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Attachment 2	Drawings of Existing Building	Scale 1:200
	2A Lower Ground Plan	
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Reference Materials

- Provided for your use.
- Do not remove from Examination Hall.

## **TWO COMPULSORY QUESTIONS**

### **Question 1 – Building Design**

**80 marks**

#### **1 Problem Statement**

The problem concerns a primary school in Kennedy Town built some five decades ago comprising an Assembly Hall Block and a Classroom Block. The Assembly Hall Block is deemed to have cultural and architectural merit. The complex has been left vacant for several years.

Your Client is a non-profit international youth organization. They intend to apply to Government for a grant of the above premises and to remodel the building(s) into a youth hostel to cater for student and young budget travelers from around the world.

Preliminary advice from Planning Department restricts the height of the building to six storeys.

Your office has been commissioned to test the feasibility of the proposal.

Your task is to prepare a schematic design which satisfies functional and statutory requirements. Your design should incorporate the basic provisions and requirements of building structure, building services and utilities. The design should be sensitive to the Site, level differences, and the conservation of the existing Assembly Hall Block. (can be used for other uses).

## 2 Site Description

### **Context**

The neighbourhood topography slopes down from south to north. The existing school is built on a formed platform. To the south of the Site are police quarters and an education facility. Further south is an old public housing estate at the top of the slope. To the north is Victoria Road. See attached Location Plan.

### **Access and Services**

There is no existing vehicular access to the site due to the level difference between the road and the formed platform. Preliminary consultation with the Transport Department confirms that vehicular access would be permitted from Victoria Road.

### **Environmental Factors**

Traffic noise from Victoria Road is unfavourable. The client is prepared to provide air conditioning for the domestic accommodations to mitigate noise.

### **Special Features**

The Structural Engineer has carried out an initial condition survey of the existing buildings. It is recommended that the Classroom Block at the western portion of site be demolished due to its poor structural condition. The Assembly Hall Block on the east side is in good condition and can be retained.

Geotechnical records indicate that existing slopes and retaining walls in the vicinity are in stable condition and good state of repair.

### 3 Design Brief

#### 3.1 Development Requirements

Site area	2,600 square meters (about)
Zoning	Government/Institutional/Community GIC
Permissible plot ratio (PR)	comply with Buildings Ordinance for Domestic Development
Permissible Site coverage (SC)	comply with Buildings Ordinance for Domestic Development
Building height	Not to exceed 6-storeys above Existing Lower Ground Level. See Attachments.
Site vehicular access	Between X and Y through Z along Victoria Road See Attachments
Non-building area	none
Use	Private treaty grant for non-profit making youth hostel
Car parks	(a) 2 carparking spaces for private car 5000 L x 2500 W x 2400 H  (b) 1 coach parking space 9000 L x 3500 W x 3800 H
Loading and Unloading	1 bay 7000 L x 3500 W x 3800 H
Barrier free access	Comply with regulations
Lift	1 passenger lift (to comply with requirements for Fireman's use)
Building services	Natural ventilation to be maximized Air conditioning units to be provided for dormitory units where noise is a factor

### 3.2 Design Requirements

Cater for low budget travelers. Foster cultural exchange, friendship and communication between and amongst youth.  
 Provide separate male and female dormitories interconnecting to common facilities

### 3.3 Accommodation Schedule

	Usable Area Square Meters	Remarks
<b>Dormitories</b>		Bunk beds are commonly used in youth hostels
Male double rooms with attached shower and toilet 5 nos. @ 25 m <sup>2</sup>	125	
Male shared rooms for 4 persons 20 nos. @ 12 m <sup>2</sup>	240	
Male shared rooms for 8 persons 10 nos. @ 24 m <sup>2</sup>	240	
Male sanitary fitments (communal for shared rooms)		Toilet / urinal: 1 per 10 beds Wash basin: 1 per 10 beds Shower: 1 per 10 beds
Female double rooms with attached shower & toilet 5 nos. @ 25 m <sup>2</sup>	125	
Female shared rooms for 4 persons 20 nos @ 12 m <sup>2</sup>	240	
Female shared rooms for 8 persons 10 nos. @ 24 m <sup>2</sup>	240	
Female sanitary fitments (communal for shared rooms)		Toilet: 1 per 8 beds Wash basin: 1 per 8 beds Shower: 1 per 8 beds
Warden Quarters 1 unit, with 2 bedrooms	60	

<b>Common Facilities</b>	<b>Usable Area Square Meters</b>	<b>Remarks</b>
Main Lobby & Reception	50 –100	
Multi -purpose Hall	As existing	
Meeting room 1 no.	20	
Reading room 1 no.	20	
Kitchen	40	
Dining area	100	
Canteen with self service counter	100	
Infirmary (sick room)	10	
Media rooms for television, video games, internet	50	
Self service laundry	50	
<b>Amenities</b>		
Barbeque area (open air)	as appropriate	
Basketball court (open air)	–	14 x 26 m
<b>Administration &amp; Support Facilities</b>		
Administration Office	80	General office staff Hostel manager office Assistant manager office Security staff Accounting staff
Toilets	as appropriate	For visitors and staff
Storage	80	For administrative use.
General Circulation	as appropriate	
<b>Building Services Facilities</b>		
Transformer room	as appropriate	
Switch room	as appropriate	
Plant rooms	as appropriate	

#### 4 Submission Requirements

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<b>Design Statement</b>	Describe Design Concepts and Intentions briefly. Use text, sketches and diagrams as appropriate. Be brief
<b>Site Plan</b> preferred Scale 1:200	Show site development. Include access point(s) for vehicles and pedestrians. Show relevant features of adjacent sites.
<b>Plans of all major Levels</b> preferred Scale 1:200	Indicate all major spaces and elements of construction. Label spaces according to the Accommodations Schedule. Note usable area of each space.  Indicate Building Section cut-line(s). Give overall and critical dimensions. Show Site Boundary and adjacent structures. Show critical Means of Escape distances. Show Means of Access for Firefighting & Rescue Show integrated Building Structure. Show integrated Building Services.
<b>Building Section(s)</b> preferred scale 1:100	Show floor to floor dimensions. Show relationship between the elements of construction ( <i>eg Building structure, building envelope, finishes, building services, and the like</i> )  Include annotations and critical dimensions.
<b>Illustration</b>	Provide drawings (eg axonometric, isometric, perspective) to illustrate external massing, form and key architectural features ,  Note major exterior finish materials, textures and the like.
<b>Calculations</b>	Show compliance of design with - Permissible Plot Ratio - Permissible Site Coverage  Note: Tables, schedules and calculations for exit widths, sanitary fitments, refuse rooms, and the like are NOT REQUIRED.

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**Question 2 – Construction Details and Documentation ( 20 marks )**

**1 Problem Statement**

Based on **your schematic design** (Question 1) you are instructed by the Client to proceed with Construction Details and Documentation.

**Your task** is to complete design development for a communal toilet and shower .  
**Document** your design: Produce a set of coordinated and cross-referenced **Construction Details**.

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**2 Submission Requirements**

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<b>Base Plan</b> preferred Scale 1: 20	Annotate and dimension as appropriate
<b>Sections and Elevations</b> preferred Scale 1: 20	Annotate and dimension as appropriate
<b>Construction Details of Shower Cubicle</b> preferred Scale 1: 5	Provide a Section through a shower cubicle showing features, waterproofing, finishes, fittings and the like Annotate and dimension as appropriate

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**General Notes**

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Format	A3 plain paper and A3 tracing paper are provided. Use as appropriate.
Presentation	Black ink line drawings are preferred Use of colour is optional. Do NOT use RED.

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**END OF PAPER**



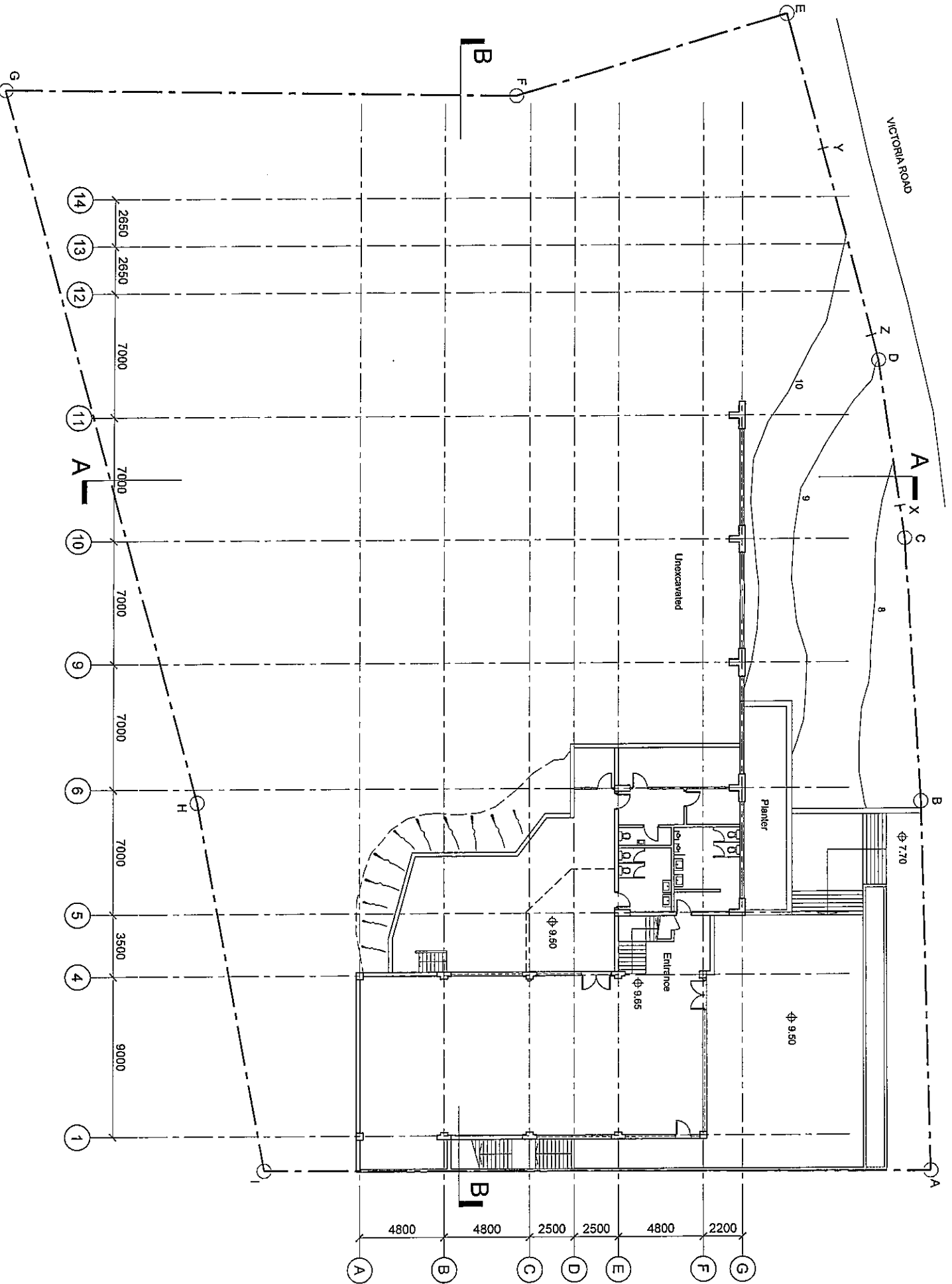


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Paper 7  
BUILDING DESIGN, CONSTRUCTION DETAILS & DOCUMENTATION

Attachment 1  
LOCATION PLAN

Scale  
1 : 1000



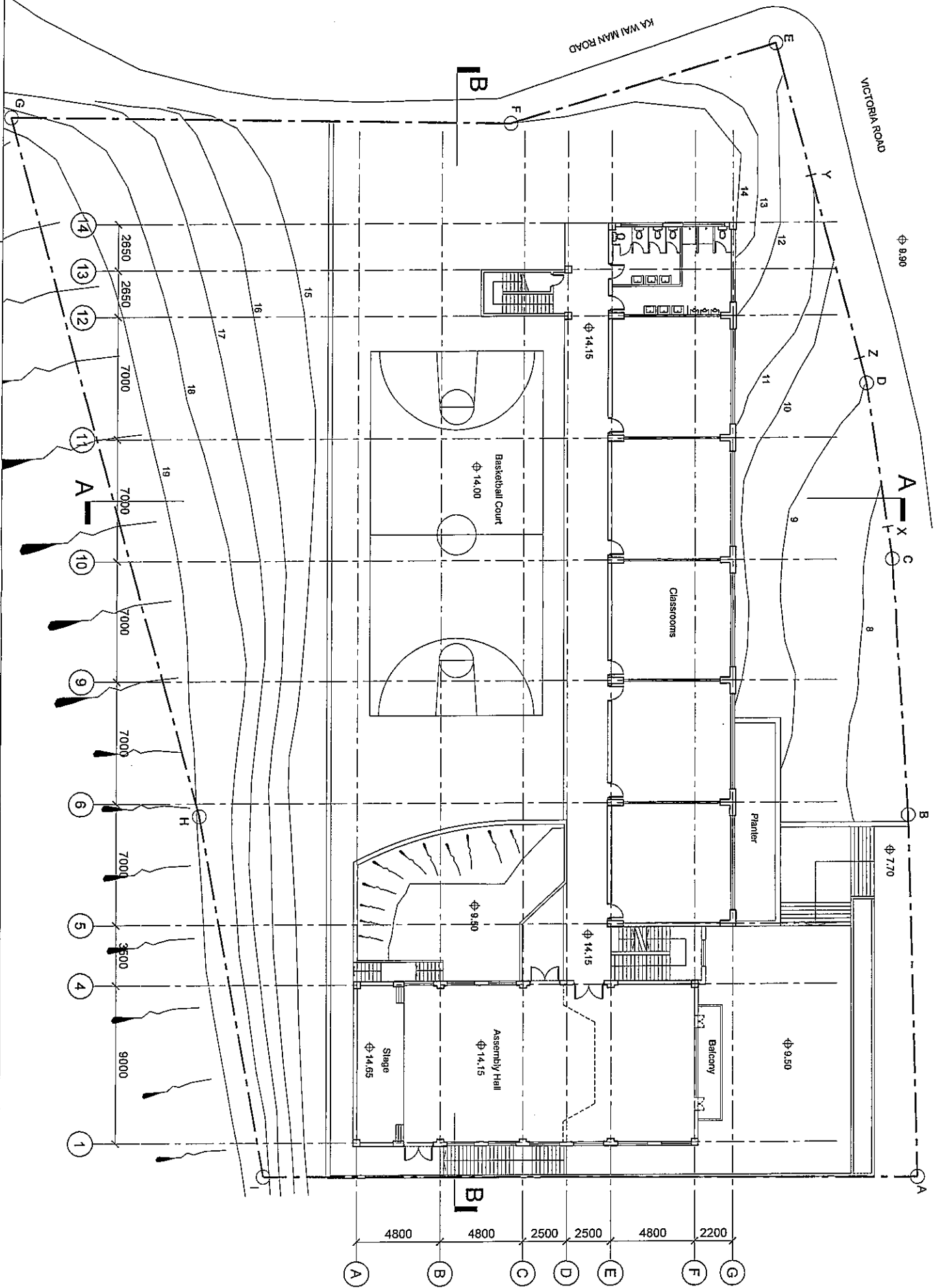


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Professional Assessment 2005

Paper 7  
BUILDING DESIGN, CONSTRUCTION DETAILS & DOCUMENTATION

Attachment 2B  
EXISTING GROUND FLOOR PLAN

Scale  
1 : 200



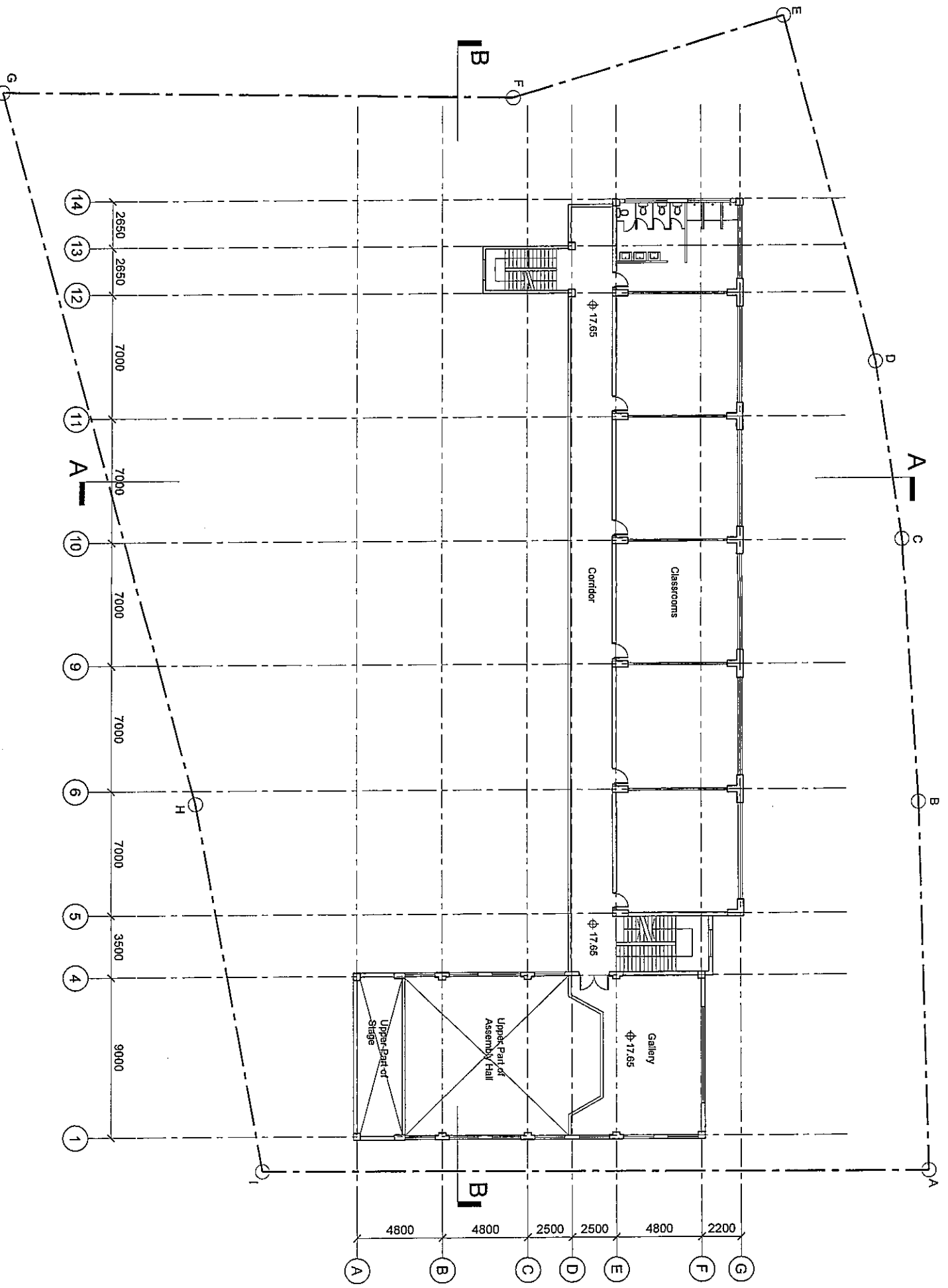


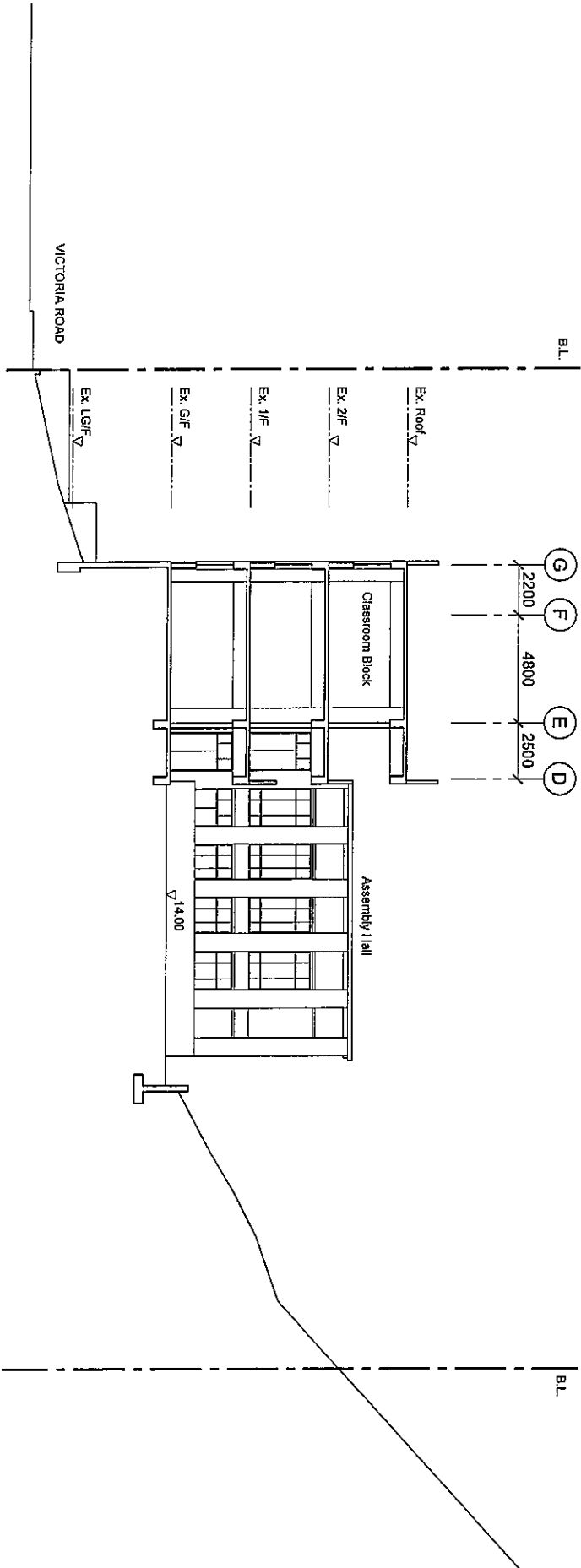
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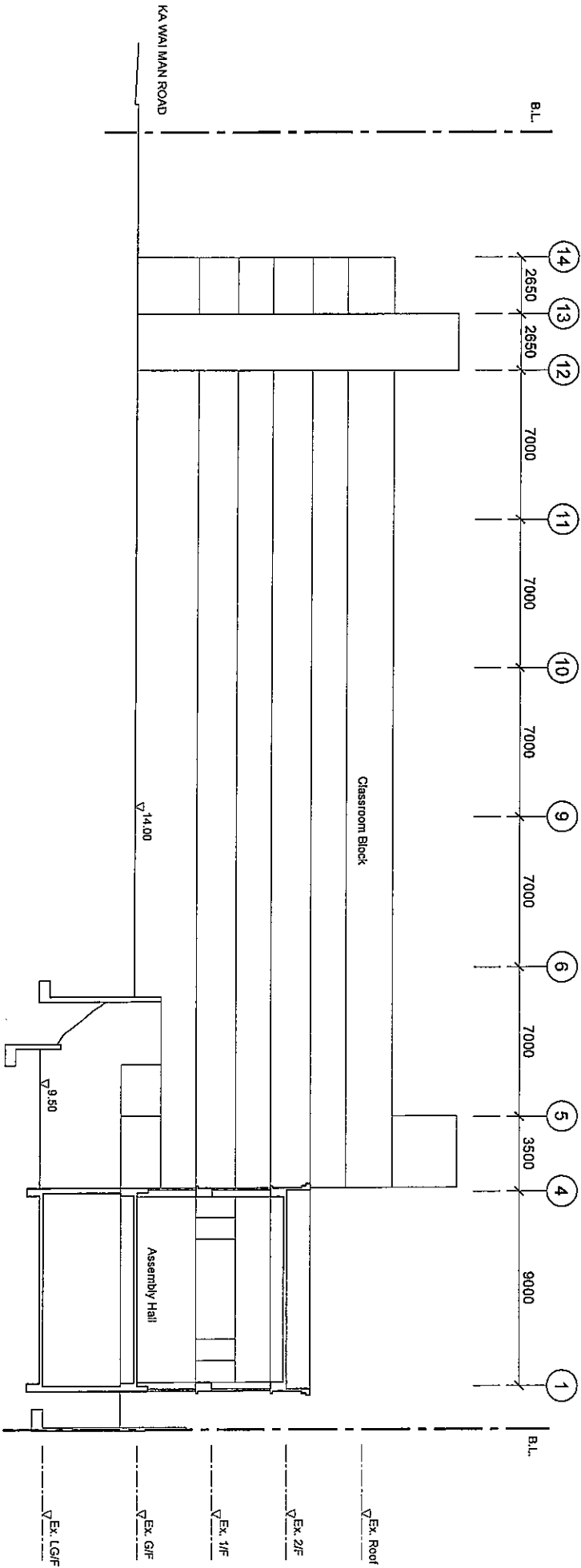
Paper 7  
BUILDING DESIGN, CONSTRUCTION DETAILS & DOCUMENTATION

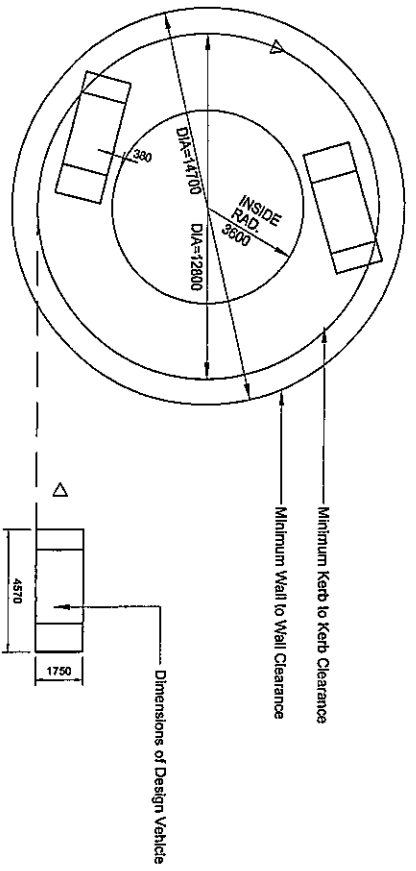
Attachment 2C  
EXISTING FIRST FLOOR PLAN

Scale  
1 : 200

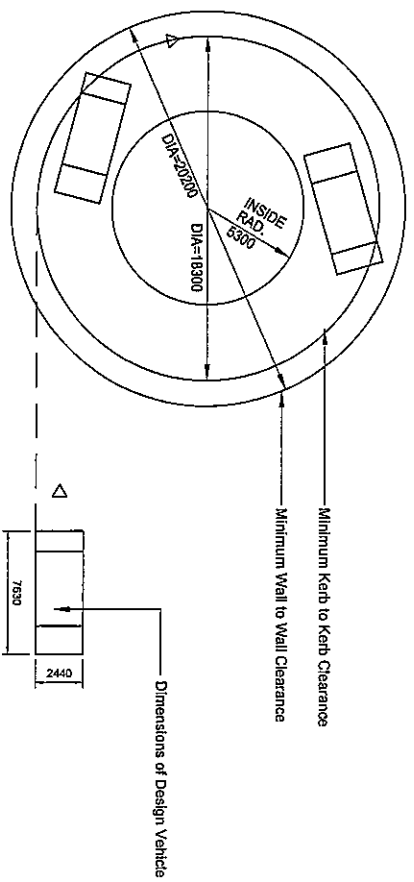




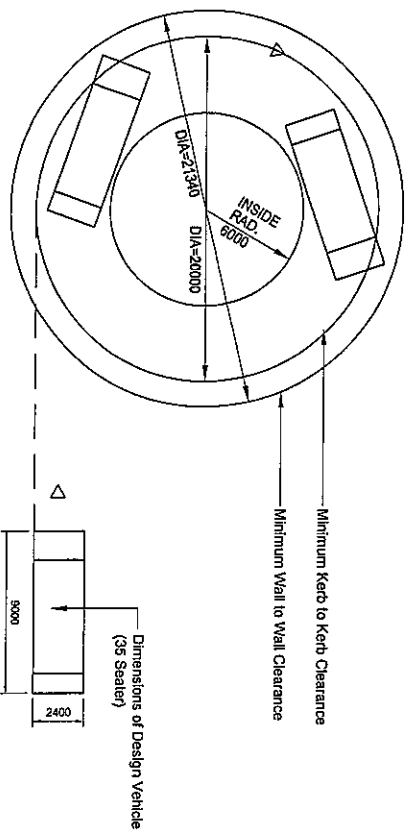




**RECOMMENDED MINIMUM STANDARDS OF TURNING CIRCLE FOR PRIVATE CARS**  
(not to scale)



**RECOMMENDED MINIMUM STANDARDS OF TURNING CIRCLE FOR GOODS VEHICLES**  
(not to scale)



**RECOMMENDED MINIMUM STANDARDS OF TURNING CIRCLE FOR TOURIST BUS**  
(not to scale)

