

**Legislative Council Panel on Transport**  
**Subcommittee on Matters Relating to Railways**  
**Progress update of the**  
**South Island Line (East) and Kwun Tong Line Extension<sup>1</sup>**

## **Introduction**

This paper is to report to the Members the progress of the main construction works of the South Island Line (East) ('SIL(E)') and Kwun Tong Line Extension ('KTE').

## **Background**

### The SCL

2. - 4. [The part related to the Shatin to Central Link ('SCL') including **Enclosure 1** and **Enclosure 4** is deleted]

### The SIL(E)

5. The SIL(E) is a new railway corridor from South to North of Hong Kong Island. It starts from South Horizons on Ap Lei Chau to Admiralty via Lei Tung, Wong Chuk Hang and Ocean Park. The overall length is about seven kilometres [the alignment is at **Enclosure 2**]. The SIL(E) will connect MTR Island Line, Tsuen Wan Line and the future SCL at Admiralty Station and the existing Admiralty Station will be expanded to form an integrated station for the four lines to provide seamless interchanges for passengers. According to the estimate in 2011, the estimated capital cost of the SIL(E) is \$12,400 million (in December 2009 prices).

### The KTE

6. The KTE is a 2.6-kilometre long railway extension of the existing MTR Kwun Tong Line from Yau Ma Tei Station to the new Ho Man Tin Station and Whampoa Station [the alignment is at **Enclosure 3**]. According to the estimate

---

<sup>1</sup> Apart from the deletion of the part related to the Shatin to Central Link to facilitate the discussion about progress update of the South Island Line (East) and Kwun Tong Line Extension projects, this paper is identical to LC Paper No. CB(1)260/14-15(03) issued in November 2014.

in 2011, the estimated capital cost of the KTE is \$5,300 million (in December 2009 prices).

7. The SIL(E) and KTE, being the extensions of the existing railway networks owned by the MTRCL, are ‘ownership’ projects. Under the ‘ownership’ approach, the MTRCL will be responsible for the financing, design, construction, operation and maintenance of these railway projects and will own the railways. The Government and the MTRCL signed the Project Agreement for the SIL(E) and KTE in May 2011 and the target commissioning dates for the SIL(E) and KTE are December 2015 and August 2015 respectively.

8. As the construction cost of railways is so enormous that the SIL(E) and KTE are not considered financially viable based on their fare and non-fare revenues alone. Funding support to the MTRCL is required from the Government to bridge the funding gap<sup>2</sup> of the projects.

9. To implement the SIL(E) and KTE, the Government granted the property development rights under ‘the Rail-plus-Property Model’ to bridge the funding gaps of the projects with caution that the land to be granted to the MTRCL should not be more than what is required to bridge the funding gaps. As such, the Government, in 2011, granted the topside property development rights at Wong Chuk Hang Depot and Ho Man Tin Station for the implementation of the SIL(E) and KTE respectively.

10. With the granting of the property development rights to the MTRCL, the MTRCL is responsible for all the cost of the property development as well as the construction and operating costs of the railway projects. In addition, the MTRCL has to bear long term risks in financing the projects, operating the railways, and market fluctuations in rail and property developments. The design philosophy of the ‘Rail-plus-Property Model’ is to strike a fair balance of risks and benefits between the Government and the MTRCL.

11. In order to cope with the commissioning of the SIL(E) and KTE, the Government also entrusted the implementation of the associated ‘Essential Public

---

<sup>2</sup> A railway is considered not financially viable if the present value of all its projected revenues net of projected expenditures falls short of the expected return on capital. During the initial public offering (‘IPO’) of the MTRCL in 2000, the Government acknowledged to investors through the IPO Prospectus that the return required by the MTRCL for any new railway project would ordinarily be between 1% and 3% above Weighted Average of Cost of Capital (WACC). This shortfall is known as the funding gap.

Infrastructure Works' (EPIW) to the MTRCL. These include construction and improvement of the pedestrian and linking facilities for providing safe, convenient and barrier-free access to the railway stations, such that the consequential social and economic benefits of the SIL(E) and KTE can be fully realized. The EPIW, which are constructed in parallel with the railway works, include:-

- (i) the construction of a public transport interchange underneath the Wong Chuk Hang Station; improvement of the road network in the vicinity of Ocean Park Station and Wong Chuk Hang Station;
- (ii) modification of a section of Wong Chuk Hang Nullah from Ocean Park Road to Nam Long Shan Road;
- (iii) construction of a covered footbridge connecting Wong Chuk Hang Station with the adjacent industrial area, a cover footbridge linking the western part of Ap Lei Chau Estate to Yi Nam Road near the Precious Blood Primary School;
- (iv) construction of a pedestrian link to the Aberdeen Channel Promenade and improvement of the road junctions of Ap Lei Chau Drive and Ap Lei Chau Bridge Road
- (v) construction of a pedestrian link system connecting Ho Man Tin Station to the Ho Man Tin Estate, Oi Man Estate and the Hung Hom area south of Chatham Road North, which includes covered footbridges, covered walkways and a subway;
- (vi) construction of a footbridge integrating with the existing footbridge across Chatham Road North and connecting Ho Man Tin Station to Wuhu Street; and
- (vii) construction of a public transport facility at Chung Hau Street near Ho Man Tin Station.

### **Latest Progress of the Works**

12. The MTRCL has submitted the progress reports for the railway projects up to 30 September 2014 (the report for the SIL(E) and KTE is at **Enclosure 5**). The analysis and supplement made by the HyD on these progress reports are provided below.

## The SCL

13. - 27. [The part related to the SCL is deleted]

## The SIL(E)

28. The expansion work at Admiralty Station for the SIL(E) involves the addition of three underground levels below Harcourt Garden east of the existing station and the construction of a 200m long overrun tunnel for the SCL. The additional three underground levels include one level for interchange and two levels for train platforms. The platforms at upper level are reserved for the use of the SCL while the platforms for the SIL(E) are at the lowest level. After expansion, the Admiralty Station will become an interchange station serving the passengers from the SCL and SIL(E). Hence, its construction cost will be shared between the two projects. For the construction works, the MTRCL has carried out excavation work for the expansion at Harcourt Garden site with cut-and-cover method before the commencement of the structural work for the station. When safety must be given the highest priority, it is a big challenge to carry out the excavation underground where there are existing train station, tunnels in use and foundation of many buildings. In the process of excavation, it is found that the actual spacing of joints in rock is less than the estimation from ground investigation reports. In other words, the level of weathering of the rock is less than that estimated. This in effect makes the excavation more difficult. Furthermore, in order to connect the expansion part with the platforms of the SIL(E) and SCL, underpinning works for the existing tunnel of the Island Line has to be carried out for excavation underneath.

29. Up to end October 2014, the main excavation works under the expansion work at Admiralty has substantially completed. However, as affected by the “Occupy Central” event, construction materials could not be delivered to the Harcourt Garden site and the excavated materials could not be handled in time. Hence, the construction of the structure of the station could not commence. Besides, the Mines Division could not deliver explosives to the work site between 29 September to 22 October and the excavation work for the overrun tunnel of the SCL could not be carried out by blasting.

30. Currently, the excavation for the underpinning works beneath the Island Line tunnel is conducted by mechanical excavation method. According to the assessment of the MTRCL during construction stage, in order to further reduce the risk of affecting the operation of the Island Line by the underpinning works, more reinforcing works and temporary supporting works have to be carried out as compared to the planned. Hence, the construction time has to be largely lengthened. Up to end September 2014, the delay of the underpinning works has been getting larger because of the excavation rate has been kept lagging behind the target progress. According to the observation by the HyD, the difficulty in excavating the rock by mechanical means has been underestimated in the focus construction programme for the excavation works implemented since May. The actual progress could not meet the target. In order to mitigate the delay, the MTRCL proposed in August 2014 to expedite the excavation for underpinning works by blasting. However, MTRCL is yet to provide further information to the HyD to demonstrate the expected effects of blasting. With reference to the information from the HyD, the delay of 6 months estimated by the MTRCL in June 2014 will be greatly increased according to the projection based on the progress of the underpinning works during mid-June to end September. The HyD will closely monitor whether the MTRCL could avoid further delay and catch up the programme.

31. The Nam Fung Tunnel, which connects the Admiralty Station and the Ocean Park Station, was broken through on 17 October 2014. For the other railway facilities at Wong Chuk Hang and Ap Lei Chau, although there are different levels of delay, they are not as severe as the expansion work at the Admiralty Station. Regarding the EPIW entrusted by the Government to the MTRCL, the new slip road connecting Ap Lei Chau Drive from Ap Lei Chau Bridge Road is expected to complete by the second quarter of 2015, which is half year later than the completion date stated in the entrustment agreement. The progress of this new slip road will not affect the commissioning date of the SIL(E).

32. During the progress meeting on 23 October 2014, the MTRCL informed the HyD that the delay in the expansion works of Admiralty Station would be further increased and the SIL(E) would be targeted to commission by end 2016. Nevertheless, the impacts of “Occupy Central” event to the construction works were still under assessment and revised timetable for commissioning was not yet available for submission to the HyD. The HyD opined that as only 33% of the underpinning works was completed by end October, the target of commissioning

SIL(E) at end 2016 would have a very high risk if there was no significant improvement in the progress.

33. The HyD has repeatedly expressed their grave concerns on the slow progress of excavation for the underpinning works beneath the Island Line and requested the MTRCL to submit progress reports and proposals for recovering the delay of the excavation works. The HyD also repeatedly requested the MTRCL to explain and supplement the method statements and contents of the progress reports on the remaining construction works. Besides, the HyD is actively coordinating other government departments to expedite the progress in approving the blasting proposal of the MTRCL for recovering the delay in underpinning works beneath the Island Line. The HyD will keep close monitoring of the progress of the works.

#### The KTE

34. Since excavation works at the Ho Man Tin Station of the KTE was carried out by open blasting, and the blasting was in close proximity to the main roads and residential blocks, the protection setup for open blasting works was more complicated than the traditional one. Hence, the excavation works at Ho Man Tin Station could only be completed in April this year. The remaining tunnel blasting works currently being carried out at the west of Ho Man Tin Station is expected to complete by the end of this year. Currently, the MTRCL is carrying out the construction works of the structure and associated electrical and mechanical (E&M) works of the Ho Man Tin Station in full swing by improving the works sequence, increasing manpower and construction plant, and adjusting the E&M and fitting-out works. Besides, the structural works of the tunnel and track laying works are in progress.

35. Regarding the construction work at Whampoa Station, it has to overcome the limitations from the dense population, heavy traffic and congested underground utilities. In addition, there are varying geological conditions underground. Because of the varying geological conditions underground, the temporary supports for the excavation for both the East and West Concourses of Whampoa Station have to be further enhanced and are causing delay. The works is anticipated for completion during the end of this year to early next year. Regarding the excavation for the platform tunnel between the concourses, the works commenced in mid-November for completion in the second quarter next

year.

36. In view of the delay in the construction of the Ho Man Tin Station, the progress of part of the EPIW connecting to the Ho Man Tin Station, including the two pedestrian subways for crossing Fat Kwong Street and Chung Hau Street, as well as the public transport interchange at Chung Hau Street in the vicinity of the Ho Man Tin Station, are affected. Besides, the excavation works for the above two pedestrian subways have encountered varying geological conditions underground and are suffering delay. The MTRCL has adjusted the works sequence, increased manpower and machinery to improve the situation. The above EPIW are expected to be in use when the KTE is commissioning. Regarding the other EPIW not affected by the progress of the works of the Ho Man Tin Station, including the footbridges and covered walkways crossing Chatham Road North, Chung Yee Street, Sheung Lok Street and Fat Kwong Street, it is expected that the works can be completed in mid-2015 as scheduled.

37. The MTRCL is currently reporting and providing information on works progress and challenges to the HyD. The HyD and the MTRCL have progress meetings every month for the MTRCL to report the progress of the various construction contracts and review the implementation of the various items. The officers from HyD are also paying regular site visit to understand the construction progress. Further to discussion with MTRCL, the HyD also coordinates the related government departments to assist in resolving the problems encountered by the MTRCL during the construction works. Through progress meetings and letters to the MTRCL, the HyD has repeatedly expressed its concerns on the persistent delay of the excavation works at the Whampoa Station and requested the MTRCL to provide the progress briefings and detailed works programmes on the major construction activities in order to clarify and supplement on how to realize the remaining works in the construction programme. According to the information of the HyD, the KTE is expected to be commissioned in mid-2016. Nevertheless, as the critical excavation works for the platform tunnel between the East and West concourses of the Whampoa Station is yet to be completed, the MTRCL has to keep reviewing the progress of the works and update the target commissioning date when necessary. The HyD will keep close monitoring the progress of the works.

## **Conclusion**

38. [The part related to the SCL is deleted]

39. Regarding the SIL(E), if the progress of the underpinning works beneath the Island Line at the Admiralty Station has no significant improvement, there is a great risk to the target commissioning at end 2016. For the KTE, as the excavation works for the platform tunnel between the East and West concourses of the Whampoa Station is still in progress and facing the uncertainty in encountering varying geological conditions underground, there are still risks to the target commissioning at mid-2016. In any case, as the SIL(E) and KTE are ownership projects, the MTRCL will bear the additional expenditure arising from the delay of the railway works.

40. The railway works above are all underground infrastructure projects with considerable scale. Different difficulties and challenges are encountered at the construction stage of these projects. For individual works contracts, there are unavoidable deviations from the original plan. The MTRCL has adjusted its works procedures having regard to the actual situation of work sites. Additional manpower and machinery have also been deployed in order to overcome various difficulties. The Government will closely monitor the progress of works and the construction situation as well as facilitate the MTRCL to early resolve the problems encountered in the construction works. The Government will also conduct timely reviews of the programme in accordance with the latest situation of the project.

**Transport and Housing Bureau  
Highways Department  
November 2014**



圖例  
LEGEND

- 現有鐵路路線  
EXISTING RAIL LINE
- 南港島線（東段）  
SOUTH ISLAND LINE (EAST)

附件二  
ENCLOSURE 2



# 南港島線（東段）

## SOUTH ISLAND LINE (SIL) (EAST)



觀塘線延線  
KWUN TONG LINE EXTENSION

**Legislative Council Panel on Transport  
Subcommittee on Matters Relating to Railways**

**Progress Update on South Island Line (East) and  
Kwun Tong Line Extension  
(Up to 30 September 2014)**

**PURPOSE**

This paper aims to update Members of the Subcommittee on Matters Relating to Railways on the progress of the South Island Line (East) (“SIL(E)”) and Kwun Tong Line Extension (“KTE”) projects up to end September 2014.

**ABSTRACT**

**SOUTH ISLAND LINE (EAST)**

Background

1. At the meeting on 17 June 2014, the Subcommittee discussed the progress of the construction works of the South Island Line (East) (“SIL(E)”) up to May 2014. In response to Members’ concerns over the works progress, the Corporation provides an update of the latest progress up to September 2014.
2. SIL(E) is a 7-kilometre, medium-capacity railway that connects the Southern District with the existing railway network in Hong Kong through tunnels and viaducts via stations at Ocean Park, Wong Chuk Hang, Lei Tung and South Horizons. A train stabling and maintenance depot is located in Wong Chuk Hang.
3. To enhance convenience for Southern District residents, the project also includes a number of community facilities in addition to the railway. A public transport interchange will be provided under Wong Chuk Hang Station. There will also be improvement to the existing pedestrian network in the vicinity of Ocean Park and Wong Chuk Hang stations including a covered footbridge

connecting Wong Chuk Hang Station with the adjacent industrial area, a covered footbridge crossing Ap Lei Chau Bridge Road to link the western part of Ap Lei Chau Estate to Yi Nam Road near the Precious Blood Primary School as well as a pedestrian link to the Aberdeen Channel Promenade.

4. Construction of SIL(E) commenced in 2011. Upon commissioning, it will provide convenient and fast railway service for about 350,000 residents in the Southern District. The journey time from Admiralty to Ocean Park Station will be reduced from the current 25 minutes by road to just 4 minutes. The train ride from Admiralty to South Horizons Station will take approximately 11 minutes. The frequency of train service will be about 3 minutes during peak periods.

### Project Progress

5. Up to the end of September 2014, over 78% of the works for SIL(E) has been completed. Over 99% of the excavation works for Nam Fung Tunnel have been completed and the Ap Lei Chau Tunnel construction works are over 99% complete. Construction works for the Wong Chuk Hang viaduct/ noise barrier have been substantially completed.

6. While good progress has been achieved in the construction of the four new stations in the Southern District including Ocean Park, Wong Chuk Hang, Lei Tung and South Horizons Stations, this is not the case for the technically complex works at Admiralty Station, which have fallen further behind the original schedule as at the end of September. Currently, the target for opening of SIL(E) is at the end of 2016.

7. The MTR Corporation (“The Corporation”) has completed a review of the cost estimate for the project according to its revised works programme. The latest capital estimate of SIL(E) has been revised upward from HK\$12.4 billion (prices at 2009) to HK\$15.2 billion. As SIL(E) is an “ownership” project, MTR Corporation will bear the relevant additional cost in accordance with the “ownership” approach.

### Track and Train-related Works

8. The Admiralty Station extensions works as part of the SIL(E) project includes the construction of platforms for SIL(E) and Shatin to Central Link (“SCL”) at Harcourt Garden as well as two overrun tunnels for SCL, each with an approximate length of 200 metres. Excavation for the SIL(E) platforms and tunnels has been completed and the excavation of the SCL tunnels is expected

to be completed in the second quarter of 2015. Meanwhile, cut-and-cover excavation continues for the station box of the Admiralty Station extension (details in paragraphs 12 and 13). Shaft blasting works at the Hong Kong Park Works Site have been completed and the construction of the ventilation building at Hong Kong Park is in progress.

9. Tunnel blasting works for the Nam Fung section have been substantially completed. Tunnel lining works and the construction of the transition structure that connects to the viaduct section are in progress. As geological challenges had to be overcome during the blasting works for Nam Fung Tunnel, the expected completion date of the Nam Fung Tunnel construction works will be slightly deferred from the first quarter of 2015 to the second quarter of 2015.



Nam Fung Tunnel permanent lining works

10. The installation of noise barriers and track-laying works for the viaduct section are substantially complete and installation of trackside auxiliaries is in progress. Trackwork inside the tunnel on Ap Lei Chau is also substantially complete. With the exception of Admiralty Station, all track-laying works are expected to be completed in the third quarter of 2015.



Track-laying works in the tunnel on Ap Lei Chau

11. All of the 10 new SIL(E) trains have been delivered to MTR Siu Ho Wan Depot. After undergoing a series of initial tests at Siu Ho Wan Depot, the train sets will then be transported to Wong Chuk Hang Depot at the end of this year for final testing and commissioning.

#### Station Structural Works

12. Admiralty Station is undergoing expansion to become an interchange station for four railway lines including the Island Line, Tsuen Wan Line, South Island Line (East) and SCL. There are three levels at the existing Admiralty Station including one concourse level and two platform levels serving passengers on the Tsuen Wan Line and Island Line. The Admiralty Station extension works are being carried out under Harcourt Garden, east of Admiralty Station, with three additional levels being constructed below the existing station. The extended station will include one mezzanine level and two platform levels with the SIL(E) platforms located at the lowest level. Cut-and-cover excavation and construction of the station structures are now progressing at the Harcourt Garden works site. Currently parts of the excavation have reached the foundation level of the extended Admiralty Station and construction of the station structure is in progress.

13. Underpinning of the existing Island Line tunnel is also in progress, which requires the installation of temporary steel beams and columns to support the existing Island Line structure while the in-situ rock is excavated incrementally from beneath the structure. These works are being carried out beneath the operating railway and great care is needed to maintain the safety of the railway tunnel structure and ensure that there is no impact to train services. The

excavation for the programme critical underpinning works has not achieved the planned production rate. This is due to the access constraints, tight working space, and at some locations geological features that have required more bolting and temporary support works. While overcoming these difficulties safety has been maintained as the top priority and strict engineering controls in accordance with international best practice have been applied. At some locations the planned production rate was achieved but this was not possible across all the areas. These factors have all contributed to a further delay for these critical works. Since this type of work has never been done before in Hong Kong it is not possible to exactly forecast what progress rates will be achieved. For this reason the updated SIL(E) programme can only be confirmed after the completion of the underpinning works. However, the excavation and blasting for the cavern and SIL(E) platform tunnels that make up the southern part of the Admiralty Station extension have been substantially completed with structural works in progress.



Island Line tunnel underpinning works at Admiralty Station

14. Due to the ongoing blockage of roads in the Admiralty area since late September, access for works vehicles in and out of the Harcourt Garden works site has been affected. While works are still continuing, plant and materials supplies to the site, as well as construction material removal from site, are affected as a result of traffic restrictions. The impact on progress of the road blockage in the Admiralty area has been limited so far; however, if the road blockage is prolonged there may be an increasing impact on the progress of the structural and tunnel excavation works at Admiralty Station. The Corporation and its contractors continue to closely monitor the progress of the Admiralty Station extension works.

15. Station construction works in the Wong Chuk Hang area have been progressing well. Structural works for Ocean Park Station and Wong Chuk Hang Station have been completed and fitting-out and E&M works are in

progress. Structural works for Wong Chuk Hang Depot have also been completed with the fitting-out works and E&M works also in progress.

16. For Lei Tung Station, construction of the station structure at the concourse level is in progress. Blasting works for Entrance B of Lei Tung Station and the associated pedestrian adit have been completed. At Entrance A of Lei Tung Station at Main Street, the station entrance and pedestrian adit construction is in progress and expected to be completed in the fourth quarter of 2014.



Structural works of Lei Tung Station Entrance A

17. At South Horizons Station, excavation works have been completed and construction of the station box and entrance structure under the temporary traffic deck is in progress. Superstructure construction for the footbridge connecting Ap Lei Chau Estate is in progress and expected to be completed by the end of 2014. Structural works of the End Plant Building at Yuk Kwai Shan and the ventilation building at Lee Wing Street are in progress.





Station structural works in progress under the temporary traffic deck at South Horizons

## **KWUN TONG LINE EXTENSION**

### Background

18. The KTE project is a 2.6-kilometre underground extension of the existing Kwun Tong Line from Yau Ma Tei to Whampoa, with an intermediate station at Ho Man Tin which will be an interchange station with the future Shatin to Central Link currently under construction. Construction of KTE project commenced in 2011.

19. To facilitate convenient access to railway service for local commuters, essential public infrastructure works are being constructed in addition to the railway. These include a walkway connection between Oi Man Estate, Ho Man Tin Estate and Ho Man Tin Station, a covered footbridge across Chatham Road North, and public transport facilities at Chung Hau Street.

20. KTE will serve the 146,000 people living in Whampoa and Ho Man Tin with convenient and efficient railway service. Travelling by road-based transport between Whampoa and Mong Kok currently takes about 25 minutes during peak hours. Travelling time could be greatly reduced to 5 minutes upon KTE commissioning.

### Project Progress

21. As at the end of September 2014, over 65% of the project works have been completed. In mid-2014 the Corporation reported that the overall works programme was behind schedule and since then, the construction team has been taking every possible measure to recover the delay. Civil works has been progressing along with E&M equipment fabrication, building services and system modification works. Currently, the target for opening of KTE is mid-2016.

22. The project cost estimate for the Kwun Tong Line Extension is currently maintained at the original \$5.3 billion (in 2009 prices) according to the Corporation's latest cost review.

### Railway Tunnelling Works

23. The structural works of the railway tunnel were 65% complete as at end



September 2014. Track-laying works have commenced from Yau Ma Tei Station and are approaching the Wylie Road Ancillary Building.

Track-laying works are underway in the Yau Ma Tei Section

24. Structural works of the railway tunnel, including the tunnel walls, are now in progress in the section between Wylie Road Ancillary Building and Ho Man Tin Station. Tunnel lining works are being extended from Ho Man Tin towards Whampoa beneath Wuhu Street.

25. The planning and sequence of civil, track and E&M fabrication works are being re-arranged so as to expedite the progress of trackside installations. It is expected that the trackwork and trackside installations will be substantially completed in the second quarter of 2015.

#### Ho Man Tin Station and Essential Public Infrastructure Works

26. Ho Man Tin Station will serve as the future interchange station between the Kwun Tong Line and the Shatin to Central Link. Station structural works commenced in the fourth quarter of 2013 and are now 45% completed. Works have progressed to the plant room above the Shatin to Central Link platform level, and some of the fitting out works for the station are also underway. The structural works are expected to be completed in the first half of 2015 and would be followed by E&M installation and fitting out works.



Structural works of Ho Man Tin Station

27. The pedestrian linkage system for Ho Man Tin Station is 65% completed. The connection between Oi Man Estate and Sheung Lok Street as well as the covered footbridge to Wuhu Street are scheduled for completion in mid-2015. The facilities will open for public use after relevant inspections and examinations and upon receipt of approval from relevant government departments. Meanwhile, the subway and lift at Fat Kwong Street and Chung Hau Street will be available for public use when Ho Man Tin Station is opened.

28. The public transport facilities at Ho Man Tin Station are located on a slope next to Chung Hau Street. Extensive slope protection works and utility diversion were required to facilitate the sub-structure works. The majority of the foundation piles have been completed and construction works are progressing to the deck structure. The facilities are expected to be open for public use when Ho Man Tin Station is opened.

### Whampoa Station and tunnelling works

29. Excavation of the East and West concourses of Whampoa Station is in full swing and is expected to be completed in early-2015; current completion rates are 77% and 81% respectively. To expedite progress, more manpower is being used at various work fronts and new heavy equipment has been deployed to enhance excavation efficiency.



Excavation of the East and West Concourses of Whampoa Station

30. The excavation of the platform tunnel between the East and West concourses is the most crucial part of the project at this point in time. Mixed ground conditions and groundwater will make the excavation work more difficult. More time is required to switch between different excavation methods and undertake necessary supporting works to ensure safety before commencement of the excavation work. As a result, the commencement of excavation for the platform tunnel will start in mid-November instead of the third Quarter of 2014 as previously planned. The construction team is planning detailed arrangements to mitigate delays, such as excavation from both ends of the tunnel. An application for an extension of the construction noise permit will be made to the Environmental Protection Department for works with the least noise impact, such as internal support of tunnels, to be carried out at night time. Mitigation measures will also be implemented to minimise any impacts to the adjacent residents. The excavation of the platform tunnel is expected to be completed in the second quarter of 2015.

31. In addition to the enhancement of manpower and introduction of heavy equipment, pre-fabricated components are also being used for the internal structures of Whampoa Station as a measure to save time for formworks and steel fixing on site. The E&M installation and fitting out works for the station will commence in early 2015.

## **SUMMARY AND WAY FORWARD**

32. As pointed out in the report to the Subcommittee in June 2014, due to the complexity of the works at Admiralty Station, the SIL(E) project was at the time experiencing about six months of delay and the railway would not be opened in 2015 as originally planned. During the course of the underpinning works under the operating railway, great care is taken to ensure that railway passengers and members of the public in the nearby buildings are not affected. Currently, the

excavation progress is far from satisfactory and has resulted in a further delay in the underpinning works. Further impact on the works progress at Admiralty Station is expected. Whilst the SIL(E) project is targeted for opening at the end of 2016, the Corporation would have more certainty on the opening arrangement upon further progress in the excavation and underpinning works at Admiralty Station.

33. For KTE, the construction of Whampoa Station remains very challenging as it is located in a densely populated area with busy traffic and complex underground utilities. To minimise impacts on residents and traffic as well as overcome construction challenges, the works arrangements and Temporary Traffic Management Scheme (“TTMS”) need to be continually adjusted. According to the latest works progress, the expected opening date for KTE is mid-2016. The Corporation will provide updates about the opening arrangements in due course.

34. Our construction teams will continue to implement the railway projects with safety as the priority, and strive to complete the SIL(E) and KTE projects and deliver the railway services as soon as possible. The Corporation will also continue to provide updates to the Subcommittee and the public on the latest construction progress.

MTR Corporation Limited  
November 2014