

Candidate Number :

Seat Number :

HKIA / ARB Professional Assessment 2009

Paper 7a

CONSTRUCTION DETAILS & DOCUMENTATION **20 marks (out of 100 marks of Paper 7)**

17 December 2009
4:00 pm – 6:00 pm (2 hours)

Hong Kong International Trade & Exhibition Centre (HITEC)
Kowloon Bay

ALL COMPULSORY QUESTIONS

General Notes

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

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	2 Submission Requirements	
Attachment 1	Typical Floor Plan	Scale As Shown

1 PROBLEM STATEMENT

Your task is to produce the followings for construction:

- a) a set of door schedule for the typical Flats A & B in a 33 storey high domestic tower as shown on floor plan (including access door for pipe duct); and
- b) details of a door as specified below.

2 SUBMISSION REQUIREMENTS

Door Schedule

The schedule should be presented in a conventional manner showing the different types and construction of the doors, door frames and ironmongeries to meet the specific requirements.

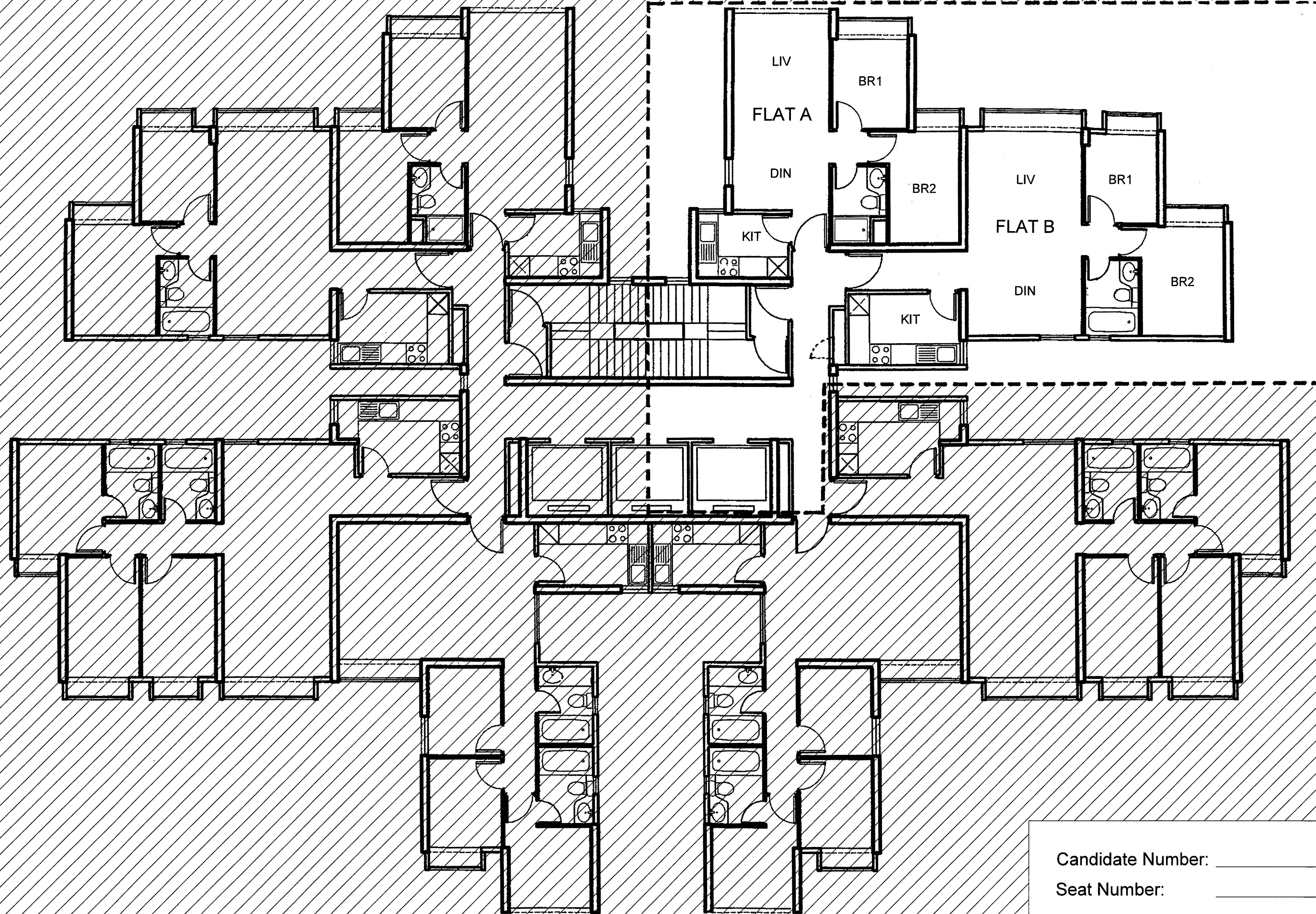
The door marks should be shown on the floor plan in attachment 1.

Sectional Construction Details suggested scale 1: 5

draw on the tracing paper(s) to show the construction details of a typical kitchen door selected in your door schedule, including:

- Door leaf – including elevation, detail of door panel/infill, detail of edge and vision panel;
- Door frame – including elevation and interface with RC opening;
- Door jamb and architrave – including interface with RC opening, door leaf and hinge.

END OF PAPER 7a



Candidate Number: _____
 Seat Number: _____



Candidate Number :

Seat Number :

HKIA / ARB Professional Assessment 2009

Paper 7b

BUILDING DESIGN

80 marks (out of 100 marks of Paper 7)

18 December 2009

9:00 am – 5:00 pm (8 hours)

Hong Kong International Trade & Exhibition Centre (HITEC)
Kowloon Bay

ONE COMPULSORY QUESTION

General Notes

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

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Page 4 – 5	3 Design Brief	
Page 6	4 Submission Requirements	

Attachment 1	Location Plan	Scale 1: 1000
Attachment 2	Site Plan	Scale 1: 200
Attachment 3	Site Section A-A	Scale 1: 200

1 PROBLEM STATEMENT

Your Client,

a prestigious local developer, intends to demolish an existing building and redevelop the site to accommodate a new **Commercial Building**. It is located in a busy commercial district with established pedestrian circulation network, both at grade and elevated. The proposed building shall provide Grade A quality office spaces and retail facilities to serve the district. It shall also be able to integrate with the existing pedestrian circulation network to connect to major pedestrian pathways and important public facilities.

Your task

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

Your design proposal

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.

2 SITE DESCRIPTION

Context

The Site is a hypothetical site in the central business district of Hong Kong. It is sloping with a level difference of approx. 5.5m. A Pedestrian Way, connecting uphill to downhill, runs to the northwest of its boundary. Running along the northeast and southwest of the Site are vehicular Roads A (main) and B (secondary) respectively which are both not less than 6m wide. To the southeast of the Site is a service lane of 3.5m wide.

Opposite the Site across Road A is a newly constructed G/IC (Government, Institution or Community) facility of 6 storeys height. Provisions have been allowed in the structure of this new building for future connection at its first floor (approx. 5.5m from ground level) to a footbridge from the Site through points X and Y as shown on the plan.

The Site is surrounded on its other 3 sides by commercial developments which are not less than 25 storeys high.

There is a public park across Road A and adjacent to the G/IC facility, offering greenery views and breathing space to the neighbourhood.

See Attachments 1 & 2: Location Plan and Site Plan.

Pedestrian Access

Pedestrian accesses are mainly from the Pedestrian Way and Road A. The Pedestrian Way is also a major circulation route in the district serving uphill and downhill. The government plans to improve and widen this Pedestrian Way into a landscaped pedestrian broad walk for the district community's use and enjoyment.

Vehicular Access

As for other developments of similar scale in the district, loading and unloading will be carried out on public roads.

3 DESIGN BRIEF

3.1 Development Requirements

Site Area	2,400 s.m. (approximate)
Zoning	Commercial
Permissible GFA under lease	Retail = 4,500 s.m. Office = 24,000 s.m.
Permissible Plot Ratio (PR)	Requirements under Buildings Ordinance shall be complied with.
Permissible Site Coverage (SC)	Requirements under Buildings Ordinance shall be complied with.
Building Height	No restriction
Non-building Area	Hatched area marked "Dedicated Public Passage" to be developed as an open landscaped garden. The design shall integrate with the adjacent pedestrian way and "24-hour pedestrian linkage". This open landscaped garden shall not be roofed over.
24-hour pedestrian linkage (non-accountable for GFA)	Bonus Plot Ratio / Site Coverage under Buildings Ordinance shall not be considered. To provide a 6m wide indoor 24-hour pedestrian linkage, connecting the dedicated public passage at level +14.9 on Road B, through the retail arcade, to the proposed footbridge over Road A between points X and Y to the G/IC facility.
Site vehicular Access	Vehicular access is NOT required for the purpose of this Paper.
Car Parks	Not required
Loading and Unloading	No vehicular requirement within lot.
Refuse Collection	Vehicular access is NOT required for the purpose of this Paper.
Barrier Free Access	Statutory requirements shall be complied with.
Lift(s)	Office Tower - 6 passenger lifts (shaft size = 2400mm x 2600mm each) and 1 service lift shall be provided. Podium - As appropriate. Statutory requirements shall also be complied with. However, for the purpose of this paper, lift shaft concession will not be granted

3.2 Design Requirements

The development is a **Commercial Building**.

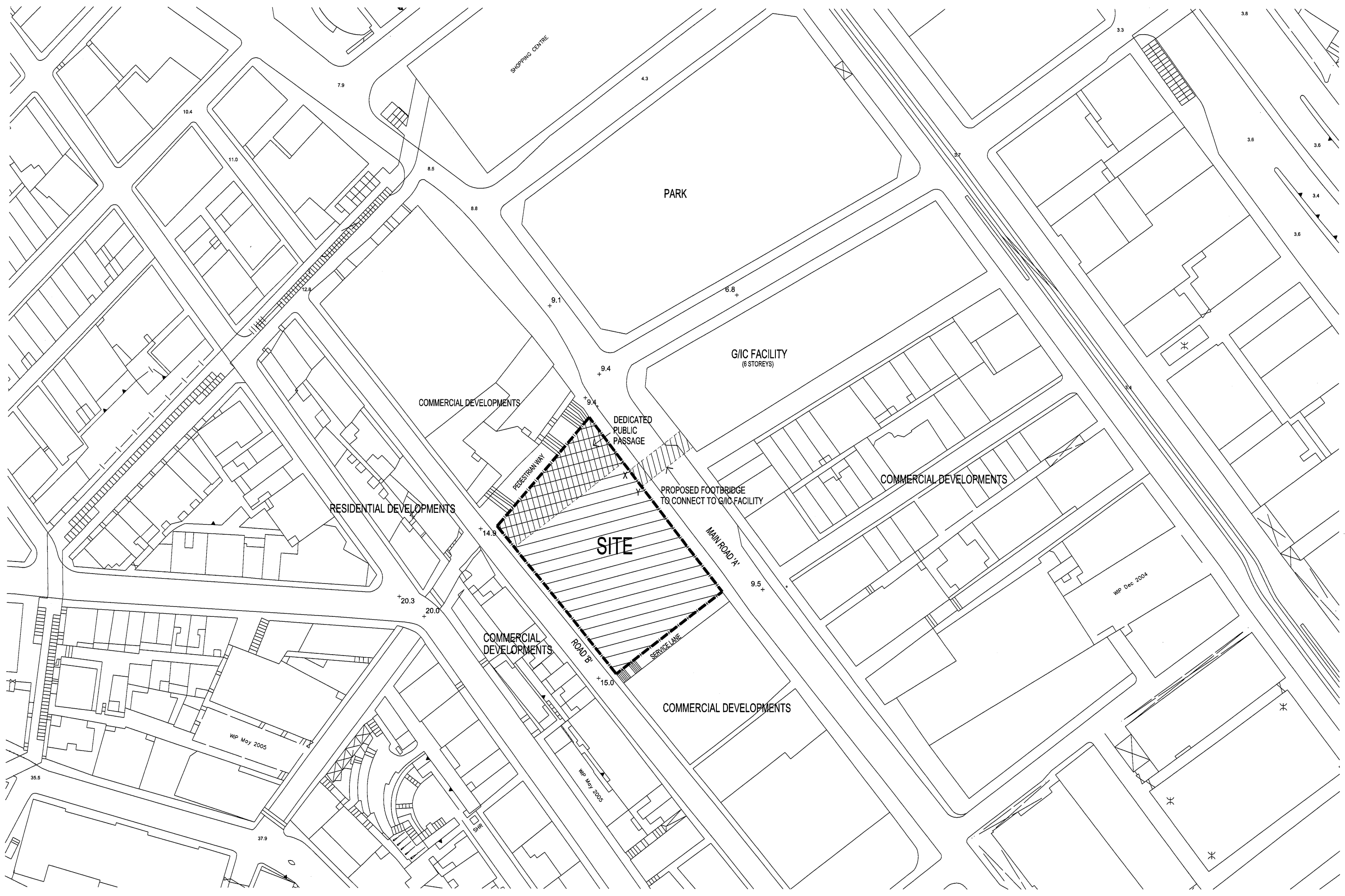
3.3 Accommodation Schedule

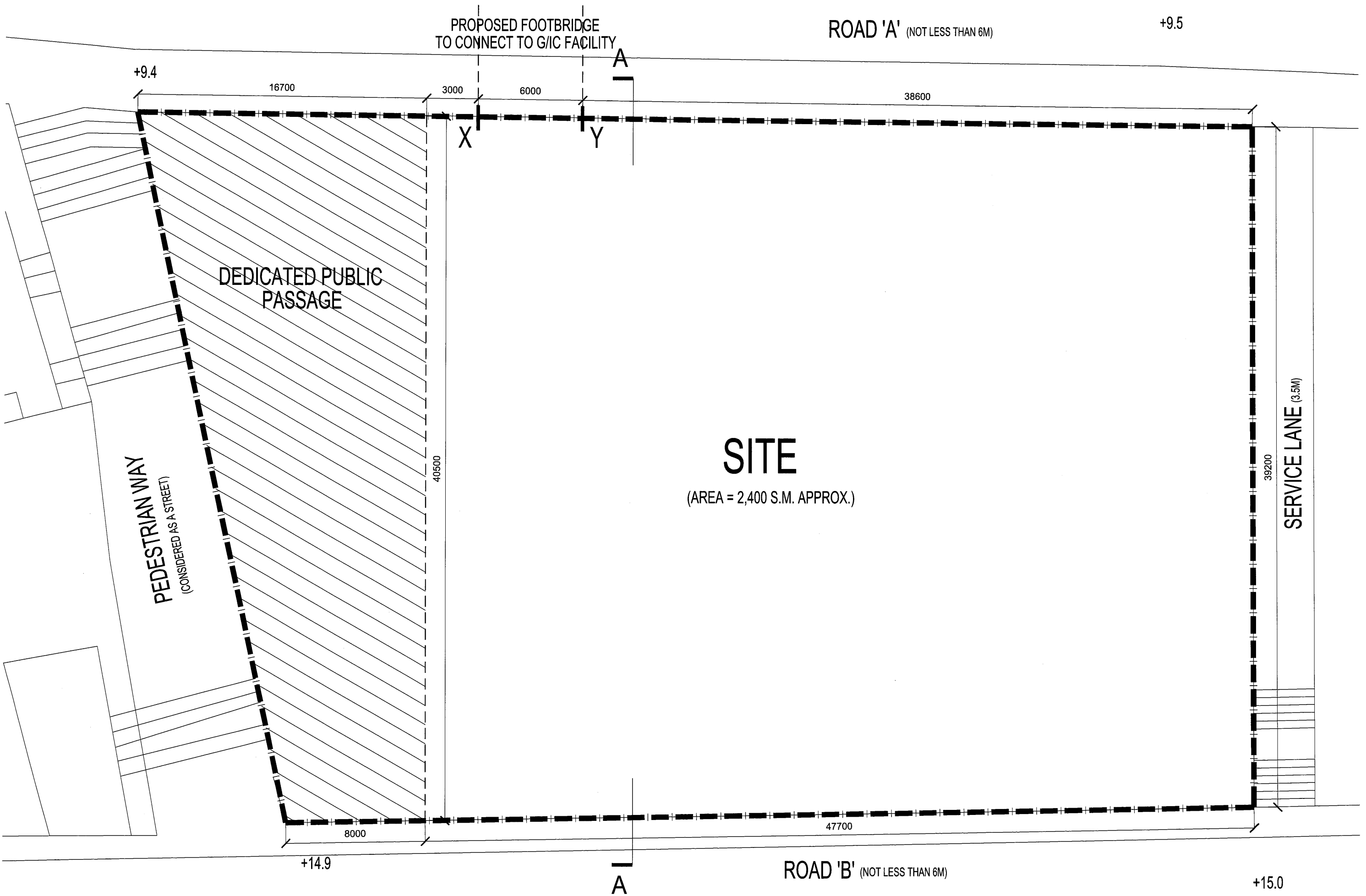
	Gross Floor Area (s.m.)	Remarks
<u>Tower</u>		
Office	900 – 1,100 / floor	The layout should enable possible subdivision with smallest office unit of 150s.m.
<u>Podium</u>		
Office entrance and lobby	150 - 300	Street Level (designated entrance)
Shopping Centre entrance	as appropriate	Street Level
Bookstore cum Café	600	Street Level
Anchor Shop	800	
Shops	50 – 100 each	
24-hour pedestrian linkage	as appropriate	6m width through shopping arcade, to comply with 3.1 above
Landscape Garden (dedicated public passage)	as shown on plan	Street Level
<u>Supporting & Circulation</u>		
Shopping Arcade, General Circulation and Means of Escape	as required and as appropriate	
Sanitary Provisions	as required and as appropriate	<i>(Detailed calculations are NOT REQUIRED)</i>
Transformer, Switch & Plant rooms	as appropriate	
Air-Conditioning Provisions	as appropriate	Not more than 4% of GFA of each floor on which they are situated
Refuse Collection Room	as appropriate	<i>(Detailed calculations are NOT REQUIRED)</i>

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 pedestrians.
Plans of all major Levels suggested scale 1:200	Indicate all major spaces and elements of construction. Label spaces according to the Accommodation Schedule. Note usable area of each space (only approximate figures are required). 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 architectural provisions for integrated Building Services.
Building Section(s) suggested scale 1:100 or 1:200	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 in minimum one drawing. Use either axonometric, or isometric, or perspective drawing(s) as appropriate. Indicate major exterior finishes, textures and the like.
Calculations	Show compliance of design with <ul style="list-style-type: none">• Permissible Plot Ratio• Permissible Site Coverage Tables, Schedules and Calculations for exit widths, sanitary fitments, refuse rooms, and the like are NOT REQUIRED.

END OF PAPER 7b





COMMERCIAL
DEVELOPMENT

ROAD 'B'

+15.0

B.L.

SITE

B.L.

ROAD 'A'

+9.5

G/IC
FACILITY

