

CONTENTS

	Cover Sheet	
Page 1	Contents	
Pages 2 to 6	Question 1 – Building Design	80 marks
	1 Problem Statement	
	2 Site Description	
	3 Design Brief	
	4 Submission Requirements	
Page 7 & 8	Question 2 – Construction Details and Documentation	20 marks
	1 Problem Statement	
	2 Submission Requirements	
Page 8	General Notes	
	Format	
	Presentation	
Attachment 1	Location Plan	Scale 1:1000
Attachment 2	Site Plan	Scale 1: 200
Attachment 3	Site Section A-A	Scale 1: 200
Attachment 4	Guard House Plans & Elevations	Scale 1: 50
Attachment 5	Guard House Elevations & Sections	Scale 1: 50
Attachment 6	Minimum Standards of Turning Circle for Private Cars, Goods Vehicles and Tourist Bus	

TWO COMPULSORY QUESTIONS

Question 1 – Building Design

80 marks

1 Problem Statement

Your Client, a non-profit making College, has applied to Government for land to build a new **Graduate Student Centre** to cater to exchange students studying in Hong Kong. It will also be used by local graduate students. Some facilities will be accessible and available for public use.

A Site has been offered to the College.

Your task is to prepare a **schematic design** which satisfies all functional and statutory requirements, for presentation to the Client.

Your design should incorporate preliminary provisions and requirements for building structure, building services, utilities and the like. The design should be sensitive to the Site and neighborhood. Maximization of the development potential of the site is not a major issue.

2 Site Description

Context

The site is a hypothetical site at a short distance from the main campus of the College. The neighborhood topography slopes down from the east to the west and southwest, to the sea providing the best view of the site. There are a group of 8-10 storeys institutional buildings to the north west. The main road runs along the north east, with the slope continuing upward across the road.

Within the site, 2 platforms of different levels are formed.

See Attachment 1: Location Plan.

Planning

Preliminary advice from the Planning Department restricts the height of the building to ten storeys, not including basement(s)

Vehicular Access

Preliminary advice from the Transport Department confirms that vehicular access would be permitted from the main road.

See Attachment 1 :Location Plan.

Environmental Factors

Traffic noise from the main road is significant. Accordingly, the client has instructed that air conditioning be provided for the domestic accommodations.

Design Brief

3.1 Development Requirements

Site area	2,500 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 120m PD.
Site vehicular access	Between X and Y through Z along upper Road See Attachment 2 : Site Plan
Non-building area	none
Car parks	3 car parking spaces for private car Dimensions: 5000 L x 2500 W x 2400 H
Loading and Unloading	1 bay Dimensions: 7000 L x 3500 W x 3800 H (no need for provision for refuse collection vehicles)
Barrier free access	Comply with regulations
Lift	2 passenger lifts (at least 1 to comply with requirements for Fireman's use)
Building services	Central Air conditioning to be provided for Public Lecture Theatre and Canteen. Split type Air conditioning units to be provided for domestic accommodations.

3.2 Design Requirements

Design is to cater to practical and cultural needs of both local and foreign students.
 Provide separate male and female dormitories interconnecting to common facilities

3.3 Accommodation Schedule

Dormitories	Usable Area Square Meters	Remarks
Male single-person rooms	16 rms. @ 20 sm = 320 sm	All rooms share Common Bathrooms
Male two-person rooms	16 rms. @ 30 sm = 480 sm	All rooms share Common Bathrooms
Female single-person rooms	16 rms. @ 20 sm = 320 sm	All rooms share Common Bathrooms
Female two-person rooms	16 rms. @ 30 sm = 480 sm	All rooms share Common Bathrooms
Common Bathrooms	As appropriate	For every 8 Males 2 water closets 1 urinal 2 basins 2 showers For every 8 Females 3 water closets 2 basins 2 showers
Warden Quarters	1 unit @ 80 sm	"Warden" means the dormitory supervisor
Common Facilities		
Main Lobby & Reception	50 – 80	
Public Lecture Theatre	200	Seating area to be tiered (setting out of individual seats not required). Stage is required (size as appropriate, area to be included in total usable area). Public access separated from student spaces is required.

Common Facilities (cont'd)	Usable Area Square Meters	Remarks
Common room(s)	100 –200	For student use. Number of common rooms to be provided, as appropriate.
Reading room & Library	50 –150	For student use.
Self Service Laundry	30	For student use.
Canteen dining area	100 -120	For student use.
Canteen Kitchen with attached self service counter	50 -60	For student use.
Amenities		
Garden	600 minimum	Landscaped open space at ground level
Administration & Support Facilities		
Administration Office	80 -100	Open space for office staff 1 private office for Manager
Toilets	as appropriate	For visitors and staff
Storage	80 -100	For administrative use. Including cleaners closets and grounds maintenance
General Circulation	as appropriate	
Building Services Facilities		
Transformer, Switch, Plant rooms	as appropriate	

4 Submission Requirements

Design Statement	Describe Concepts and Design Intentions. Use text, sketches and diagrams as appropriate. Be concise and brief.
Site Plan suggested Scale 1:200	Show site development. Include access point(s) for vehicles and pedestrians. Show relevant features of adjacent sites.
Plans of all major Levels suggested 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.
Building Section(s) suggested scale 1:100	Show floor to floor dimensions. Show relationship between the elements of construction (<i>eg interfaces and connections of building structure, building envelope, finishes, building services, and the like</i>) Include annotations and critical dimensions.
Illustration	Illustrate external massing, form, architectural features. Use axonometric, isometric, perspective drawing(s) as appropriate. Note major exterior finish materials, textures and the like.
Calculations	Show compliance of design with - Permissible Plot Ratio - Permissible Site Coverage IMPORTANT NOTE: Tables, schedules and calculations for exit widths, sanitary fittings, refuse rooms, and the like are NOT REQUIRED.

Question 2 (COMPULSORY)
Construction Details and Documentation

20 marks

1 Problem Statement

A **Guard House** has been designed for the development (see Attachments 4 & 5).

Your task is to produce a set of coordinated Construction Documents, including selected Construction Details and Schedules, as set out below.

2 Submission Requirements

Notes

Base Plan

Scale 1: 100

Work directly on Attachment 4 :
Add annotations and dimensions.
Add finishing marks.
Add door marks / window marks.

Sections and Elevations

Scale 1: 100

Work directly on Attachment 4 & 5 :
Add annotations and dimensions.
Add finishing marks.
Add door marks / window marks.

Construction Details

suggested Scale 1: 5

Work on plain A3 Examination paper :
Include annotations and dimensions

Choose **one (1)** of the following :

Aluminium Louver Door

OR

**External Wall
through roof planter**

OR

Hatch Door for roof access

Schedules

Work on plain A3 Examination paper

Two (2) schedules are required :

External Finishes Schedule

AND CHOOSE EITHER

Door Schedule

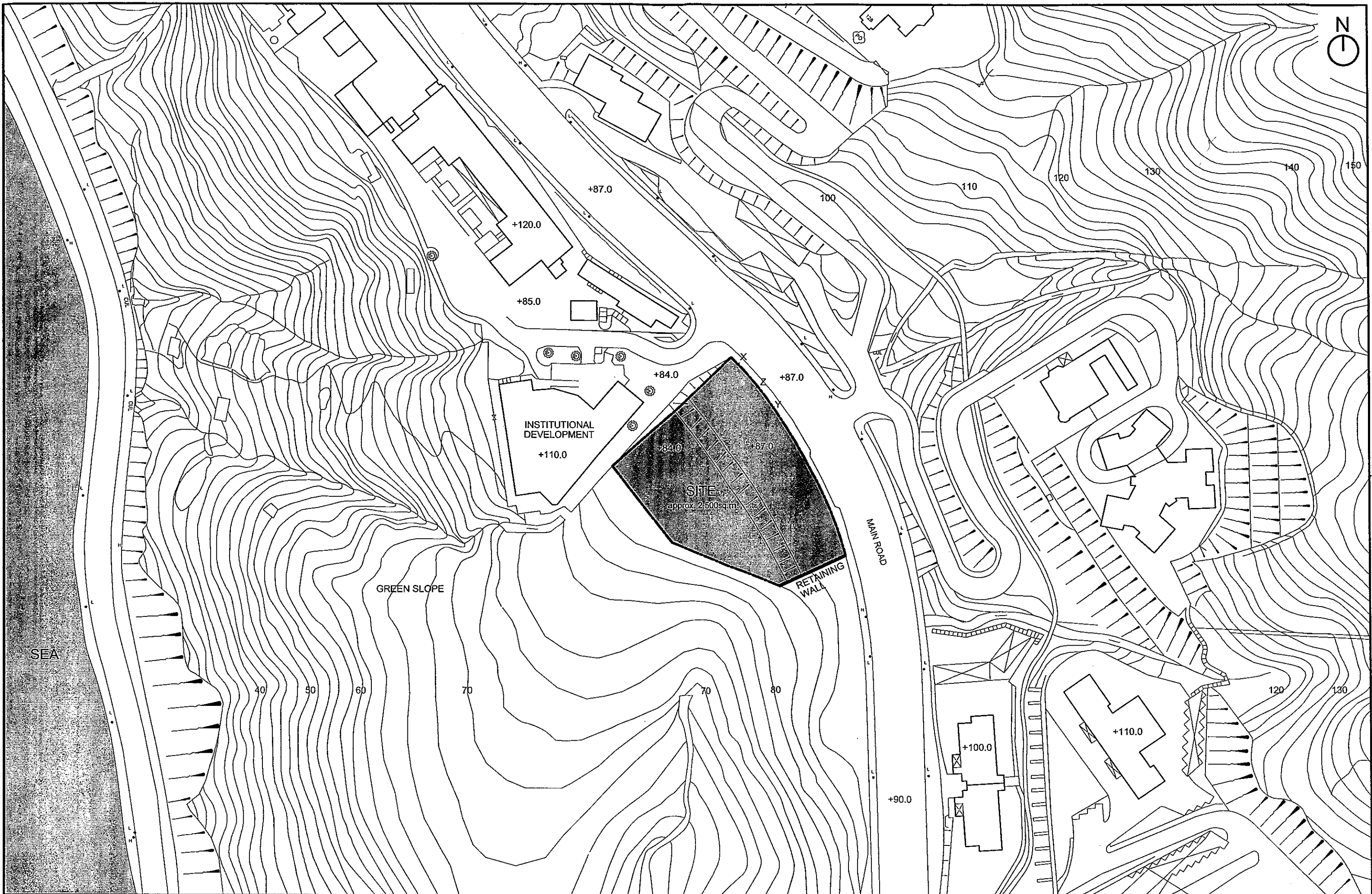
OR

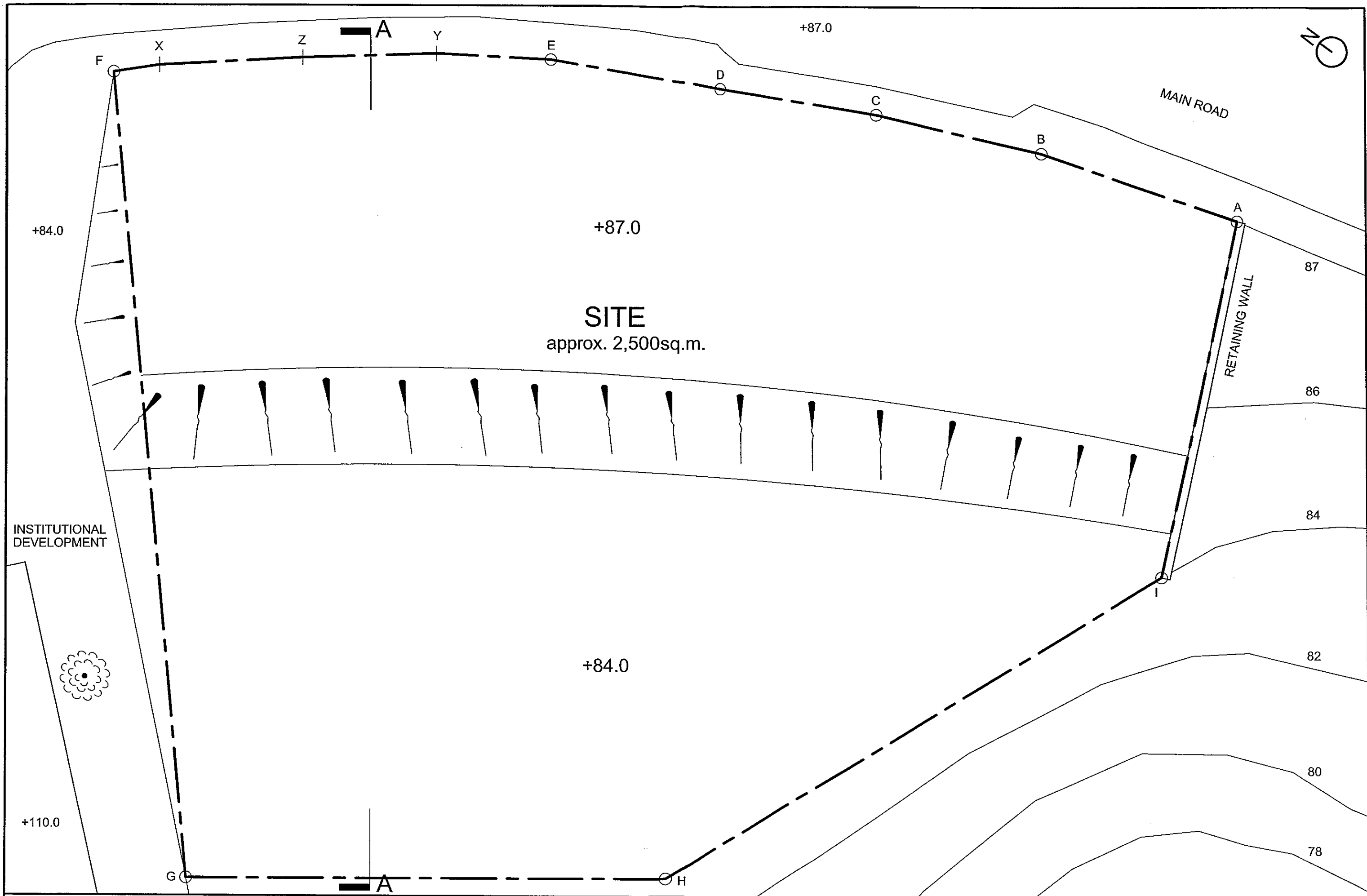
Window Schedule

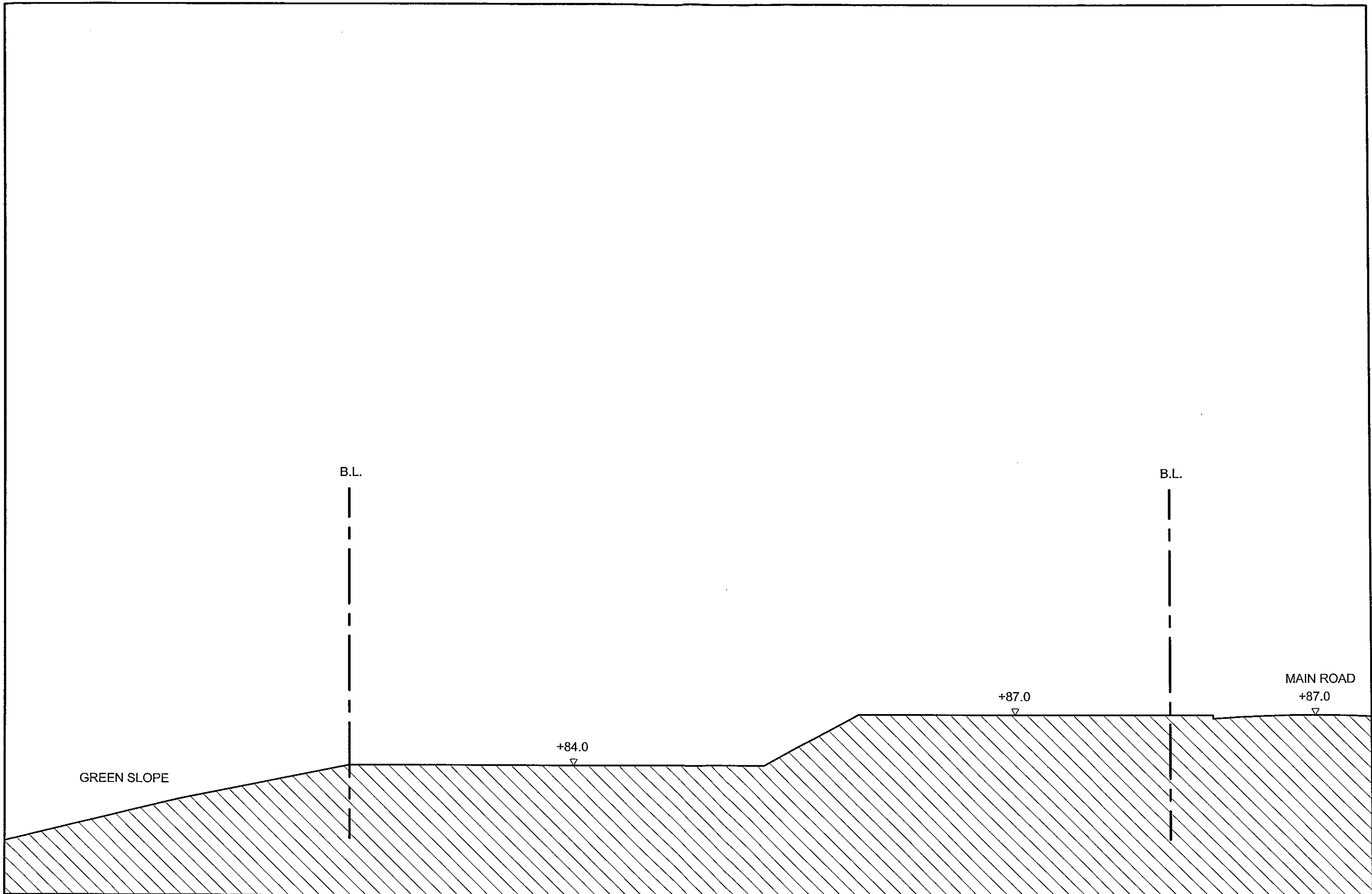
General Notes

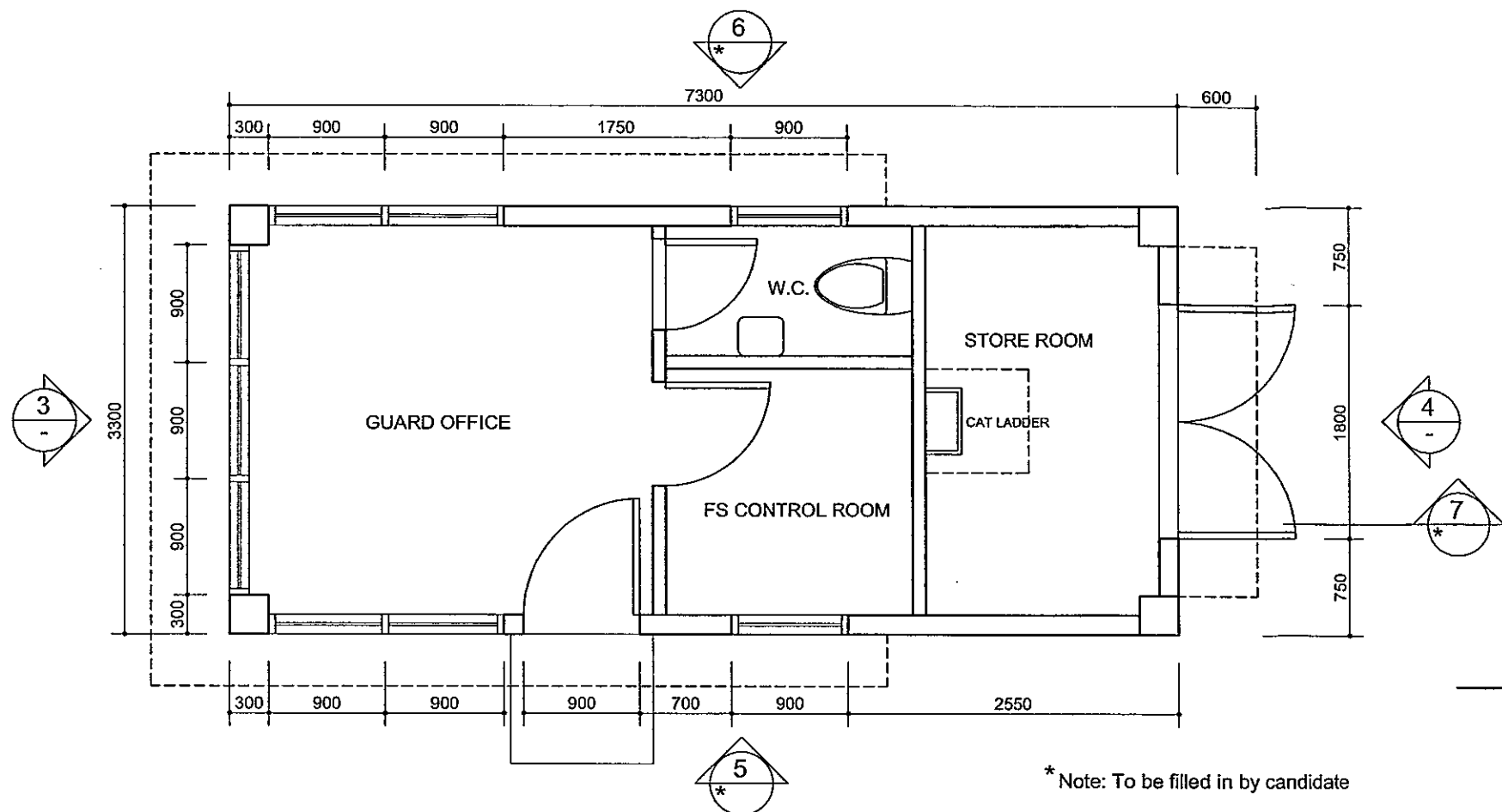
Format	Examination paper, both A3 plain and A3 tracing, are provided. Use as appropriate.
Presentation	Black ink line drawings are preferred. Use color for clarity. Do NOT use RED.

END OF BUILDING DESIGN PAPER



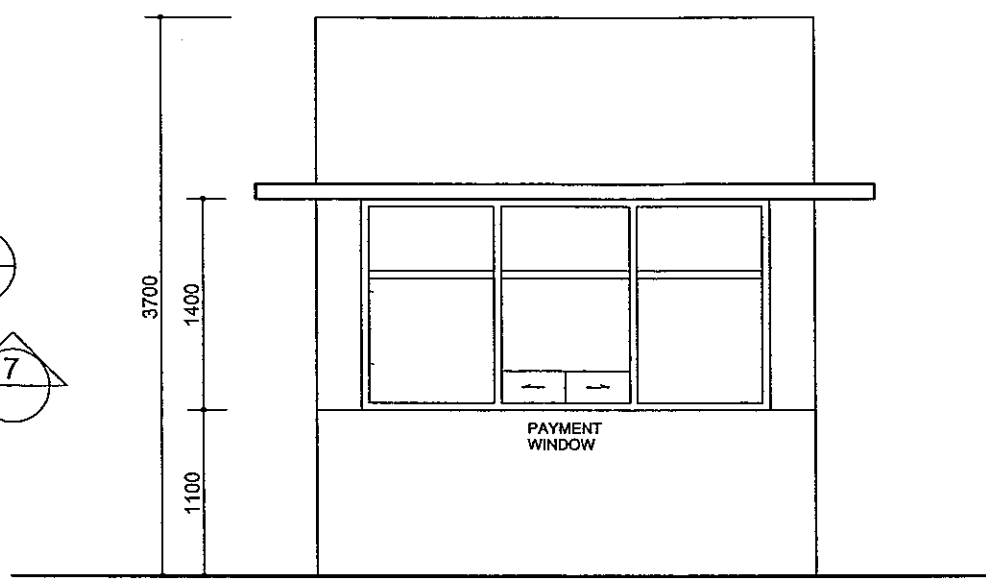




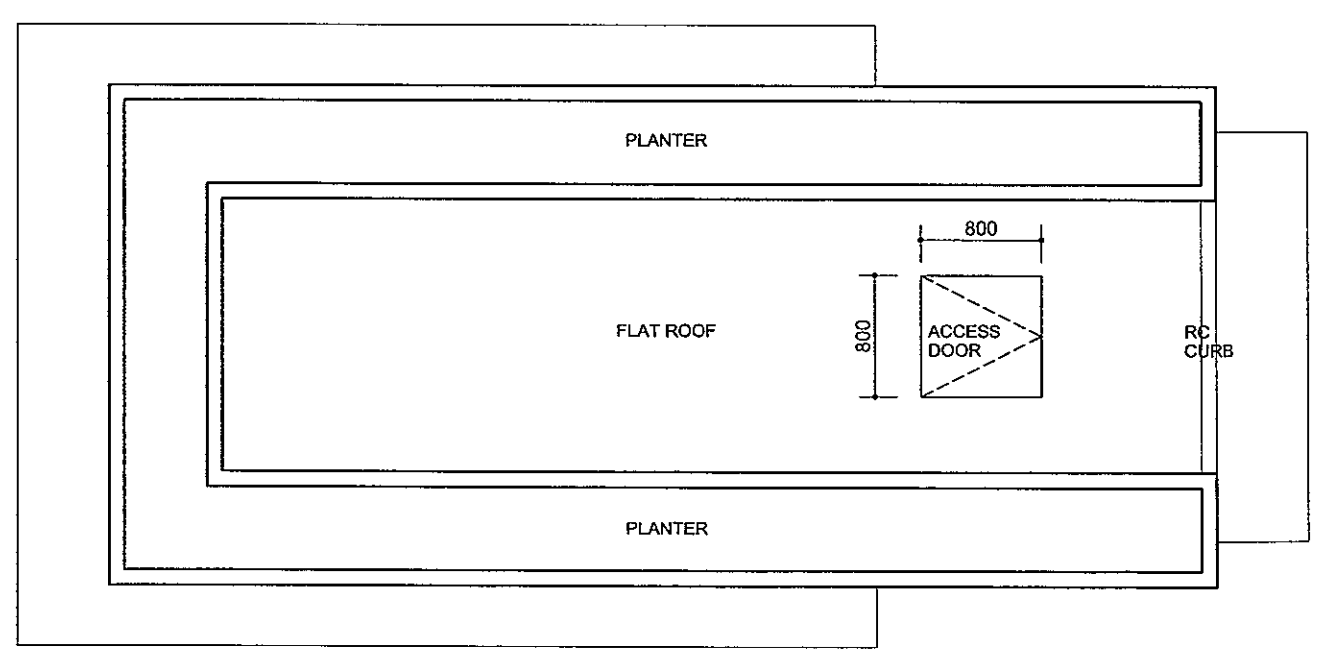


1 PLAN

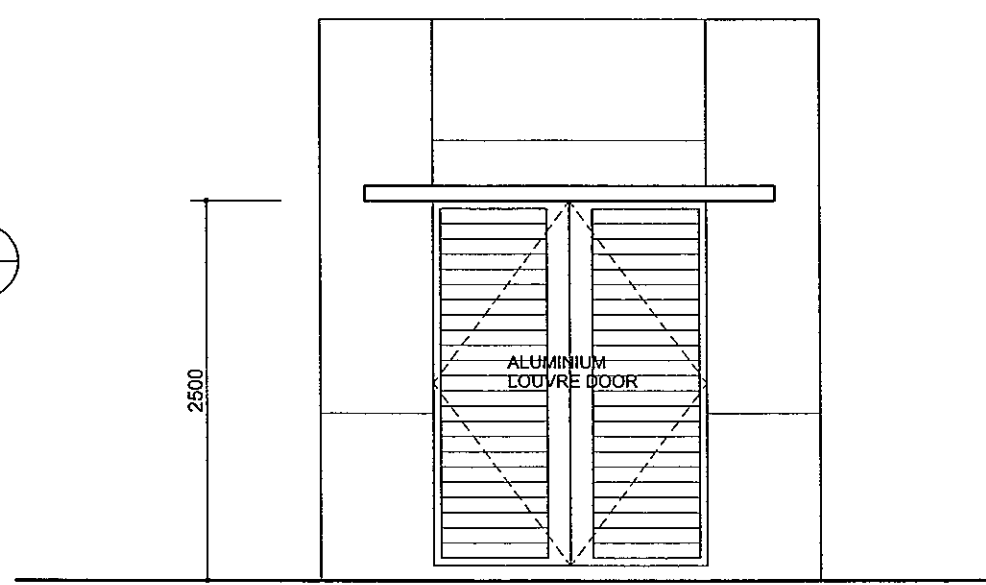
* Note: To be filled in by candidate



3 ELEVATION



2 ROOF PLAN



4 ELEVATION

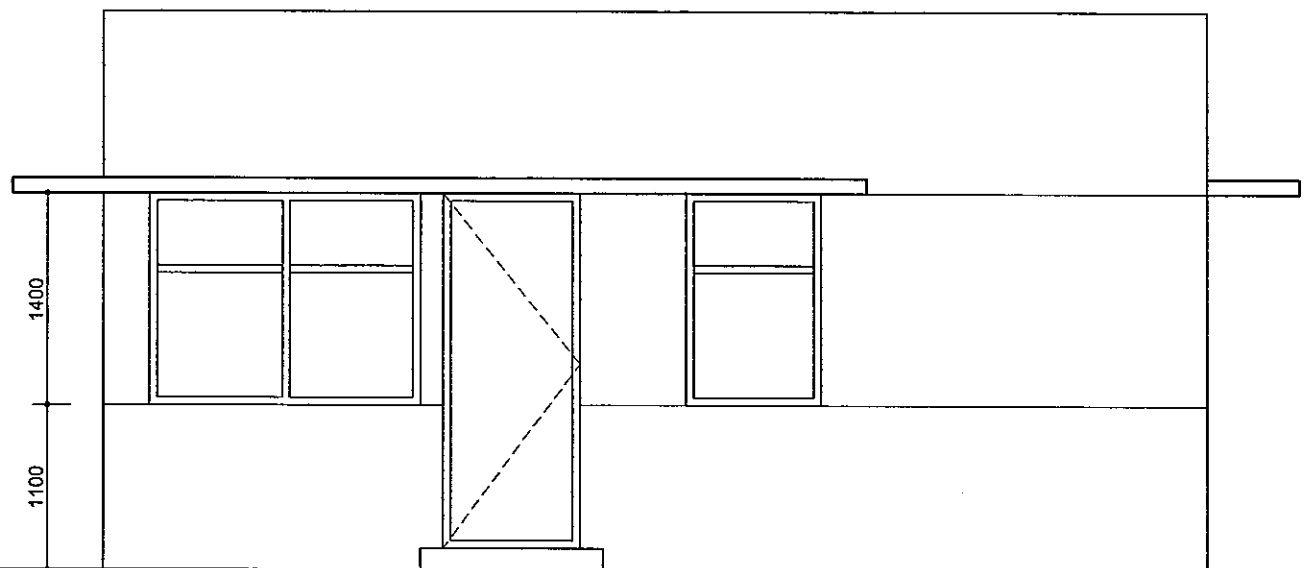
NOTES:
Do not scale drawings.
All measurements must be checked and verified on site.

PROJECT
GRADUATE STUDENT CENTRE

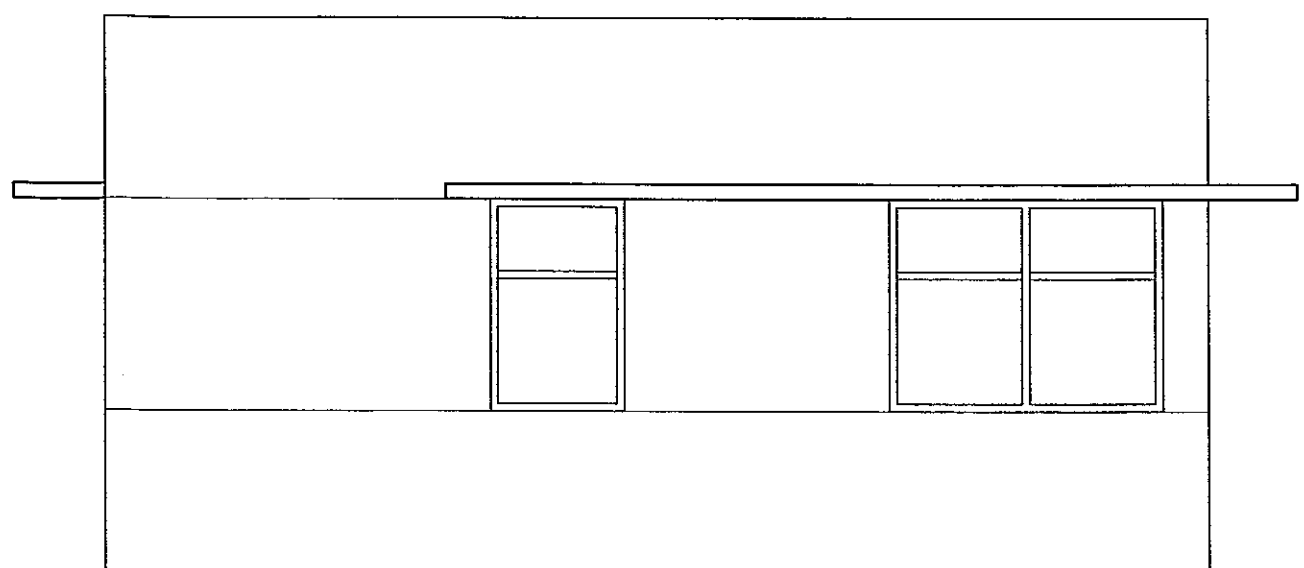
DRAWING TITLE
GUARD HOUSE - PLANS & ELEVATIONS

DRAWING NO. (to be filled in by candidate) *	SCALE 1:50
REV. --	DATE 21.12.06

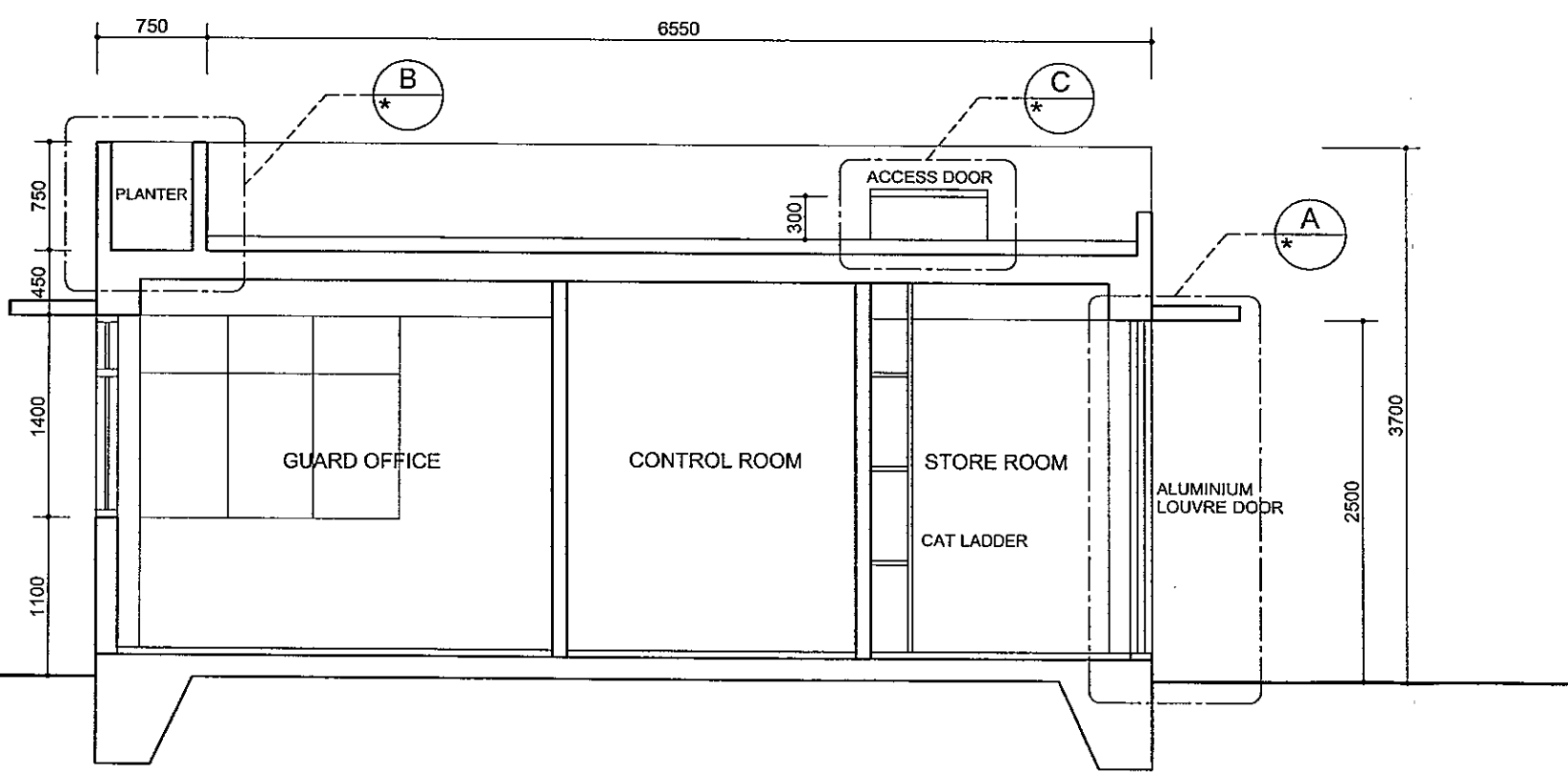
NOTES:
 Do not scale drawings.
 All measurements must be checked and verified on site.



5 ELEVATION



6 ELEVATION

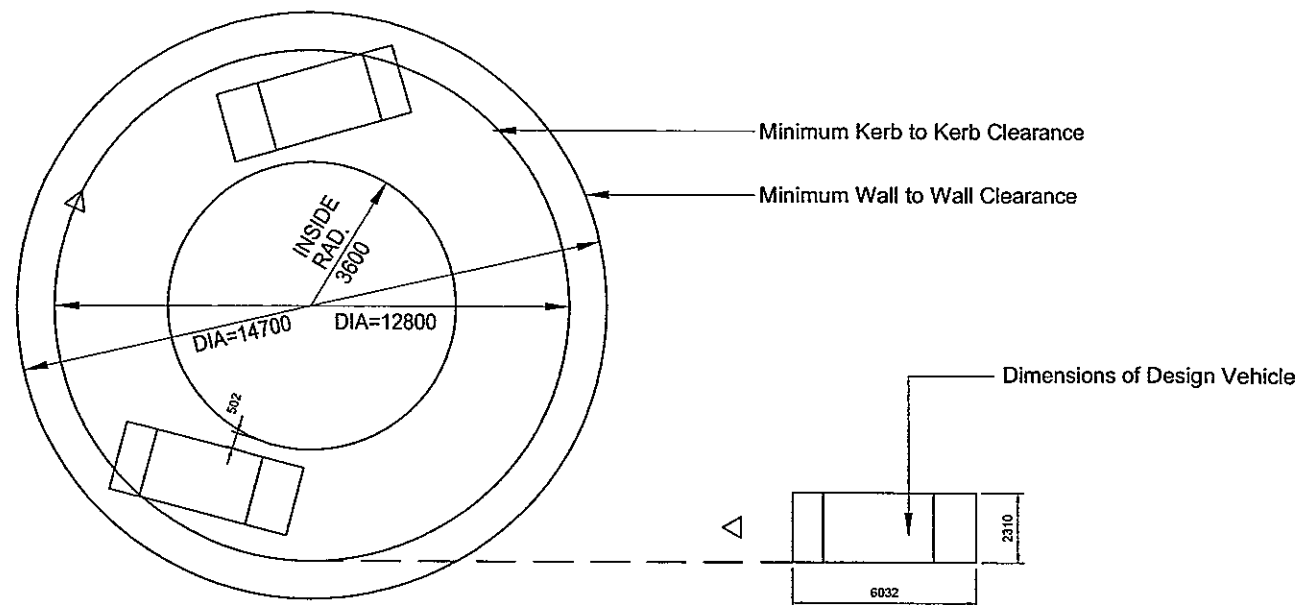


7 SECTION

* Note: To be filled in by candidate

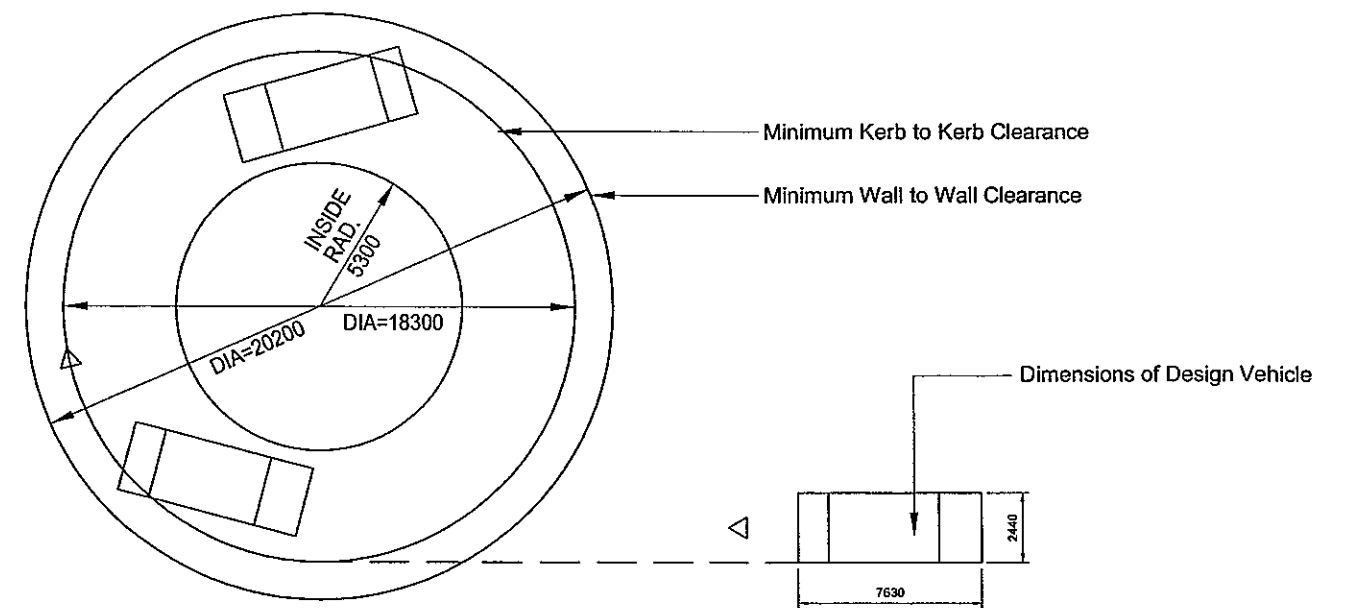
PROJECT	
GRADUATE STUDENT CENTRE	
DRAWING TITLE	
GUARD HOUSE - ELEVATIONS & SECTION	
DRAWING NO. (to be filled in by candidate) *	SCALE 1:50
REV. --	DATE 21.12.06





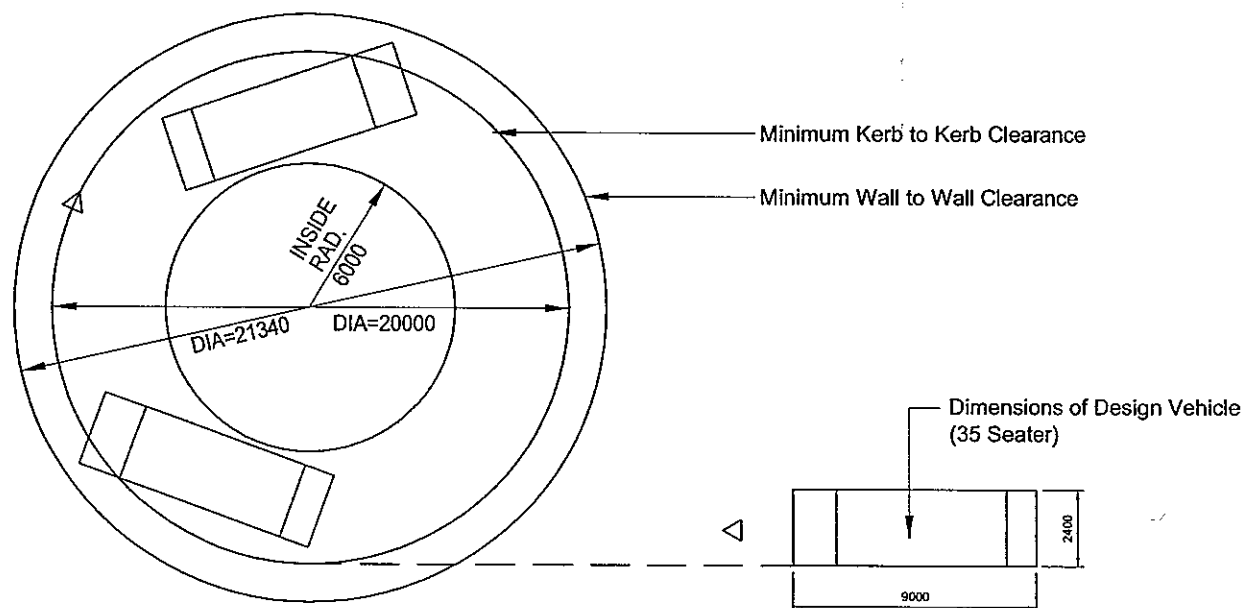
RECOMMENDED MINIMUM STANDARDS OF TURNING CIRCLE FOR PRIVATE CARS

(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)

