



Land Surveyors Board Examination

14th September 2020

WRITTEN EXAMINATION

CADASTRAL LAW

Instructions to Candidates

1. This paper consists of five (5) questions and you are to answer ALL five (5) questions.
2. Write legibly on one side of the paper.
3. Begin each answer on a fresh page and write the question number at the top of each page.
4. Read the question paper thoroughly. 10 minutes will be allowed for this purpose.
Commence writing only when the invigilator tells you to do so.
5. Marks allocated are shown at the end of each part/question.
6. Answers will be graded for content and appropriate presentation.
7. The attention of candidates is drawn to the Land Surveyors Board Rules of Conduct of Examination.

Question 1

Illustrate on what you understand for the following;

- a) True North and grid North with reference to SVY 21 Datum?
(2 marks)
- b) What is grid convergence and how is it defined? Show how you can derive the result for different location within Singapore and its territorial island.
(8 marks)
- c) Why and how do we carry out all the necessary equipment for a cadastral survey to be carried out efficiently and within the specification accurately?
(5 marks)
- d) Why are areas important in cadastral survey and write short notes on what you understand for the following terms;
 - i. Surveyed Area
 - ii. True Area
 - iii. Grid Area
 - iv. P.O. Area
 - v. Build on Area
 - vi. Build up Area
 - vii. Lease Area
 - viii. Net Area (NLA)
 - ix. Gross Floor Area
 - x. Strata Area

(5 marks)

Question 2

- a) Draw a simple sketch to illustrate and how it is derive for the term 0.960m SHD in cadastral survey?
(5 marks)
- b) What do you understand by the term foreshore and seabed with reference to the relevant acts and rules for the regularisation of any development and the issuance of Title?
(5 marks)
- c) A 10 HA sea space within our territorial water had been designated as a floating fish farming area. This is to be leased to the private sector. Describe all the necessary procedure and requirement for final issuance of Title on a short and long term lease. Note, there is no island nearby.
(8 marks)
- d) Do you need to carry out a proclamation survey for such a project as per item (c) above?
(2 marks)

Question 3

- a) Under the Land Titles (Strata) Act, share value shown in the subsidiary strata land-register shall not be altered upon the registration of the strata title. List the conditions in which the Act allows otherwise (i.e. the share value can be altered).
(3 marks)
- b) Under the Building Maintenance and Strata Management Act, what does the share value determine for a condominium development?
(3 marks)
- c) In a Mixed-Use Development, the allotment of share value to each unit is based on the use of weight factors determined for each type of strata units. Other than the strata area, list the factors that may be considered in determining the weight factors.
(4 marks)
- d) Describe in detail, the samples and calculation if necessary , how would you prepare the share value of a block 5 storey building which contain 5 shops on the 1st storey and 18 residential units at 2nd to 5th storey.
(10 marks)

Question 4

a) Two (2) brothers inherited Lot 1000L which has an existing bungalow straddling across the lot. They wish to subdivide the lot into 2 plots to separate the ownership. There is no plan for joint development. The existing garden walls at the entrance/exit encroach substantially into the road. The common wall between Lot 1000 and Lot 1001 may have encroachment issues. **With reference to attached sketch Q.4**

- i. In deciding the subdivision line, what are the points of consideration?
- ii. How could you submit the Subdivision proposal to URA for approval?
- iii. Explain the process in (ii).
- iv. How do you resolve the encroachment at the entrance/exit & with adjacent lot 1001W?
- v. If COL cannot accept the SL encroachment on submission of final survey, what need to be done?

(15 marks)

b) Write what you understand by coordinates refinement for cadastral survey in SVY 21 datum.

(5 marks)

Question 5

a) A survey of the land lot is required when a Strata Survey is conducted to subdivide the building within into strata lots and where there is no subdivision of the land lot consequent to the development. For such a strata development the registered surveyor when submitting the Strata Certified Plans to the chief surveyor will include the submission for the CP for the resurvey. However such resurvey is not required if the Strata Survey is for other Strata subdivision.

There are 8 types of such conditions. List out and explain in short notes for each condition.

(10 marks)

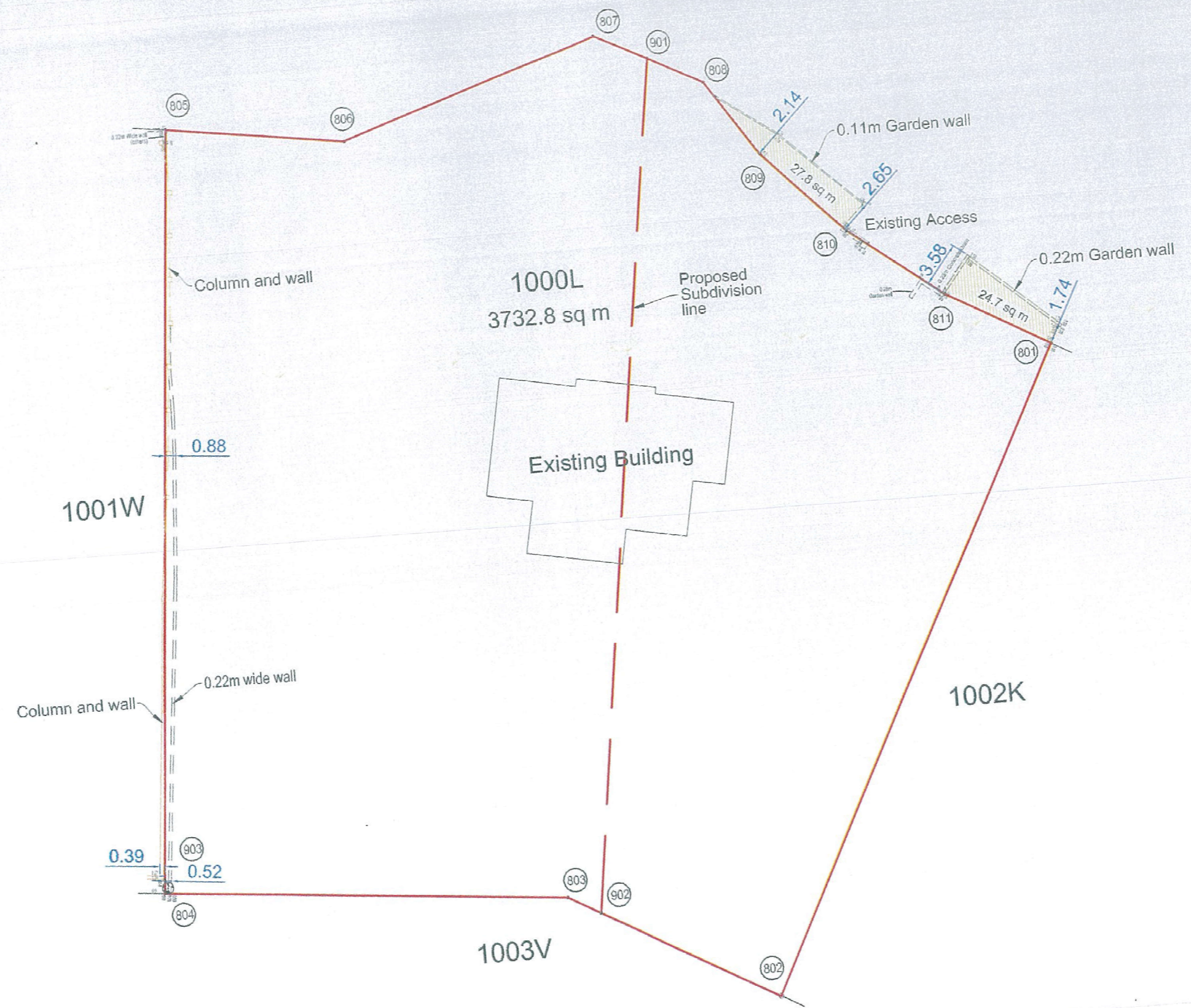
b) A proposed A/A works to add additional Strata Space on each and every units rooftop for unit No 157 to 177 at Ubi Avenue 4, which is sitting on lot 2773VMK23 as shown on CP 89030 and CP 20109. The current rooftop is common area. These owners and the MCST had approached you as a registered surveyor for advice prior to engaging other allied professional such as Architects and Engineers.

Outline the upfront foreseeable issue, problem and constraints. Suggest solution for each possible constraint for follow up advice and action.

With reference to sketch Q.5b and CP's attached.

(10 marks)

Question (4)/Sketch Q.4



Question 5b/CP

LOT NO.	ON PLAN	HERE SUBDIVIDED INTO LOTS	AREA	S.D.S.	L.O.	REMARKS
2764	20100	2769		262/82	CA151.G.13	
		2770				
		2771				
		2772				
		2773				
		2774				
		2775				

LINE	BEARING	DISTANCE
1	61° 20'	3.544
2	78° 13'	3.544
3	90° 18'	3.544
4	101° 11'	3.544
5	109° 16'	3.544
6	116° 19'	3.544
7	123° 22'	3.544
8	130° 25'	3.544
9	137° 28'	3.544
10	144° 31'	3.544
11	151° 34'	3.544
12	158° 37'	3.544
13	165° 40'	3.544
14	172° 43'	3.544
15	179° 46'	3.544
16	186° 49'	3.544
17	193° 52'	3.544
18	200° 55'	3.544
19	207° 58'	3.544
20	214° 61'	3.544
21	221° 64'	3.544
22	228° 67'	3.544
23	235° 70'	3.544
24	242° 73'	3.544
25	249° 76'	3.544
26	256° 79'	3.544

LINE	BEARING	DISTANCE
27	108° 21'	3.702
28	140° 37'	3.702
29	162° 25'	3.702
30	177° 45'	3.702
31	187° 05'	3.702
32	208° 35'	3.702
33	223° 05'	3.702
34	239° 05'	3.702
35	254° 05'	3.702
36	268° 45'	3.702
37	280° 25'	3.702
38	298° 05'	3.702
39	312° 45'	3.702
40	322° 25'	3.702
41	328° 05'	3.702
42	331° 20'	3.702
43	340° 01'	3.702
44	348° 43'	3.702
45	357° 09'	3.702
46	364° 28'	3.702
47	370° 28'	3.702
48	375° 45'	3.702
49	379° 45'	3.702
50	383° 05'	3.702
51	386° 25'	3.702
52	389° 45'	3.702
53	393° 05'	3.702

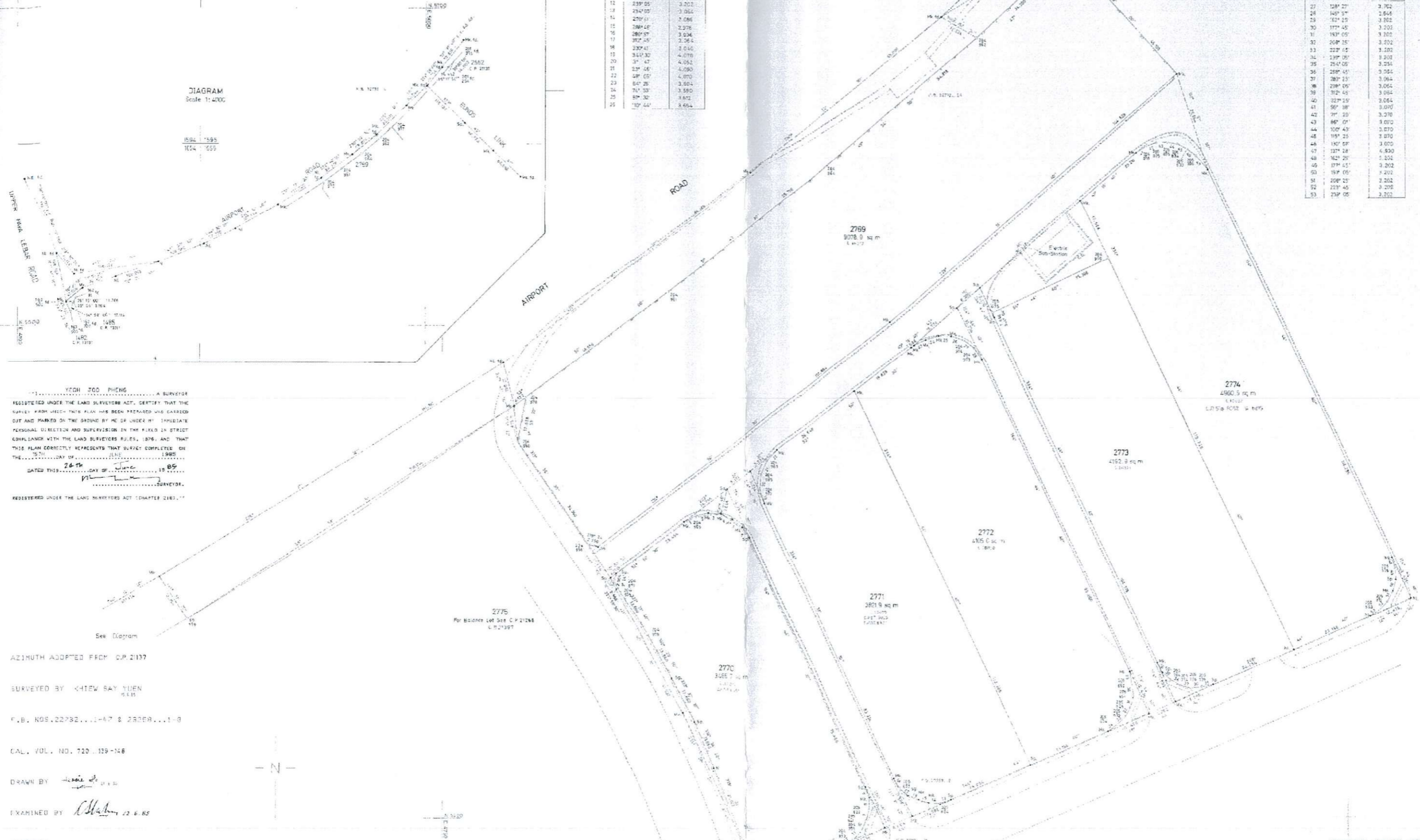


DIAGRAM
Scale 1:4000

YEOH JOO PHENG, A SURVEYOR REGISTERED UNDER THE LAND SURVEYORS ACT, CERTIFY THAT THE SURVEY FROM WHICH THIS PLAN HAS BEEN PREPARED WAS CARRIED OUT AND MARKED ON THE GROUND BY ME OR UNDER MY IMMEDIATE PERSONAL DIRECTION AND SUPERVISION IN THE FIELD IN STRICT COMPLIANCE WITH THE LAND SURVEYORS RULES, 1976, AND THAT THIS PLAN CORRECTLY REPRESENTS THAT SURVEY COMPLETED ON THE 26th DAY OF June 1985. DATED THIS 26th DAY OF June 1985. YEOH JOO PHENG, SURVEYOR, REGISTERED UNDER THE LAND SURVEYORS ACT (CHAPTER 218).

AZIMUTH ADOPTED FROM C.P. 21137

SURVEYED BY KHIEW SAY YUEN

F.B. NOS. 22732...1-47 & 22059...1-8

CAL. VOL. NO. 720...139-148

DRAWN BY *Handwritten signature*

EXAMINED BY *Handwritten signature* 26.6.85

APPROVED

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CHIEF SURVEYOR

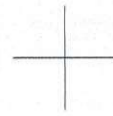
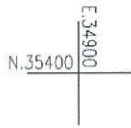
MUKIM NO. 23
PAYA LEBAR
SCALE 1:5000

STANDARD SHEETS 1595 & 1655

20109

Question 5b/CP

Lot No.	On Plan
2773V	20109



UBI AVENUE 4

6014N

Nos. 157, 159, 161, 163,
165, 167, 169, 171,
173, 175, 177

UBI

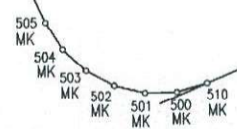
2774P

2773V
4192.9 sq m

6013K

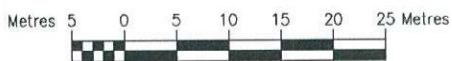
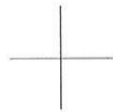
AVENUE

Station No.	Northing	Easting
500	35235.830	34959.603
501	35235.763	34956.541
502	35236.474	34953.561
503	35237.915	34950.858
504	35239.994	34948.609
505	35242.575	34946.958
506	35337.516	34902.159
507	35338.905	34901.762
508	35353.992	34933.749
509	35246.160	34984.632
510	35236.671	34962.549



4412X
AVENUE

UBI



All coordinates shown are based on SVY21 Datum	Drawn By DAI TINGYAO 02.06.2017	I, Liu Nam Thiam, a surveyor registered under the Land Surveyors Act (Cap. 156), certify that this document has been prepared by me or under my immediate supervision, in accordance with the Boundaries and Survey Maps (Conduct of Cadastral Surveys) Rules 2005 (G.N. No. S155/2005).	Approved Soh Kheng Peng Chief Surveyor (Digitally Signed)	
Surveyed By Lee Teck Tuan 31.12.2016	Examined By Liu Nam Thiam 05.06.2017			
Compiled From	SVY 3075-2017	MUKIM NO. 23	89030	
Approved Plan	Scale 1:500 Plan Size : A2			
Sketch Plan No. SK 89030-001 to 005				
Cadastral Map 1655				

Question (5) (b)/ Sketch Q.5(b)

