

Appendix B

Replacement Pages of Revised Traffic Impact Assessment

4.9 Public Transport Assessment

4.9.1 The anticipated population of the Private Housing and family units of the ancillary dormitories of the Indicative Scheme is about 4,368 and 1,070 respectively, while the anticipated working population is 6,207. According to “Travel Characteristics Survey (TCS) 2022” published by Transport Department, the daily mechanised trip rate is 1.69 trips per person, while morning and evening peak hour accounted for about 12% and 14% of the daily trips respectively. For conservative approach, it is hence estimated that the Indicative Scheme would induce 1,287 resident passengers / hour (i.e. $5,438 \times 1.69 \times 0.14$) and 1,469 worker passengers / hour (i.e. $6,207 \times 1.69 \times 0.14$) during the peak period. For conservative approach, a factor of 1.2 is further applied on the peak hour passenger trips (i.e. $1,287 \times 1.2 = 1,545$ & $1,469 \times 1.2 = 1,763$) which deems sufficient to consider the unforeseen growth as well as the non-resident / non-worker users of the R&D Centre, Data Centre, Commercial Centre and kindergarten. The anticipated passenger trips in the peak hour are summarized in **Table 4.9.1**.

Table 4.9.1 Passenger Trips Generation/Attraction of the Indicative Scheme during Peak Period

Development Parameters	Residents	Workers
No. of private residential units & family units in dormitories ⁽¹⁾	2,014 flats	N.A.
Population	5,438 ⁽²⁾	6,207
Peak Hour Passenger Trips	1,545 pax/hr	1,763 pax/hr

Notes:

- (1) Assuming single flats in dormitories will not generate / attract trips to external road network during daily commuting peaks as discussed in Section 3.2
- (2) Average domestic household size of 2.7 is assumed based on the 2021 Population Census in North District

4.9.2 The modal split for residents in North District extracted from Table B203 and C204 under District Council District “North” from 2021 Population Census published by Census and Statistics Department is summarised in **Table 4.9.2**.

Table 4.9.2 Main Mode of Transport to Place of Study and Work in North District

Mode of Transport	Place of Study (from B203)	Place of Work (from C204)	Total	
	Persons	Persons	Persons	%
MTR (Local line)	12,118	46,153	58,271	39.0%
Bus (same district)	4,365	3,535	7,900	5.5%
Bus (another district)	3,873	19,246	23,119	15.5%
On foot only	12,822	11,285	24,107	16.0%
School bus	4,145	-	4,145	3.0%
Public light bus	3,541	7,802	11,343	8.0%
Private car/ Passenger van	3,400	7,887	11,287	7.5%
Company bus/ van	-	3,002	3,002	2.0%
MTR (Light Rail)	-	-	-	-
Taxi	214	711	925	0.5%
Residential coach service	489	580	1,069	0.5%
Ferry/ Vessel	-	18	18	0.0%
Others	888	3,212	4,100	2.5%
Total	45,855	103,431	149,286	100%

4.9.3 With the consideration of the locality of the Application Site, it is assumed that company bus/van, residential coach service, and ferry/vessel are not the available for the residents of the Indicative Scheme, and the associated passenger trips will be evenly distributed into MTR (50%) and bus (25% for same district / 25% for another district).

4.9.4 On the other hand, in order to minimise the disturbance of the residents from private residential developments in the vicinity as well as the border crossing passengers using the existing GMB 59K and 59S services, it is assumed that public light bus is also not available for the residents of the Indicative Scheme, with the consideration that service enhancement of GMB is not efficient due to its low carrying capacity. The associated passenger trips will be evenly distributed into bus (same district) and bus (another district). The adjusted modal split for the Indicative Scheme is summarized in Table 4.9.3.

Table 4.9.3 Adjusted Modal Split for Resident Passengers of the Indicative Scheme

Original Passenger Trip at North District	Adjusted Modal Split for resident passengers of the Indicative Scheme								
	MTR (Local line)	Bus (same district)	Bus (another district)	School bus	Taxi	Private car/ Passenger van	On foot only	Others	Total
MTR (Local line)	58,271								58,271
Bus (same district)		7,900							7,900
Bus (another district)			23,119						23,119
On foot only							24,107		24,107
School bus				4,145					4,145
Public light bus		5,672	5,672						11,343
Private car/ Passenger van						11,287			11,287
Company bus/ van	1,501	751	751						3,002
MTR (Light Rail)	-	0	0						-
Taxi					925				925
Residential coach service	535	267	267						1,069
Ferry/ Vessel	9	5	5						18
Others								4,100	4,100
Total	60,316	14,594	29,813	4,145	925	11,287	24,107	4,100	149,286
Proportion	40.25%	10.00%	20.25%	3.0%	0.5%	7.5%	16.0%	2.5%	100.0%

4.9.5 With the consideration that school bus would not be available for worker passengers, the 3% school bus modal split would be evenly distributed into MTR (50%) and bus (25% for same district / 25% for another district) similar to the adjustment on modal split for residents. The associated passenger demand for resident passengers and worker passengers of the Indicative Scheme in peak hour is estimated in Table 4.9.4.

Table 4.9.4 Estimated Passenger Demand from Indicative Scheme in Peak Hour

Mode of Transport	Residents		Workers	
	Proportion	Passenger Demand (pax/hr)	Proportion	Passenger Demand (pax/hr)
MTR (Local line)	40.25%	622	41.75%	736
Bus (same district)	10.00%	154	10.75%	190
Bus (another district)	20.25%	313	21.00%	370
School bus	3.0%	46	-	-
Taxi	0.5%	8	0.5%	9
Private car/ Passenger van	7.5%	116	7.5%	132
On foot only	16.0%	247	16.0%	282
Others	2.5%	39	2.5%	44
Total	100%	1,545	100%	1,763

- 4.9.6 Although there is no existing franchised bus route operating along the section of Lin Ma Hang Road outside the Application Site, currently there are KMB 73K and KMB 79K operating along Man Kam To Road and Ping Che Road respectively, which are anticipated the major ingress and egress vehicular routes of the Application Site connecting MTR stations in Sheung Shui and Fanling. In order to avoid duplication of public transport services in terms of routings and to better utilise the existing bus resources, the Applicant proposes to 1.) relocate the terminus and extend the bus route of KMB 73K from Man Kam To (San Uk Ling) to the Application Site, and 2.) extend the bus route of KMB 79K to the Application Site, with the terminus maintained at Ta Kwu Ling (Tsung Yuen Ha).
- 4.9.7 Nevertheless, both KMB 73K and 79K are only intra-district bus routes within North. In the consideration of sizable demand of cross-district bus services as shown in **Table 4.9.4**, the Applicant further proposes to 3.) introduce a new franchised bus route (MKT1 hereinafter) running between the Application Site and another district (exact destination to be further discussed in later stage) via Lin Ma Hang Road, Ping Che Road, Sha Tau Kok Road and Lung Shan Tunnel.
- 4.9.8 The proposed routings of extended route of KMB 73K and 79K, as well as new route MKT1 are illustrated in **Figure 4.17**, **Figure 4.18** and **Figure 4.19** respectively. It is anticipated that KMB 73K and 79K would act as feeder services for both MTR passenger demand and intra-district bus passenger demand (i.e. 776 pax/hr for residents, 926 pax/hr for workers), while tentative 73E would cater for cross-district bus passenger demand (i.e. 313 pax/hr for residents, 370 pax/hr for workers) from the Indicative Scheme.
- 4.9.9 Under the proposed routings of extended route of KMB 73K and 79K, the projected travel distance between the Application Site and the nearest Railway Station (i.e. Sheung Shui Station for KMB 73K, Fanling Station for KMB 79K) of KMB 73K and KMB 79K is approx. 8 km and 11 km respectively. Under the observed average speed of respective bus route during peak period in Year 2026 as mentioned in **Table 4.9.12**, the projected journey time of KMB 73K between Sheung Shui Station and the Application Site is 40 mins, while that of KMB 79K is 50 mins between Fanling Station and the Application Site respectively. For assessment purpose, it is assumed the nos. of passengers of KMB 73K and KMB 79K would have a same ratio with their projected journey time, hence 55% of them taking KMB 73K (i.e. $776 \times 55\% = 427$ for residents, $926 \times 55\% = 509$ for workers) and remaining 45% (i.e. $776 - 427 = 349$ for residents, $926 - 509 = 417$ for workers) taking KMB 79K is derived.

- 4.9.10 To identify if there are spare capacity to cope with the passenger demand induced by the Indicative Scheme, current occupancy of KMB 73K and 79K at identified critical bus stops during morning and evening peak periods are surveyed and summarised from **Table 4.9.5** to **Table 4.9.8**, including Sheung Shui Wai / Po Shek Wu Road Sheung Shui and Fung Kai No.1 Secondary School for KMB 73K, Kwan Tei and Fanling Station for KMB 79K.

Table 4.9.5 Observed Bus Occupancy of KMB 73K at Sheung Shui Wai / Po Shek Wu Road Sheung Shui

Hour	Sheung Shui Bound				Man Kam To Bound			
	No. of Bus Trips	Total Capacity*	Total Passengers	Occupancy	No. of Bus Trips	Total Capacity*	Total Passengers	Occupancy
0700 – 0800	4	300	<u>131</u>	44%	4	300	210	70%
0800 – 0900	3	225	103	46%	3	225	161	72%
0900 – 1000	2	150	58	39%	2	150	62	41%
1700 – 1800	3	225	88	39%	3	225	75	33%
1800 – 1900	3	225	109	48%	3	225	104	46%
1900 – 2000	2	150	46	31%	3	225	<u>120</u>	53%

Note:

* Assumed Bus Capacity is 75 passengers per vehicle as single-decked buses are usually employed for KMB 73K

Table 4.9.6 Observed Bus Occupancy of KMB 73K at Fung Kai No.1 Secondary School

Hour	Sheung Shui Bound				Man Kam To Bound			
	No. of Bus Trips	Total Capacity*	Total Passengers	Occupancy	No. of Bus Trips	Total Capacity*	Total Passengers	Occupancy
0700 – 0800	4	300	126	42%	4	300	<u>217</u>	72%
0800 – 0900	3	225	114	51%	3	225	155	69%
0900 – 1000	2	150	49	33%	2	150	70	47%
1700 – 1800	3	225	113	50%	3	225	81	36%
1800 – 1900	3	225	<u>131</u>	58%	3	225	94	42%
1900 – 2000	2	150	40	27%	3	225	110	49%

Note:

* Assumed Bus Capacity is 75 passengers per vehicle as single-decked buses are usually employed for KMB 73K

Table 4.9.7 Observed Bus Occupancy of KMB 79K at Kwan Tei

Hour	Sheung Shui Bound				Man Kam To Bound			
	No. of Bus Trips	Total Capacity*	Total Passengers	Occupancy	No. of Bus Trips	Total Capacity*	Total Passengers	Occupancy
0700 – 0800	5	600	<u>275</u>	46%	2	240	66	28%
0800 – 0900	4	480	165	34%	2	240	<u>118</u>	49%
0900 – 1000	3	360	218	61%	2	240	113	47%
1700 – 1800	2	240	<u>125</u>	52%	3	360	112	31%
1800 – 1900	2	240	74	31%	3	360	193	54%
1900 – 2000	2	240	56	23%	2	240	185	77%

Note:

* Assumed Bus Capacity is 120 passengers per vehicle as double-decked buses are usually employed for KMB 79K

Table 4.9.8 Observed Bus Occupancy of KMB 79K at Fanling Station

Hour	Sheung Shui Bound				Man Kam To Bound			
	No. of Bus Trips	Total Capacity*	Total Passengers	Occupancy	No. of Bus Trips	Total Capacity*	Total Passengers	Occupancy
0700 – 0800	5	600	196	33%	2	240	49	20%
0800 – 0900	4	480	155	32%	2	240	71	30%
0900 – 1000	3	360	151	42%	2	240	56	23%
1700 – 1800	2	240	84	35%	3	360	98	27%
1800 – 1900	2	240	63	26%	3	360	205	57%
1900 – 2000	2	240	36	15%	2	240	190	79%

Note:

* Assumed Bus Capacity is 120 passengers per vehicle as double-decked buses are usually employed for KMB 79K

- 4.9.11 It is considered that the usage of franchised buses is hugely related to planned population and employment within its catchment area. Reference was hence made to 2021-based Territorial Population and Employment Data Matrix (TPEDM) published by Planning Department and “Hong Kong Population Projections 2022 – 2046” which has been derived in **Table 4.2.1**. Nevertheless, **Table 4.9.9** summarizes the estimated and projected population and employment data in 2021, 2026 and 2031 of District Council District (DCD) “North”.

Table 4.9.9 Annual Average Growth Rate of “North” District by TPEDM

	2021 Projection	2026 Projection	2031 Projection	Annual Growth Rate from 2021 to 2031
Population	309,650	352,000	435,550	/
Employment	84,150	104,050	144,850	
TOTAL	393,800	456,050	580,400	3.95%

- 4.9.12 **Table 4.9.9** indicates the annual growth of population and employment in North District is +3.95% p.a.

- 4.9.13 Based on the latest development schedule, KTN / FLN NDA would be under full population intake by Year 2032. For conservative assessment purpose, annual growth factor of +3.95% p.a. for years from 2026 to 2032 and +0.52% p.a. for years from 2032 to 2035 would be applied to the observed highest nos. of franchised bus passengers to forecast the franchised bus passenger demand in Design Year 2035, which deems sufficient to take into account the population and employment increase from KTN / FLN NDA, as well as the natural population growth at North District after full population intake of KTN / FLN NDA.

- 4.9.14 The passenger movement of residents and workers from the Indicative Scheme is anticipated having a mutually exclusive characteristic (i.e. during AM peak, major passenger groups taking public transport to approach the Application Site would be working population of the proposed R&D Centre, Data Centre, Commercial Centre and Kindergarten living outside, while major passenger groups taking public transport to leave the Application Site would be residential population of the private housing development and the family members from the ancillary dormitories, and vice versa during PM peak period). It is hence considered that major passenger trips between residential population and working population would not overlap with each other in the perspective of travel direction (i.e. would

not take the bus towards same direction). As such, resident passenger trips would be distributed into KMB 73K (Sheung Shui bound) (i.e. 427 pax/hr) and KMB 79K (Sheung Shui bound) (i.e. 349 pax/hr) respectively while worker passenger trips would be distributed into KMB 73K (Man Kam To bound) (i.e. 509 pax/hr) and KMB 79K (Ta Kwu Ling bound) (i.e. 417 pax/hr) respectively during AM peak, and vice versa during PM peak.

4.9.15 Similarly, for proposed cross-district bus route MKT1, 313 pax/hr resident passenger trips would be distributed another district bound while 370 pax/hr worker passenger trips would be distributed into the Application Site bound, and vice versa during PM peak.

4.9.16 The highest usage of Sheung Shui bound and Man Kam To/Ta Kwu Ling bound during AM peak and PM peak for KMB 73K and 79K is highlighted in Table 4.9.5 to Table 4.9.8. By adopting the growth rates of +3.95% p.a. for 2026 to 2032 and +0.52% p.a. for 2032 to 2035 into the observed highest nos. of passengers, the estimated passengers demand of KMB 73K and 79K, as well as proposed cross-district bus route MKT1 in Year 2035 were summarised in Table 4.9.10.

Table 4.9.10 Estimated Passenger Demand of KMB 73K and KMB 79K in Year 2035

Bus Route	Peak Period	Direction	2026 Observed Peak Franchised Bus Passenger Demand (pax/hr)	2035 Reference Peak Franchised Bus Passenger Demand (pax/hr)	Additional Public Transport demand by Indicative Scheme (pax/hr) *	2035 Design Peak Franchised Bus Passenger Demand (pax/hr)
KMB 73K	AM	Sheung Shui	131	168	427	595
		Man Kam To	217	278	509	787
	PM	Sheung Shui	131	168	509	677
		Man Kam To	120	154	427	581
KMB 79K	AM	Sheung Shui	275	353	349	702
		Ta Kwu Ling	118	151	417	568
	PM	Sheung Shui	125	160	417	577
		Ta Kwu Ling	205	263	349	612
MKT1	AM	Another District	-		313	313
		Application Site			370	370
	PM	Another District			370	370
		Application Site			313	313

Note:

* Distributed into specific bound as referred to Para. 4.9.12

4.9.17 Based on the above table, it is anticipated that there would be insufficient spare capacity for both KMB 73K and 79K under their respective existing headway. Hence, it is proposed to enhance the service by employing double-decked bus instead of single-decked bus for KMB 73K and increasing the frequency for both KMB 73K and 79K during morning and evening peak period with the corresponding occupancy as summarised in Table 4.9.11. The proposed fleet size associated with the bus enhancement proposal are summarised in Table 4.9.12.

Table 4.9.11 Proposed Bus Enhancement and Associated Occupancy in Year 2035

Bus Route	Peak Period	Direction	Existing Frequency during peak hour (mins)	Proposed Frequency during peak hour (mins)	Proposed No. of Bus Trips during peak hour (bus trips/hr)	Total Capacity* (pax/hr)	2035 Design Peak Franchised Bus Passenger Demand (pax/hr)	Occupancy
KMB 73K	AM	Sheung Shui	15 - 25	6 - 9	8	960	595	62%
		Application Site	10 - 25				787	82%
	PM	Sheung Shui	20 - 25				677	71%
		Application Site	20 - 25				581	61%
KMB 79K	AM	Sheung Shui	15 - 30	8 - 10	7	840	702	84%
		Ta Kwu Ling	30				568	68%
	PM	Sheung Shui	25 - 30				577	69%
		Ta Kwu Ling	25 - 30				612	73%
MKT1	AM	Another District	-	15	4	480	313	65%
		Application Site					370	77%
	PM	Another District					370	77%
		Application Site					313	65%

Note:

* Assumed Bus Capacity is 120 passengers per vehicle

Table 4.9.12 Proposed Fleet Size associated with the Bus Enhancement Proposal in Year 2035

Bus Route	(A) Proposed Frequency during peak hour (mins)	(B) Estimated One-way Traveling Distance under the Proposed Service Extension (km)	(C) Observed Average speed during peak period (km/h)	(D) (=B)/(C)) Estimated One-way Journey Time (mins)	(E) Estimated Round trip Journey Time* (mins)	(F) (=E)/(A)) Proposed Fleet Size
KMB 73K	6 - 9	8	12	40	100	12 - 17
KMB 79K	8 - 10	18	13.5	80	180	18 - 23
MKT1	15	To be confirmed in later stage				

Note:

* Including 10 minutes stacking at each terminus for bus cleaning and bus driver resting

4.9.18 With the proposed bus enhancement of KMB 73K and 79K, as well as proposed cross-district bus route MKT1, it is anticipated that there would be sufficient spare capacities to accommodate the additional passenger demand induced by the Indicative Scheme during morning and evening peak period in year 2035. The associated bus trips have also been distributed into the road network and incorporated into the traffic forecast.

- 4.9.19 Besides, it is proposed to provide transport interchange with 1 no. bus drop-off bay, 4 nos. bus pick-up bays and 12 nos. stacking bays for the proposed existing bus service enhancement underneath the R&D Centre 2, together with a GMB stand to accommodate 3 nos. minibus and 2 nos. taxi stands to accommodate 5 nos. NT taxi and 5 nos. urban taxi in accordance with TPDM requirement, as illustrated in **Figure 4.20**.
- 4.9.20 Charging-enabling facilities for each bus bay (2.5m(L) × 1.5m(W) × 2.6m(H)) and 4 nos. taxi (2 nos. NT taxi & 2 no. urban taxi, 2.5m(L) × 1.5m(W)) in accordance with EPD requirement, as well as a 237.5m² (47.5m(L) × 5m(W)) integrated structure of staff ancillary facilities for bus operators and passenger facilities such as kiosks and toilets in accordance with TPDM requirement has also been incorporated in the proposed transport interchange.
- 4.9.21 Furthermore, two sets of en-route bus stops would be provided outside the Residential Area and Data Centre in order to enhance the efficiency of the proposed feeder services and long-haul services. It is hence anticipated that the accessibility of the Indicative Scheme is considered acceptable, and the Indicative Scheme would not impose adverse impact to existing PT services.
- 4.9.22 On the other hand, in the consideration of introducing taxi fleet and riding-hailing services by the Government recently, the open space between exit lane of the proposed transport interchange and R&D 3 has been reserved for a pick-up / drop-off layby with approx. 32m long for the fleet taxi and riding-hailing vehicles as illustrated in **Figure 4.20**, subject to the actual demand after population intake of the Indicative Scheme.
- 4.9.23 The swept path analysis of 12.8m long bus manoeuvring along the proposed signalized junction of Lin Ma Hang Road / Proposed Access Road is presented from **Figure 3.7** to **Figure 3.9**, while the swept path analysis of 12.8m long bus manoeuvring between the proposed transport interchange and the en-route bus stops is presented in **Figure 4.21**.
- 4.9.24 On the other hand, the swept path analysis of 12.8m long bus manoeuvring along each bus bay and stacking bay is presented from **Figure 4.22** to **Figure 4.27**, the swept path analysis of 7.73m long minibus manoeuvring along the GMB stand is presented in **Figure 4.28**, and the swept path analysis of 5m long taxi manoeuvring along the taxi stands is presented in **Figure 4.29**.

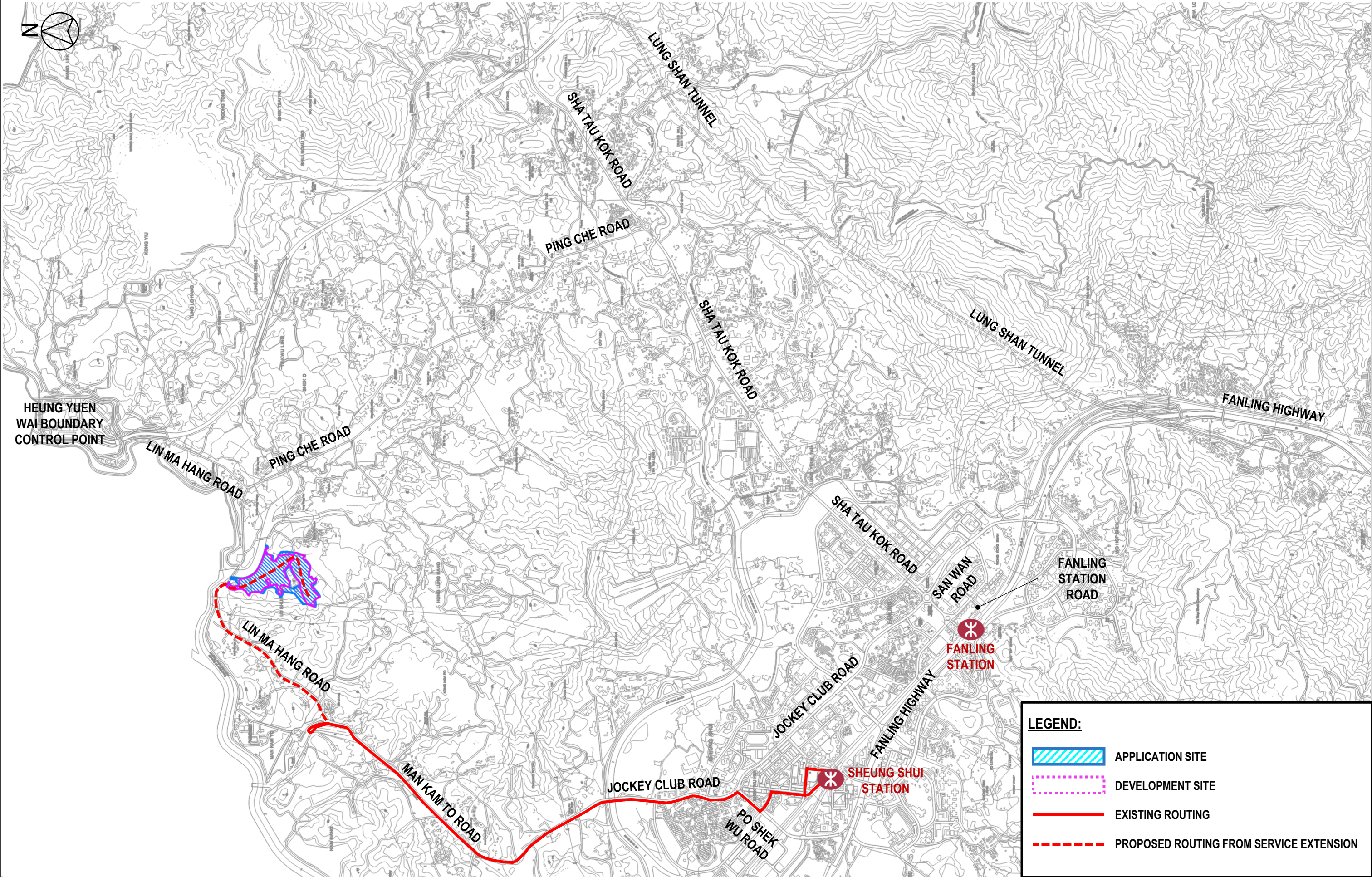
4.10 Railway Assessment

- 4.10.1 According to “Replies to initial questions raised by Legislative Council Members in examining the Estimates of Expenditure 2026-27” Reply Serial No. TLB187¹, the highest passenger loading of a railway line usually occurs during the morning peak hours, while the peak loading in the evening peak period is usually lower as the travelling pattern of passengers is relatively more dispersed. As such, when evaluating the most crowded scenario and the service demand for individual railway lines, the MTR Corporation Limited (MTRCL) will mainly base on the passenger loading during the morning peak hours.

¹ Source: Replies to initial questions raised by Legislative Council Members in examining the Estimates 2026-27, Transport and Logistics Bureau (https://www.legco.gov.hk/yr2026/english/fc/fc/w_q/tlb-e.pdf)

- 4.10.2 According to the aforementioned Reply Serial No. TLB187, the record patronage of East Rail Line (EAL) on the critical link (Tai Wai to Kowloon Tong) during the busiest one hour in the morning, per direction, was 44,400 passengers in Year 2025.
- 4.10.3 Similar to franchised buses, it is considered that the usage of EAL is hugely related to planned population and employment within its catchment area, hence the same growth factors (i.e. +3.95% p.a. for years from 2025 to 2032 and +0.52% p.a. for years from 2032 to 2035), as discussed in **Section 4.9.10** and **Section 4.9.11**, would be applied to the Year 2025 recorded patronage to forecast railway demand in Design Year 2035 for conservative assessment purpose.
- 4.10.4 The forecasted morning peak hourly patronage for the EAL critical link in 2035 would be $44,400 \times (1+3.95\%)^{(2032-2025)} \times (1+0.52\%)^{(2035-2032)} = 59,100$ passengers.
- 4.10.5 According to the aforementioned Reply Serial No. TLB187, the existing carrying capacity of EAL during peak period is 62,500 passengers per hour per direction, which is based on 6 persons (standing) per square metre (ppsm). The capacity of trains is 2,845 at 6 ppsm and 2,061 at 4 ppsm, which indicates that the carrying capacity at 4 ppsm is 72.4% of that at 6 ppsm, i.e., $62,500 \times 72.4\% = 45,275$. For conservative approach, carrying capacity under 4 ppsm would be adopted. Provided that the forecast 2035 peak-hour demand (59,100 passengers) would exceed the existing carrying capacity at 4 ppsm (45,275 passengers), it is anticipated that the EAL would be overloaded already, regardless of the additional population intake from the Indicative Scheme. Hence, enhancement of train frequency would be required.
- 4.10.6 According to the same Reply Serial No. TLB187, when train frequency is maximised, the maximum hourly carrying capacity of EAL would increase to 82,500 at 6 ppsm, which is equivalent to $82,500 \times 72.4\% = 59,765$ for 4 ppsm. The corresponding usage during morning peak hour in 2035 would be $59,100 / 59,765 = 98.89\%$, which indicates that there would still be ample capacity of $1 - 98.89\% = 1.11\%$ under maximum train frequency operation for 4 ppsm.
- 4.10.7 As derived in **Table 4.9.4**, the anticipated additional EAL passenger generated by the Indicative Scheme would be 622 residents towards Admiralty bound per hour, which is equivalent to about 1.04% ($622 / 59,765$) of the maximum carrying capacity. With the identified ample capacity for EAL of 1.11% during morning peak hour, it can be concluded that the MTR passenger demand induced by the Indicative Scheme could be properly catered by EAL under maximum carrying capacity and thus no adverse railway impact would be induced by the Indicative Scheme. The actual frequency enhancement may not be necessary to reach the maximum carrying capacity, subjected to the future operational need.

Figures



Job Title **APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES**

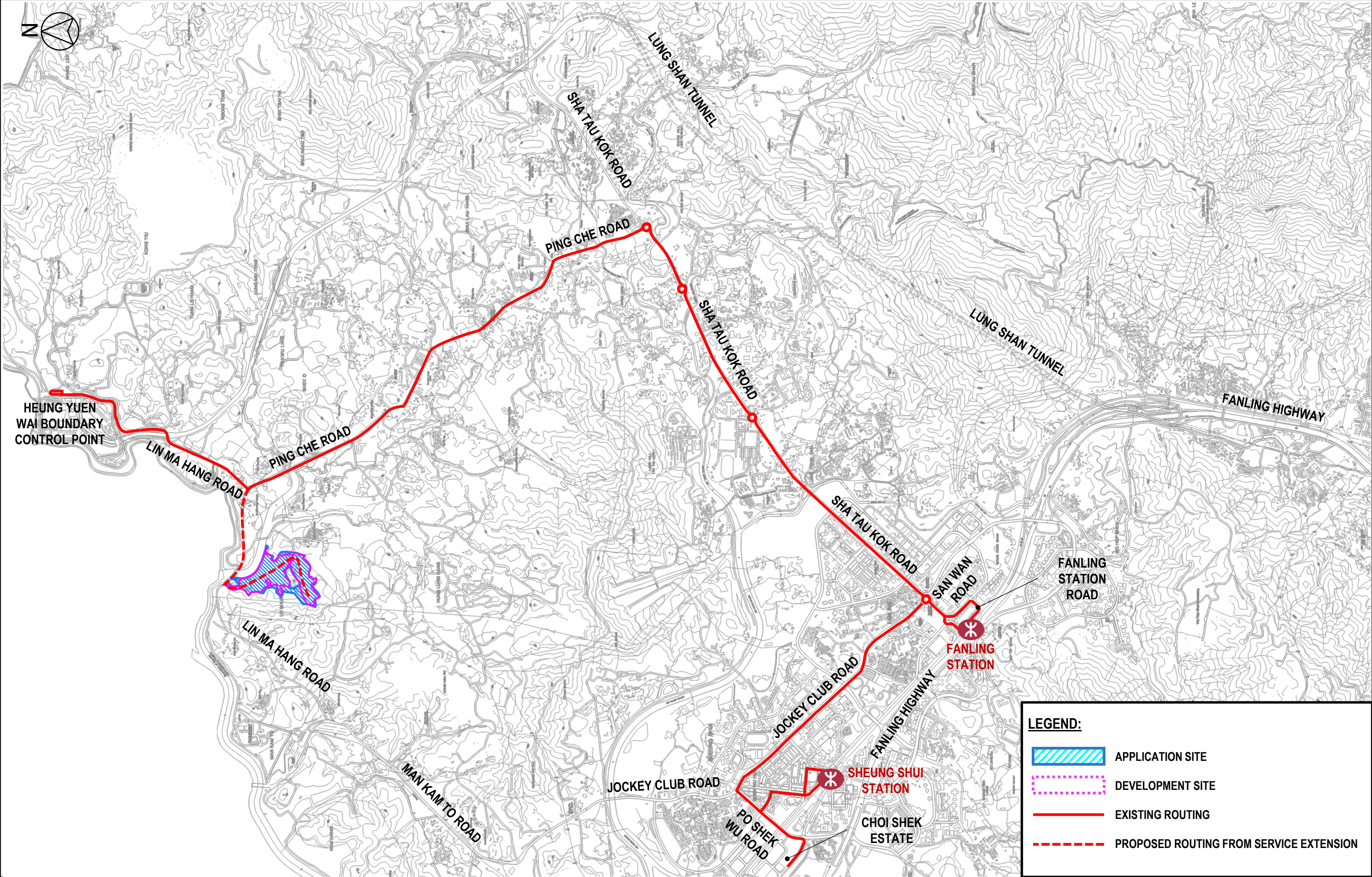
FIGURE 4.17

Date	Scale
JULY 26	NTS
Drawn	Job No.
CKTY	287082-72

Drawing Title

PROPOSED ROUTING OF KMB 73K FOR SERVICE EXTENSION TO THE APPLICATION SITE





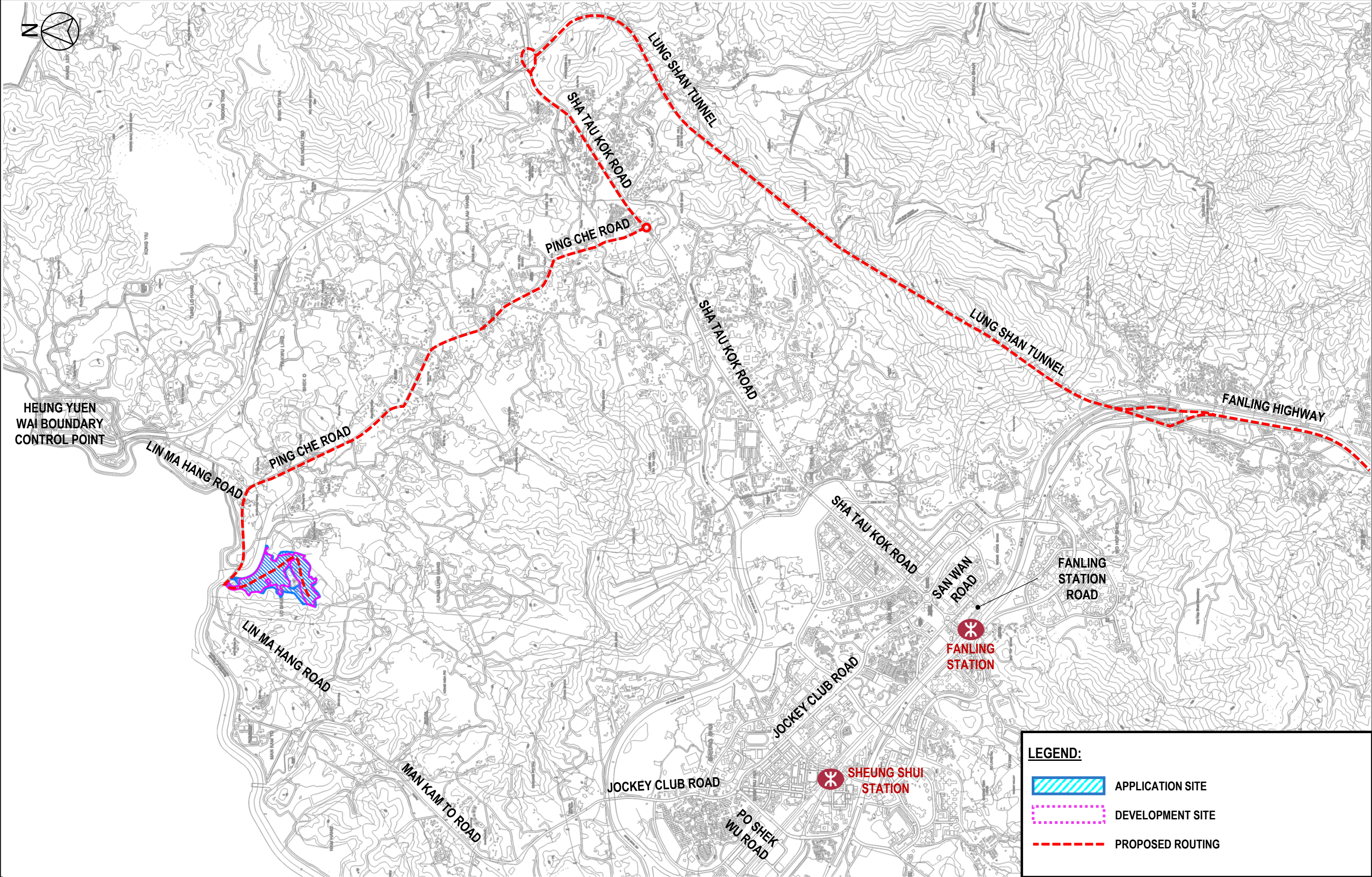
Job Title APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES

FIGURE 4.18

Date	Scale
JULY 26	NTS
Drawn	Job No.
CKTY	287082-72

Drawing Title PROPOSED ROUTING OF KMB 79K FOR SERVICE EXTENSION TO THE APPLICATION SITE





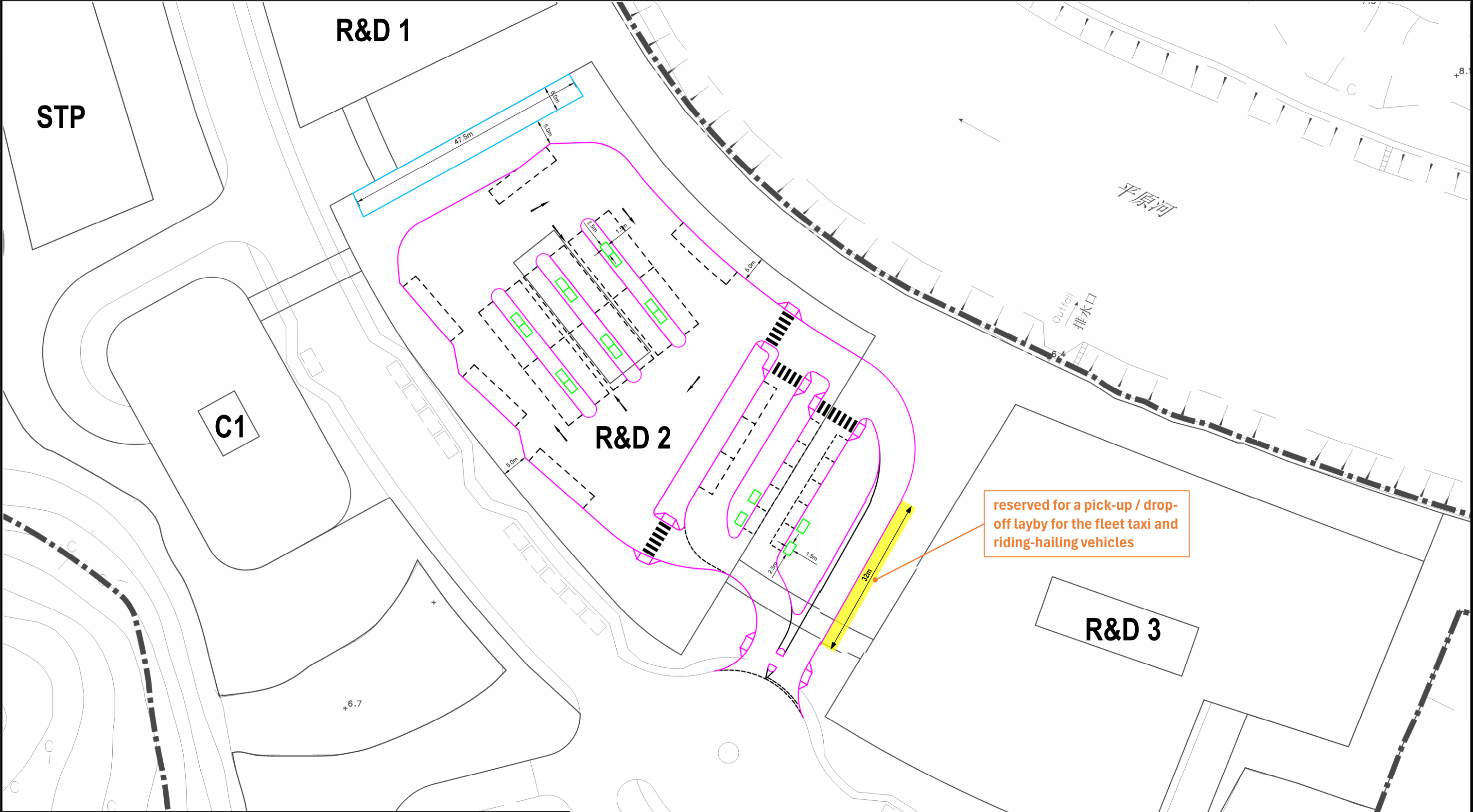
Job Title APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES

FIGURE 4.19

Date	Scale
JULY 26	NTS
Drawn	Job No.
CKTY	287082-72

PROPOSED ROUTING OF PROPOSED CROSS-DISTRICT FRANCHISED BUS ROUTE MKT1





LEGEND:

STAFF ANCILLARY FACILITIES FOR BUS OPERATORS AND PASSENGER FACILITIES

CHARGING-ENABLING FACILITIES

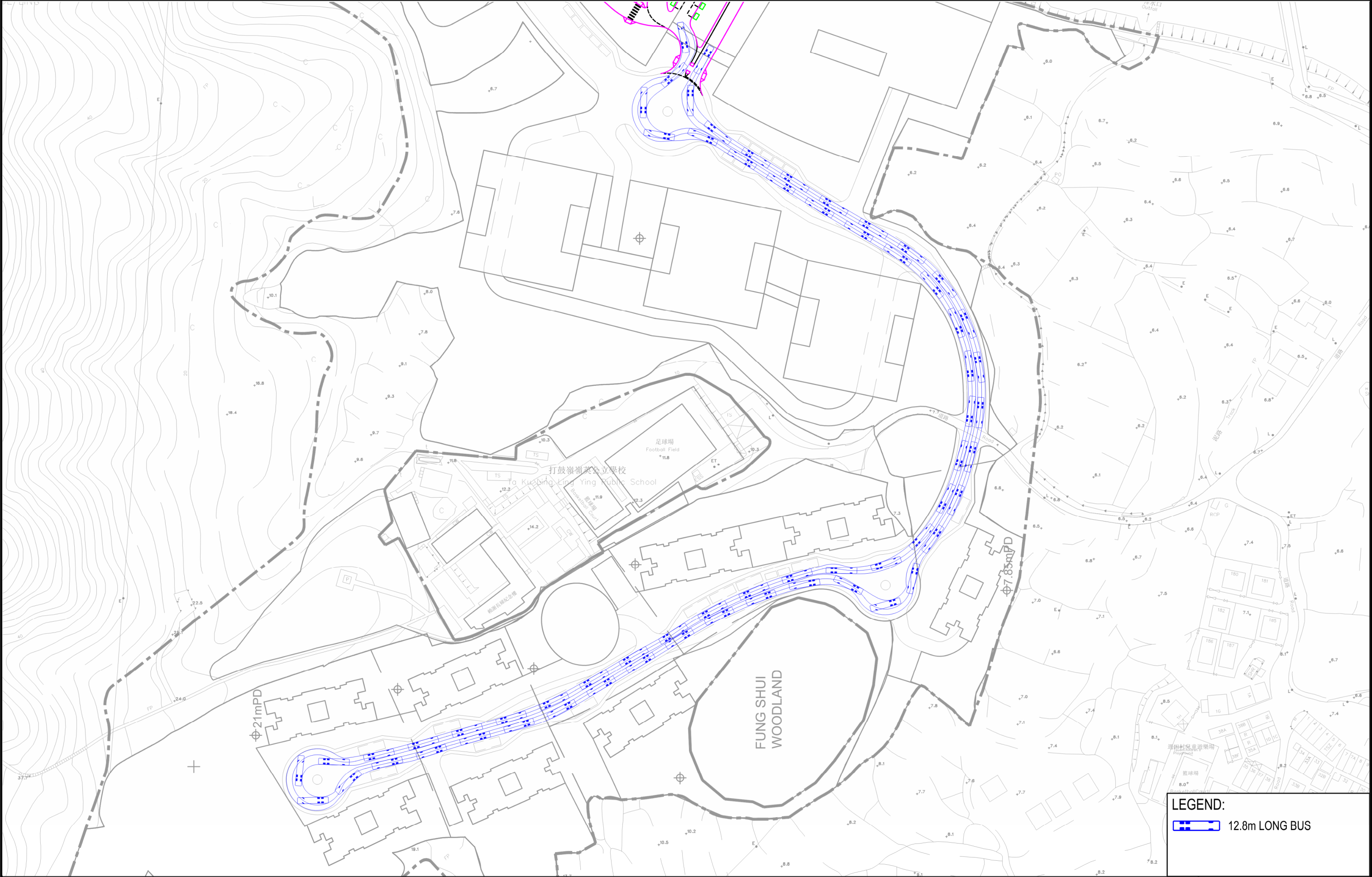
Job Title APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES

FIGURE 4.20

Date	Scale
JULY 26	NTS
Drawn	Job No.
CKTY	287082-72

PROPOSED LAYOUT OF TERMINATING FACILITIES





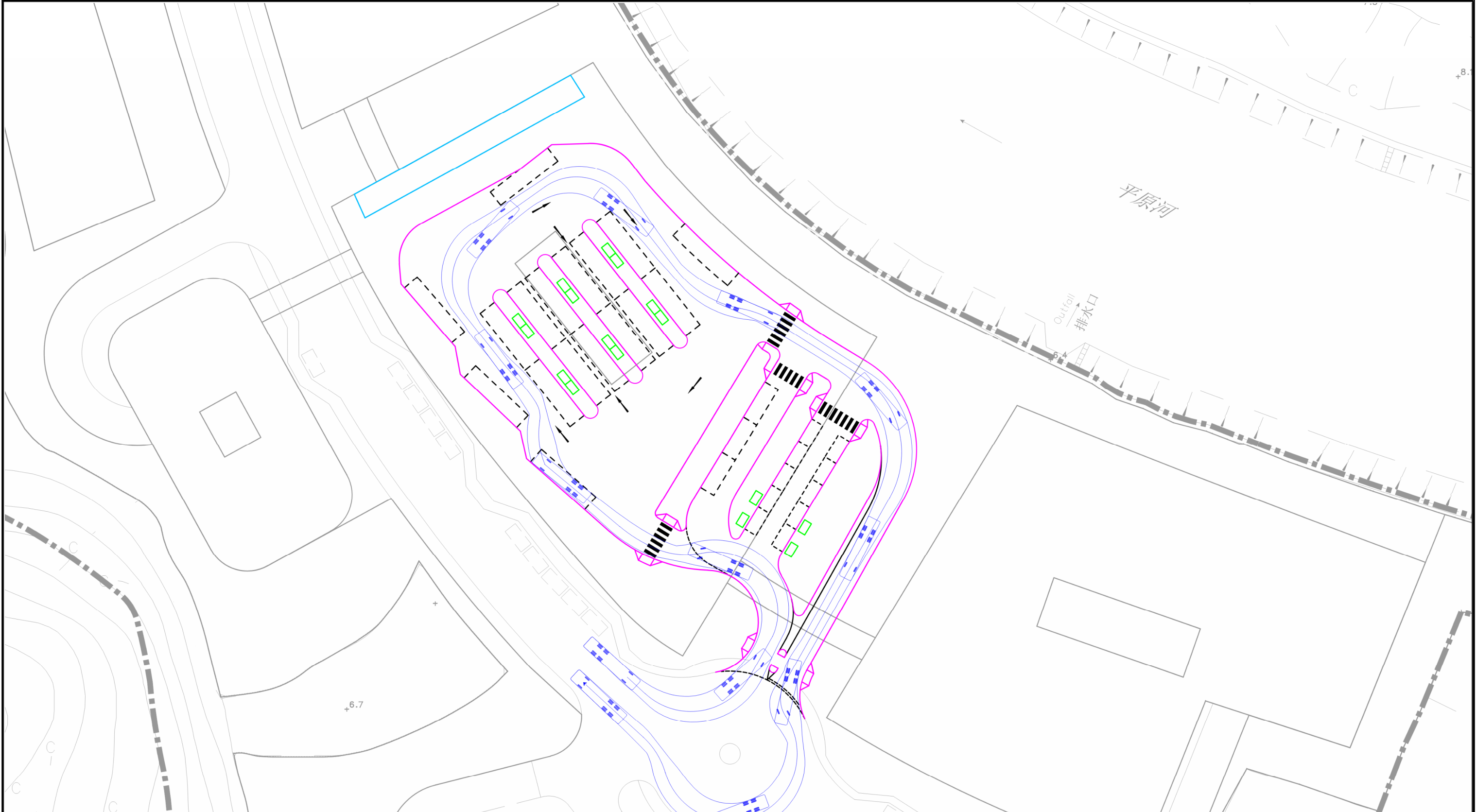
LEGEND:

12.8m LONG BUS

Job Title			APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES		
Date	Scale	Drawing Title			
JULY 26	NTS	SWEPT PATH ANALYSIS OF 12.8m LONG BUS BETWEEN THE PROPOSED TRANSPORT INTERCHANGE AND THE EN-ROUTE BUS STOPS			
Drawn	Job No.				
CKTY	287082-72				

FIGURE 4.21

ARUP



LEGEND:

STAFF ANCILLARY FACILITIES FOR BUS OPERATORS AND PASSENGER FACILITIES

CHARGING-ENABLING FACILITIES

LEGEND:

12.8m LONG BUS

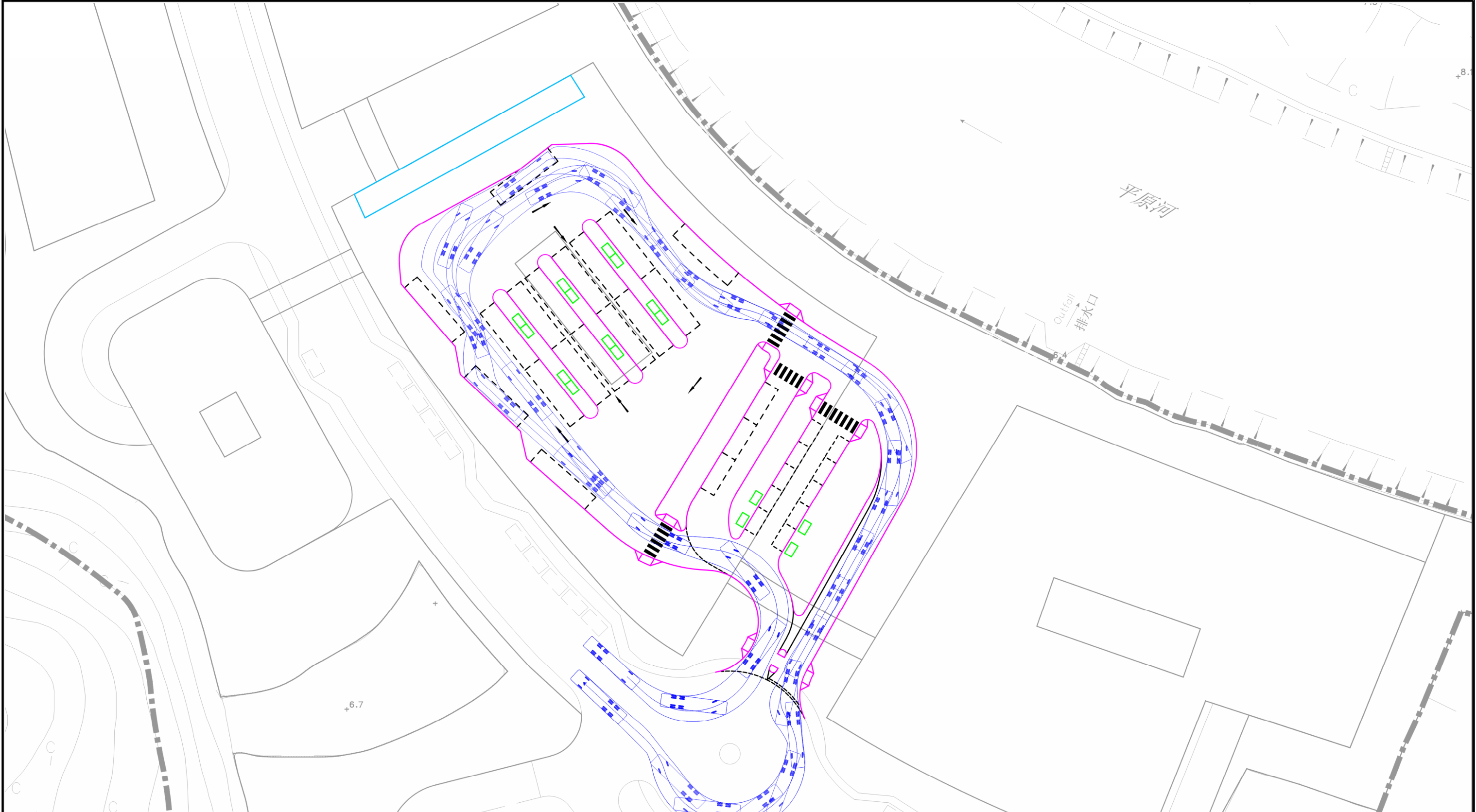
Job Title APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES

FIGURE 4.22

Date	Scale
JULY 26	NTS
Drawn	Job No.
CKTY	287082-72

SWEPT PATH ANALYSIS OF 12.8m LONG BUS FROM INTERNAL DRIVEWAY APPROACHING BUS DROP-OFF BAY





LEGEND:

 STAFF ANCILLARY FACILITIES FOR BUS OPERATORS AND PASSENGER FACILITIES

 CHARGING-ENABLING FACILITIES

LEGEND:

 12.8m LONG BUS

Job Title APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES

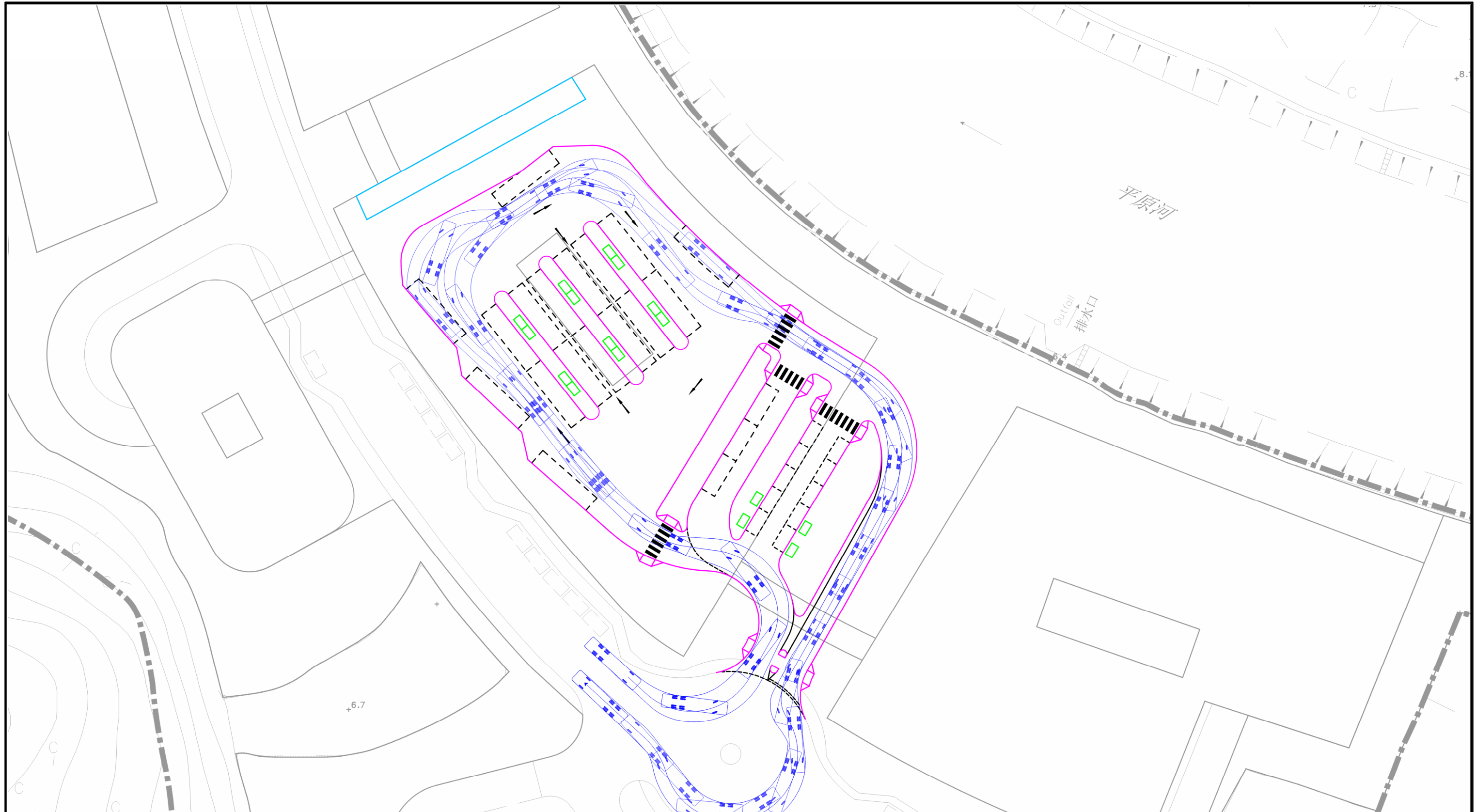
FIGURE 4.23

Date	Scale
JULY 26	NTS
Drawn	Job No.
CKTY	287082-72

Drawing Title

SWEPT PATH ANALYSIS OF 12.8m LONG BUS FROM INTERNAL DRIVEWAY APPROACHING BUS PICK-UP BAY 1, 3





LEGEND:

-  STAFF ANCILLARY FACILITIES FOR BUS OPERATORS AND PASSENGER FACILITIES
-  CHARGING-ENABLING FACILITIES

LEGEND:

-  12.8m LONG BUS

Job Title APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES

FIGURE 4.24

Date
JULY 26

Scale
NTS

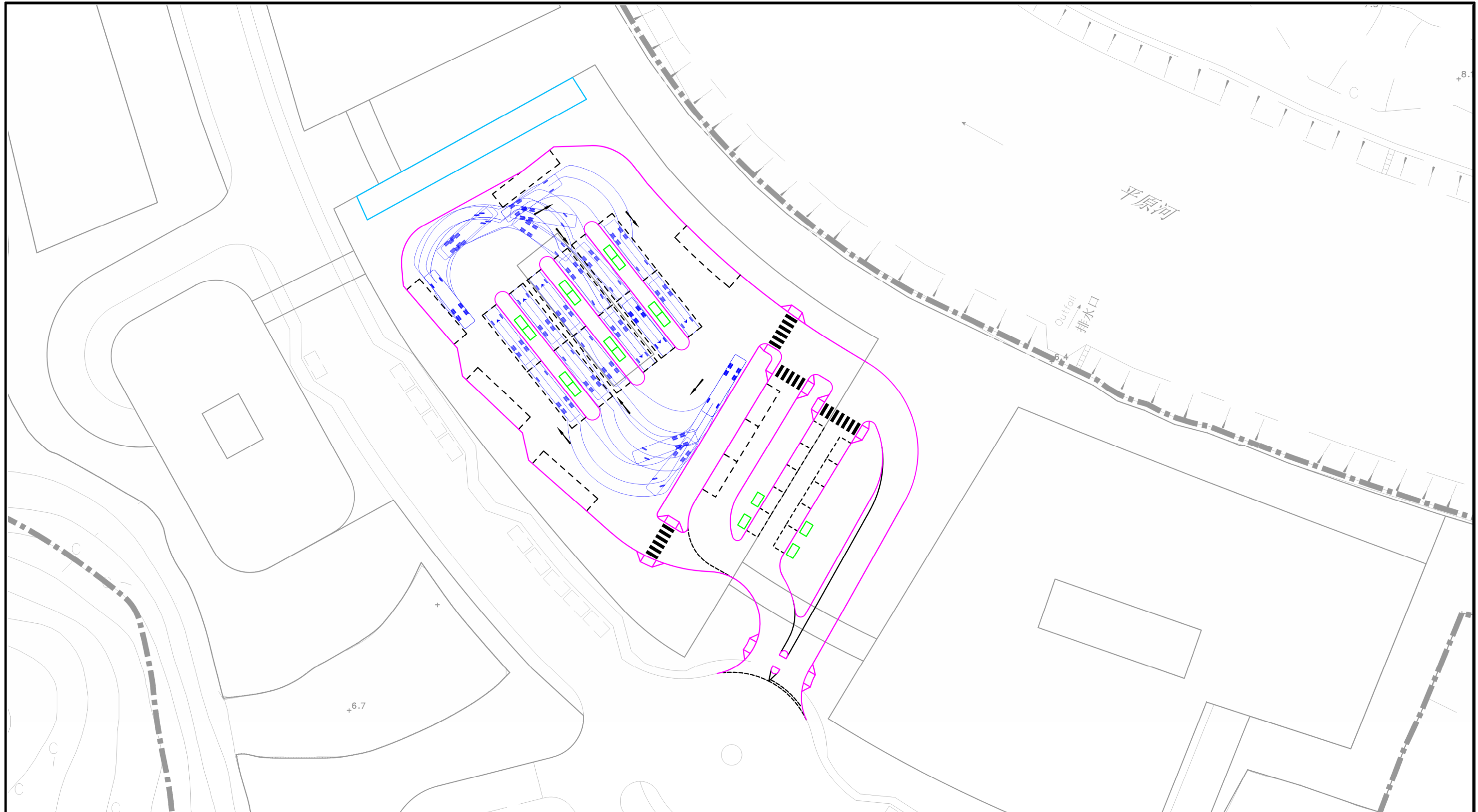
Drawing Title

Drawn
CKTY

Job No.
287082-72

SWEPT PATH ANALYSIS OF 12.8m LONG BUS FROM INTERNAL DRIVEWAY APPROACHING BUS PICK-UP BAY 2, 4

ARUP



LEGEND:

- STAFF ANCILLARY FACILITIES FOR BUS OPERATORS AND PASSENGER FACILITIES
- CHARGING-ENABLING FACILITIES

LEGEND:

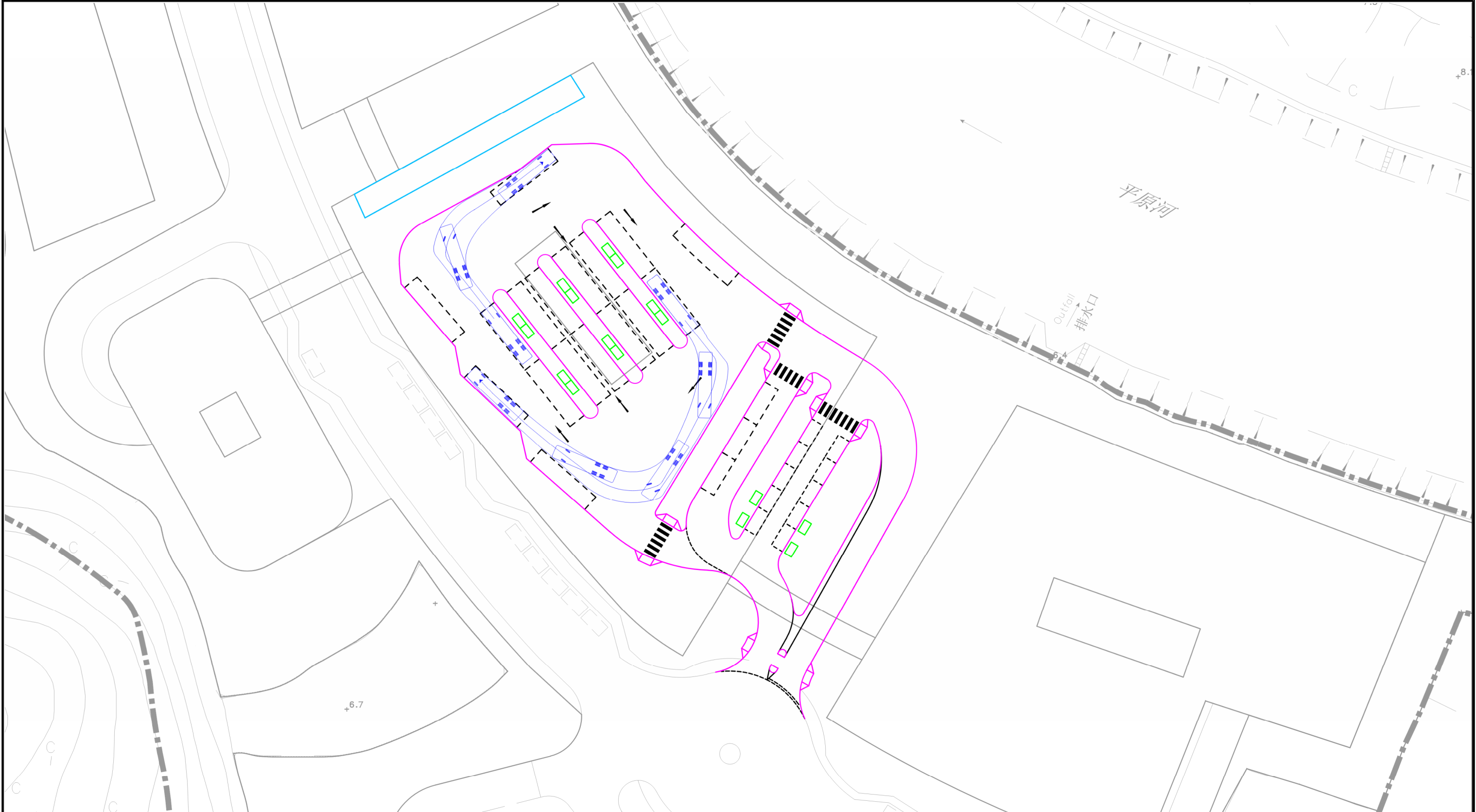
- 12.8m LONG BUS

Job Title APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES

FIGURE 4.25

Date JULY 26	Scale NTS	Drawing Title SWEPT PATH ANALYSIS OF 12.8m LONG BUS APPROACHING BUS STACKING AREA
Drawn CKTY	Job No. 287082-72	

ARUP



LEGEND:

 STAFF ANCILLARY FACILITIES FOR BUS OPERATORS AND PASSENGER FACILITIES

 CHARGING-ENABLING FACILITIES

LEGEND:

 12.8m LONG BUS

Job Title APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES

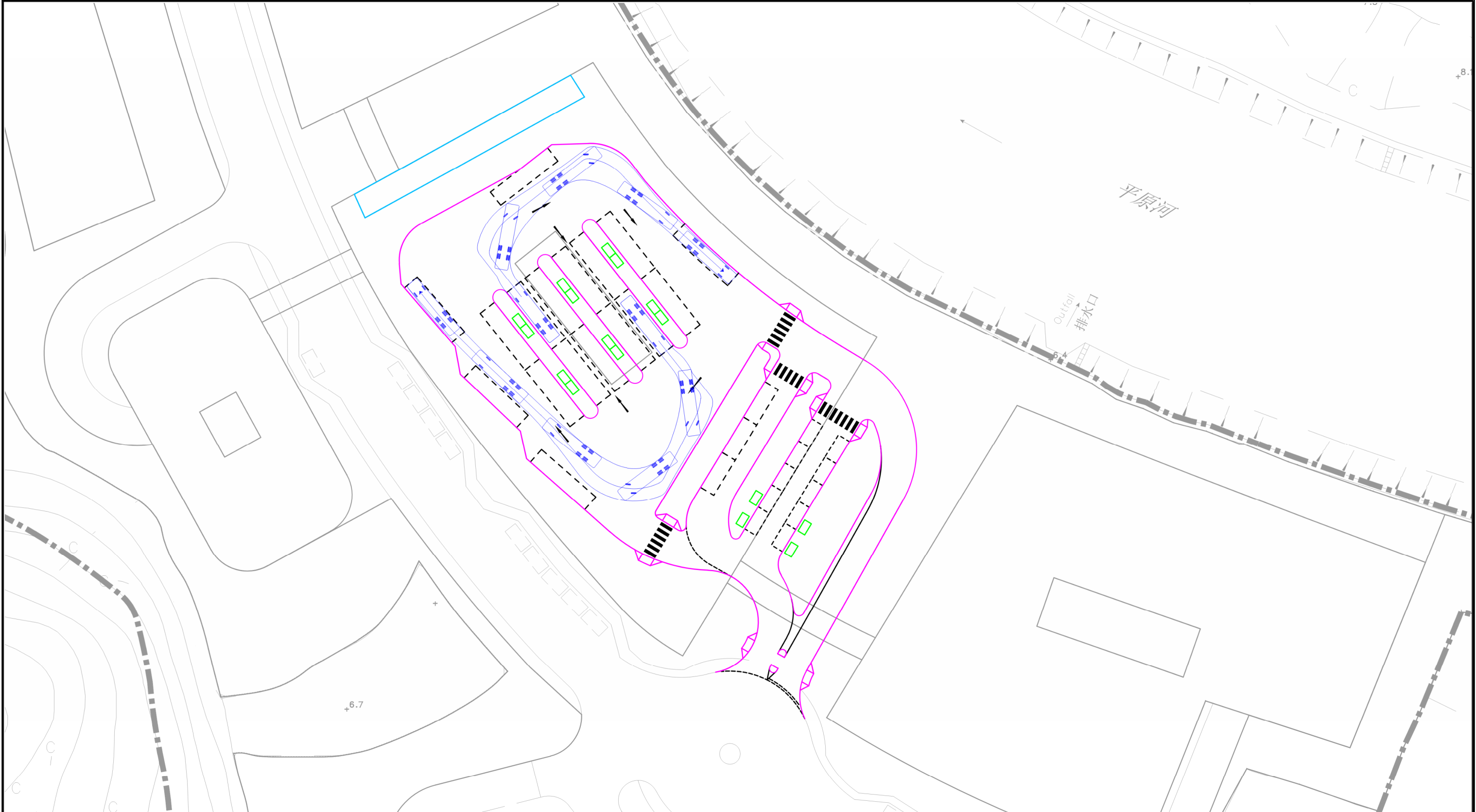
FIGURE 4.26

Date	Scale
JULY 26	NTS
Drawn	Job No.
CKTY	287082-72

Drawing Title

SWEPT PATH ANALYSIS OF 12.8m LONG BUS FROM BUS STACKING AREA APPROACHING BUS PICK-UP BAY 1, 3





LEGEND:

STAFF ANCILLARY FACILITIES FOR BUS OPERATORS AND PASSENGER FACILITIES

CHARGING-ENABLING FACILITIES

LEGEND:

12.8m LONG BUS

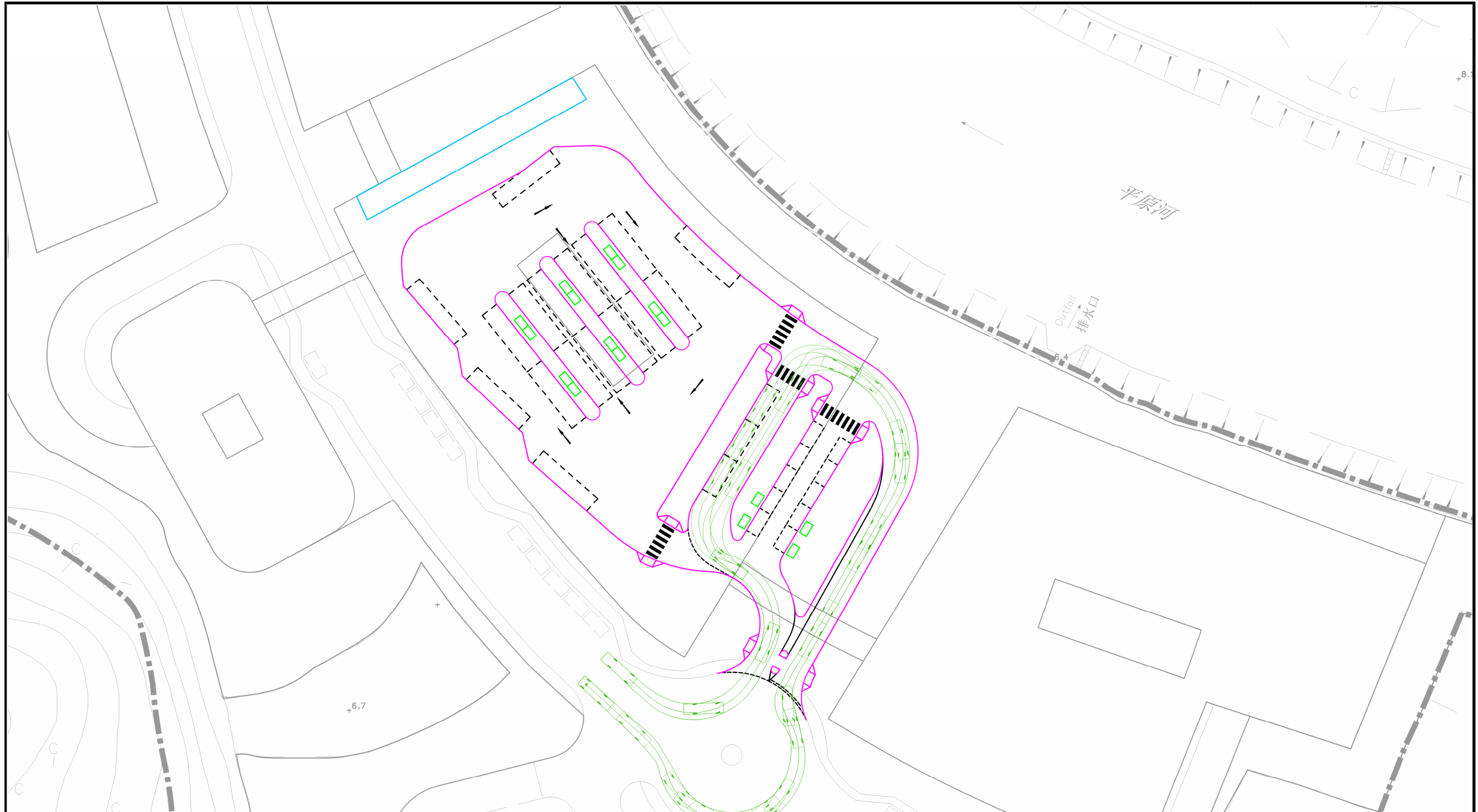
Job Title **APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES**

FIGURE 4.27

Date	Scale
JULY 26	NTS
Drawn	Job No.
CKTY	287082-72

Drawing Title **SWEPT PATH ANALYSIS OF 12.8m LONG BUS FROM BUS STACKING AREA APPROACHING BUS PICK-UP BAY 2, 4**





LEGEND:

 STAFF ANCILLARY FACILITIES FOR BUS OPERATORS AND PASSENGER FACILITIES

 CHARGING-ENABLING FACILITIES

LEGEND:

 7.73m LONG GMB

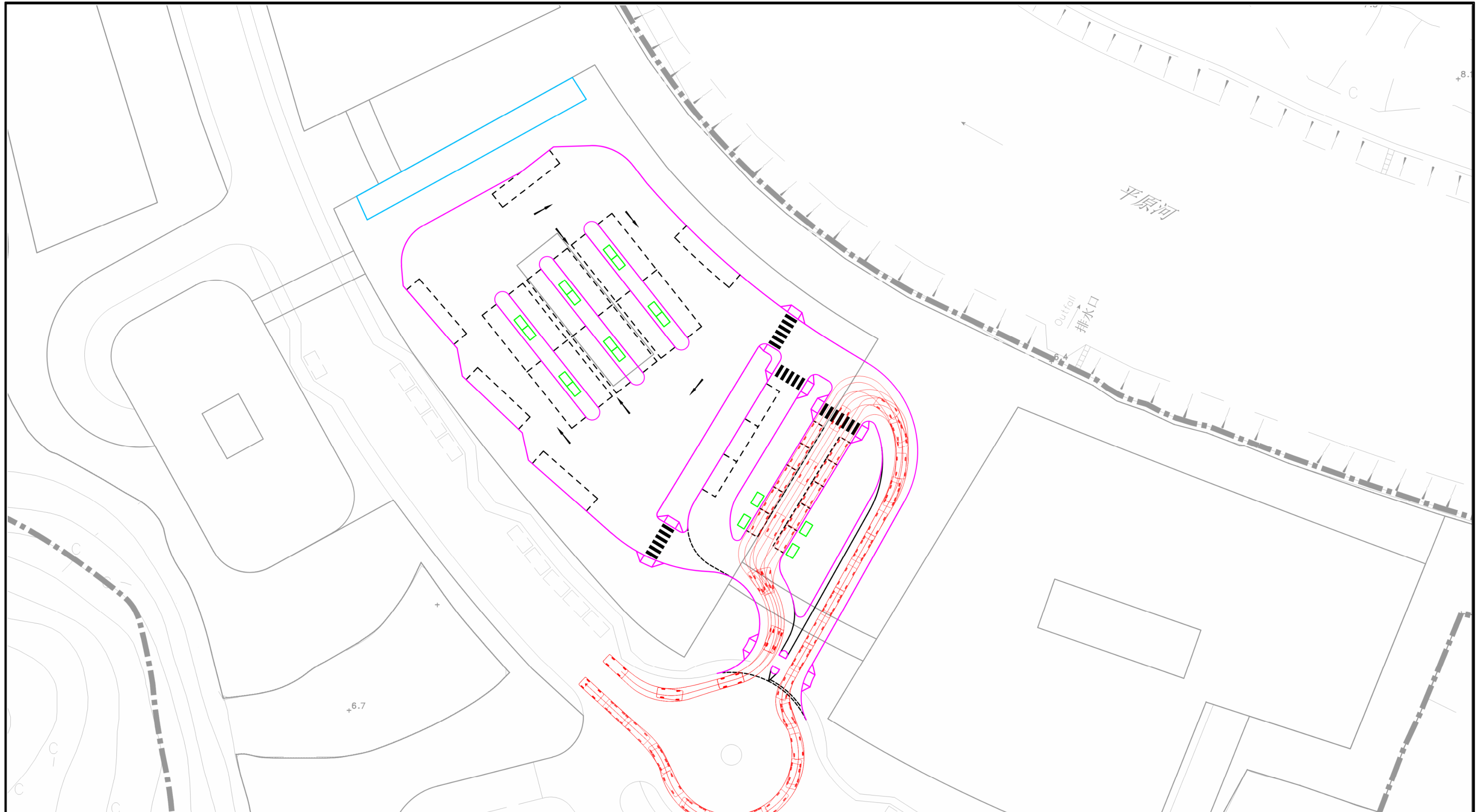
Job Title APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES

FIGURE 4.28

Date	Scale
JULY 26	NTS
Drawn	Job No.
CKTY	287082-72

SWEPT PATH ANALYSIS OF 7.73m LONG MINIBUS ON GMB STAND





LEGEND:

- STAFF ANCILLARY FACILITIES FOR BUS OPERATORS AND PASSENGER FACILITIES
- CHARGING-ENABLING FACILITIES

LEGEND:

- 5m LONG TAXI

Job Title APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED INNOVATION AND TECHNOLOGY HUB AT VARIOUS LOTS IN D.D. 82 AND D.D. 86 AND ADJOINING GOVERNMENT LAND, MAN KAM TO, NEW TERRITORIES

FIGURE 4.29

Date JULY 26	Scale NTS
Drawn CKTY	Job No. 287082-72

SWEPT PATH ANALYSIS OF 5m LONG TAXI ON TAXI STANDS

ARUP