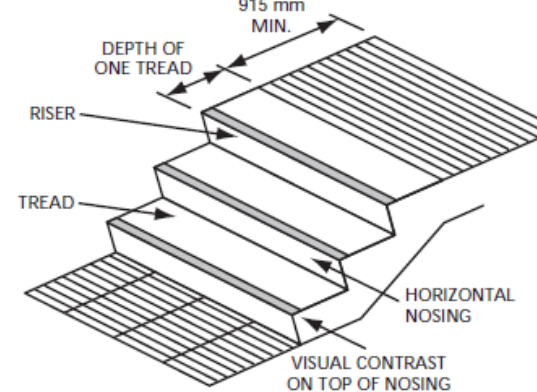


WARNING TILES LOCATION



INTERMEDIATE HANDRAIL

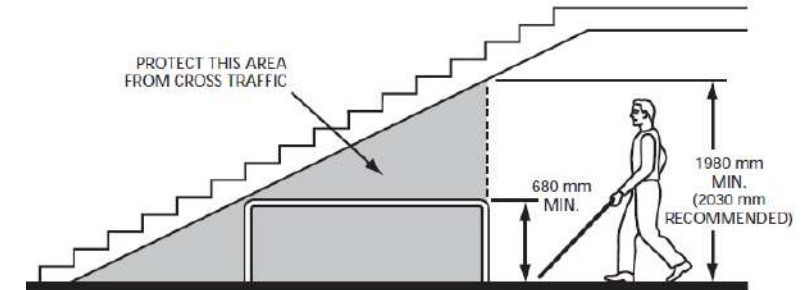
WARNING TILES  
AND EDGE STRIPS



CONTRAST COLOUR  
EDGE STRIPS



SIGNAGE



CORDONING OFF UNDERSTAIR STAIRCASE WITH GUARDRAILS

## 4. HANDRAILS

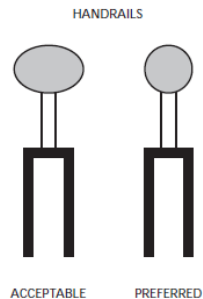


### KEY ISSUES

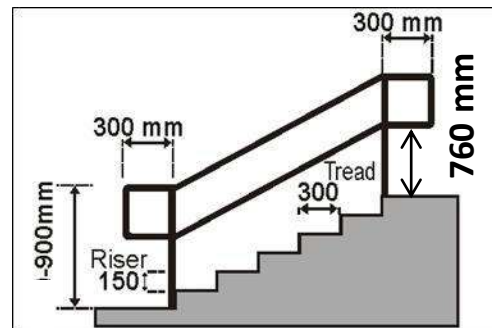
- Handrails are not provided on both sides of stairs everywhere
- Handrails along some staircases do not have a circular section
- Handrails not extending beyond the steps
- Colour of handrails not in contrast with surrounding wall

### RECOMMENDATIONS

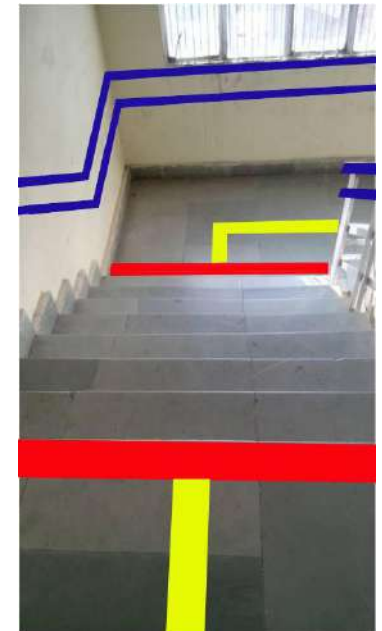
- Handrails to be provided on both sides of all ramps / existing stairs in SS as shown, with circular section and 50 mm dia.
- Handrails to be extended by 300 mm beyond the steps / ramps
- Handrails to be provided everywhere at 2 heights – 900 mm and 760 mm both
- Handrails to be given a colour that contrasts with the surrounding wall
- Tactile strips/Braille plate identifications to be provided on the handrails to indicate locations



Braille signs on handrails



Railing Design Detail

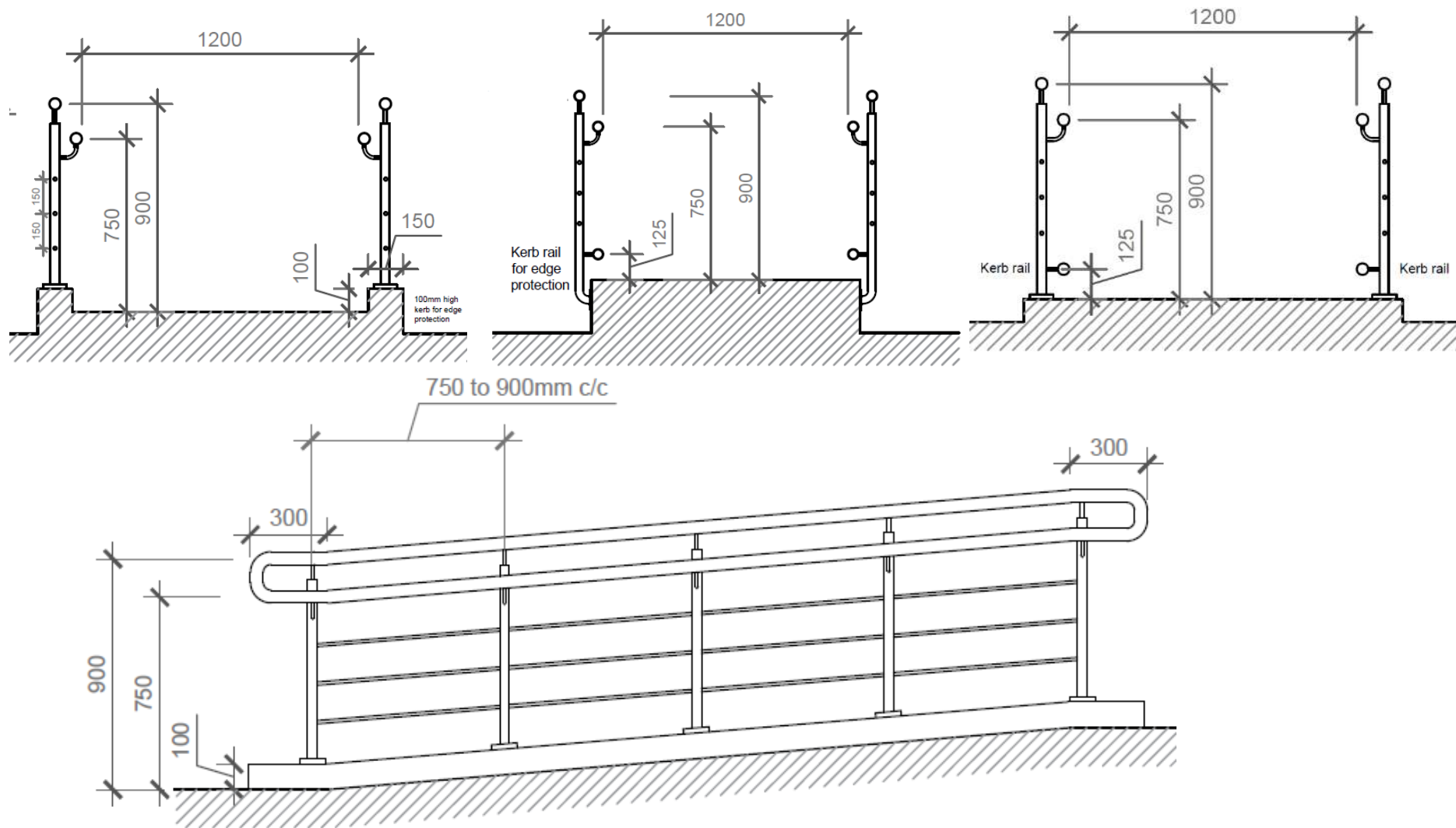


PROPOSED MODIFICATION OF THE STAIRCASE

STANDARD EXAMPLES OF ACCESSIBLE HANDRAILS



## 4. HANDRAILS



PROPOSED HANDRAIL DETAIL

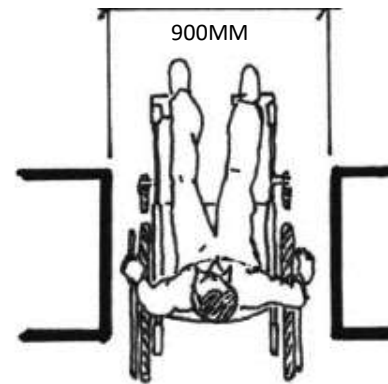
## 5. DOORS AND DOORWAYS

### KEY ISSUES

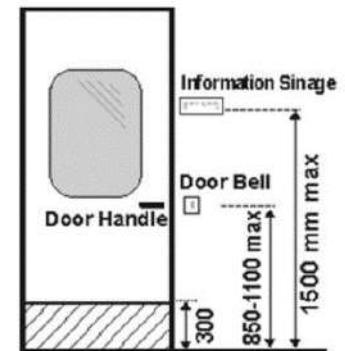
- Thresholds / level differences / door mats at many door openings
- Door handles provided at a height of 900mm and above
- Door stoppers not provided
- Door colour not in contrast with wall in most places
- Signage not provided in braille

### RECOMMENDATIONS

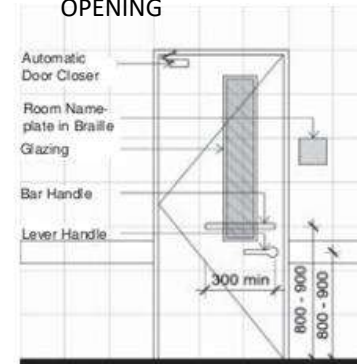
- Thresholds / level differences/ door mats / protruding channels at door openings to be removed / bevelled flush to the floor .
- Thresholds of doorways should not exceed 5 mm. Raised threshold and floor level changes at doorways should be levelled off with a slope on each side of a threshold. The slope may be a simple, movable ramp.
- Handles, pulls and others opening devices are to have a shape and height that is easy for a person with reduced strength and dexterity to control. All door handles to be circular in section , provided at standard height of 800 mm.
- Lever handles and push type mechanisms are recommended. (When a sliding door is fully open, handles should be usable from both sides.)
- Door stoppers to be provided to all doors.
- Kick-plate of 300-400mm height are recommended for door in high- use in order to protect the push side of doors from damage.
- The use of colour(contrast) to distinguish doors from surrounding walls is very useful for people with visual impairments.
- Multilingual and braille Signage to be provided as per standard guidelines.
- Installing offset hinges to widen doorways if possible where ever width is less than 900mm.
- Wherever required door should be fitted with vision panels at least between 900mm-1500mm from floor level.



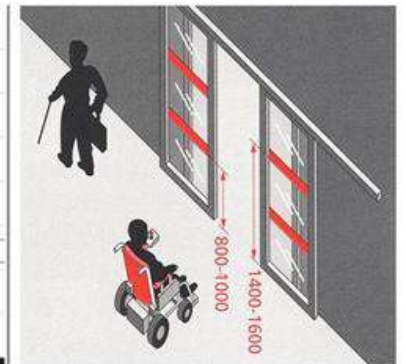
MINIMUM CLEAR WIDTH OF OPENING



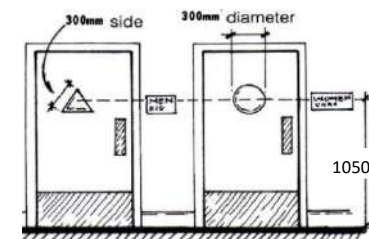
KICKPLATE DETAIL



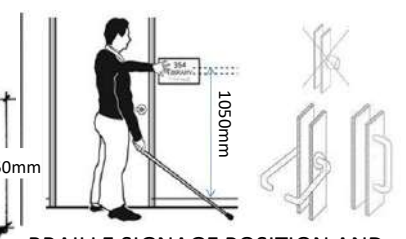
LEVER HANDLE POSITION



GLAZED DOORS WITH CLOUR BANDS



SIGNAGE ON TOILET DOORS



BRaille SIGNAGE POSITION AND RECOMMENDED HANDLES



BEVELLING AT THRESHOLD



D SHAPED HANDLE



## 5. DOORS AND DOORWAYS

### RECOMMENDATIONS

- The raised thresholds provided at door openings of all doors in all hostel blocks to be removed.
- Instead metal / pu door seals with high quality rubber seal is proposed to be fixed to the door to avoid snakes / mosquitos / rodents etc.
- It shall serve as a sound proofing measure too.

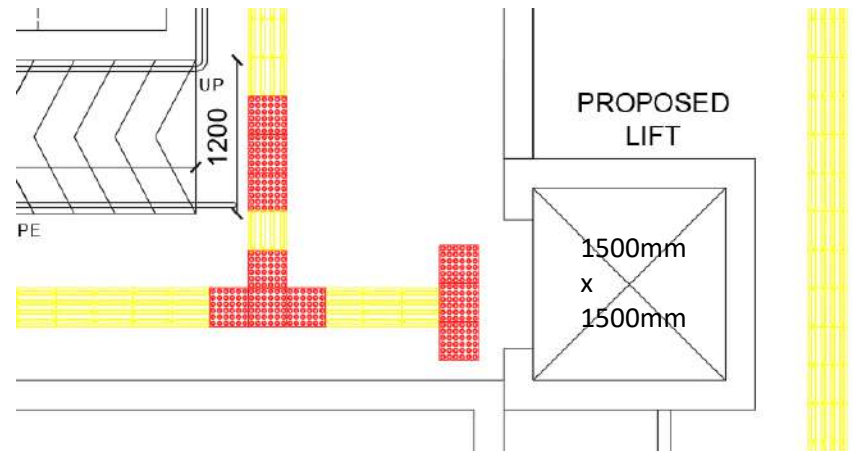


## 6. ACCESSIBLE LIFTS

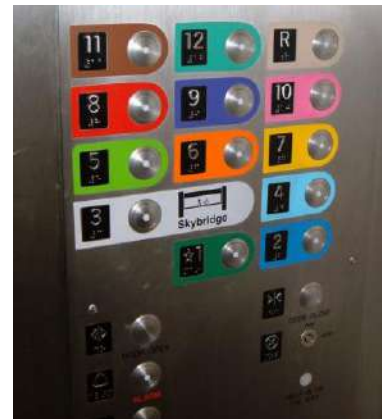
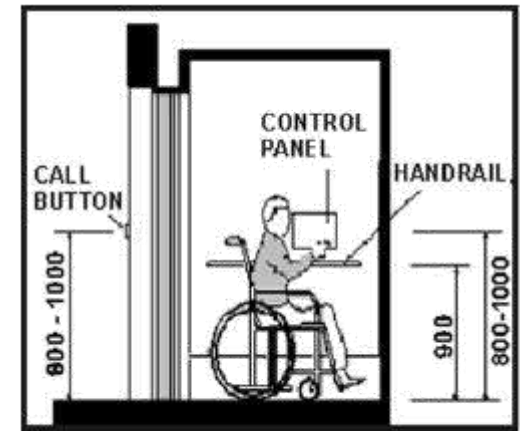
### RECOMMENDATIONS

**The proposed lifts to be provided as per the following standards.**

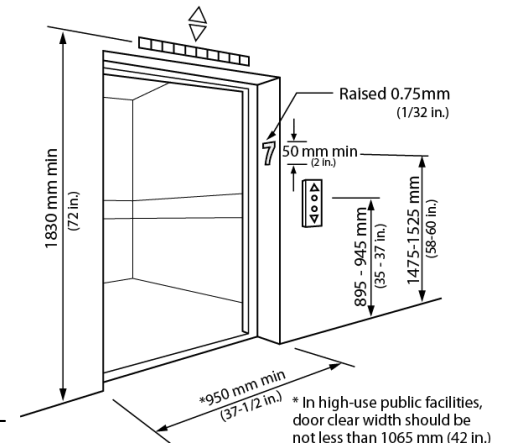
- The size of the lift car to be large enough to accommodate a wheelchair 1500mm x 1500mm min.
- The clear opening size of the lift to not be less than 900mm.
- There should be signage and tactile guiding path in the floor directing to all the lifts.
- Non reflective and anti skid matting to be provided and flushed with the surrounding floor to avoid level difference while entering the lift.
- A mirror to be installed on rear wall of both the lift cars
- There should be an audio and video system installed in the lift indicating arrival at a floor in all lift blocks.
- Handrails of 38mm dia. to be provided on all 3 sides of the lift car at a height of 800mm from the floor of the car.
- The mat inside the elevator has curled up. All loose and curled up ends to be fixed firmly to the lift floor
- The elevator controls inside and outside the lift (including alarms /speakers/phones) should be between 800 mm to 1000mm
- They should have a good contrast and buttons should be self-illuminating, in raised numbers and Braille
- The Emergency information given inside the lift car should be mounted at eye level and should be in both tactile and Braille
- Accessible directional , multilingual and tactile signage to be provided as per standards



REFERENCE IMAGE SHOWING SIZE AND TACTILE PATH



RECOMMENDED CONTROL PANEL



\* In high-use public facilities, door clear width should be not less than 1065 mm (42 in.)



## 7. DRINKING WATER FACILITIES

### KEY ISSUES

- Insufficient drinking water fountains provided in the entire building which are not easily identifiable and approachable
- Insufficient space to access some drinking water fountain
- Knob type taps provided which are difficult to operate
- No tactile guiding path in the floor leading to the drinking water facility
- No glasses provided for drinking water
- Insufficient and inaccessible directional and general signage



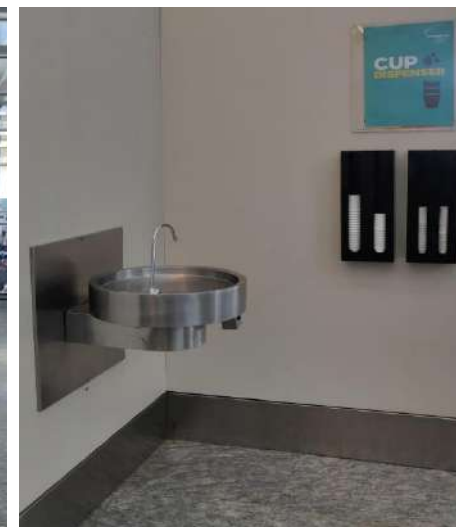
EXISTING DRINKING WATER FOUNTAIN



PROPOSED SIGNAGE

### RECOMMENDATIONS

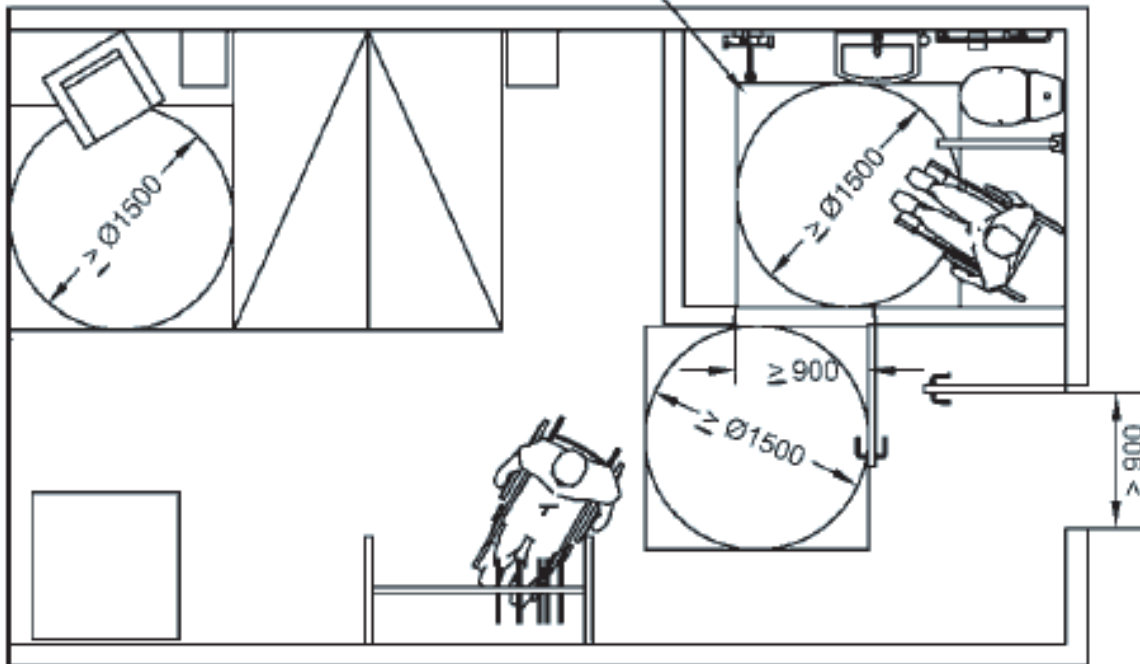
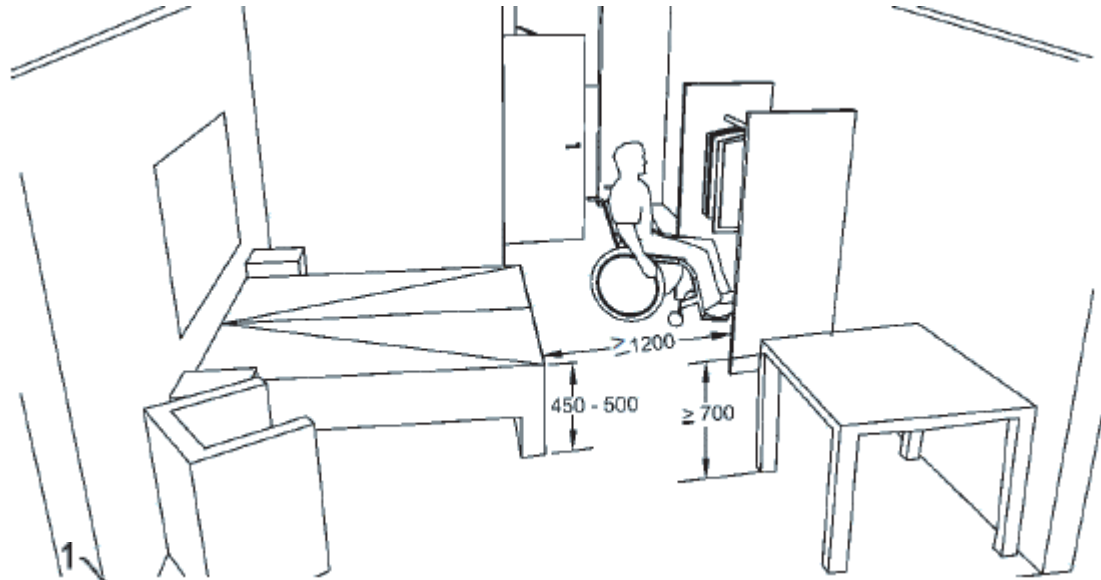
- Sufficient drinking water facility catering to needs of different types of users should be provided at regular intervals and at identifiable locations.
- Minimum 1500 mm x 1500mm manoeuvring space to be provided in front of drinking water fountain
- The platform below drinking water fountain to be avoided
- Lever type taps to be provided in all drinking water fountains
- A tactile guiding path to be provided in the floor leading to the drinking water facility
- Provision of glasses for drinking water to be made at a height of max 1200 mm
- Accessible directional, multilingual and tactile signage to be provided as per standards



PROPOSED DRINKING WATER FOUNTAIN

## 8. ACCESSIBLE ROOMS IN HOSTEL BLOCKS

EXAMPLE OF SPACE ALLOWANCES FOR ACCESSIBLE ROOMS

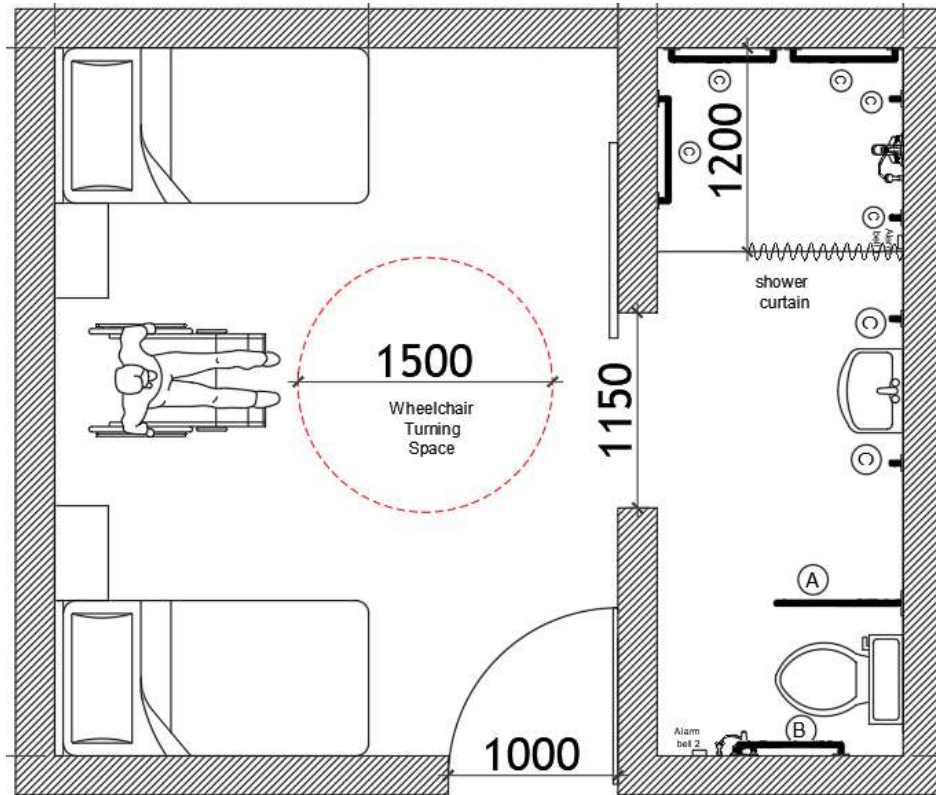


PROPOSED LAYOUT 1

EXAMPLE OF SPACE ALLOWANCES FOR ACCESSIBLE BEDROOMS AND ATTACHED TOILET



## 8. ACCESSIBLE ROOMS IN HOSTEL BLOCKS



PROPOSED LAYOUT 2



(A)  
FLIP DOWN GRAB BAR



(B)  
L SHAPED GRAB BAR



(C)  
STRAIGHT GRAB BAR

## 9. LIBRARY - ACCESS INSIDE

### RECOMMENDATIONS

Applicable accessibility standards must be adhered to.

### GETTING INTO THE LIBRARY

A person using any kinds of support such as wheelchair, crutches or walker, cane, or guide dog, should be able to enter through the door and pass through security check points, if any, without encountering obstacles.

All mobility aids and assistive devices including wheelchairs, walkers, communicators among others must be able to pass through security checkpoints, if any.

Sufficient space must be provided in front of the door to allow a wheelchair to turn around.

Entrance door should be wide enough to allow a wheelchair to enter. Non-automatic doors should be operable using one hand. Glass doors, if any, must be highlighted with contrast colour band at eye level to prevent persons with low vision banging into these.

Stairs and steps edges must be marked with a contrasting color band.

Pictogram signs must be provided for services and amenities such as toilets, elevators, stairways.

Elevators, if any, must be well lit with buttons and signs in Braille and synthetic speech.

Elevator buttons reachable from a wheelchair.





## 9. LIBRARY - ACCESS INSIDE

### RECOMMENDATIONS

#### INSIDE THE LIBRARY

- All parts of the library should be accessible.
- The catalogs must be available in accessible formats.
- Clear and easy-to-read signs with pictograms must be provided.
- Service desks should be located close to the entrance.
- A certain number of tables and computer workstations should be adapted for persons in wheelchairs.
- Shelves must ideally be reachable from a wheelchair
- Chairs with sturdy armrests must be provided
- Unobstructed aisles between bookcases must be provided and wide enough to accommodate wheelchairs and one person not on a wheelchair.
- Visible and audible fire alarms must be provided.
- Non-fluorescent lighting. In case fluorescent lighting is used there must be an area free of visual clutter and sharp light contrasts, with plain walls and cubicles.
- Printers must be kept in areas away from reading areas to reduce sound in the reading areas.
- Suitable sound insulation to be used to minimize sound in the reading areas.
- Stack area should have clear aisle space for wheelchair and bi-lateral crutch users (3ft. min.). Where book stacking is in shelves and areas beyond reach of persons with disabilities using mobility aids, human assistance should be available to access books.
- Plants inside the space can help with air filtering, which can make a huge difference to the level of comfort.



## 9. LIBRARY - ACCESS INSIDE

### RECOMMENDATIONS

#### TOILETS

The library should have at least one toilet for PWDs, equipped with the following:

Clear signs with pictogram indicating the location of the toilets.

Door wide enough for a wheelchair to enter and sufficient space for a wheelchair to turn around.

Room enough for a wheelchair to pull up next to the toilet seat.

Toilet with handles and flushing lever reachable for persons in wheelchairs.

Alarm button reachable for persons in a wheelchairs  
Washbasin, mirror at the appropriate height.

#### INFORMATION DESK AND CIRCULATION DESK

The desks must be of adjustable height to enable persons in wheelchair to be able access the desk.

Induction loop system for hearing impaired persons.





## 9. LIBRARY

### RECOMMENDATIONS

#### **STANDARDS FOR MATERIAL CONVERTED INTO DIGITAL FORMATS BY LIBRARIES**

- Master Digital Documents of converted material must be maintained in DAISY XML format.
- All Master Digital Documents in Indic Languages must be encoded in Unicode [UTF8/16] and formatted using a royalty-free Open Type Font.
- All Master Digital Documents must be tagged according to DAISY standards to capture semantic information for parts, units, chapter headings, subsections, pagination, ordered and un-ordered list, tables, images along with their alternative text, math equations, title, author, footnote, end-note, text box, abbreviation, acronym, etc.
- Metadata information about the publication as prescribed in the DAISY Standards must be added to all Master Digital Documents.
- Distribution of digital copies of the Master Digital Documents through web sites or otherwise must be done in e-pub format.
- If other standards are used for different target populations those standards must be compliant with the National Open Standards Policy and the Interoperability Framework for E-Governance in India.
- DAISY audio format for Indic languages.

### RECOMMENDATIONS

#### **ASSISTANCE AIDS/EQUIPMENT**

For assisting persons with Visual Impairment or blindness or autism spectrum disorders:

Persons with vision impairments or blindness or autism spectrum disorders would benefit from software and hardware for enlarging displays on the monitor or reading material through a speech synthesizer.

**Some of the most common assistive aids/equipment are:**

#### **FOR MAGNIFICATION**

- 1. Screen-magnification software.** This program allows people with low vision to access computer information by enlarging the screen display or tailoring the display to accommodate their disability.
- 2. Large magnification devices** such as closed-circuit television magnifiers (CCTV). This system employs a video camera lens to enlarge text from three to thirty times normal text size
- 3. Handheld magnifiers**

## 9. LIBRARY

### RECOMMENDATIONS

#### FOR SCREEN READING

- Screen reader software programs enables individuals who are blind or visually impaired to access the information on a computer screen through voice output. Some examples are NVDA (an open source software) or Dolphin or Jaws (proprietary software). Screen reading software with Indian language support must be provided.
- Scanning and reading software helps those with low or no vision. Scans printed text and verbalizes the text via synthetic speech using optical character recognition technology.

#### FOR BRAILLE SUPPORT –

**Braille Translating Software** - To produce correctly formatted and coded Braille one needs a Braille Translation Software. A document prepared by a word processing program is loaded into the translation software. The final document may be printed in Braille by a Braille embosser.

**Braille Embosser** - Braille embossers print Braille output from a computer by punching dots onto paper and enable users to make hard copies of documents.

**Refreshable Braille displays and DAISY players.**

All multimedia content to have audio descriptions

### RECOMMENDATIONS

At least one computer must face outward and not against the wall since people with autism spectrum disorders find it disturbing to have people walking behind them.

#### FOR ASSISTING PEOPLE WITH HEARING IMPAIRMENT OR DEAFNESS

Users with deafness or have hearing impairments do not have problems using the computer except problems will arise from programs and websites that have audio cues.

**Sound Sentry** This option directs the operating system to display a visual signal when a sound is generated by a Windows application. Sound sentry is built into Windows and Apple operating systems.

All multimedia content to have captions

#### FOR ASSISTING PEOPLE WITH LEARNING DISABILITIES

Specialized software programs and hardware for people who have learning differences will display print as well as provide auditory reading of the text simultaneously.



## 9. LIBRARY

### FOR ASSISTING PEOPLE WITH PHYSICAL DISABILITIES

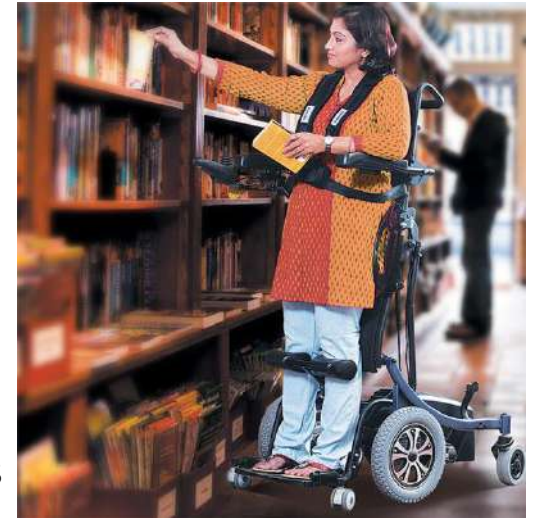
Persons with physical disabilities may need assistance in using the computer apart from having physical accessibility. The following items increase computer usability and safety:

- Special input devices such as trackballs, joysticks, switches, touch pads, and augmented keyboards (micro keyboards or oversize keyboards with enlarged keys)
- A computer camera/tracker allows users to manipulate the cursor through head movement.
- Software utilities that replaces the functionality of a standard keyboard with a full-featured, onscreen keyboard.
- Speech to text software such as Dragon Naturally Speaking
- Motorized wheelchairs to be used by physically impaired users especially motorized chairs whose seat can raise so that users can reach books on higher shelves on the rack.
- Availability of reachers to access books that may be placed too low or too high on the book rack.
- Page turners

PAGE TURNERS



MOTORISED WHEELCHAIRS WITH RAISERS



LARGE PRINT KEYBOARD

## 10. RECEPTION/SERVICE COUNTERS AND WAITING

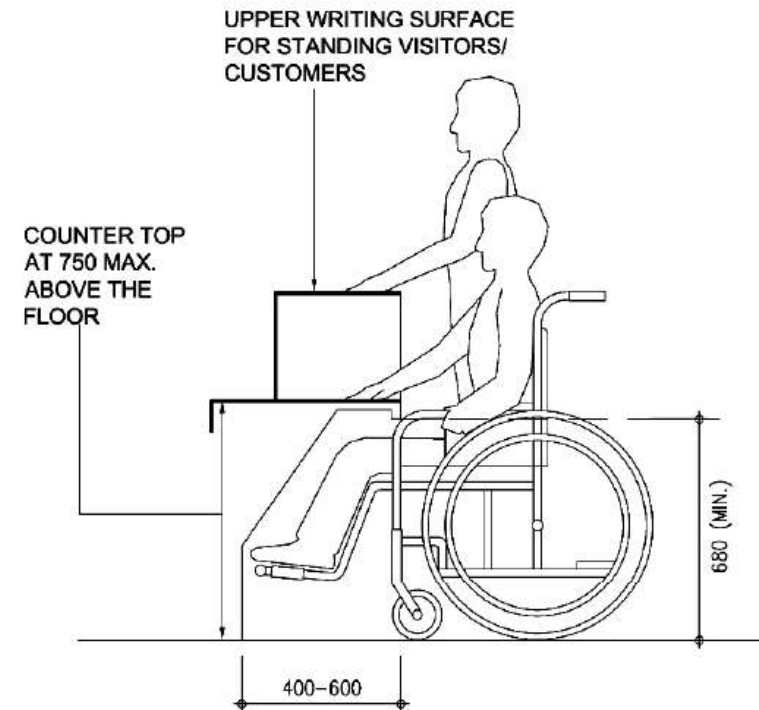
### RECOMMENDATIONS

- The existing reception / service counters to be modified as shown such that a part of the counter is between 760 mm to 800mm from the floor with a 400mm to 600mm clear recess under the counter.
- Accessible directional , multilingual and tactile signage to be provided as per standards.
- Provide tactile guiding path in the floor leading to the reception .
- Provide a tactile pictographic map of the building near the counter
- Reserved waiting spaces for wheel chair users to be demarcated (750 x 1200mm)
- Provide tactile guiding path in the floor for navigating through the waiting lounge independently for PwVI
- Accessible directional , multilingual, braille and tactile signage to be provided as per standards



EXAMPLE OF AN ACCESSIBLE SERVICE COUNTERS

### KEY HEIGHTS OF RECEPTION / SERVICE COUNTERS



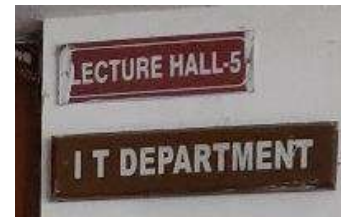
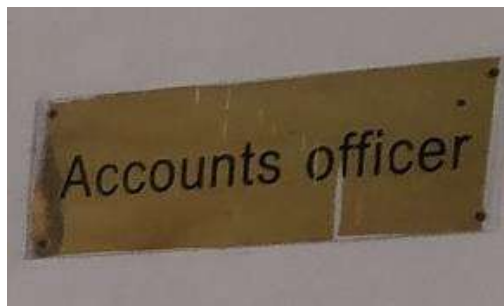
\*ALL DIMENSIONS ARE IN mm



## 11. SIGNAGE/WAYFINDING

### KEY ISSUES

- No accessible facilities in the building , hence signage not provided for the same.
- There are no directional signs in the reception/lobby/corridors / stairs indicating the location of accessible facilities like drinking water fountain, toilets and emergency exits.
- Signage and their sizes are not clear, uniform and easy to read, thus it does not comply with international standards .
- Not all maps, information panels and wall-mounted signs are placed at a height between 900mm and 1800mm.
- The color of signs is not clearly distinguishable.
- All visual signage in the building does not have high color contrast.
- The surface of the sign is not processed so as to prevent glare.
- All signage are not multi lingual and provided in English, Hindi and local language.
- All visual signage are not provided with Braille and Tactile supplements.
- There is inadequate illumination of visual signage.



EXISTING SIGNAGE ALL OVER SITE

## 11. SIGNAGE/WAYFINDING

### RECOMMENDATIONS

- Signs should be located where they are clearly visible.
- External signs should be placed in logical and visually unobstructed locations, while ensuring that growth of adjacent foliage will not interfere with visibility.
- Signage should be in contrasting colours in distinct relief to allow visually impaired persons to obtain the information by touch.
- Simple symbols and contrasting colours which are universally recognized should be used, e.g. green for safety or go, yellow for risk or caution, and red for danger.
- Efforts should be made to locate signs where the reader does not obstruct circulation paths.
- Pictorial signs should be located at major junctions throughout the building for easy way finding.
- Prominent visible signage using the international symbol of accessibility, identifying accessible entrance and exit, reserved car parking, presence of toilets for persons with disabilities, drinking water fountain, stairs, lifts and availability of special services to be provided at all strategic locations.
- Directional signs in the reception/lobby/corridors/stairs indicating the location of accessible facilities like drinking water fountain, toilets and emergency exits to be provided.
- The signage size to comply with not less than 60 mm for doors, 110 mm for corridors and 200 mm for external use.
- All visual signage in the building to be uniform and with high color contrast. Reflection can be avoided by using matt surfaces.
- All signage should be multi lingual, provided in English, Hindi and local language and provided with Braille and Tactile supplements.



RECOMMENDED SIGNAGE



# 11. PROVISION OF **TACTILE AND BRAILLE SIGNAGE** AT ALL DOORS AND AT THE BUILDING ENTRANCE AND DIRECTIONAL SIGNAGE FOR STAIRS, LIFT , TOILETS AND DRINKING WATER FOUNTAIN

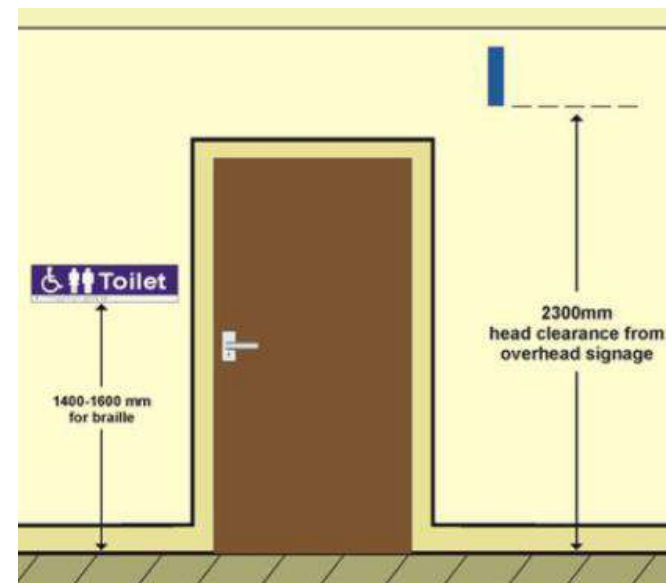
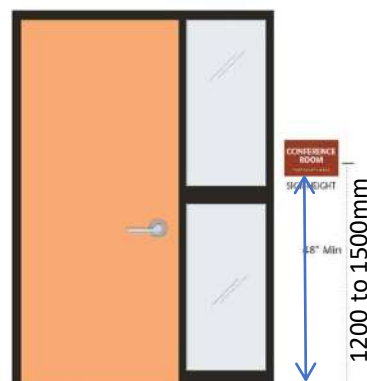
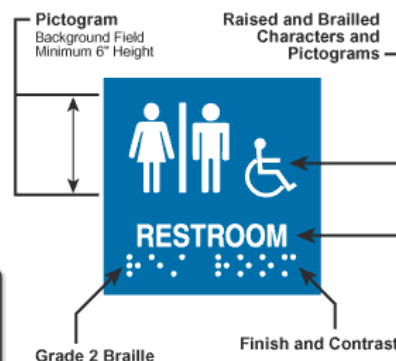


Table 6-2: Size of Signage

Viewing Distance	Size of signage
Up to 7 meters	60 mm x 60 mm
7 meters – 8 meters	100mm x 100 mm
Exceeding 8 meters	200 mm x 200 mm to 450 mm x 450 mm

Table 6-3: Size of Letters in Signage

Viewing Distance	Height of letters
2 - 3 meters	15 mm
6 meters	20 mm
8 meters	25 mm
12 meters	40 mm
15 meters	50 mm
25 meters	80 mm
35 meters	100 mm
40 meters	130 mm
50 meters	150 mm



## 11. PROVISION OF BRAILLE MULTILINGUAL AND TACTILE FLOOR DIRECTORIES ON EACH FLOOR

### RECOMMENDATIONS

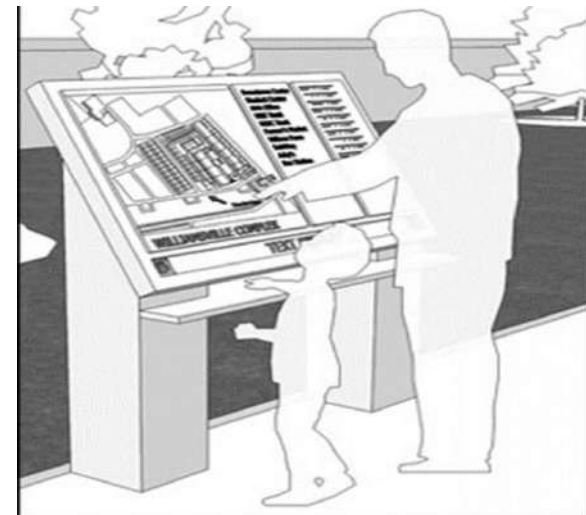
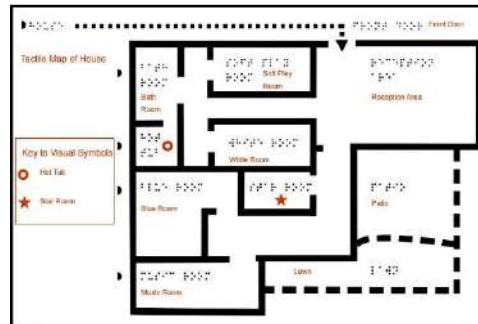
- Tactile, multi lingual and Braille floor directories indicating the room names present on the floor along with a graphical symbol and an arrow pointing in the relevant direction to be provided near the staircase on all floors.
- The floor number to be clearly mentioned on the floor directory and letter height and Braille text to conform to accessibility standards.
- Bottom level of directories should be at a maximum height of 900mm from floor level



## 11. PROVISION OF A TACTILE MAP OF THE BUILDING ON THE GROUND FLOOR

### RECOMMENDATIONS

- A tactile map of the building to be provided at a suitable location in the entrance lobby.
- Signage should be in contrasting colours in distinct relief to allow visually impaired persons to obtain the information by touch.
- Simple symbols and contrasting colours which are universally recognized should be used, e.g. green for safety or go, yellow or amber for risk or caution, and red for danger.
- Efforts should be made to locate signs where the reader does not obstruct circulation paths.
- Signage should be multi lingual, provided in English, Hindi and local language and provided with Braille and Tactile supplements.



EXAMPLE OF TACTILE MAP



## 11. SIGNAGE/WAYFINDING

### Way Finding And Signage Strategy

- Way finding and signage strategies should include the following:-
  - Information about services and facilities.
  - Direction to facilities and functional spaces, service counters , exits and key areas.
  - Identification including room signs and room numbers, facilities and equipment, stair signs and floor numbers.
  - Safety notice such as warnings, prohibitions.
  - Hazards, fire exits and refuges.
- Words, pictorial signs and symbols should be used consistently within the same site and building.
- Such facility should be identified by international symbols of accessibility.
- Wayfinding information can be provided in a range of alternative formats. These include, for example, large print maps, tactile directories with audio-described directions or raised letters on signs.
- Wayfinding signage should use large sans serif text set in good visual contrast to a matt background.
- Wayfinding signage should use simple language, with upper and lower case letters and should be supported by internationally recognised pictograms or symbols.
- Inaccessible routes shall have directional signage to indicate the route to the nearest accessible entrance.
- Where illumination of a sign is needed, the light source should be shielded from the viewer to prevent glare .



Figure 11-10: Information boards on platforms/concourse



Figure 6-20: Embossed letters – tactile signs

Table 6-2: Size of Signage

Viewing Distance	Size of signage
Up to 7 meters	60 mm x 60 mm
7 meters – 8 meters	100mm x 100 mm
Exceeding 8 meters	200 mm x 200 mm to 450 mm x 450 mm

Table 6-3: Size of Letters in Signage

Viewing Distance	Height of letters
2 - 3 meters	15 mm
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8 meters	25 mm
12 meters	40 mm
15 meters	50 mm
25 meters	80 mm
35 meters	100 mm
40 meters	130 mm
50 meters	150 mm

## 11. SIGNAGE/WAYFINDING

### Signage Disposition

- Signage should be adequately provided at eye catching locations at an appropriate height and with an appropriate size.
- All Braille and tactile signage to be placed between the height of 900 mm and 1500mm, with ideal location at 1050 mm above the finished floor level, located alongside the door at the latch side.
- Directional signage should be provided at wayfinding decision points.

### Maps and Directories

- Adequate maps and directories, with graphical and text display, braille and audio types, at all entrances and inside spaces can help users to recognize their present position and assist in orientation and wayfinding.
- Accessible routes to major functional areas for the disabled user groups should be indicated, including positions for dropped kerbs, ramps, and lifts.

### Graphical Details

- Contrasting colors should be used for the signs against its background.
- Pictorial signs should be provided in addition to words and letters.
- Words and letters should be of adequate size, height, boldness and suitable fonts for legibility.
- Graphics and wordings should be informative and easy to comprehend.
- Upper and lower case lettering are considered more legible than capitals alone.
- Text should be kept short and simple and use recognised symbols for standard features.

### Directory and Floor Plan

- Directories and floor plans, where provided, should be located at the main entrance to a building, or in a designated place on the floor of entry, and at other strategic locations on different floors and levels. Although they should be located at a prominent position, they should not obstruct the general pedestrian flow.
- Bottom level of directories should be at a maximum height of 900mm from floor level. They may be free standing or wall mounted and with 'You are here' indicated. For free standing ones, they should ideally be slightly inclined from the horizontal, in line with the building's orientation.

### Visual Directory and Map

- The directory should show the layout plans in simplified form indicating individual rooms, entrances and circulation areas, toilets and other accommodation.
- Floor levels should be represented in graphical form and reflected in the directory. For good legibility, the information surface of the directory should be faced with non-reflective and glare resistant material.
- Characters and symbols should contrast with their background.

### Tactile Map

- Tactile maps should be considered at major locations showing directions to the building. In buildings where finding locations independently on a routine basis is a necessity, tactile maps or prerecorded instructions containing information on locations of main entrances, toilets and other major facilities can be very helpful to visually impaired people.





### KEY ISSUES

Insufficient emergency evacuation measures in entire campus.

### RECOMMENDATIONS

- Emergency evacuation strategies, that include provision for people with disabilities, should be developed for the entire site.
- Emergency evacuation strategies should consider the particular difficulties faced by people with disabilities – on recognition time, response time and movement time.
- There should be a step free or ramped accessible evacuation route identified leading to the exit or the ramp or to the refuge area.
- Where the site covers more than one level evacuation chairs should be provided with staff trained in their correct use.
- There should be sufficient levels of trained people on site to manage an evacuation strategy.
- Emergency exits, access and escape routes should be clearly signposted with directional arrow signs.
- Escape signs should be well lit and have tactile surfaces.
- Emergency exit routes should be on level ground with no obstacles.
- Evacuation plans should be prominently displayed. The plan should be of right size and easy to read .
- The evacuation plans and building maps should be available in tactile Braille formats
- Sufficient number of fire extinguishers should be provided at the height between 1000mm and 1500mm .
- The alerting system should be both visual and audible.
- The alerting buttons should be between 600-1200mm from the floor and should have a high contrast with the wall.
- Consideration can be given to other ways of raising the alarm including visual alarms, paging system, vibrating devices and tailoring of the sound frequencies delivered.
- Refuge areas can be provided within protected stair enclosures.
- Directional sound systems can be installed as they can be tailored to identify particular building features such as stairs or emergency exits and indicate the vertical direction to be taken on stairways.
- Discreet and sensitive smoke detection systems, can be installed as they can dramatically reduce the time to detection, allowing additional time for escape.

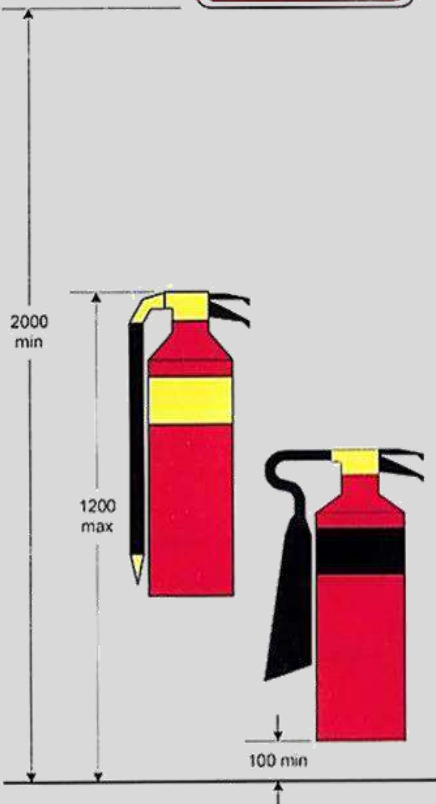
## 12. EMERGENCY EVACUATION



EMERGENCY EVACUATION USING  
EVACUATION CHAIR



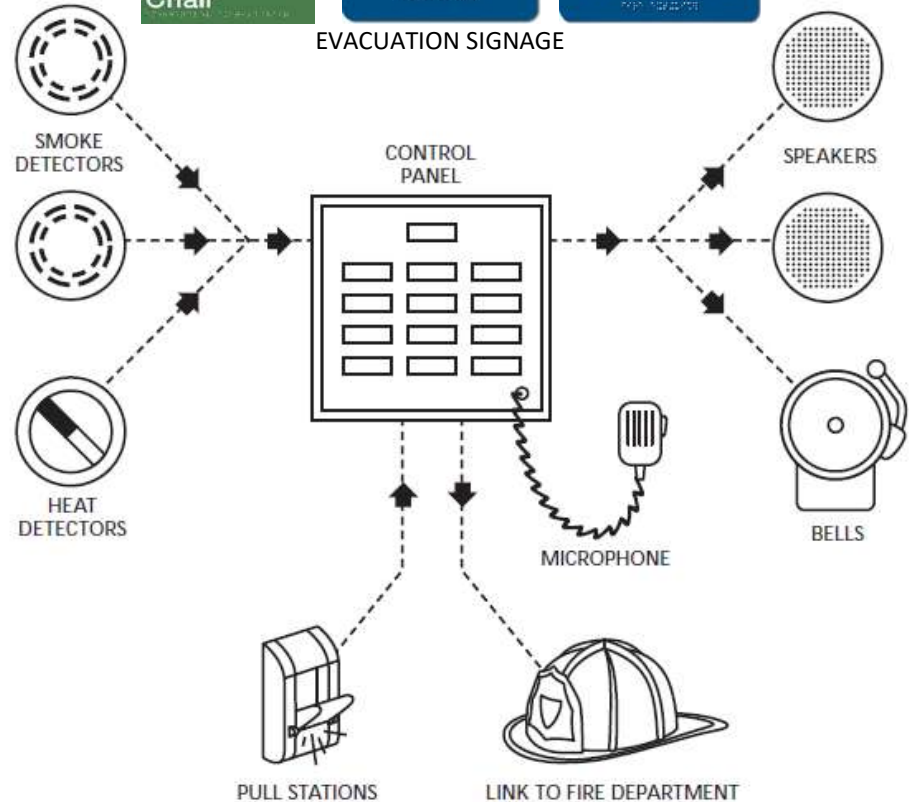
EVACUATION CHAIR



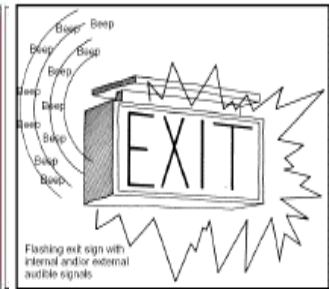
HEIGHT & SIGNAGE  
FOR FIRE EXTINGUISHERS



EVACUATION SIGNAGE



INTEGRATED DISASTER MANAGEMENT SYSTEMS



RECOMMENDED SIGNAGES ON EVACUATION ROUTES



## ACCESS TO INFORMATION AND EQUAL OPPORTUNITY POLICY

### INFORMATION AND COMMUNICATION

1. The website should provide information about the building/service and should comply with web accessibility standards
2. There should be the information detailing all the accessible facilities in the building with photographs
3. All publications/brochures should be available in alternate accessible formats such as : Braille, large Print, audio, pictorial (wherever possible), easy-to-read, plain language, available in Hindi& English, accessible electronic formats that can be shared over email or mobile platforms.
4. Printed service related documents such as forms, menu cards, etc. should be in accessible formats.
5. There should be an option of filling forms electronically through an accessible software.
6. Staff members should be trained in Indian Sign Language interpretation. If not, then Sign language interpreters should be available on call.
7. Assistive technology such as Loop hearing systems, Audio orientation tools, interpretative video's or audio tours in with captioning or sign language, wheelchairs etc. should be available.
8. Adequate support should be provided for persons from different cultures, learning disabilities, those not formally educated, in all the above provisions.

### TRAINING AND POLICY

1. Disability sensitization sessions should be part of the staff / faculty / students induction program.
2. Staff should be trained to assist persons with disabilities, including persons with learning disabilities.
3. Staff should be trained in basic Indian sign language.
4. Staff should be aware of the accessible facilities that are available and know how to operate them.
5. All accessibility equipment should be checked regularly and maintained well.
6. There should be a grievance redressal cell for a student with disabilities to lodge a complaint or make suggestions.
7. There should be a plan to improve accessibility over a set timeframe.
8. Trained live assistance should be available in premises for all disability constituencies where it may be required.
9. There should be an equal opportunities policy within the organization to promote the employment of staff with disabilities.
11. Policy should include commitment to reasonable adjustment of work place environment to accommodate new staff and students with disabilities.
12. Organization should have disability focal person in charge who manages the concerns of employees and clients with disabilities.

7.17  
415

2018-19-10

NALSAR

R C No. : \_\_\_\_\_

**NOTE FILE**

Page No. : \_\_\_\_\_

19-09-2018

Sub: NALSAR- Academic-Examination Committee-Making University Disabled friendly-Recommendations

-000-

In furtherance of the University's commitment to encourage diversity and create inclusive academic and residential spaces as well as enriching learning experiences for students with disabilities, students have taken an initiative to identify areas of improvisation and submitted suggestions to make the University disabled friendly. The Academic-Examination Committee brings for your kind consideration the following requests that will ensure accessible to study material and infrastructure:

**1) Accessible text books/commentaries**

Lexis India Subscription for online access to text books/commentaries: Currently several books and commentaries available in the library are hardcopies and students with visual impairments have to scan bulky commentaries which is highly time-consuming. Whereas the University e-resources data base subscribes to Lexis Nexis, this subscription does not include a plan called Lexis India that provides online access to text books/commentaries by Mulla, Sarkar, Ratanlal & Dhirajlal, M P Jain, Indian and International case laws etc. (For the brochure see <http://www.lexisnexis.co.in/pdf/LexisIndia-brochure-2013.pdf>)

Subscription to this package will also be useful to the student community at large as there are limited copies of important commentaries available in the library. Therefore, subscribing to the Lexis India plan will serve the twin purpose of i) resolving problem of shortage of books in our library and ii) simultaneously make these commentaries accessible to the visually impaired.

**2) Accessible Information and Communication Technology**

a) Installation of Pearl Camera Scanner since regular modules provided in various courses and reference books in the library and relevant materials are available only in hardcopies, these are not accessible for students with visual impairment. Purchase and installation of a Pearl Camera Scanner in the library can be used to read books in the library and convert large quantities of materials to an accessible digital format and therefore resolve the issues faced by students with visual impairment.



**NOTE FILE**

Page No. 34

Designed especially for visually impaired students, the PEARL Camera Scanner comes along with software called Open book. When connected to the computer, it scans the physical material kept below it as the pages are turned. The device snaps a picture of the reading material and begins reading it out aloud instantly. The scanned text can also be saved on a word document or notepad. It can scan up to 20 pages per minute and the software also makes it possible to add comments and highlight the text. It does not require a battery or any external power supply. A single USB port is sufficient for it to work. It can be purchased from: <https://store.freedomscientific.com/collections/computer-connected-scanning-and-reading/products/pearl-openbook-package>. The base price of the device and the software together comes up to \$1,590 (Rs.1,03,690).

b) **Audio Recorder** Procure at least two audio-recording devices so that the visually-challenged students can record the classroom lectures and discussions and listen to it later, if need be.

### 3) **Infrastructural Accessibility**

#### a) **Sign Boards**

• **Directional Signage:** Sign boards with arrows pointing towards specific areas or elements in a specific area. These are to be placed at least near the junctions and stairs across the administrative and academic block.

• **Colour Contrast Signs:** Contrast between the figures on the signboard and the background of the signboard in order to be easily distinguishable.

• **Pictograms (Braille):** Ideally the sign boards should have a combination of raised lettering, raised arrows and raised symbols which are its tactile features. These are to be placed at least outside all the class rooms and restrooms at an appropriate height so that it can be felt using hands. Available at: <https://www.indiamart.com/proddetail/braille-acrylic-signage-15885824112.html>

• **Audio signs:** When touched or activated, these signs play a recorded message as to enable and inform a visually-challenged individual about the direction or facilities of a specific area to ease access. [One at the entrance of administrative block]

#### b) **Tactile surfaces**

• **Tactile Guidance Blocks:** Signage guiding the direction and providing information about the specific area are required to be installed on the flooring for better access.

• **Tactile Warning Blocks:** Warning blocks at the entrance and exit of specific areas like washrooms, ramps, etc. are necessary to ease access and to curb barriers on the pavement.

• **Tactile Layout Plan of the Building at the entrance:** Tactile layout map of the building provides information to the visually-challenged and helps in navigating around the building and particularly helpful for the people who are unable to read signs. Audio tactile layout is available at: <https://www.indiamart.com/proddetail/audio-tactile-layouts-15885824497.html> [One each in the administrative block and academic block]

## NOTE FILE

- Tactile tiles can be purchased from:  
<https://dir.indiamart.com/impcat/tactile-tile.html> [outdoor  
usage] Adhesive tactile tiles:  
<https://www.indiamart.com/proddetail/tactile-tiles-for-blind-people-self-adhesive-series-15107676012.html> [For academic block,  
administrative block and the library]

c) **Ramps and Kerb ramps in residential buildings:** Ramps and kerb ramps are required at the entrances of all the hostels, preferably with handrails. Tactile warning blocks need to be installed at the beginning and the end of the ramps.

4) Allotment of a Special Room in the Library

A separate room in the library allotted where the personal computer with pre-installed speaking software like JAWS or Kurzweil, the PEARL Cam Scanner, and the braille printer can be kept. This will enable students with disabilities to have a better access to e-resources and to use the speaking software easily. It will allow the students to operate their computers without plugging in their headphones continuously.

Submitted for approval and necessary instructions

On behalf of Academic-Examination Committee

*N. A. Pathakji*  
(Neha Pathakji)  
Member

Vice Chancellor

*We request immediately the same to be  
through. I approve the entire scheme &  
budget.*

*[Signature]*  
11/10/18

*Koteshwar / Ms. Neha*

Date: 14-03-2017

To,

The Registrar

Sub: Approve one book scanner for visually handicapped students.

Sir,

This is with reference to give better and satisfactory service to the visually handicapped students.

The above students need scanning of some chapters from the books, study materials, and some time full book to study in brail print and prepare for examination. It is very difficult to scan with single page scanner which takes 3 minutes time for single page. Scanning will give PDF form and this PDF form to be converted in to the word form then only it is possible to take print on brail printer.

Presently multifunctional book scanners are available in the market which converts directly PDF form into word format. These scanners will scan 20 pages per minute. This scanner will more helpful in providing better service to the visually handicapped students. This issue is discussed with Mr. Irafan and he is in favour of this proposal.

Here with we enclose Xerox copy of book scanner and its specifications for your perusal.

  
Assistant Librarian

  
REGISTRAR

Mr. D.A.G.



Sub:- Scanner for Library

It is to submit that, we have contacted the disable friendly scanner manufacture and has found that the following scanner fits to our visual challenged students requirement.

The main features are

1. Comes with vocalizer voices
2. Can save scanned documents in to form of .MP3, doc, docx, pdf, rft, jpeg etc
3. Live magnification upto 16X.

Cost of the scanner : Rs 49,000/-

Manufacturer : LEX

Warranty : 3 years

Submitted for your information

Sd/-  
Syslin Admin

~~Handwritten signature~~

Registrar

After due negotiation, the vendor M/s sparsh products has agreed to reduce the pricing to Rs 43,000/- from Rs 49,000/- as he is the sole distributor for the LEX products. Workorder for the supply of Lex Instant Reader and scanner may be issued along with payment of Rs 43,000/- as advance release.

Sd/-  
Syslin Admin

~~Handwritten signature~~

~~Handwritten signature~~

Handwritten signature



## NALSAR University of Law, Hyderabad

'Justice City', Post Box No. 1, Shameerpet, Ranga Reddy District,  
Hyderabad - 500 101, Telangana, India  
Tel : +91 40 23498112 / 114 E-mail : library@nalsar.ac.in

Date: 17-05-2017

M/s. Sparsh Products  
119 Bhagirathi Puram  
Jakhan, Rajpur Road  
Dehradun 248 001  
Uttarkhand, India  
Ph. No. 9837088334

Sub: Supply of Lex Instnt Reader and Scanner.  
Ref: Your quotation 2017/93, dated 17-05-2017.

With reference to your quotation cited above, we here with confirm the same and would like to place the work order with you along with advance payment, as you mentioned in your quotation for the supply of the LEX INSTANT READER AND SCANNER to our campus at Shameerpet, Medchal, Telanga.

### Terms and Conditions.

1. The above price including taxes
2. It should reach us in safe and good condition.

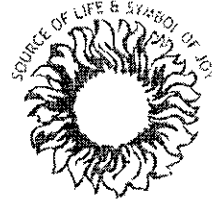
A handwritten signature in black ink, appearing to be 'W. R. R.', written over a horizontal line.

REGISTRAR

A.O

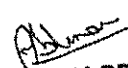
# SPARSH PRODUCTS

COMMITTED TO ENABLE THE DISABLE



## INVOICE/BILL

21/6/2017

Sparsh Products 119 Bhagirathi Puram, Jakhan, Rajpur Road, Dehradun-248 001, Uttarakhand, India Ph: +91 9837088334		Buyer/Consignee System Administrator NALSAR University of Law Justice City, Shameerpet R.R.District, Hyderabad - 500078		
Bill/Invoice No. & Date 1718/39, 9 June 2017		VAT: 0500 6960648 CST: DD 5188153		
Sr. No.	Description	Quantity	Rate (INR)	Amount (INR)
1.	Lex Instant Reader and Scanner  Received Rs. 43,500/- via NEFT on 7-6-17	1	43,000.0	43,000.0
Amount Chargeable (in words) INR Forty Three Thousand Only			Total	43,000.0
<u>Bank Details:</u>  Account name: Sparsh Products, Bankers Name: State Bank of India Branch: Jakhan, Dehradun Account Number: 10191325924 IFSC Code: SBIN0006155		Stamp & Signature   <b>SPARSH PRODUCTS</b> 119, Bhagirathipuram, Rajpur Road, Dehradun Mob.: 9837088334		



6/7/2017

NALSAR University of LAW Mail - NALSAR - transfer details



NALSAR University of Law <library@nalsar.ac.in>

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## NALSAR - transfer details

2 messages

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Accounts Officer NALSAR <accounts@nalsar.ac.in>  
To: Nalsar library <library@nalsar.ac.in>

Wed, Jun 7, 2017 at 3:44 PM

Sir,

pls note that an amount of Rs.43,000/- has been sent by NEFT today vide ref.no.IDIBH17158292628

regards  
accounts dept.,

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NALSAR University of Law <library@nalsar.ac.in>  
To: sparshproducts@gmail.com

Wed, Jun 7, 2017 at 3:53 PM

Please check your account and send us your acknowledgement for the same. At the same time you start process our order at the earliest.

Best regards.,  
[Quoted text hidden]

—  
Mr. K.Krishna  
Assistant Librarian  
NALSAR University of Law  
Post Box No. 1  
Justice city  
Shameerpet  
Medchal District.  
500 101  
Telangana  
India  
Off:+9140-23498111/112  
Mob:+919032237086  
nalsar.ac.in

*7/6/2017*  
*Parcel received on 21/6/2017*  
*at 2 pm.*  
*21/6/2017*

OFFICE - X

(14)

Date: 26-03-2021

**Approval Note:**

**Sub:** Assistive Devices and Software for aid for Visually Impaired Students for the year 2021 as recommended by Library Committee for Accessibility Lab.

Kindly release an amount **Rs. 2,78,880/-** (Rupees Two Lakhs Seventy Eight Thousand Only) to **AURA VIZION** for library infrastructure upgrade for the year 2020-21.

Here with we enclosed Quotation bearing No: PI-20210326-NULH dated 26<sup>th</sup> March 2021 along with bank details for NEFT.

  
Assistant Librarian

  
**REGISTRAR**

  
**VICE-CHANCELLOR**

Encl: Proforma Invoice



## NALSAR University of Law, Hyderabad

'Justice City', Shameerpet, Medchal-Malkajgiri District - 500 101, Telangana, India.

Tel : +91-40-23498104 / 23498437 Fax : +91-40-23498386

Mobile : +91-99486 60916

E-mail : registrar@nalsar.ac.in, balakista@gmail.com

Website : www.nalsar.ac.in

Prof. (Dr.) V. Balakista Reddy

LL.M., M.Phil., Ph.D. (JNU)

Professor of Law & Registrar

Date: 27/03/2021

To

M/s. Aura Vizion

30 Maker Arcade, Ground Floor,

Near World Trade Centre, Cuffe Parade, Mumbai – 400005.

auravizion@gmail.com

+91-22-22181853

**Sub:** Purchase of Assistive Devices / Rehabilitation Aids for the Blind

Dear Team,

Kindly accept greetings from NALSAR!

The undersigned is please to place the order of purchase **assistive devices / rehabilitation aids for the blind**, the details of which are provided below:

Name of the Vendor	Product	Amount (Rs.)
Aura Vizion	Angel India Online Daisy Player (Qty: 1)	8,900
	Snow 7 HD Plus Video Magnifier (Qty: 1)	69,800
	JAWS TALKING SCREEN READER FOR THE BLIND (Karishma India Literacy project) – Home Edition Latest Version 2021 – Not for Commercial use Suitable for Windows 10,8.1 and 7 for both 32 bit and 64 Bit OS (Qty: 1)	29,7000
	ZoomText Screen Magnifier / Reader for Partial Blind (Qty: 1)	38,000
	OPENBOOK SCANNING AND READING SOFTWARE WITH PEARL HI-SPEED CAMERA – Latest Version 9 (Qty: 1)	69,800
	Duxbury Braille Translation Software – Latest Version 12.4 SR1 (Qty 1)	49,400
	SUB-TOTAL	2,65,600
	GST (5%)	13,280
	TOTAL	2,78,880

### Terms and Conditions:

1. Purchased, the above-mentioned software and hardware will be the asset of the University.
2. Payment would be made in advance before delivery of the abovementioned software and hardware.
3. Technical assistance should be provided.
4. All other terms & conditions will remain same as per the proposal.

  
REGISTRAR



# Aura Vizion

30 Maker Arcade, Ground Floor,  
Near World Trade Centre, Cuffe Parade, Mumbai – 400005. India

**Phones:** ☎ 022-22181853 OR 22153291 **Mobile/ WhatsApp:** 9321539290

**E-mail:** AuraVizion@gmail.com

**Website:** AuraVizion.com

**Tech Support:** 7208220241



## PROFORMA INVOICE

**To:** THE REGISTRAR  
NALSAR University of Law  
Hyderabad - 500101.  
GST No: 36AAALN0016D1ZP

**Date:** 26-Mar-21  
**Proforma #** PI-20210326-NULH

Sr. No.	Description of Items ASSISTIVE DEVICES/ REHABILITATION AIDS FOR THE BLIND	Price	Qty	Total
1	Angel India Online Daisy Player	8,900.00	1	8,900.00
2	Snow 7 HD Plus Video Magnifier	69,800.00	1	69,800.00
3	JAWS TALKING SCREEN READER FOR THE BLIND (Karishma India Literacy Project) - Home Edition Latest Version 2021 - Not for Commercial Use Suitable for Windows 10, 8.1 and 7 - for both 32 Bit and 64 Bit OS	29,700.00	1	29,700.00
4	ZoomText Screen Magnifier/ Reader for Partial Blind	38,000.00	1	38,000.00
5	OPENBOOK SCANNING & READING SOFTWARE WITH PEARL HI-SPEED CAMERA - Latest Version 9	69,800.00	1	69,800.00
6	Duxbury Braille Translation Software – Latest Version 12.4 SR1	49,400.00	1	49,400.00
	<b>SUB TOTAL</b>			<b>2,65,600.00</b>
	<b>GST</b>			<b>13,280.00</b>
	<b>TOTAL</b>			<b>2,78,880.00</b>

**Terms of Supply:**

**Delivery period:** Within 3 weeks after receipt of order & payment from you.

**Mode of Despatch:** To Be Advised

**Validity:** 60 Days

**Local Customs Clearance (If applicable):** To be arranged by you

**Payment Terms with Bank Details:**

100% advance by Telegraphic Transfer to our Bank account in Mumbai.

Please ensure that no bank charges are deducted from the amount remitted.

Chase Manhattan Bank, New York

SWIFT Code CHASUS 33

To the a/c. of HDFC Bank, Mumbai, India

SWIFT CODE HDFC INBB

For further credit to

AURA VIZION

A/c. No.00012000017312

HDFC Bank, Nariman Point Branch, Mumbai.

If you have any questions or need any clarification or more information, please contact us  
on phone +91-22-22181853 or email [auravizion@gmail.com](mailto:auravizion@gmail.com)

Looking forward to receiving your order & payment to enable us to process your order at the earliest

THANK YOU!

**AURA VIZION**

30 Maker Arcade, Ground Floor,  
Cuffe Parade, Mumbai - 400005, Maharashtra, INDIA  
Phone: (022)-22181853 or 22153291  
Email: auravizion@gmail.com  
Website: www.KarishmaEnterprises.com  
GSTIN: 27AAAHA0284N1ZB

**Bill To:**

NALSAR University of Law, Hyderabad  
THE REGISTRAR  
NALSAR University of Law  
Hyderabad - 500101.  
GSTIN: 36AAALN0016D1ZP

**Invoice**

Date: 31 Mar 2021  
Invoice No.: AV-2020-21-G83

Qty	Description	Unit Price	Total
1	Angel India Online Daisy Player	₹8,900.00	₹8,900.00
1	Snow 7 HD Plus Video Magnifier	₹69,800.00	₹69,800.00
1	JAWS Talking Screen Reading Software for the Blind	₹29,700.00	₹29,700.00
1	ZoomText Magnifier/ Reader for the Partial Blind	₹38,000.00	₹38,000.00
1	OpenBook Scanning & Reading Software with Pearl Hi - Speed Camera	₹69,800.00	₹69,800.00
1	Duxbury Braille Translation Software	₹49,400.00	₹49,400.00

Subtotal ₹265,600.00

IGST ₹13,280.00

Total ₹278,880.00

Paid ₹269,584.00

2.0% GST TDS: ₹5312.00

1.5% Income TDS: ₹3984.00

Payment Terms: 100% Advance by D.D./ Par Cheque in our favour payable at Mumbai or  
Funds Transfer to our Bank Account as follows:

Current A/c Name: AURA VIZION

A/c. No.00012000017312

HDFC Bank, 101-104, Tulsiani Chambers, Free Press Journal Marg, Nariman Point Branch,  
Mumbai - 400021

RTGS/ NEFT/ IFSC Code: HDFC0000001

MICR Code: 400240003

at Mumbai or Funds Transfer to our Bank Account

GST: 5% Applicable on Assistive Devices/ Rehabilitation Aids for the Disabled

HSN Code: 9021.90.90

For AURA VIZION

*Karishma*  
Authorised Signatory



For Aura Vizion,

Authorised Signatory





NALSAR University of Law <library@nalsar.ac.in>

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## Proforma Invoice

1 message

AURA VIZION <auravizion@gmail.com>

Fri, Mar 26, 2021 at 4:23 PM

To: acad.sbc@nalsar.ac.in

Cc: dgvrithvik@nalsar.ac.in, library@nalsar.ac.in

Dear Madam,

Please find Proforma Invoice Attached.

In case you require any further information or clarification, please contact us and we shall be glad to provide the same.

Looking forward to hearing from you.

Thanks

Kind Regards,

*Admin Team*

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AURA VIZION

(A group company of Karishma Enterprises)

30, Maker Arcade, Ground Floor,

Near World Trade Centre,

Cuffe Parade, Mumbai – 400005. INDIA

Phone: (022)-22181853 OR 22153291

WhatsApp: (0)-9321539290

Email: [AuraVizion@gmail.com](mailto:AuraVizion@gmail.com)

Website: [www.AuraVizion.com](http://www.AuraVizion.com)

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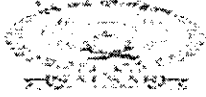


Virus-free. [www.avast.com](http://www.avast.com)



Proforma Invoice\_AV.pdf

42K



NALSAR University of Law <library@nalsar.ac.in>

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**NALSAR - payment to Aura Vizion - Rs.2,69,584/-**

1 message

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**Accounts Officer NALSAR** <accountsofficer@nalsar.ac.in>  
To: Nalsar library <library@nalsar.ac.in>

Thu, Apr 1, 2021 at 1:12 PM

Sir,

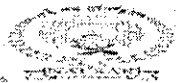
we transferred an amount of Rs.2,69,584/- ( Rupees Two Lakh Sixty Nine Thousand Five Hundred Eighty Four only) to Aura Vizion., vide UTR No. IDIBR52021033122971710 after recovery of IT TDS@1.5% and GST TDS @2% on Rs.2,65,600/- and GST amount of Rs.13,280/- paid. against PI.20210326 NULH / 26.03.2021

In this we procure the TAX Invoice from the supplier now.

this is for your information

regards  
Accounts Dept.,





## Despatch of Assistive devices

1 message

AURA VIZION <auravizion@gmail.com>

Tue, Apr 13, 2021 at 11:33 AM

To: library@nalsar.ac.in, bansalayushi97@gmail.com, santhya.nalsar@gmail.com, acad.sbc@nalsar.ac.in, sudhanshu.nalsar@gmail.com, agnihota37@gmail.com, vc@nalsar.ac.in

Dear Sir,

We are happy to inform you that we have sent the following by courier as per details given below.

### Package contents: – Following Assistive Devices

1. Angel India Online Serial No.:( ANG-383)
2. Snow 7 HD Plus Serial No.:( A5109008F11120003)
3. JAWS Software Serial No.:(14130550)
4. ZoomText Magnifier/ Reader Serial No.:(11490951)
5. Pearl with Open Book Serial No.:( EM2037A003, 8039867)
6. Duxbury Braille Translation Software Serial No.:( DBT P3896-57030707)

Name of Courier: Professional Couriers

Consignment Note No.: KUR523688911

Consignment Sent on Date: 12-04-2021

The package can be tracked from the link below:

<https://www.tpcindia.com/>

Local Number of Professional Courier in your City/ Town can be found from the link below:

<https://www.tpcindia.com/contact-us.aspx>

In case you require any further information or clarification, please contact us and we shall be glad to provide the same.

Looking forward to hearing from you.

Thanks

Kind Regards,

*Admin Team*

AURA VIZION

(A group company of Karishma Enterprises)

3D, Maker Arcade, Ground Floor,

Near World Trade Centre,

Cuffe Parade, Mumbai – 400005, INDIA

Phone: (022)-22181853 OR 22153291

Mobile/ WhatsApp: (0)-9321539290