For information on 30 October 2014

LanDAC TTSC Paper No. 03/2014

Lantau Development Advisory Committee Traffic and Transport Subcommittee

An Overview of the Current Road Network in Lantau and the Major Road Improvement Project Completed in Recent Years

PURPOSE

This paper presents the current road network, major road works completed in recent years and the future road network development in Lantau to the members of the Traffic and Transport Subcommittee ("TTSC") under the Lantau Development Advisory Committee ("LanDAC").

CURRENT ROAD NETWORK

Prior to the commissioning of the Hong Kong International Airport at Chek Lap Kok and other related roads and railway infrastructures in 1997, Lantau's population mainly resided in Mui Wo, Tai O and Discovery Bay. Ferries and kaitos were their only choices for external transport. Since Lantau was still a rural area at that time, its road network design, different from urban roads, was a rural type and catered for low traffic demand. As such, all the roads on Lantau were designated by the Transport Department ("TD") as closed roads for access by local residents and business operators only. Main roads on Lantau at that time included Discovery Bay Road, South Lantau Road, Tung Chung Road, Keung Shan Road and Tai O Road. For South Lantau, South Lantau Road, Keung Shan Road and Tai O Road were the main accesses, which connected from Mui Wo to Tai O and villages along the roads. For residents in Tung Chung, they had to travel to South Lantau Road via Tung Chung Road, which was a single track access for two-way traffic with a width mostly of about 3.5 metres, before heading to other areas. The road network of Lantau in 1995 is given in Annex 1 with blue lines and pink lines representing main roads and village roads respectively.

- 3. With the relocation of the Hong Kong International Airport to North Lantau and the successive completion of Tung Chung New Town, Tsing Ma Bridge (including Tung Chung Line and Airport Express Line of Mass Transit Railway), Kap Shui Mun Bridge and North Lantau Highway, were also completed which linked the North Lantau and the urban areas of Hong Kong through highways and railways. These infrastructures facilitated the continued development of Lantau. In the past decade, the road network in South Lantau, including Tung Chung Road, South Lantau Road, Keung Shan Road, Tai O Road, Ngong Ping Road and Sham Wat Road has been improved progressively for the convenience of local residents travelling from and to villages in Mui Wo and Tai O, etc. (See Annex 2). Details of the road improvement works in South Lantau carried out during the past decade are listed as follows:
- Improvement works to Tung Chung Road
- Improvement works to Ngong Ping Road and Ngong Ping Bus Terminus
- Improvement works to Tai O Bus Station
- Road improvement works along Keung Shan Road and South Lantau Road

IMPROVEMENT WORKS TO TUNG CHUNG ROAD

Improvement works to Tung Chung Road began in June 2004 and the improved road was fully opened to traffic in February 2009. completion of the works, the original single track access for two-way traffic with a width mostly of about 3.5 m was upgraded into a single-2-lane carriageway with a width of 7.3 m. The improvement works has increased the capacity of Tung Chung Road, the TD has also implemented appropriate measures at different sections of Tung Chung Road with regard to the geographical environment to enhance road safety. The measures include provision of high containment safety barriers, appropriate road markings and passing bays at suitable locations along the road. Current alignment of Tung Chung Road and the related traffic measures are shown at Annex 3. A layout plan of the improvement works on a section of Tung Chung Road between Lung Tseng Tau and Cheung Sha is attached at Annex 4. The total length of Tung Chung Road is about 8 km now and its annual average daily traffic flow is 3 690 vehicles. As the designed capacity of Tung Chung Road is about 10 000 vehicles a day, there would be some spare capacity to cope with the

vehicular demand.

- 5. Since the road conditions of Tung Chung Road had been greatly improved upon its full opening, the TD –
- decided to relax the speed limit of Tung Chung Road in 2009 from 30 km/h to 50 km/h (northern section from 9 April 2009 onwards; southern section from 17 July 2009 onwards);
- rescinded the prohibited zone on some sections of Tung Chung Road in June 2010 but Tung Chung Road south of Shek Mun Kap Road and all roads in south Lantau were still remained as closed roads. Subject to the conditions stipulated on the Lantau Closed Road Permit, permit holders could use Tung Chung Road 24 hours a day; and
- designated two existing sections of Tung Chung Road as prohibited zones in April 2011.
- 6. South Lantau has been designated as a conservation area. Although the capacity of Tung Chung Road has increased upon completion of the improvement works, on the premise of natural conservation, the TD maintains the arrangements of Lantau Closed Road Permit. For more details, please refer to Paper No. 05/2014 "Traffic and Transport Arrangements and Measures Put in Place in accordance with the Current Planning Intention for Lantau: South Lantau Closed Roads".

IMPROVEMENT WORKS TO NGONG PING ROAD AND NGONG PING BUS TERMINUS

- 7. Ngong Ping Road was once a village road. With the development of Lantau, it has been turned into a single-2-lane carriageway with a width of 7.3 m to facilitate coaches accessing to different tourist attractions. Please refer to Annex 5 for the road conditions of Ngong Ping Road.
- 8. Ngong Ping Bus Terminus was previously located at a vacant site outside the Po Lin Monastery where the old Ngong Ping bazaar was situated. It was extended in 1993 outside the "pai lau" of the Po Lin Monastery. Subsequently, the Ngong Ping Public Transport Interchange was completed in 2006 to align with the construction of Ngong Ping 360 and the improvements to the tourist facilities in Ngong Ping. This Public Transport Interchange also provides

parking spaces for motorcycles, private cars, taxis, public buses and coaches, as shown in Annex 6 and Annex 7.

IMPROVEMENT WORKS TO TAI O BUS TERMINUS

9. With the development of Tai O, it has been increasing public demand for coach parking spaces in Tai O. To complement and facilitate the growth in tourism as far as possible, the TD coordinated the construction of a car park in Tai O in 2011 for the parking of coaches and goods vehicles. A total of 9 coach and 7 goods vehicle parking places are provided at the car park, as shown in Annex 8.

ROAD IMPROVEMENT WORKS ALONG KEUNG SHAN ROAD AND SOUTH LANTAU ROAD

- 10. According to our records, the length of Keung Shan Road and South Lantau Road are about 4.4 km and 15 km respectively, and both with a width of 6.8 m. The annual average daily vehicular flow at the section of Keung Shan Road between Sham Wat Road and Tai O Bus Terminus is 1 120 vehicles, while the flow at the section of Keung Shan Road and South Lantau Road between Sham Wat Road and Mui Wo is about 2 700 vehicles. Since the designed vehicular capacity of Keung Shan Road and South Lantau Road is 8 000 vehicles per day, there is still spare capacity for these two roads to meet the traffic demand. The traffic accident rate of these two road sections are approximately the same as other roads in Hong Kong.
- 11. As shown from the above, Keung Shan Road and South Lantau Road can basically cope with the traffic demand in the district. Nevertheless, the TD has been striving to improve the traffic condition of the roads in South Lantau in the past few years and arranged road improvement works for several road sections in South Lantau Road and Keung Shan Road after review. Among these works, 8 road bends have been widened and some improvement works are still in progress or under planning. Location plans of the road improvement works at Keung Shan Road and South Lantau Road are attached in Annex 9 and Annex 10 respectively. Meanwhile, additional bus bays would be provided at bus stops as far as practicable to further improve traffic flow.

12. In recent years, there are some suggestions for full widening and straightening of Keung Shan Road. However, since both sides of the entire Keung Shan Road are slopes with dense clustering of trees and underground utilities, there will be many technical difficulties in planning and implementing road improvement works. Moreover, as quite a number of the works will be carried out at the Lantau country park area, many trees and the natural ecology of the area will be affected. Given that the current vehicular flow of Keung Shan Road is not high and South Lantau is still primarily a conservation area, there is no sufficient ground for full widening and straightening of Keung Shan Road at this stage. The TD will continue to closely monitor the utilisation of Keung Shan Road and South Lantau Road and take appropriate measures to improve the traffic as and when necessary and practicable.

FUTURE NETWORK DEVELOPMENT

- 13. The traffic network of Lantau would be enhanced with the continued development of the island. According to the existing planning, the following major development projects will be undertaken in Lantau:
- Tung Chung New Town Extension
- Hong Kong-Zhuhai-Macao Bridge
- Improvement Works at Tai O
- Improvement Works at Mui Wo

Tung Chung New Town Extension

- 14. By the Revised Concept Plan for Lantau completed in 2007, Tung Chung is intended to be developed into a new town for accommodating a population of 220 000. In January 2012, the Planning Department and the Civil Engineering and Development Department ("CEDD") jointly commissioned a Tung Chung New Town Extension Study with the objective to extend Tung Chung New Town into a large scale community.
- 15. The new development plan for Tung Chung East includes the construction of a primary distributor at the north of North Lantau Highway for connecting the new development areas in Tung Chung East and Tung Chung North town

centre. The associated road network will also be provided for the new development areas in Tung Chung East to meet the public demand. In addition, new railway stations will be constructed at Tung Chung East and Tung Chung West for better connection with the transport networks of those new development areas in Tung Chung.

16. The draft recommended outline development plans of Tung Chung East and Tung Chung West are attached at Annexes 11 and 12 respectively.

Hong Kong-Zhuhai-Macao Bridge ("HZMB")

- 17. Situated at the waters of Lingdingyang of Pearl River Estuary, the proposed HZMB is a mega sea crossing linking the Hong Kong Special Administrative Region, Zhuhai City of Guangdong Province and Macao Special Administrative Region, addressing the demand of passenger and freight land transport among Hong Kong, the Mainland (particularly the region of Pearl River West) and Macao.
- 18. Following the commencement of the HZMB project in Hong Kong on 14 December 2011, the associated works contracts have been signed gradually. Location plan of the HZMB is attached at Annex 13. Details of the road construction projects related to the HZMB will be discussed at the second TTSC meeting.

Improvement Works at Tai O

19. Improvement works are being carried out at Tai O to tie in with Tai O development and improvement of living environment for local residents. Among different phases of works, Phase 2A would include the construction of a public transport terminus and a car park, while Phase 2B would include the provision of a coach parking area. The feasibility study report for the works has recommended that additional 37 private car and 18 coach parking spaces should be provided in the area. Upon completion, it is believed the parking situation in the area will be improved.

Improvement Works at Mui Wo

20. A feasibility study on the improvement works for Mui Wo Facelift was

commissioned by the CEDD in June 2007 and completed in 2009. Roadworks Phase 1 was gazetted under the Roads (Works, Use and

Compensation) Ordinance on 4 May 2012 and authorised in December of the

same year. A car park construction has been included in Phase 2 works for

meeting the parking demand of residents.

CONCLUSION

21. The road network of Lantau is developed in accordance with "the Revised

Concept Plan for Lantau" issued in May 2007. The existing internal and

external transport networks are able to cope with the transport demand

generated by the planned development. In light of the commissioning of the

HZMB in future and the further development of Lantau, the TD will continue

to pay due regard to the needs of the public and adopt appropriate traffic

measures. Should there be any change to the development plans of Lantau,

the TD will carry out reviews accordingly.

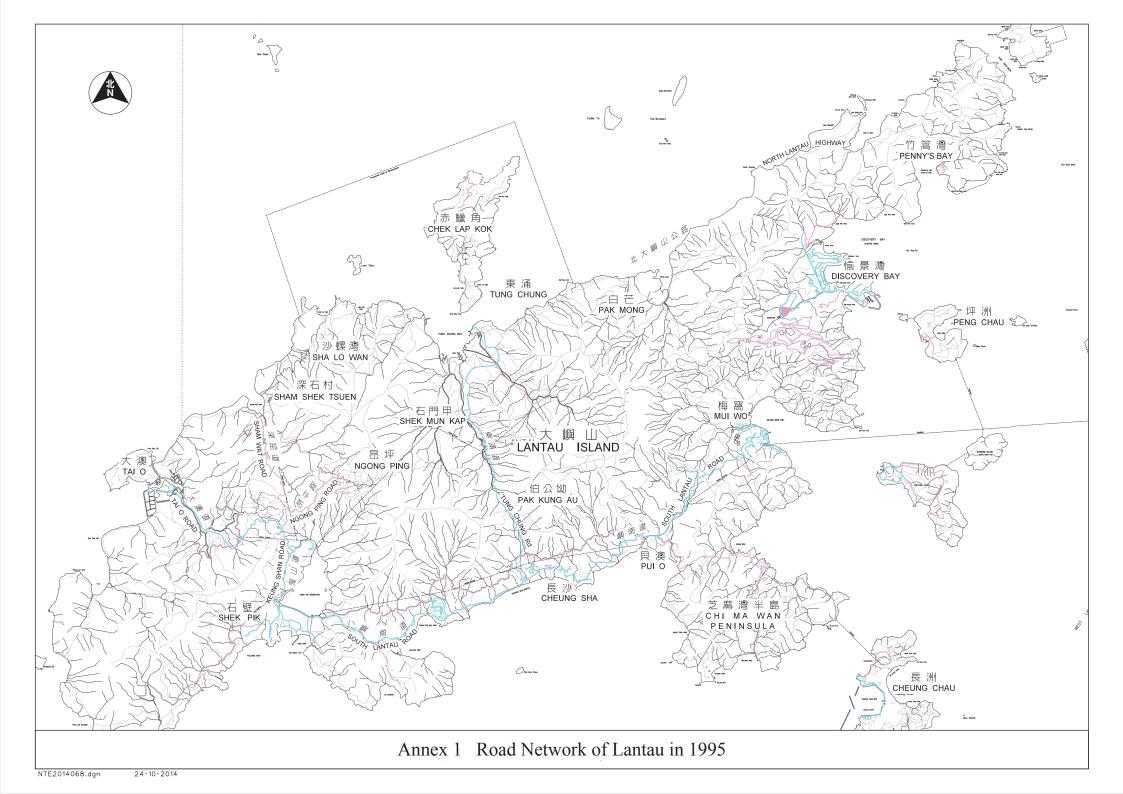
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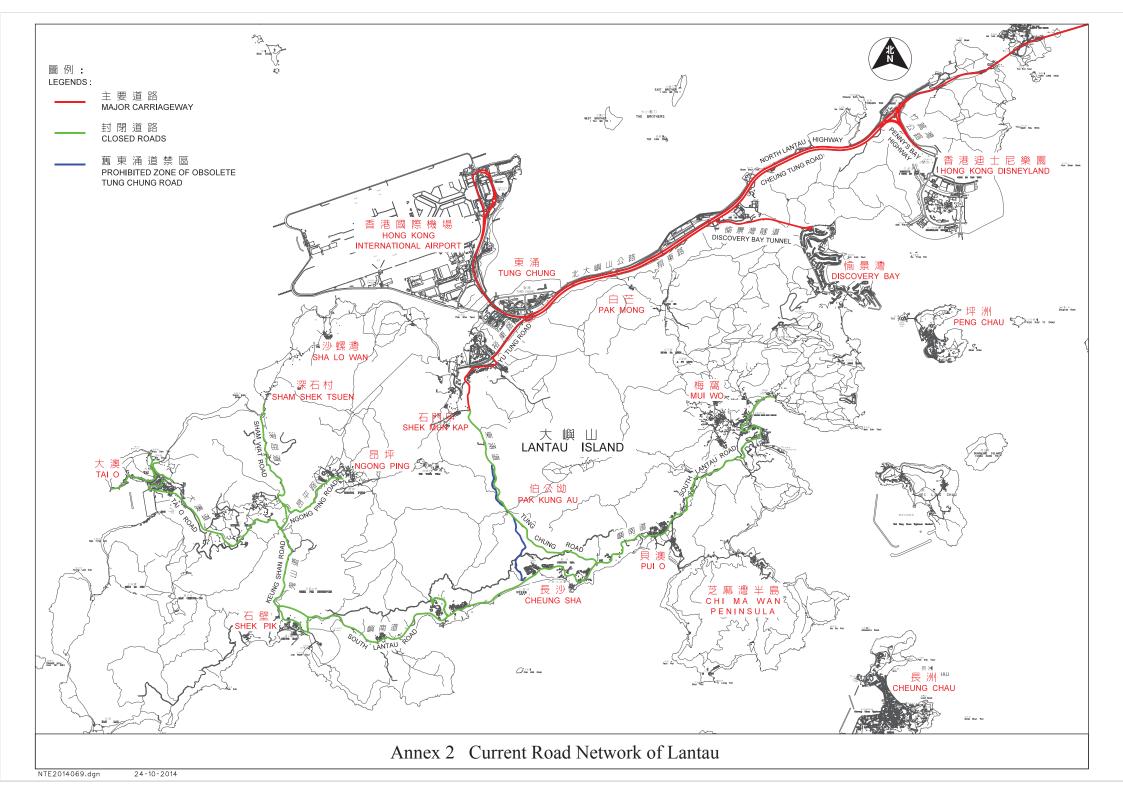
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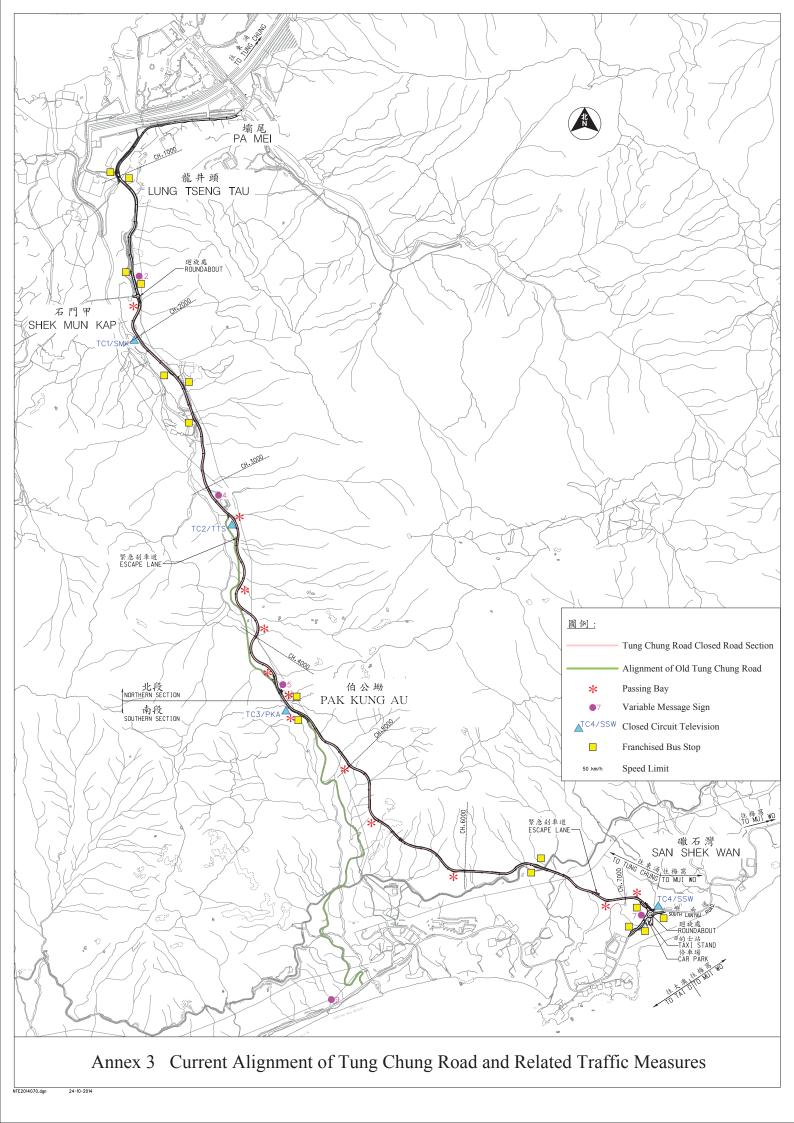
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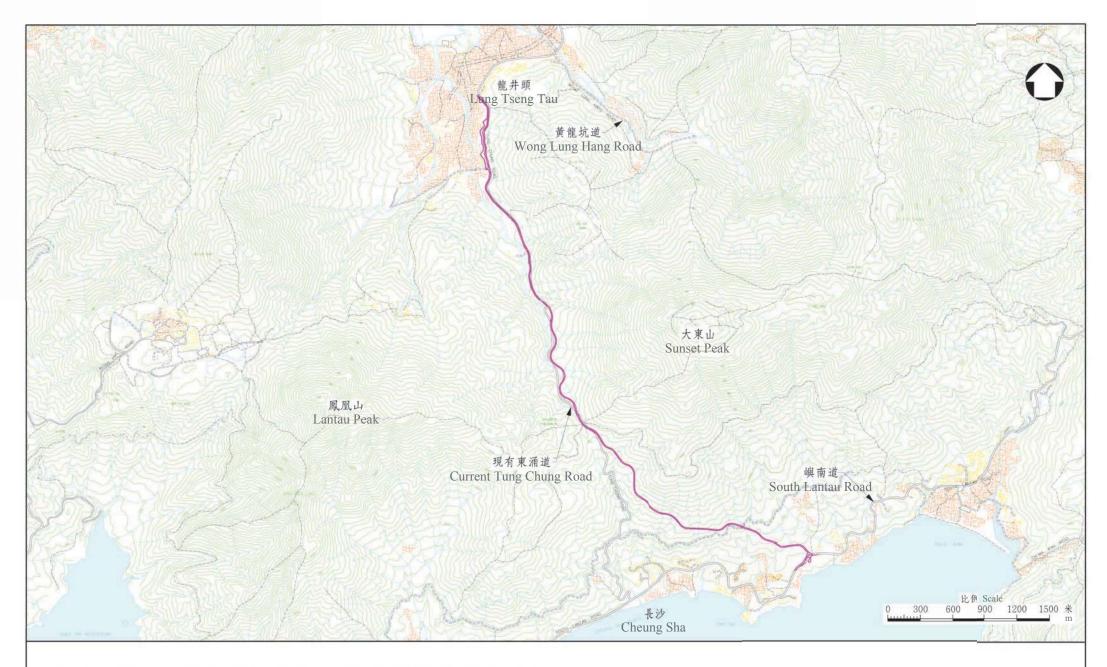
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Annex 4 Improvement Works on a Section of Tung Chung Road between Lung Tseng Tau and Cheung Sha



Annex 5 Photo showing Ngong Ping Road near Lin Ping Drive



Annex 6 Ngong Ping Public Transport Interchange Photo 1



Annex 7 Ngong Ping Public Transport Interchange Photo 2

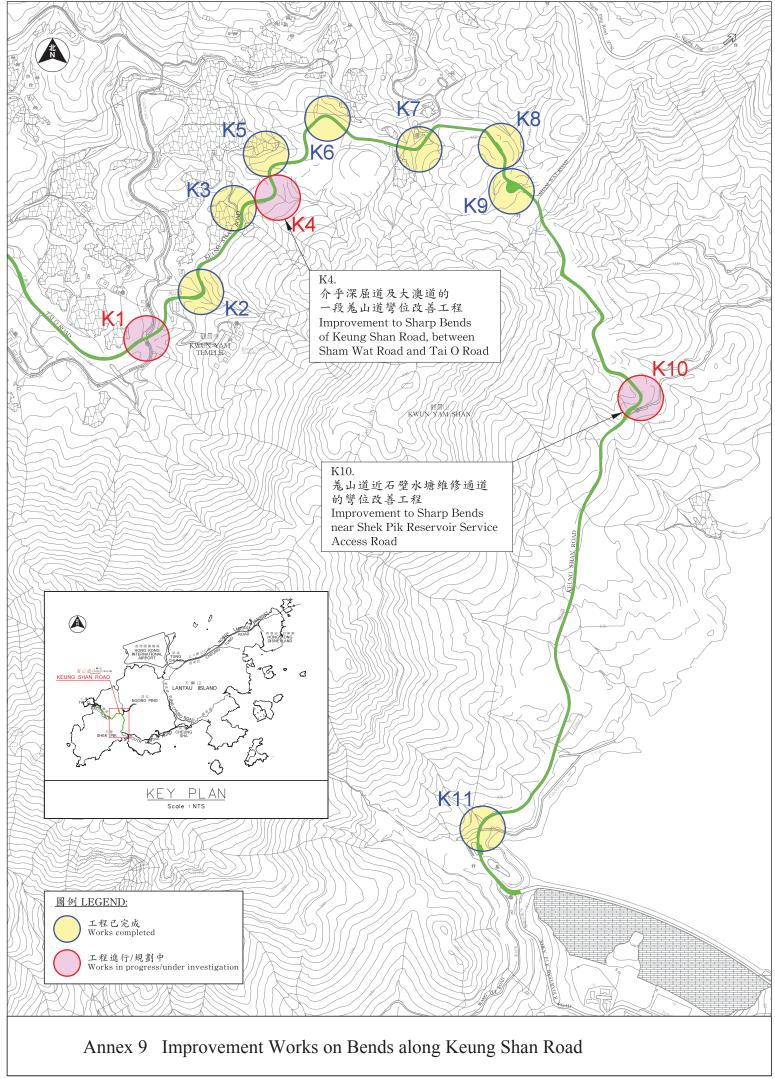


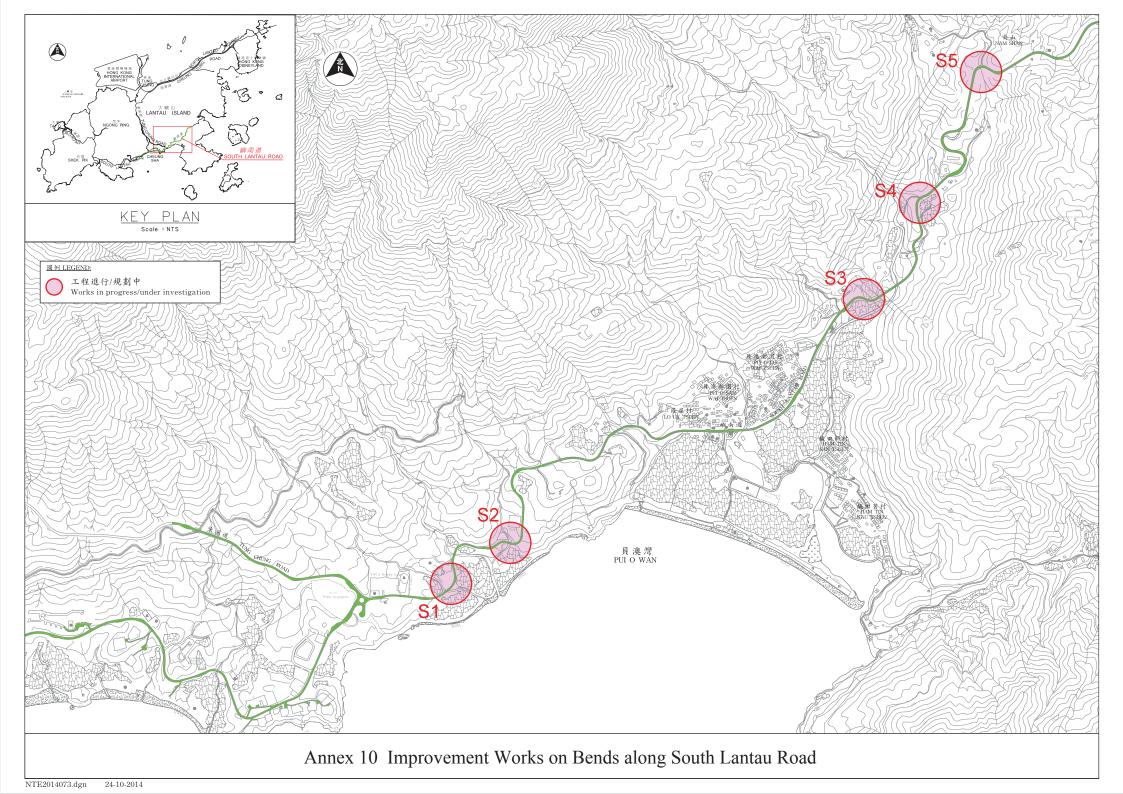
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SCALE: 1:500 in A4 Annex 8 New Coach and Goods Vehicle Parking Spaces in Tai O

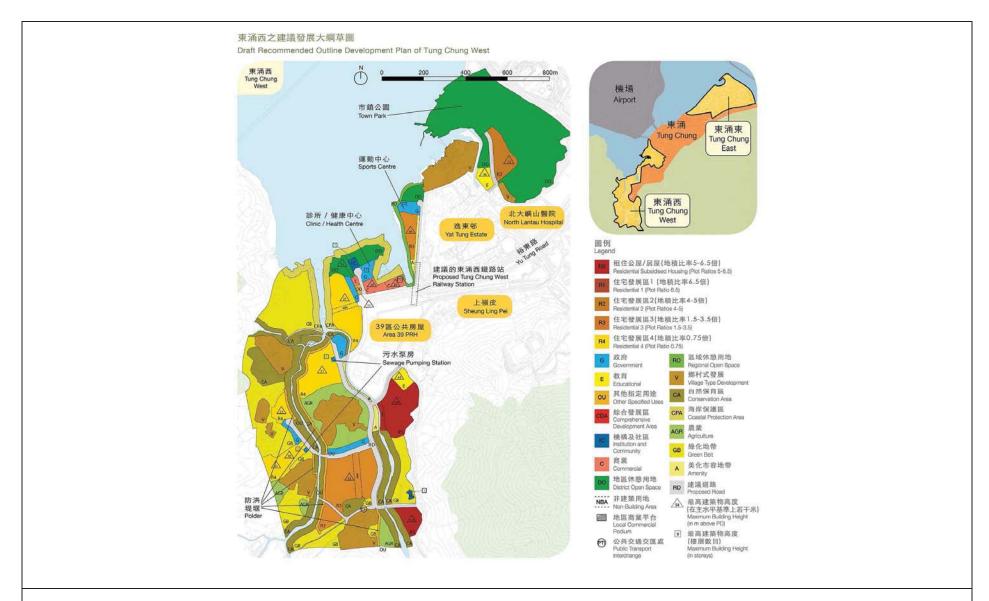








Annex 11 Draft Recommended Outline Development Plan of Tung Chung East



Annex 12 Draft Recommended Outline Development Plan of Tung Chung West

