PROVISION OF SUSTAINABLE BUILDING DESIGN (SBD)

SITE AREA : 179,353.230 s.m.(ABOVE DEPOT SITE)
CLASS OF SITE : C (ABOVE DEPOT SITE)
HEIGHT OF BUILDING : OVER 81m (ABOVE DEPOT SITE)
LEVEL ZERO : +5.5mPD

SBD (PNAP APP-152)

BUILDING SEPARATION *

PARA 7	SITE AREA 308,920.840 > 20,000 s.m ; AND H > 60m AND Lp > 80m	MINIMUM PERMEABILITY = 20% ; 33.3%
PARA 11	NOT APPLY THE BUILDING SEPARATION REQUIREMENTS TO THE EXISTING STRUCTURES (INCLUDING THE DEPOT PHASE I AND STATION) AND THE PLANNED INFRASTRUCTURE (DEPOT PHASE II, PUBLIC TRANSPORT INTER CHANGE) AND ACCEPT THE DEFICIENCY IN COMPLYING WITH THE BUILDING SEPARATION REQUIREMENTS AT LOW ZONE FOR THE PROPOSED DEVELOPMENT WORKS (INCLUDING THE SHOPPING CENTRE, CAR PARK AND ETC.) ADJACENT TO THE EXISTING STRUCTURES AND PLANNED INFRASTRUCTURES.	

BUILDING SET BACK

PARA 13	BUILDING ABUTTING A NARROW STREET NOT LESS THAN 15m WIDE	BUILDING SET BACK : > 15m FROM CENTRE LINE OF THE STREET

SITE COVERAGE OF GREENERY *

PARA 18	SITE AREA > 20,000s.m	MINIMUM SITE COVERAGE OF GREENERY = 20% (MINIMUM 15% AT PEDESTRIAN ZONE)

* REFER TO THE PREVIOUS ENQUIRY SUBMISSIONS ON 20 FEB 2017 (15) AND (19) IN DD 3/7102/97 PLN DATED 20 JULY 2017 AND 23 AUGUST 2012 RESPECTIVELY TO DONALD LIU & PARTNERS LTD ARE RELEVANT.

TOTAL GREENERY PROVIDED: // ROOF ZONE

MARK	LEVEL	LANDSCAPE AREA (s.m)	MARK	LEVEL	LANDSCAPE AREA (s.m)	MARK	LEVEL	URBANGREEN AREA (s.m)	MARK	LEVEL	GREENERY AREA (s.m)	MARK	LEVEL	LANDSCAPE AREA (s.m)	MARK	LEVEL	URBANGREEN AREA (s.m)	MARK	LEVEL	GREENERY AREA (s.m)	MARK	LEVEL	UNDERGND AREA (s.m)	MARK	LEVEL	GREENERY AREA (s.m)
G09	+0.00	361.493	G16	+0.00	98.642	G23	+0.00	6,293 //	G68	+5.50	376,690 //	G69	-	-	G25	+5.50	6,182.695	G26	+7.00	20,918				G00	+5.50	14,553
G02	+6.30	234.414	G18	+0.00	74.132	G25	+5.50	56,384 //	-	-	-	G70	-	-	G27	+5.50	103,438	G28	+8.00	18,092				G00	+5.50	334,430
G03	+6.30	205.163	G19	+27.00	212,784 //	G26	+5.50	115,187 //	G69	+34.45	98,224 //	G71	-	-	G29	+5.95	206,886	G29	+27.95	364,282				G00	+5.50	236,050
G00	+5.80	92.115	G20	+27.50	6,230 //	G27	+5.50	46,904 //	G29	+3.00	58,466	G64	+27.95	36,328	G30	+5.50	88,583	G30	+29.00	20,234 //				G00	+5.50	44,964
G00	+5.30	127,627	G21	+0.00	20,554	G28	+5.50	195,376 //	-	-	-	G72	-	-	G31	+5.50	163,600	G00	+7.00	-				G00	+5.50	78,194
G00	+7.00	97,647			-	G29	+5.50	192,367 //	G53	+7.00	27,323 //				G32	+5.50	137,183	G31	+7.00	149,589				G00	+5.50	158,214
G00	+7.00	154,984			-	G30	+5.50	12,624 //	G53	+7.00	37,356 //	G69	+27.95	308,569	G33	+5.50	54,236	G32	+7.00	1,884,349				G00	+5.50	888,869
		-			-	G31	+5.50	3,458 //	G53	+7.00	58,985 //	G40	-	-	G35	+5.50	141,799	G33	+7.00	81,326				G00	+5.50	219,583
		-	G26	+5.00	19,768	G32	+5.50	93,448 //	G53	+7.00	90,156 //	G40	-	-	G38	+5.00	94,523	G34	+7.00	169,298				G00	+5.50	41,506
G00	+6.50	139,624	G27	+5.00	126,569	G33	+5.50	57,402 //	G53	+7.00	24,314 //	G40	+27.95	278,268	G39	+5.50	499,856	G35	+7.00	699,353 //				G00	+5.50	58,124
G13	+6.50	999,754	G28	+27.50	36,519 //	G34	+5.50	183,600 //	G00	-	-	G28	+5.25	58,038	G40	+5.50	215,888	G36	+5.50	356,960 //				G00	+5.50	45,750
G15	+6.50	33,147	G29	+5.45	109,485 //	G35	+5.50	97,292 //	G53	-	-	G29	-	-	G41	+5.50	69,107	G38	+5.50	231,122				G00	+5.50	14,055
G13	+6.50	54,466			-	G43	+5.50	13,539 //	G53	-	-	G29	-	-	G43	+7.00	27,579	G39	+5.50	59,455	G00	+5.45	89,680	G00	+5.50	158,394
G14	+7.00	256,312 //			-	G44	+5.50	108,671 //	G53	-	-	G29	-	-	G44	+7.00	-	G40	+5.50	63,858	G00	+5.45	382,993	G00	+5.50	25,745
G10	+29.25	17,526 //	G18	+5.45	137,057 //	G45	+5.50	113,091 //	G69	-	-	G30	-	-	G70	+7.00	44,629	G41	+5.45	81,574	G00	+5.45	37,295			

TOTAL OF LANDSCAPE AREA WITHIN SITE C1 SBD BOUNDARY = 15709.283 s.m.
TOTAL OF LANDSCAPE AREA WITHIN SITE C1 LEASE BOUNDARY = 14744.902 s.m. (EXCLUDE G81, G82, G86, G89, G91, G97, G101, G102, VG11, VG12)

COVERED GREENERY AREA

MARK	LEVEL	COVERED GREENERY AREA
G00	+5.50	25,447
G00	+6.00	30,552
G00	+5.50	19,150
G00	+6.00	11,295

TOTAL OF COVERED GREENERY AREA
= G405 + G107 + G108+ G100 = 86,935 s.m. / 2
= 34,468 s.m.

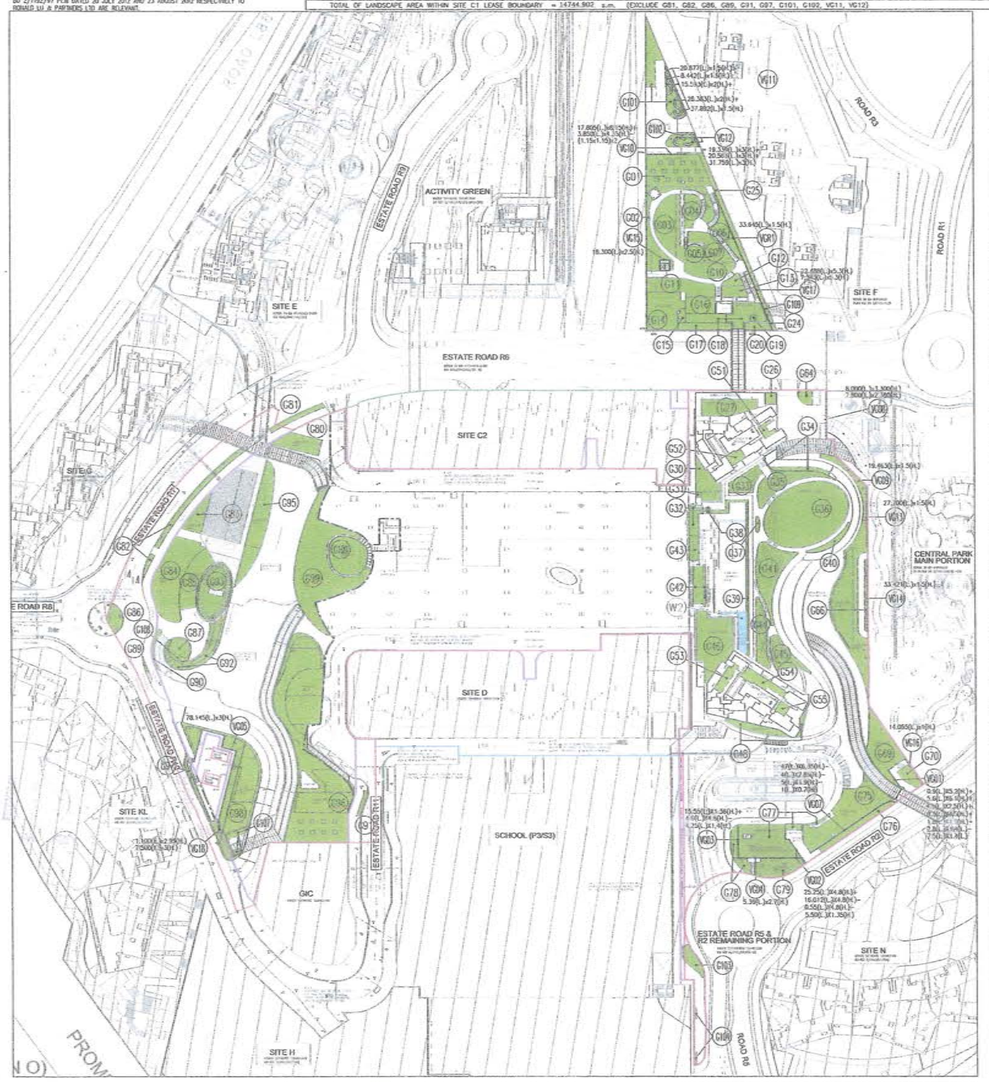
TOTAL GREENERY (UNDER LEASE) = LANDSCAPE AREA + WATER FEATURE + COVERED GREENERY
(WITHIN SITE C1 LEASE BOUNDARY) = 14744.902 s.m. + 41.396 s.m. + 34,468
= 34825.256 s.m.

GREENERY CALCULATION UNDER LEASE REFER TO PNE C-30 TABLE

WATER FEATURE CALCULATION PROVIDED AS PEDESTRIAN ZONE // ROOF ZONE

MARK	LEVEL	WATER FEATURE AREA (s.m)		
(W2)	+29.50	82.791 //		

TOTAL OF WATER FEATURE AREA
= 82.791 s.m. / 2
= 41.396 s.m.



SOIL DEPTH AND DRAINAGE PROVISION FOR PLANTS AREAS

All landscape area will be designed with adequate soil depth (i.e. min. 1200mm soil depth excluding drainage layer for any tree planting, 600mm for shrub planting, 300mm for grass/groundcovers and tree pit of 1000mm by 1000mm with 1200mm soil depth excluding drainage layer for tree planting) and drainage for all planted areas with provision of adequate source of water supply. Close bottom planters will have proper adequate subsoil drainage outlets.

HARDSCAPE MATERIALS

Hardscape material will be chosen to complement the building finishes, provide variety, aesthetic appeal, functionality and add character to the landscape design. Tactile paving for the visually impaired will also be adopted in suitable areas.

Outdoor paving materials and wall finishes of high quality granite and homogeneous tile, suitable for heavy pedestrian traffic will be chosen. They must also require minimal maintenance and be suitable for outdoor use.

Texture paving will be provided at main entrances to aid way-finding. Different textures and color tones of the granite or homogeneous tiles, including hammered, rippled and brush finishes, can provide different paving patterns and help differentiate different functional zones.

Water features will be in natural, polished granite to reflect light and enhance water movement.

Area	Material
Driveway	Natural granite with various finishes, AGT.
Footpaths / paved areas	Natural granite with various finishes, homogeneous tiles, epoxy aggregate
Play Area	Safety Matting
Feature walls / Planter walls	Natural granite
Water Feature	Natural granite, polished finish, clear pebbles for stone
Timber decks	Treated timber

PLANTING MATERIALS

The planting design aims to create a lush open grassing area with seasonal interests, rich color and textural contrast. Planting species chosen shall be hardy and require low future maintenance. A varied planting palette is proposed to provide seasonal interest. Native species will be encorporated for ecological benefit. Fragrant species will also be incorporated next to pathways or near seating areas.

Colorful shrubs and groundcovers will be planted in color specific groupings for a vibrant under-storey planting under trees.

Plant species should also be selected for their suitability to the climate zone, likely atmospheric pollution of the area and surrounding environmental and spatial design requirement.

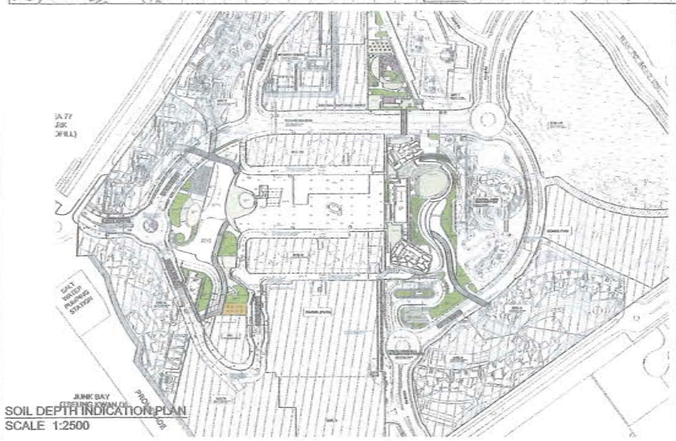
For locations near busy streets or driveways, pollution tolerant street trees and shrubs will be introduced to create a visual buffer, provide shade and absorb harmful emissions from nearby vehicles.

Trees of various sizes will be planted to create variation. Large ornamental trees will be provided by main entrances to provide shade, greenery and enhance aesthetic appeal of the area. Shrubs and groundcovers planted by entrances will be chosen by its form, texture and color. Trees will be densely planted to form an interesting planting design to attract visitors.

Preliminary Plant Material Table

Key	Botanical Name	Specifications
TREES (Min. 1.2m)		
SAP.SEB.	*Sapium sebiferum*	Standard
ELA.APL.	*Elaeocarpus apiculatus*	Heavy Standard
ELA.HAI.	*Elaeocarpus hainanensis*	Standard
FIC.BEN.	*Ficus benjamina*	Heavy Standard
JAC. ACU.	*Jacaranda acutifolia*	Heavy Standard
LAG.SPE.	*Lagerstroemia speciosa*	Standard
MIC.ALB.	*Michelia x alba*	Heavy Standard
SEN.SIA.	*Senna siamea*	Heavy Standard
TAB.CHR.	*Tabebuia chrysantha*	Heavy Standard
TER.MAN.	*Terminalia mantaly*	Heavy Standard
SHRUBS (Min. 0.6m)		
AGL.ODO	*Aglaia odorata*	400-600mm height, 300-500mm spread
BRE.NIV.	*Breynia nivosa*	400-600mm height, 300-400mm spread
BEG.CUC.	*Begonia cucullata*	200-300mm height, 200-400mm spread
CAL.ROT.	*Calathea rotundifolia cv. Fasciata*	200-300mm height, 200-300mm spread
CAL.HYB.	*Calliblemnos x hybridus*	600-800mm height, 400-600mm spread
CAM.JAP.	*Camellia japonica 'alba-plena'*	800-1000mm height, 600-800mm spread
CUP. HYS.	*Cuphea hyssopifolia*	300-500mm height, 200-300mm spread
CAM. SAS.	*Camellia sasanqua*	600-700mm height, 600-700mm spread
CRO.CHI.	*Crocosmiaphlebm chinensis*	100-200mm height, 100-200mm spread
CAE.HAE.	*Calliandra haematocephala*	500-600mm height, 400-500mm spread
CAE. PUL.	*Caesalpinia haematocephala*	900-1000mm height, 700-800mm spread
DUR.REP.	*Duranta repens*	400-500mm height, 300-500mm spread
FAG.CHI.	*Fagraea ceilanica*	700-1000mm height, 700-800mm spread
HAM. PAT.	*Hamelia patens*	400-600mm height, 300-500mm spread
IXO.CHI.	*Ixora chinensis*	400-600mm height, 300-500mm spread
JAT. INT.	*Jatropha integerrima*	1100-1250mm height, 500-600mm spread
LOR.CHI.	*Loropetalum chinense f. rubrum*	600-800mm height, 500-600mm spread
NEO.GRA.	*Neomarica gracilis*	200-300mm height, 200-300mm spread
OPH.JAB.	*Ophiopogon jaburan*	50-100mm height, 100-150mm spread
PAN.PYG.	*Pandanus pygmaeus*	200-300mm height, 200-300mm spread
PHO.TEN.	*Phoenium tonax*	400-500mm height, 400-500mm spread

Key	Botanical Name	Specifications
PIL.CAD.	*Pilea cadierei*	100-200mm height, 200-300mm spread
RUE.MAC.	*Ruellia macrantha*	200-300mm height, 100-200mm spread
POL.GUI.	*Polyscias guilfoylei*	1100-1200mm height, 500-600mm spread
PIT.TOB.	*Pittosporum tobira*	1000-1200mm height, 600-800mm spread
SAN.TRI.	*Sansevieria trifasciata*	800-1000mm height, 600-800mm spread
SPA.FLO.	*Spathiphyllum floribundum*	200-300mm height, 200-400mm spread
TIB.	*Tibouchina spp.*	200-300mm height, 200-300mm spread
VIB.ODO.	*Viburnum odoratissimum*	300-600mm height, 300-500mm spread
VER.HYB.	*Verbena hybrid*	200-300mm height, 200-300mm spread
GROUNDCOVER (Min. 0.2m)		
ALT.DEN.	*Alternanthera dentata cv 'rainbow'*	200-300mm height, 150-200mm spread
ALT.FIC.	*Alternanthera ficoidea 'versicolor'*	200-300mm height, 150-200mm spread
ASP.SPR.	*Asparagus sprengeri*	200-300mm height, 100-200mm spread
AUC.JAP.	*Aucuba japonica*	200-300mm height, 150-200mm spread
BEG.REX.	*Begonia rex*	200-300mm height, 150-200mm spread
BRE.NIV.	*Breynia nivosa*	400-500mm height, 300-400mm spread
CUP.ART.	*Cuphea articulata*	100-150mm height, 150-200mm spread
CAT.ROS.	*Catharanthus roseus*	200-300mm height, 150-200mm spread
CAL.ROT.	*Calathea rotundifolia cv. Fasciata*	200-300mm height, 150-200mm spread
HYD.LEN.	*Hydrocotyle leucocephala*	100-150mm height, 150-200mm spread
OPH.JAB.	*Ophiopogon jaburan*	100-300mm height, 150-200mm spread
PIL.CAD.	*Pilea cadierei*	100-200mm height, 200-300mm spread
PHY.MYR.	*Phyllanthus myrtifolius*	200-300mm height, 200-300 spread
PAN.PYG.	*Pandanus pygmaeus*	300-400mm height, 200-400mm spread
RHO.DEB.	*Rhoeo discolor*	250mm height, 350mm spread
RHO.HYB.	*Rhododendron hybrid*	250mm height, 350mm spread
TURF / LAWN		
AXO.COM.	*Axonopus compressus*	
ZOY.JAP.	*Zoysia japonica*	
ZOY.TEN.	*Zoysia tenuifolia*	

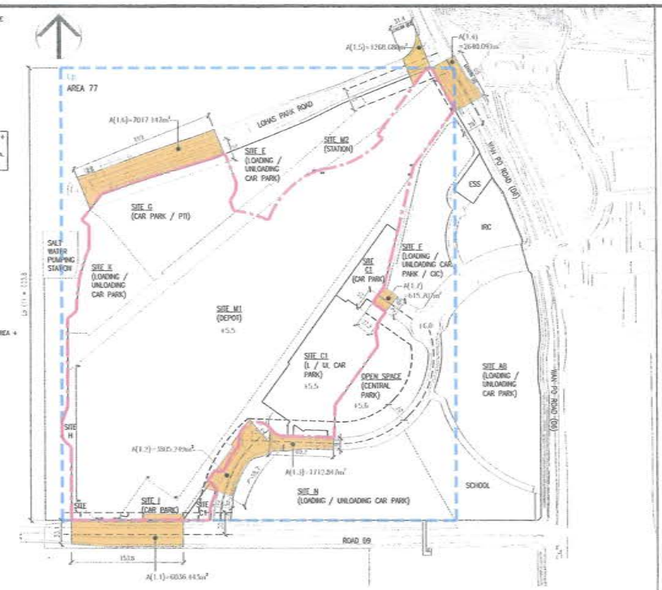


SOIL DEPTH INDICATION PLAN
SCALE 1:2500

CONTINUOUS PROJECTED FACADE LENGTH (Lp) OF BUILDING (S) ABUTTING A STREET

STREET CANYON AREA

SBD ASSESSMENT STREET CANYON (LOW ZONE AT 5.5 mPD - 25.5mPD) (NOT APPLY THE BUILDING SEPARATION REQUIREMENT TO THE EXISTING STRUCTURES)
SCALE 1:4000



LEGEND
BUILDING FOOTPRINT
STREET CANYON AREA

STREET CANYON CALCULATION - MID ZONE & HIGH ZONE (FROM +25.5 mPD)

FOR GROUP OF BUILDING (1)

ROAD	STREET CANYON AREA (m²)		LENGTH (m)		MEAN WIDTH OF STREET CANYON (W) (STREET CANYON AREA / LENGTH)
ROAD D9	AREA (A1) = 2950.883	3539.344	46.000	78.940	MEAN WIDTH (W1) = 3295.324 / 78.940 = 44.911m
	AREA (A2) = 588.461		78.940		
ROAD R5	AREA (D1) = 594.672	3543.934	25.581	80.294	MEAN WIDTH (W2) = 3543.934 / 80.294 = 39.579m (USED)
	AREA (D2) = 6,79.262		78.780		

MAX. PERMISSIBLE CONTINUOUS PROJECTED FACADE LENGTH Lp(1)

THE LEAST (W) = (W1) = 39.579 m

MAX. PERMISSIBLE Lp(1) = 5 x 39.579
= 197.895 m

ACTUAL LP(1) = 169.094 m < 197.895 m i.e. (COMPLIED)

JUNK BAY (TSEUNG KWAN O)

FOR GROUP OF BUILDING (2)

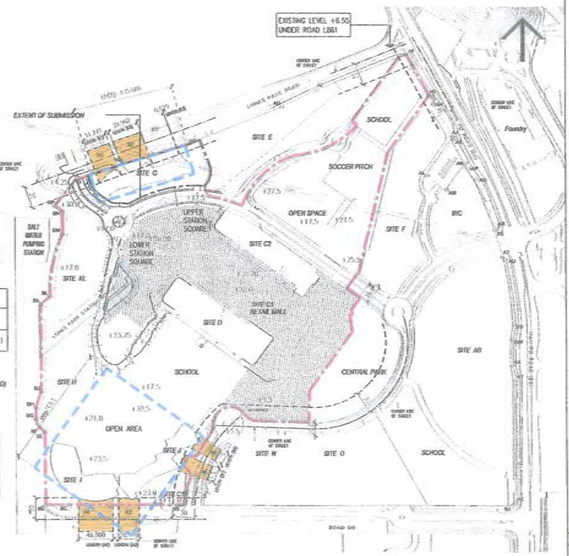
ROAD	STREET CANYON AREA (m²)		LENGTH (m)		MEAN WIDTH OF STREET CANYON (W) (STREET CANYON AREA / LENGTH)
LONG PARK ROAD	AREA (C1) = 13,616.640	20653.873	31.271	77.357	MEAN WIDTH (W1) = 20653.873 / 77.357 = 267.07m
	AREA (C2) = 7,037.233		45.903		
	AREA (C3) = 1,000.000		40.179		

MAX. PERMISSIBLE CONTINUOUS PROJECTED FACADE LENGTH Lp(2)

THE LEAST (W) = (W1) = 267.07 m

MAX. PERMISSIBLE Lp(2) = 5 x 267.07
= 535.135 m

ACTUAL LP(2) = 135.656m < 535.135 m i.e. (COMPLIED)



LEGEND
BUILDING FOOTPRINT
STREET CANYON AREA

STREET CANYON CALCULATION - LOW ZONE (FROM + 17.5 mPD)

FOR GROUP OF BUILDING (1)

ROAD	STREET CANYON AREA (m²)		LENGTH (m)		MEAN WIDTH OF STREET CANYON (W) (STREET CANYON AREA / LENGTH)
ROAD D9	AREA (A1) = 2950.883	4539.479	46.000	109.374	MEAN WIDTH (W1) = 4539.479 / 109.374 = 41.505m
	AREA (A2) = 1588.596		54.374		
ROAD R5	AREA (B1) = 2928.498		61.5		MEAN WIDTH (W2) = 2928.498 / 61.5 = 34.384m (USED)

MAX. PERMISSIBLE CONTINUOUS PROJECTED FACADE LENGTH Lp(1)

THE LEAST (W) = (W2) = 34.384m

MAX. PERMISSIBLE Lp(1) = 5 x 34.384
= 171.920 m

ACTUAL LP(1) = 103.504m < 171.920 m i.e. (COMPLIED)

FOR GROUP OF BUILDING (2)

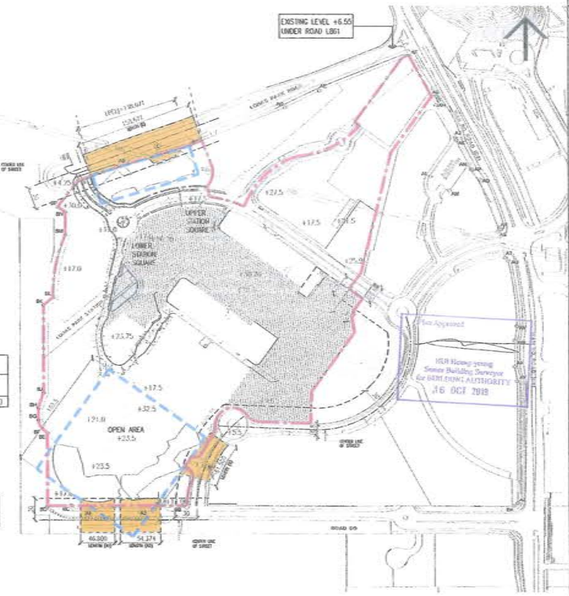
ROAD	STREET CANYON AREA (m²)	LENGTH (m)	MEAN WIDTH OF STREET CANYON (W) (STREET CANYON AREA / LENGTH)
LONG PARK ROAD	AREA (C) = 5849.765	158.671	MEAN WIDTH (W1) = 5849.765/158.671 = 37.057m

MAX. PERMISSIBLE CONTINUOUS PROJECTED FACADE LENGTH Lp(2)

THE LEAST (W) = (W1) = 37.057 m

MAX. PERMISSIBLE Lp(2) = 5 x 37.057
= 185.285 m

ACTUAL LP(2) = 167.671 m < 185.285 m i.e. (COMPLIED)



RECORD PLAN

B. D. COPY

AMENDED PLAN

THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS - BUILDING - IN RESPECT OF WHICH CONSENT IS APPLIED FOR THE PURPOSE OF PART TWELVE CONSENT APPLICATION UNDER REGULATION 23 OF THE BUILDING (PLANNING) REGULATIONS.

L	18-09-2019	11TH AMENDMENT SUBMISSI
K	11-07-2019	10TH AMENDMENT SUBMISSI
J	30-04-2019	9TH AMENDMENT SUBMISSIC
H	11-03-2019	8TH AMENDMENT SUBMISSIC
G	27-12-2018	7TH AMENDMENT RESUBMIS

MARK / 註冊 | DATE / 日期 | AMENDMENT / 修訂

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PROJECT / 工程項目
PROPOSED RETAIL AND RESIDENTIAL DEVELOPMENT AT SITE C1 AND ESTATE ROADS OF TSEUNG KWAN O AREA 86, TSEUNG KWAN O, N.T.-TKOTL 70 R.P.

DRAWING / 圖則
DIAGRAM OF COMPLIANCE TO SBD GUIDELINE (1)

SCALE / 比例	JOB NUMBER / 工程項目號
AS SHOWN @ A0	5138A
DATE / 日期	DRAWING NUMBER / 圖則
03 /2015	C-20
	-[C][D][E][F][G][H][J][K]

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