

Candidate Number:
Seat No.:

Section II

Essay Questions

The HKIA/ARB Professional Assessment 2020
Paper 1
Statutory Controls in Building Works

16 November 2020
10:00 am – 1:00 pm (3 hours)

Venue

Rotunda 2, 3/F
Kowloonbay International Trade & Exhibition Centre (KITEC)
Kowloon Bay

Section II (60 marks):
Essay Questions (pages 1 – 13)

A total of *three* questions are to be answered.

Question 1 is compulsory (30 marks).

Answer any *two* of Questions 2, 3 and 4 (15 marks each).

Question 1 - Appendix 1-5, Question 2 - Appendix 2A-2C and are provided on loose sheets.

Time recommended for this section: 1 hour 50 minutes

Notes :

1. The answer scripts will only be collected at the end of the whole paper. Please place them in the **top right-hand corner** of your desk for collection.
2. Three answer books are provided. You should use a **blue/black** ink pen, a felt pen or a ball pen to write your answers.
3. Please use a **separate** answer book for each question and mark the relevant question number on the cover of the answer book.
4. Remember to write your **candidate number and room/seat number** on the answer books, including all the appendices forming parts of your answers, and also on the question paper.

DO NOT write your name on the question paper and answer books.

Paper 1 Section II – Essay Questions
Question 1 (Compulsory Question – 30 marks)

Question 1

A client owns a 5-storey school building. The building has been disused for some years and the client approached you for advice to transform the existing building to a student and teacher hostel for a nearby university. If possible, he also wishes to add a new annex block to the existing building, or add one to two floors on top of the existing building, such that the potential of the land can be better utilized.

You carried out desk top research about the site and the following information are available for your review:

- i. The site is zoned Residential (Group A) in Outline Zoning Plan (OZP) with a height limit of 25mPD. An extract of the Notes of the OZP is attached. **(Appendix 1)**
- ii. Lease was an old lease with no restriction of use, plot ratio or site coverage.
- iii. Simplified general building plans (GBP) record of the existing school building as retrieved from Buildings Department is attached. **(Appendix 2)**
- iv. Existing building's plot ratio (PR) and site coverage (SC) extracted from the GBP record plan. First Schedule 1 of Building Planning Regulation is also attached for easy reference. **(Appendix 3)**
- v. Conceptual sketches for adding an annex block for studying the feasibility. **(Appendix 4)**
- vi. Conceptual sketches for adding 2 floors for studying the feasibility. **(Appendix 5)**

1. Please provide your advice to your client whether changing his building to hostel is feasible, and what actions will be necessary to make it happen. (7 marks)
2. Please advise your client with reasons whether Alternative 1 – adding an annex block - is feasible in terms of development intensity control on plot ratio and site coverage. (8 marks)
3. Please advise your client with reasons whether Alternative 2 – adding 2 floors above existing main roof - is feasible in terms of development intensity control on plot ratio and site coverage and why. (8 marks)
4. What other health, safety and environmental issues will be of concern for this project and will require further studies before the scheme's feasibility can be ascertained. (7 marks)

**Question 1 - Appendix 1
(Page 1 of 2)**

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RESIDENTIAL (GROUP A)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Ambulance Depot Flat Government Use (not elsewhere specified) Hostel House Library Market Place of Recreation, Sports or Culture Public Clinic Public Transport Terminus or Station (excluding open-air terminus or station) Residential Institution School (in free-standing purpose-designed building only) Social Welfare Facility Utility Installation for Private Project	Commercial Bathhouse/Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Government Refuse Collection Point Hospital Hotel Institutional Use (not elsewhere specified) Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Office Petrol Filling Station Place of Entertainment Private Club Public Convenience Public Transport Terminus or Station (not elsewhere specified) Public Utility Installation Public Vehicle Park (excluding container vehicle) Religious Institution School (not elsewhere specified) Shop and Services Training Centre

In addition, the following uses are always permitted (a) on the lowest three floors of a building, taken to include basements; or (b) in the purpose-designed non-residential portion of an existing building, both excluding floors containing wholly or mainly car parking, loading/unloading bays and/or plant room:

Eating Place
 Educational Institution
 Institutional Use (not elsewhere specified)
 Off-course Betting Centre Office
 Place of Entertainment
 Private Club
 Public Convenience Recyclable Collection Centre
 School
 Shop and Services
 Training Centre

S/Q7/107

RESIDENTIAL (GROUP A) (Cont'd)

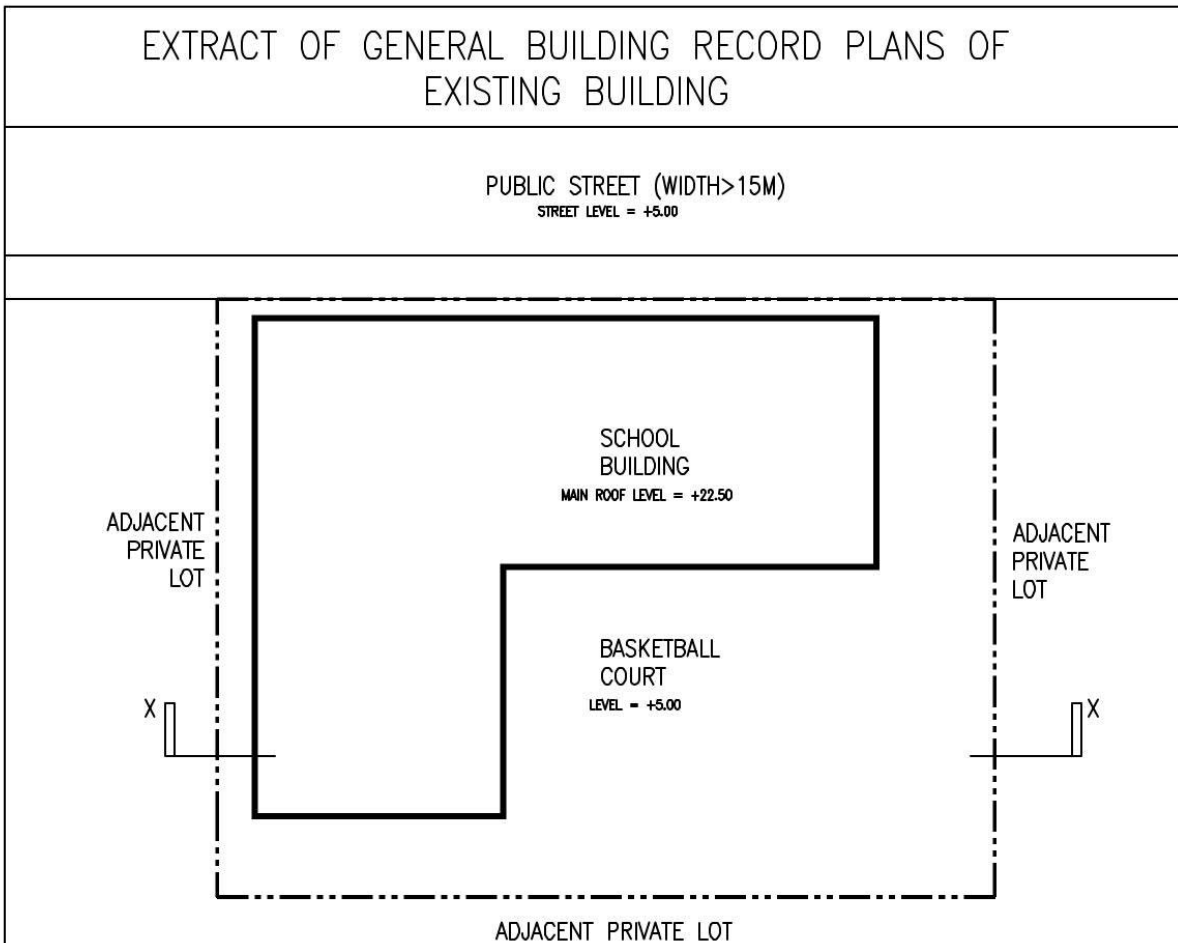
Planning Intention

This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

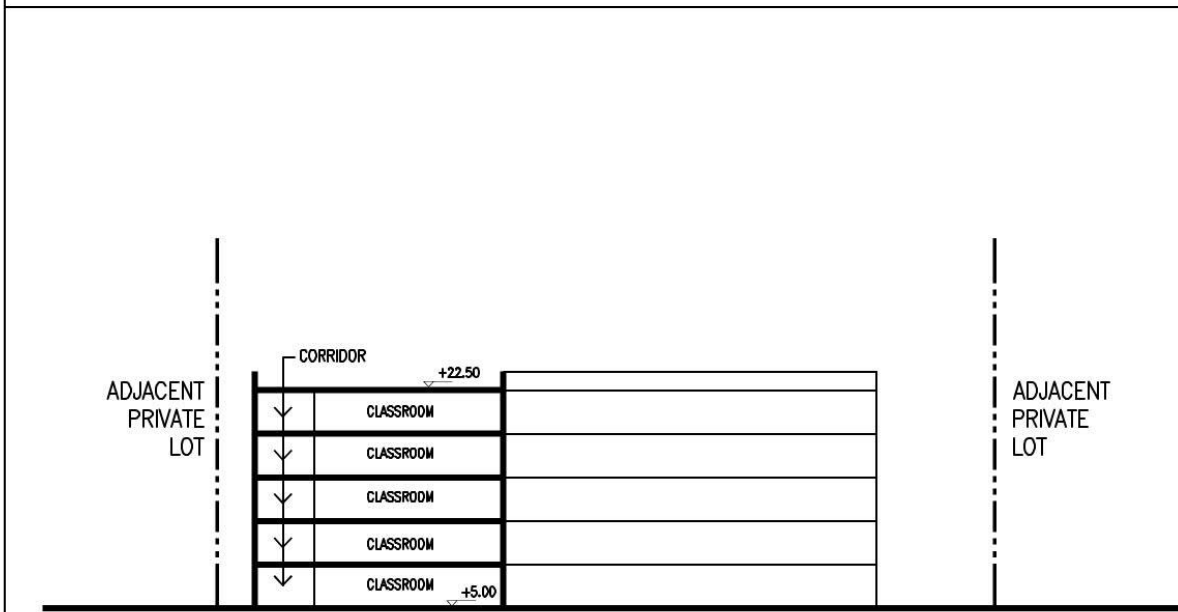
Remarks

- (1) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum building heights, in terms of metres above Principal Datum, as stipulated on the Plan, or the height of the existing building, whichever is the greater.
- (2) On land designated "Residential (Group A)1", a public open space of not less than 140m² at street level shall be provided.
- (3) On land designated "Residential (Group A)2", a public open space of not less than 85m² at street level shall be provided.
- (4) On land designated "Residential (Group A)3", a gross floor area of not less than 1,365m² for Government, institution or community facilities and a public open space of not less than 250m² at street level shall be provided.
- (5) On land designated "Residential (Group A)4", a gross floor area of not less than 1,403m² for Government, institution or community facilities shall be provided.
- (6) On land designated "Residential (Group A)5", a gross floor area of not less than 1,336m² for Government, institution or community facilities shall be provided.
- (7) On land designated "Residential (Group A)6", a gross floor area of not less than 384m² for Government, institution or community facilities shall be provided.
- (8) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restrictions as stated in paragraph (1) above and any reduction in the gross floor area provided for Government, institution or community facilities stated in paragraphs (4) to (7) above, may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (9) A minimum setback of 1m from the lot boundary fronting Wing Fung Street, Anton Street, the portion of St. Francis Street in between St. Francis Yard and Queen's Road East, Gresson Street, the portion of Spring Garden Lane in between Johnston Road and Queen's Road East, and Tai Yuen Street shall be provided.
- (10) Under exceptional circumstances, for a development or redevelopment proposal, minor relaxation of the setback requirement stated in paragraph (9) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

Note from Examiner: The blackened paragraphs on this page are not relevant to the question.



BLOCK PLAN



SECTION X-X

Question 1 - Appendix 3

Existing building's plot ratio (PR) and site coverage (SC) extracted from the GBP record plan

Site Area	3,000m ²
Class of Site	Class A
Building Height	17.5m
Permitted Non domestic Plot ratio	5.8
Non domestic Gross Floor Area	7,000m ²
Proposed Non domestic Plot Ratio	2.333 < 5.8
Permitted Non domestic Site Coverage	97.5%
Proposed Non domestic Site Coverage	1440 / 3000 = 48% < 97.5%

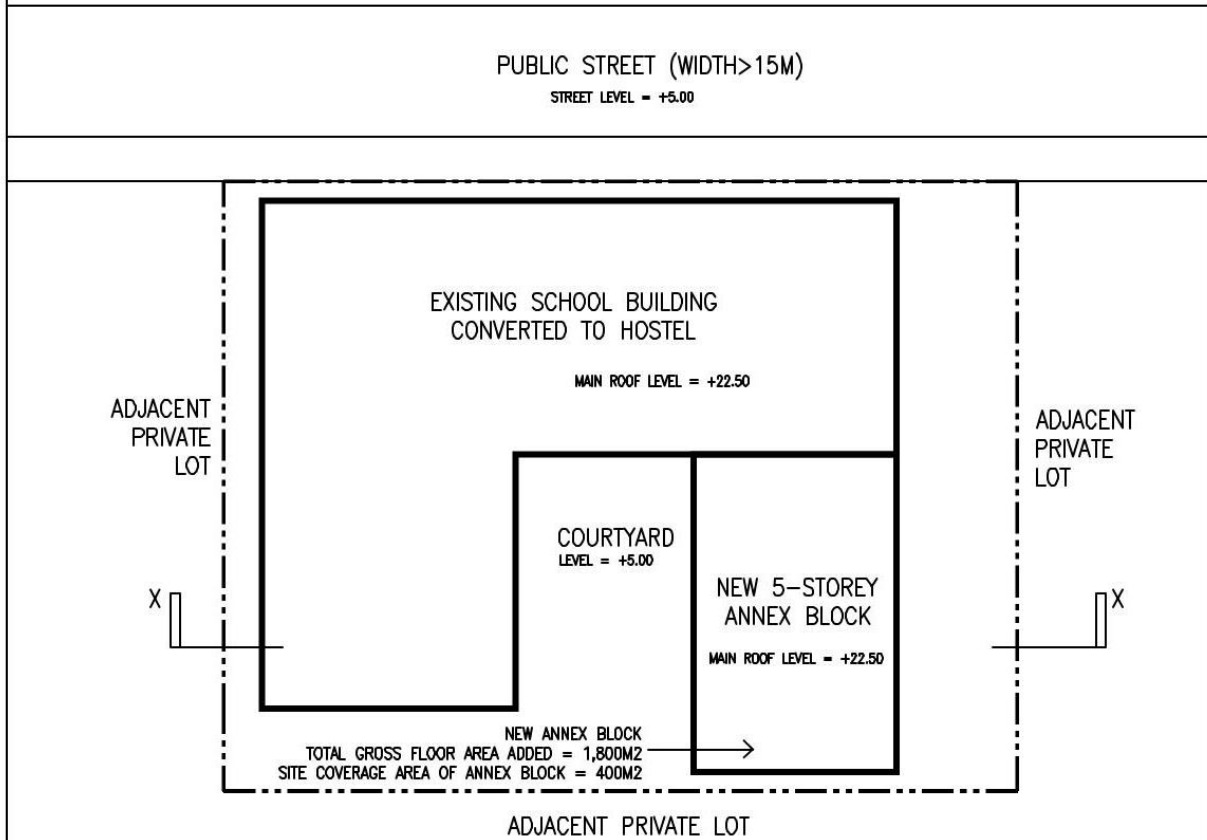
FIRST SCHEDULE

[regs. 18A, 20 & 21]
(L.N. 110 of 2005)

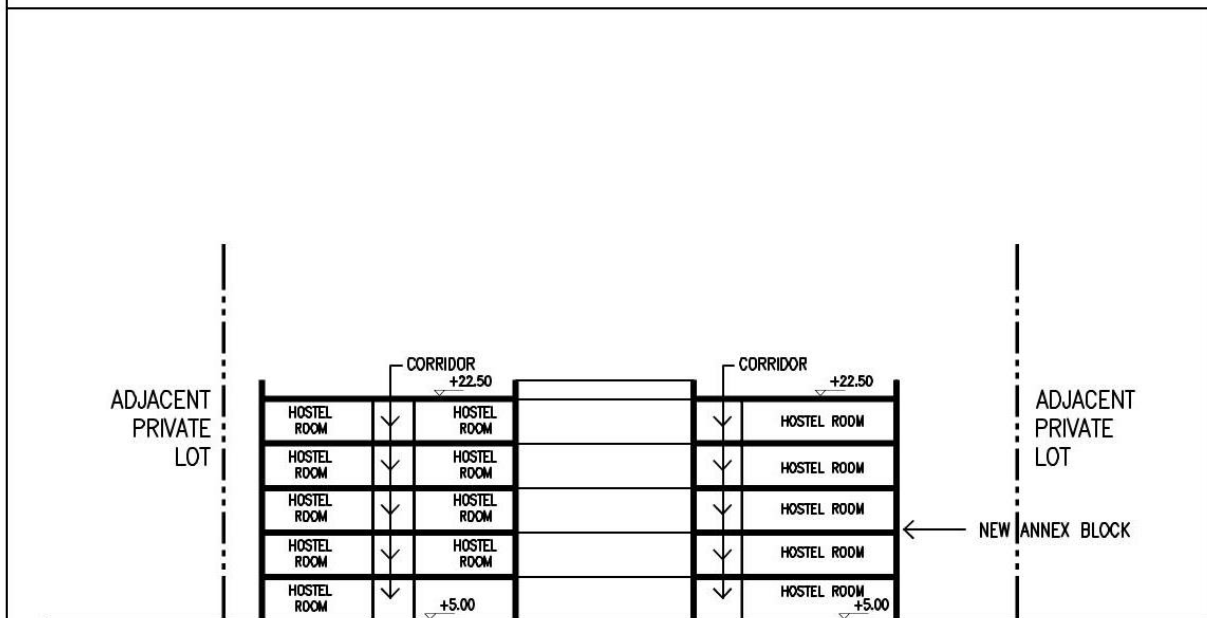
PERCENTAGE SITE COVERAGES AND PLOT RATIOS

Height of building in metres	Domestic buildings						Non-domestic buildings					
	Percentage site coverage			Plot ratio			Percentage site coverage			Plot ratio		
	Class A	Class B	Class C	Class A	Class B	Class C	Class A	Class B	Class C	Class A	Class B	Class C
	site	site	site	site	site	site	site	site	site	site	site	site
Not exceeding 15 m	66.6	75	80	3.3	3.75	4.0	100	100	100	5	5	5
Over 15 m but not exceeding 18 m	60	67	72	3.6	4.0	4.3	97.5	97.5	97.5	5.8	5.8	5.8
Over 18 m but not exceeding 21 m	56	62	67	3.9	4.3	4.7	95	95	95	6.7	6.7	6.7
Over 21 m but not exceeding 24 m	52	58	63	4.2	4.6	5.0	92	92	92	7.4	7.4	7.4
Over 24 m but not exceeding 27 m	49	55	59	4.4	4.9	5.3	89	90	90	8.0	8.1	8.1
Over 27 m but not exceeding 30 m	46	52	55	4.6	5.2	5.5	85	87	88	8.5	8.7	8.8
Over 30 m but not exceeding 36 m	42	47.5	50	5.0	5.7	6.0	80	82.5	85	9.5	9.9	10.2
Over 36 m but not exceeding 43 m	39	44	47	5.4	6.1	6.5	75	77.5	80	10.5	10.8	11.2
Over 43 m but not exceeding 49 m	37	41	44	5.9	6.5	7.0	69	72.5	75	11.0	11.6	12.0
Over 49 m but not exceeding 55 m	35	39	42	6.3	7.0	7.5	64	67.5	70	11.5	12.1	12.6
Over 55 m but not exceeding 61 m	34	38	41	6.8	7.6	8.0	60	62.5	65	12.2	12.5	13.0

CONCEPTUAL SKETCH: ALTERNATIVE 1 – ADD NEW ANNEX BLOCK



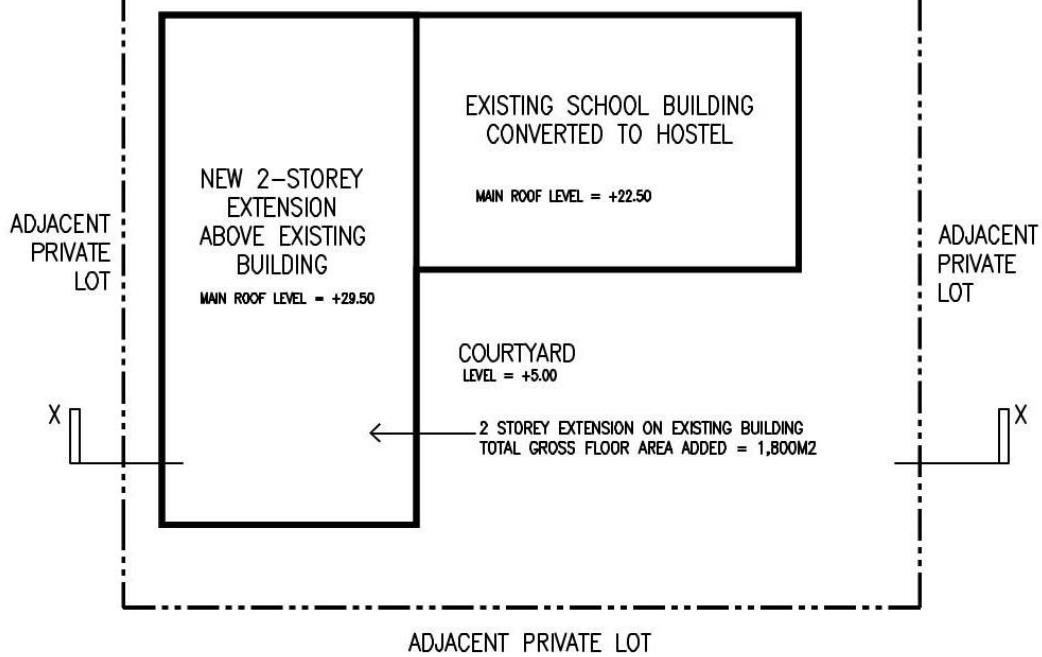
BLOCK PLAN



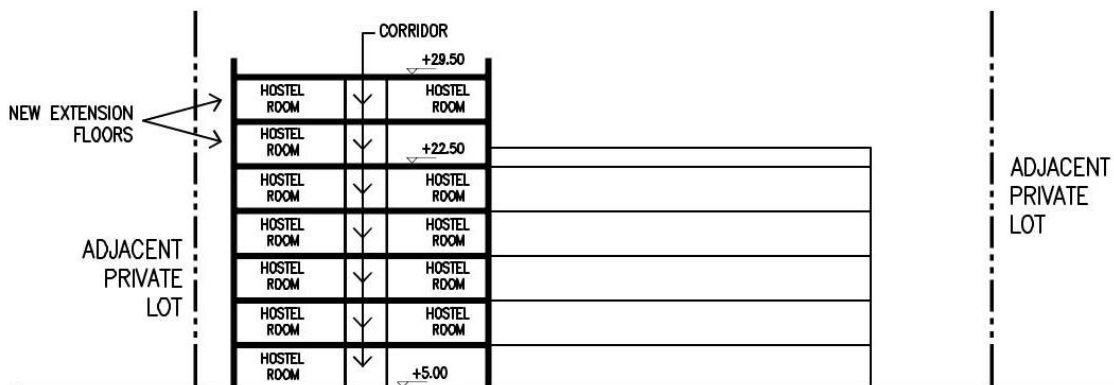
SECTION X-X

CONCEPTUAL SKETCH: ALTERNATIVE 2 – ADD VERTICAL EXTENSION

PUBLIC STREET (WIDTH > 15M)
STREET LEVEL = +5.00



BLOCK PLAN



SECTION X-X

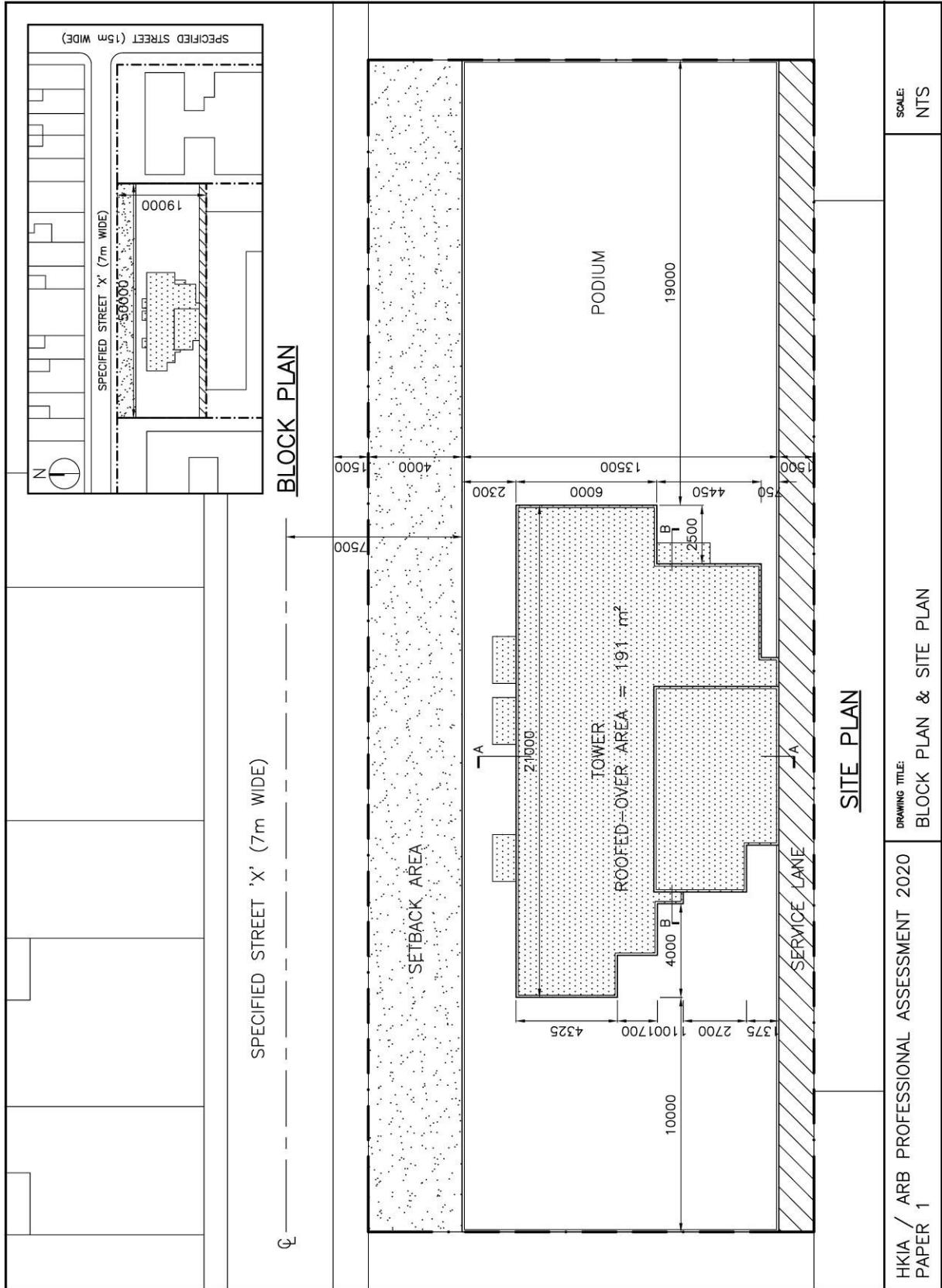
Answer 2 questions from Question 2, Question 3 and Question 4.

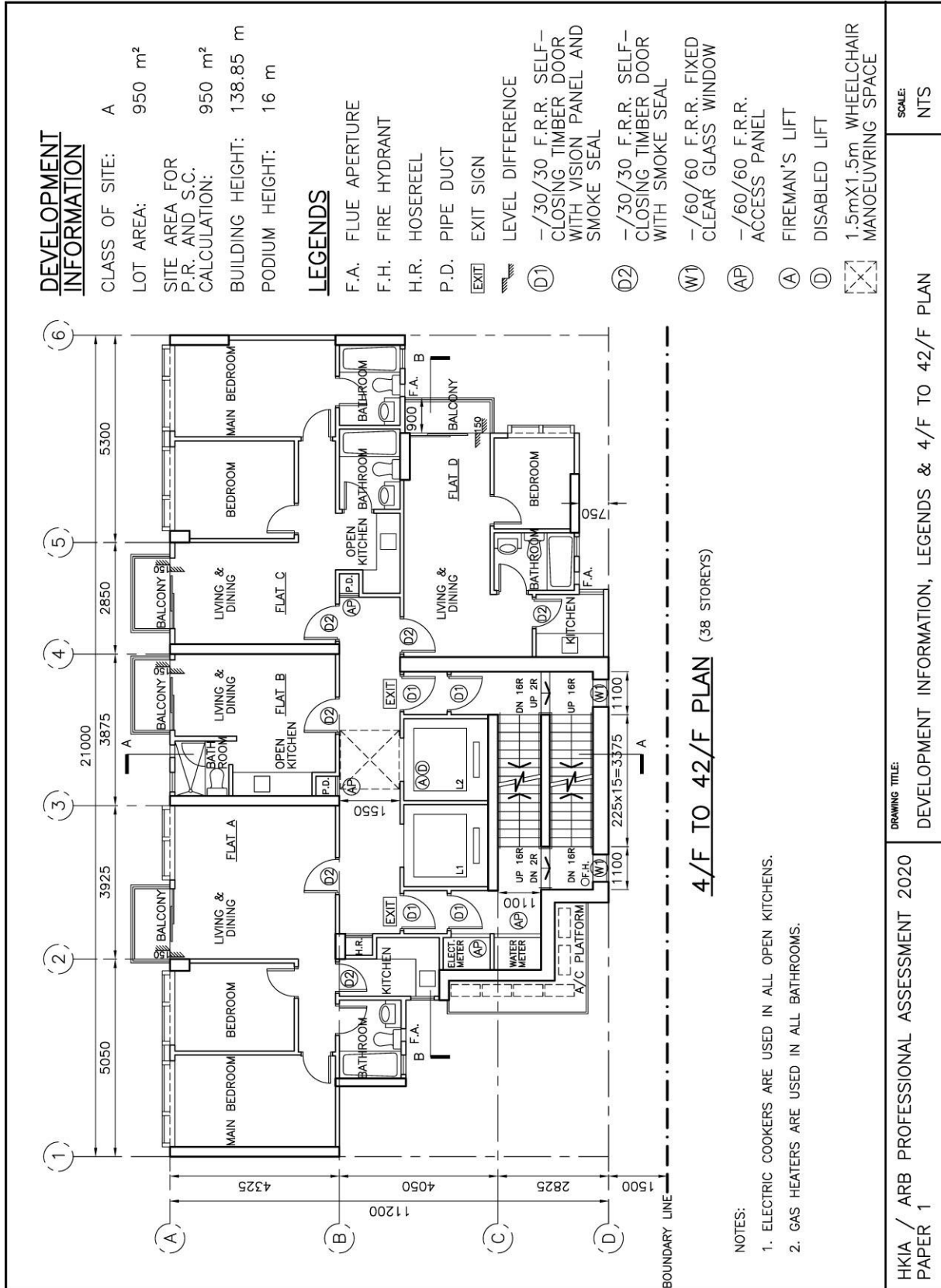
Question 2 (15 marks)

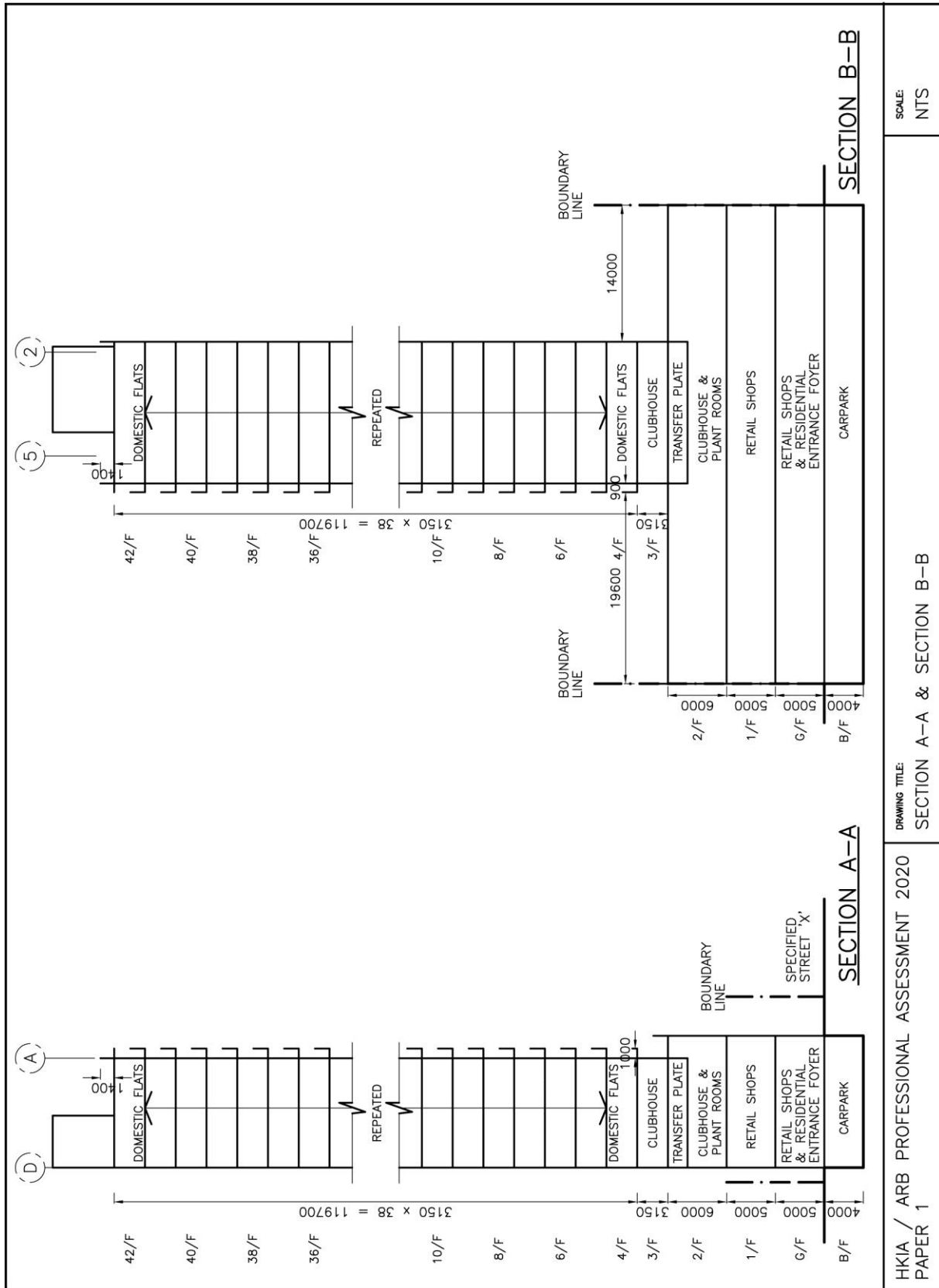
Design sketches for a 42-storey composite building consisting of one basement carpark floor, two retail floors, two clubhouse floors, and 38 typical residential floors have been prepared. Extracts of the sketches are shown at Appendices 2A to 2C.

Issues related to gross floor area, site coverage, fire services installations and equipment have been checked and found correct in the sketches.

- (a) Identify 4 items from the plans which fail to comply with the Buildings Ordinance or its subsidiary legislations. Please also explain the reasons. (8 marks)
- (b) Apart from those related to gross floor area and site coverage, list 2 items from the plans which fail to comply with the Buildings Ordinance or its subsidiary legislations but may likely be considered by the Building Authority upon application for modification. Please also quote the regulation which has been deviated from. (4 marks)
- (c) Explain the considerations of the Building Authority in deciding whether or not to grant modification to certain provisions of the Buildings Ordinance or its subsidiary legislations. (3 marks)







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Question 3 (15 marks)

You were introduced to a potential new client. During the first meeting, this person told you that he owned a piece of land at the rim of the Yuen Long Industrial Estate. The land used to house an open-air car repairing and dismantling workshop for over 30 years. The workshop ceased to operate and the land has become vacant since a few years ago.

This potential new client wished to know if he could redevelop the land into a cinema with basement car park.

- (a) Before knowing the exact address of the site and looking up references or documents, how would you explain to this person the potential development constraints with respect to the site location, previous land use and intended use from the statutory perspective? (8 Marks)
- (b) After the first meeting, you carried out thorough study and confirmed that the idea to redevelop the land into a cinema with basement carpark is feasible with conditions from development potential perspectives. (7 Marks)

You are now appointed the architect for this project, and apart from carrying out the design, you need to list out the actions necessary for the project to proceed.

Focusing on the Buildings Ordinance, what are the statutory procedures involved from the commencement of foundation design to obtaining consent for the commencement of superstructure construction?

Question 4 (15 marks)

The Lease Conditions of a low-rise residential development in the New Territories provides, among other conditions, for the lessee to:

- *“...uphold maintain and repair the Brown Area and everything forming a portion of or pertaining to it all to be done to the satisfaction of the Director and the Lessee will be responsible for the whole as if it were the absolute owner thereof...” and*
- *“...carry out and complete to the satisfaction of the Director such geotechnical investigations and such slope treatment and remedial works on the Green Hatched Black Areas...”*
- *“No tree growing on the lot or adjacent thereto shall be removed or interfered with without the prior written consent of the Director who may, in granting consent, impose such conditions as to transplanting compensatory landscaping or replanting as he may deem appropriate.”*

The “Brown Area” refers to a 5m wide carriageway, with a 1.6m wide footpath on one side, which serves as access road leading from the nearest public street to the vehicular ingress / egress of the development site. The “Green Hatched Black Areas” refers to wooded hillsides immediately outside of the site boundaries. In addition, according to the “compensatory planting proposal” submitted by the Authorized Person, two mature trees within the site would be felled and twenty new trees would be planted.

The Occupation Permit for the project has now been obtained, and the client requested the Architect to apply for the Certificate of Compliance as soon as possible.

Briefly comment on the following issues relating to the Certificate of Compliance:

- (a) Which government authority handles the application? Under what circumstances is such a certificate required? What purpose does it serve? (6 Marks)
- (b) What documents are normally required to be submitted upon application? (3 Marks)
- (c) Referring to the above case, briefly describe the involvement of any **two** government departments in acknowledging / commenting on relevant works carried out, to facilitate the application. (6 Marks)

END OF PAPER