Legislative Council Panel on Transport Subcommittee on Matters Relating to Railways

Progress update of the construction of the Shatin to Central Link

Introduction

This paper reports the progress of the main construction works of the Shatin to Central Link (SCL), and the monitoring work of the Highways Department (HyD).

Background

2. The SCL, with a total length of 17 kilometres (km), consists of the following two sections –

- (a) Tai Wai to Hung Hom section: this is an extension of the Ma On Shan Line from Tai Wai via Southeast Kowloon to Hung Hom where it will join the West Rail Line; and
- (b) Hung Hom to Admiralty section: this is an extension of the East Rail Line from Hung Hom across the Victoria Harbour to Wan Chai North and Admiralty.

3. The SCL will have ten stations. Apart from improvements to the existing Tai Wai Station, the SCL project will involve construction of new stations or extension of existing stations at Hin Keng, Diamond Hill, Kai Tak, To Kwa Wan, Ma Tau Wai, Ho Man Tin, Hung Hom, the Hong Kong Convention and Exhibition Centre (the Exhibition) and Admiralty. It is a territory-wide strategic railway project. The SCL will link up a number of existing rail lines, forming two strategic railway corridors, namely the "East West Corridor" and the "North South Corridor" (alignment layout at **Enclosure 1**).

 (a) The "East West Corridor" connects Tai Wai Station of the Ma On Shan Line with Hung Hom Station of the West Rail Line, making it possible for passengers to travel directly from Wu Kai Sha Station to East Kowloon, Hung Hom, West New Territories and Tuen Mun without interchanging, providing a more direct and convenient railway service for passengers commuting between New Territories East and New Territories West.

(b) The "North South Corridor" extends the existing East Rail Line from Hung Hom Station across the Victoria Harbour to Admiralty Station, allowing passengers from Lo Wu (using the East Rail Line) and Huanggang (using the Lok Ma Chau Spur Line) to have direct access to central places of Hong Kong Island.

4. The estimated construction cost for the entire SCL project is about \$79,800 million¹(in the MOD prices).

Project Implementation and Funding Approach

5. According to the "Operating Agreement" signed between the Government and the MTR Corporation Limited (MTRCL) after the rail merger, new railway projects may be implemented either by the "concession approach" or the "ownership approach". In March 2008, the Government decided to implement the SCL by the "concession approach". Under the "concession approach", the Government is responsible for funding the construction of the SCL. On 11 May 2012, the Finance Committee of the Legislative Council approved "the funding application for 61TR - Shatin to Central Link - construction of railway works remaining works and 62TR – Shatin to Central Link – construction of non-railway works - remaining works". Thereafter, the Government and MTRCL entered into an agreement for entrusting construction, testing and commissioning of the SCL to the latter. The MTRCL has been entrusted to provide management and monitoring service to the SCL project. According to the agreement, the commissioning target dates are December 2018 and December 2020 respectively for the Tai Wai to Hung Hom section and the Hung Hom to Admiralty section of the SCL.

6. As at the end of May 2014, a total of 19 major² civil contracts and 20

¹ The total estimated construction cost includes the construction cost estimate of protection works under **58TR** and **59TR**, advance works under **63TR** and **64TR**, construction of railway works-main works under **61TR** and construction of non-railway works – main works under **62TR**.

² Major contract refers to any individual contract with value above \$50 million.

major Electrical and Mechanical contracts (list at Enclosure 2) have been awarded.

Monitoring Mechanism of the Government

7. The MTRCL is responsible for the overall management of the SCL project. The Government closely monitors the work of the MTRCL through a **Project Supervision Committee (PSC)** led by the Director of Highways (DHy). It reviews progress of the project and monitors procurement activities, post-tender award cost control and resolution of contractual claims. It also appoints monitoring and verification (M&V) consultant to assist the HyD to monitor and carry out regular examination of the work of the MTRCL.

8. The PSC, with DHy as the chairman, meets with the MTRCL on a monthly basis to review the progress of the project. The MTRCL is required to submit a progress report setting out the latest progress and financial position of the project. As at the end of May 2014, the PSC has held 18 meetings, with the last regular meeting held on 26 June 2014.

9. In addition, an officer at Assistant Director level of the HyD holds monthly **Project Coordination Meetings** (**PCMs**) with the General Managers and Project Managers of the MTRCL to monitor various activities for the implementation of the SCL project including timely completion of land related matters, issues in relation to the design, construction, environmental fronts that may have potential impact on the progress and programme of the SCL project as well as interfacing issues with other projects. From August 2012 to May 2014, a total of 22 PCMs were held.

10. Meanwhile, two officers at Chief Engineer level hold monthly **Contract Review Meetings (CRMs)** with site supervision staff of the MTRCL on major civil and E&M works. In case of delays encountered by MTRCL's contractors, the MTRCL would report progress recovery measures at such meetings. As at the end of May 2014, a total of 74 **CRMs** were held.

11. HyD has also employed PYPUN-KD & Associates Limited as the M&V consultant to assist in the monitoring work and undertake regular audits. The consultant will identify and advise the HyD any potential risk of delay and comment on the appropriateness of MTRCL's proposed mitigation measures for

the consideration of the HyD.

12. The DHy updates the Secretary for Transport and Housing (STH) on the progress of the project at their regular monthly meetings about the work. Where necessary, he also reports to the STH any significant issue relating to the implementation of the SCL project. From time to time, the HyD and MTRCL are requested to provide briefings to the Transport and Housing Bureau (THB) on major issues relating to the project.

Latest Progress of the Works

13. In view of the public concern over the commissioning of the new rail lines, the THB has requested the MTRCL to assess the latest progress of the SCL, and to submit a report on the details of the progress of various projects. The report submitted by the MTRCL is at **Enclosure 3**. The analysis and supplement made by the HyD on the progress report of the SCL are provided below.

Tai Wai to Hung Hom section

Shatin Section (Section of Railway between Tai Wai Station and Ma Chai Hang, Wong Tai Sin, including Hin Keng Station and Modification of Station Platform of <u>Ma On Shan Line</u>)

14. The progress of Hin Keng Station, the associated tunnels and the modification of station platform of Ma On Shan Line are generally in line with the original programme. The relocation of New Territories South Animal Management Centre and Shatin Plant Quarantine Station are completed two months ahead of the programme, which allows the early commencement of the construction of Hin Keng Station. The foundation works of Hin Keng Station is completed, and the progress is satisfactory.

15. The advance excavation works of Hin Keng to Ma Chai Hang tunnel are slightly behind schedule due to unfavourable ground conditions. The HyD is closely monitoring its progress, and has discussed with the MTRCL the scheme to catch up with the progress, including measures to speed up future works. An example is to implement extra protection measures to reduce the impact of drill and blast operation on an existing water tunnel in the vicinity, such that this

construction method can be used in lieu of the slower mechanical breaking method for part of tunnel section in order to expedite the tunnel excavation in future.

16. Furthermore, to cope with the tunnel construction, the MTRCL proposed to obtain an additional temporary works site near the Hin Keng tunnel portal for access road widening such that the SCL contractor can dispose excavated materials in a better way. The HyD supports the proposal as this arrangement can minimize the impact on local traffic. In order to enhance the efficiency of the tunnel construction and reducing the impact on local traffic, the HyD has been co-ordinating with the MTRCL and the relevant approving departments with a view to obtaining the additional work site at the earliest.

<u>Wong Tai Sin Section (Section of tunnel between Mai Chai Hang, Wong Tai Sin</u> <u>and Kai Tak Station, including Diamond Hill Station extension)</u>

17. Owing to mixed ground condition, the progress of diaphragm wall construction at the Diamond Hill Station extension is slower than anticipated. In order to catch up with the original programme, the MTRCL has already instructed the contractor to rearrange the works sequence and adjust the construction method to carry out the station excavation by stages.

18. The tunnel from Diamond Hill Station extension to Ma Chai Hang will be constructed by tunnel boring machine (TBM). The advance work at Diamond Hill Station extension is almost completed and the assembling of TBM components has started. It is anticipated that the tunnel boring works will commence in the third quarter of 2014. To ensure smooth progress of the highly complicated and difficult tunnel construction, it is necessary to recruit a construction team that is proficient in tunnel works. However, the contractor has not received any application in the local recruitment exercise. In order to cope with the progress of tunnel boring, drilling and blasting construction, the HyD is assisting the MTRCL to apply for importing skilled labour under the "Supplementary Labour Scheme"³. The tunnel from Kai Tak to Diamond Hill will also be constructed by TBM. The construction progress of TBM launching

³ According to the information provided by the Labour Department, the Supplementary Labour Scheme allows employers with genuine difficulties in finding suitable staff locally to import workers at technician level or below. However, to ensure the priority of local workers in employment and to safeguard their salaries and benefits, employers must accord priority to fill available job vacancies with local workers and make active efforts to train up local workers for the vacancies.

shaft at Kai Tak is satisfactory, and the tunnel boring works is expected to commence in the third quarter of this year.

19. To enhance the connectivity between Tse Wan Shan area and SCL Diamond Hill Station extension, the MTRCL is carrying out improvement works to the pedestrian facilities within the district. The works are originally scheduled to complete by stages between 2014 and 2016. Due to the unpredicted ground conditions and congested underground utilities, the progress of works is unsatisfactory. Furthermore, the MTRCL needs to implement various temporary traffic management measures in the district to cope with the construction work. However, the MTRCL has to implement such measures by stages with limited extent in order to reduce the impact on the public, thereby affecting the progress of works.

Kowloon City Section (Section of tunnel between Kai Tak Station to Ho Man Tin Station, including To Kwa Wan Station and Ma Tau Wai Station)

Kai Tak Station

20. Kai Tak Station is located inside the Kai Tak Development Area. The construction of the main structure of the station commenced in early 2014, and is anticipated to complete by 2015.

To Kwa Wan Station

21. In conducting the environmental impact assessment (EIA) under the Environmental Impact Assessment Ordinance, the consultant appointed by the MTRCL has assessed the impact on cultural heritage arising from the SCL railway scheme, including the possible existence of archaeological finds at the previous location of the Sacred Hill and its vicinity within the To Kwa Wan Station area. The EIA report for the SCL therefore recommended that an archaeological survey-cum-excavation ⁴ be carried out at a specified area prior to the

⁴ Archaeological survey-cum-excavation is commonly conducted before construction within a specified area with archaeological potential. The archaeological survey is to define the precise horizontal extent and the nature of the archaeological deposits while the excavation is applied to this confined area to retrieve the archaeological data completely. The archaeologist needs to submit a proposal of the archaeological work to the Antiquities and Monuments Office (AMO), including the method and the procedure of the archaeological excavation. With the approval of the AMO and support of the Antiquities Advisory Board (AAB), the Antiquities Authority (i.e. the Secretary for Development) will issue a licence to the applicant in carrying out the archaeological work in accordance with the proposal of the archaeological work and under the close monitoring of the

commencement of the construction works of To Kwa Wan Station. After consultation with the Advisory Council on the Environment and making available the EIA Report for public inspection and comments, the EIA Report for the SCL was approved by the Director of Environmental Protection in February 2012.

22. An archaeological survey-cum-excavation was carried out at the specified area before commencement of the construction of To Kwa Wan Station. The archaeological work was carried out by an archaeologist engaged by the SCL contractor. Under the close supervision of the AMO, the field works commenced in November 2012 at the first archaeological work area (see Enclosure 4 submitted by the MTRCL for its location). A very high archaeological value square-shaped stone well of the Song Dynasty was then discovered at this location. The Government has changed the alignment of the proposed carriageway of Road L9 of the Stage 5 Infrastructure Works in the Kai Tak Development Area, so as to divert the carriageway from the location of the well to facilitate its future display to the public. Having consulted the views of the Antiquities Advisory Board (AAB), it is decided to preserve the stone well in-situ because the stone well remains intact and it can reflect the traces of people's living in the past. Since the stone well is located outside the station area, it will not affect the construction of the station. The other key findings include scattered ceramic sherds, coins and remnants of archaeological features of the Song and Yuan Dynasties as well as These archaeological finds have been retrieved to facilitate recent epochs. further excavation to deeper levels in search for other cultural relics. The excavation at this work area has reached the sterile layer, 2.3 to 4.8 metres below ground level. The archaeological fieldworks were completed in December 2013.

23. In relation to the above archaeological survey-cum-excavation, the independent archaeologist has submitted an interim report to the AMO. The AMO has also been keeping the AAB informed of the archaeological work through reports⁵. All the related documents are available for public viewing on the website of the AMO. The independent archaeologist is continuing with the

AMO.

⁵ The AMO issued four briefs in December 2012, March, September and November 2013 to report to the AAB on the archaeological survey-cum-excavation conducted by the independent archaeological expert. The AMO also arranged a site visit for the AAB members on November 27, 2013 regarding the archaeological finds. At the AAB meeting on December 4, 2013, the AAB discussed the preservation arrangement and provided views on the future interpretation of the archaeological discoveries. In addition, the AMO subsequently issued five briefs in April, May and June 2014 respectively to report to the AAB on the work progress in the second and third archaeological work areas and arranged a site visit of the second work area for the AAB members on May 2, 2014.

study and analysis of the relevant archaeological finds, and is preparing the final report. The final report is expected to be submitted to the AMO by the end of this year. The SCL contractor has resumed the construction works by phases within the first archaeological work area upon the completion of the archaeological survey-cum-excavation there.

24. On the other hand, the SCL contractor found over 500 coins of the Song Dynasty while it was carrying out piling works at the launching shaft location for tunnel boring machines (see **Enclosure 4** for the second archaeological work area). The archaeologist employed by the SCL contractor then immediately reported the discovery to the AMO. At the request and close supervision of the AMO, an archaeological watching brief $(AWB)^6$ at the launching shaft area (designated as the second archaeological work area) commenced in December 2013. At the moment, the archaeological fieldwork at the second archaeological work area has been completed, except for those in the T1 Area of about 400 square metres in size at the south-west corner of the work area. The excavation at the rest of the second archaeological work area has reached the sterile layer, which is 2.6 to 4.5 metres below ground level. Subject to the agreement of the AMO, the SCL contractor will progressively resume the construction works in this area (except Area T1) by stages.

25. Another square-shaped stone well of the Song Dynasty and stone building remnants were discovered at the T1 Area, but this well was not as intact as the previously discovered stone well. At this stage, the MTRCL has implemented suitable measures to protect the stone well and the stone building remnants. Besides, two pits with wooden bottom components were also found within the T1 Area and its vicinity. The nature and function of the pits will be confirmed upon further investigation.

26. At present, other than the T1 Area of the second archaeological work area, the archaeological work has been extended to the third archaeological work area upon the request of the AMO (see **Enclosure 4**). Under the close supervision of

⁶ Archaeological watch brief (AWB) refers to any archaeological work conducted during the construction phase of development project. The AWB allows archaeological methods to be applied by archaeologists once any archaeological remains are identified in the course of the earth movement works of the development project. A proposal is required to specify the aim, method, and potential mitigation measures for the AWB. The AWB could turn into an archaeological excavation if significant archaeological remains are discovered. Once the AWB commences, the archaeologist needs to report any archaeological remains discovered to the AMO. The AMO will then report the related discoveries to the AAB. The AMO will also regularly oversee the related archaeological work.

the AMO, the independent archaeologist commenced the archaeological work in April 2014 in areas within the third archaeological work area. The MTRCL has suspended the construction works in this zone in order not to affect the archaeological work. In mid-June, remains of a water channel system, including a water channel and a well or basin, were discovered in Area A of the third archaeological work area (see **Enclosure 4**). The independent archaeologist immediately reported the discovery to the AMO. The age of the remains and their functions are being studied. The AMO has also briefed the AAB of the discovery. It is expected that relevant archaeological excavation work will be completed in the third quarter of this year.

27. The THB has been paying close attention to the archaeological discovery and making the best arrangement in terms of construction; the MTRCL has suspended the construction works in the area where the archaeological work is ongoing, except for those relating to the archaeological excavation. The archaeological finds unearthed are properly protected under the supervision of the AMO.

28. As regard to the area where the archaeological work is complete, the MTRCL resumes works gradually. The relevant archaeological works and discoveries have inevitably caused delay in the construction works, with the actual impact subject to detailed assessment. The HyD has been studying with the MTRCL the rearrangement of works sequence, the modification of originally planned construction methods, and the formulation of suitable options for any necessary modification of the station design, with a view both to preserving the archaeological discovery and to minimizing the impact on the works programme.

29. As the end of June 2014, the archaeological work has brought a cumulative delay of about 6 months to the construction of the launching shaft of the TBM, which has a knock-on effect on the tunnel construction between To Kwa Wan Station and Ho Man Tin Station. It is anticipated that the construction of the launching shaft of the TBM would be further affected by at least 5 months due to the subsequent activities such as design changes to the supporting structure of the launching shaft, construction of protective wall at Area T1 and rearrangement of works sequence. The total delay in the construction of To Kwa Wan Station and the associated tunnels is therefore at least 11 months. When all the relevant archaeological excavation work has been completed and subsequent to the study and analysis of all the archaeological discoveries, the Government will formulate appropriate preservation proposals and measures for the archaeological finds

discovered. By then, AMO will consult the AAB before a more comprehensive and concrete conclusion is drawn. The ultimate impact on the SCL could then be ascertained. If the additional construction cost induced by the archaeological finds exceeds the contingencies, we need to seek LegCo's approval for additional funding in order to continue with the works.

Ma Tau Wai Station

30. Ma Tau Wai Station is an underground station beneath Ma Tau Wai Road, a major traffic corridor at Kowloon East with old buildings on both sides. In the past two years, the MTRCL has focused on the construction of the diaphragm wall at the section of Ma Tau Wai Road between Chi Kiang Street and Sheung Heung Road. The construction work involves various difficult tasks, including the implementation of large scale temporary traffic management schemes at Ma Tau Wai Road, extensive utilities diversion works and unpredicted geological conditions. At present, it is anticipated there is a delay of about 5 months in the diaphragm wall construction. The MTRCL is progressively increasing the equipment and manpower on site, and rearranging the sequence of some construction activities at Ma Tau Wai Road in order to catch up with the progress.

Hung Hom Section (Section of the tunnel from Ho Man Tin Station to Hung Hom Station, including the reconstruction of Hung Hom Station and associated tunnelling works)

31. For the Hung Hom section, the overall progress is generally in line with programme despite some deviation on individual works. However, we need to step up the monitoring of some individual works which are highly difficult. For instance, the tunnelling works of the SCL to the north of Hung Hom Station have to be carried out on a very busy road along the operating East Rail Line while the works at Hung Hom Station have to be carried out underneath the existing station podium. Both construction works are highly difficult and have to be carried out in a prudent manner to avoid affecting the traffic flow of the nearby busy road and the operation of the existing station.

Hung Hom to Admiralty Section

<u>Cross Harbour Section and Hong Kong Island Section (Cross Harbour Section is</u> <u>the tunnel section across the Victoria Harbour; Hong Kong Island Section is the</u> <u>tunnel section to Admiralty Station on Hong Kong Island, including Exhibition</u> <u>Station</u>)

32. The advance works for the Cross Harbour Section and Hong Kong Island Section include the re-provisioning of Harbour Road Sports Centre and Wan Chai Swimming Pool, the alternation works for footbridges and box culvert within the rest garden near Cross Harbour Tunnel portal. These works have commenced by stages since June 2013. The tendering exercise for the station and tunnel works of the Cross Harbour Section and Hong Kong Island Section is underway, with a view to commencing the works by stages from the second half of 2014.

33. The Exhibition Station of the Hong Kong Island section is an underground station beneath the existing Harbour Road Sports Centre, Wan Chai Swimming Pool and Wan Chai North Public Transport Interchange at Wan Chai North, with an open-air public transport interchange at ground level. In February 2014, Chief Executive in Council approved the Wan Chai North Outline Zoning Plan, in which the Exhibition Station site was rezoned to "Comprehensive Development Area" to allow flexibility for topside development (mainly for convention and meeting facilities, and other commercial related uses) above it. To allow for flexibility for potential topside development in the future, enabling works would be incorporated into the underground structure of Exhibition Station. It might have programme implication on the SCL project. The tendering exercise for the works of Exhibition Station is being conducted. The tenderers are required to explore measures to minimize the impact on the works.

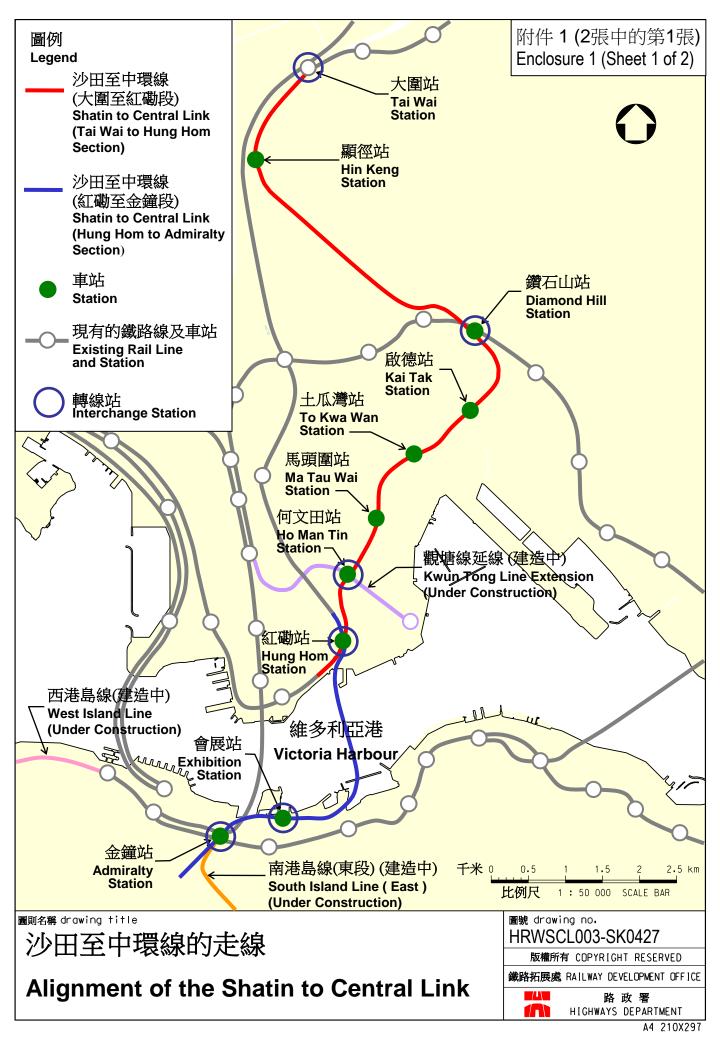
34. Besides, the construction of Exhibition Station is highly complicated and the progress of it is subject to potential risk. It has to cater for the reclamation works under the Wan Chai Development Phase II and the tunnel works under the Central-Wan Chai Bypass, as well as the heavily trafficked Wan Chai North road network nearby. Moreover, the site areas adjoining the junction of Expo Drive East and Convention Avenue would only be handed over to the contractor of the SCL for construction upon the completion of related portion of tunnel works and reclamation work. According to the latest progress of these tunnel works and reclamation, there is an estimated delay of about 6 months in the handover of these critical site areas and the last piece of site area might only be handed over to the contractor for construction by early 2017. The Civil Engineering and Development Department has taken measures, including changing the alignment of underground utilities, to facilitate the SCL construction. It will continue to consider releasing the site areas by phases in order to alleviate the programme implication of land possession delay on the SCL project. To reduce the programme risk so induced, the HyD is closely monitoring the progress of the tunnel works and the reclamation with a view to facilitating timely identification of possible measures. In the meantime, the MTRCL has also required the tenderers to explore improvement measures with a view to completing the Hung Hom to Admiralty Section of the SCL as scheduled.

Conclusion

35. The SCL is a major underground infrastructure project. It is not uncommon to encounter difficulties and challenges during the construction. It is also unavoidable to have programme deviation on individual contracts. The MTRCL has responded by rearranging sequence of the works having regard to the actual site conditions and deploying additional manpower and equipment where appropriate to overcome various difficulties. The Government would closely monitor the progress of the works, appreciate the working conditions, and discuss with the MTRCL problems encountered in the construction and assist the MTRCL to resolve them in order to complete the project as early as possible.

36. According to the latest situation, the HyD estimates that there is a cumulative delay of at least 11 months for the Tai Wai to Hung Hom section. As far as the Hung Hom to Admiralty section is concerned, although it is still at the tendering stage there is a risk in completing the works by the end of 2020 as scheduled. The Government would conduct timely reviews of the programme in accordance with the latest situation of the project.

Transport and Housing Bureau Highways Department June 2014





HRWSCL003-SK0428

List of Major Contracts¹ Awarded

Civil Engineering Contracts

#	Contract No.	Contract Title	Awarded Contract Sum (\$ million)	Award Date
1	1101	Modification of Ma On Shan Line	620.00	11/7/2012
2	1102	Hin Keng Station and Approach Structures	1,039.00	5/7/2013
3	1103	Hin Keng to Diamond Hill tunnels and Fung Tak Public Transport Interchange	2,727.89	16/10/2012
4	1106	Diamond Hill Station Extension	1,665.08	13/12/2012
5	1107	Diamond Hill to Kai Tak Tunnels	1,067.34	7/3/2013
6	1108	Kai Tak Station and Associated Tunnels	1,422.00	25/4/2013
7	1108A	Kai Tak Barging Point Facilities	289.99	10/8/2012
8	1109	Stations and Tunnels of Kowloon City Section	4,569.50	11/7/2012
9	1111	Hung Hom North Approach Tunnels	3,368.44	13/12/2012
10	1112	Hung Hom Station and Stabling Sidings	5,241.36	7/3/2013
11	1113	Reprovisioning of NTS Animal Management Centre and Shatin Plant Quarantine Station	132.61	7/9/2012
12	1114	Pedestrian Links at Tsz Wan Shan	608.00	11/7/2012
13	1117	Pat Heung Depot Modification Works	810.80	16/10/2012
14	1119	Trackwork and Overhead Line Modification Works at Lo Wu and Pat Heung Depot	105.60	10/10/2012
15	1120	Trackwork and Overhead Lines for SCL Phase I	425.91	18/10/2013
16	11209	Platform Modification and Associated Works at East Rail Line	835.60	4/7/2013
17	1125	Police Sports and Recreation Club Enhancement Works	297.00	13/12/2013
18	1126	Reprovisioning of Harbour Road Sports Centre and Wan Chai Swimming Pool	871.02	16/1/2014
19	1129	SCL - Advance Works for NSL	299.94	16/1/2014

¹ Major contract refers to the awarded contract with the contract sum value more than \$50 million.

Electrical & Mechanical Contracts

#	Contract No.	Contract Title	Awarded Contract Sum (\$ million)	Award Date
1	1141A	New Rolling Stock for SCL Phase 1	833.35	11/12/2013
2	1141B	New Rolling Stock for SCL Phase 2	4,077.54	14/12/2012
3	1151	Rolling Stock Modification and New Train Cars for SCL Phase 1	1,643.18	11/12/2013
4	1152	Signalling System for SCL Phase 1 & Signalling System Modification for MOL and WRL	642.53	5/7/2013
5	1152B	Signalling System for SCL Phase 2	845.13	14/12/2012
6	1153	Tunnel ECS for SCL Phase 1	188.99	12/8/2013
7	1154	Platform Screen Doors for SCL Phase 1 & APG Retrofit for MOL	415.87	14/12/2012
8	1155	Power Supply System and Trackside Auxiliaries for SCL Phase 1	208.38	5/6/2013
9	1159	Lifts for SCL Phase 1	72.19	8/10/2013
10	1162	TETRA System for SCL Phases 1 & 2	131.44	12/4/2013
11	1164	Building Services for Diamond Hill Station	272.00	4/3/2014
12	1165	Building Services for Hin Keng Station, Ma Chai Hang Ventilation Building and Fung Tak Emergency Access	219.00	11/2/2014
13	1166	Main Control System for SCL Phase 1	308.50	5/7/2013
14	1169	Communications System for SCL Phase 1	431.30	23/8/2013
15	1172	Escalators for SCL Phase 1	180.44	5/9/2013
16	1173	Building Services for Hung Hom Station and Hung Hom Stabling Sidings	631.48	14/1/2014
17	1175	Building Services for Kai Tak Station	157.88	7/1/2014
18	1176	Building Services for To Kwa Wan Station and Ancillary Building	183.34	4/3/2014
19	1177	Building Services for Ma Tau Wai Station and Ancillary Building	250.31	8/4/2014
20	1183	EAL Signalling System Modification for SCL	115.08	7/8/2012

Enclosure 3

Legislative Council Panel on Transport Subcommittee on Matters Relating to Railways

Progress Update of the Shatin to Central Link

INTRODUCTION

1. This is to provide updates to Members on the progress of the construction of the Shatin to Central Link (SCL) as of **end May 2014**.

BACKGROUND

2. The 17-kilometre SCL is a territory-wide strategic railway project. The project is linked with a number of existing railways, forming two strategic railway corridors: namely the "East West Corridor"¹ and the "North South Corridor"². There will be 10 stations for the SCL. The existing Tai Wai Station will be modified, whilst extension to operating stations or new stations will be built at Hin Keng, Diamond Hill, Kai Tak, To Kwa Wan, Ma Tau Wai, Ho Man Tin, Hung Hom, Exhibition, and Admiralty. Six of them are interchange stations connecting various existing and future railway lines which further develop the local railway network to expand the service area (Please refer to **Attachment A**).

3. SCL has been authorized by the Chief Executive in Council on 27 March 2012 under the Railways Ordinance. The Finance Committee of the Legislative Council endorsed the funding of the major works of the SCL project on 11 May 2012. After the funding approval, the MTR Corporation (The Corporation) has commenced construction works for the SCL according to the agreement signed by the Government and the Corporation. It was expected at the time of entry into the agreement (and as reflected in the programmes contained therein) that

¹ "East West Corridor" links up the existing Ma On Shan Line and West Rail Line at Tai Wai and Hung Hom Stations respectively. Passengers could travel from Wu Kai Sha to Tuen Mun in New Territories West via Hung Hom and Kowloon East without interchanging lines

² "North South Corridor" is the extension of the existing East Rail Line to cross the harbour from Hung Hom Station to Admiralty Station. Passengers travelling from Lo Wu and Lok Ma Chau could reach the centre of Hong Kong Island directly.

Tai Wai to Hung Hom Section and Hung Hom to Admiralty Section would be completed in December 2018 and December 2020 respectively.

OVERALL PROGRESS OF THE SCL PROJECT

(I) <u>Major Works</u>

4. For the SCL project, 19 major construction and 20 major electrical & mechanical (E&M) contracts³ together with other minor contracts were awarded with a total sum of \$38.481 billion. They include contracts for civil works and E&M works, which amount to about \$26.539 billion and \$11.942 billion respectively (Please refer to **Attachment B** for details).

5. The overall progress is summarized below –

(a) Civil Works

6. As of end May 2014, the overall works for the SCL are 16% completed. The SCL comprises of six sections according to geographical locations with progress of each section as follows:

Shatin Section

7. The foundation works for the Hin Keng Station was completed in May 2014. The structural works for the station are ongoing and in good progress. Advance works for the construction of elevated railways connecting Hin Keng Station and the Lion Rock railway tunnels including underground utilities diversion are being carried out. Pipe piles and temporary steel platforms are in construction for the future foundation works of the at-grade track structure.

8. To facilitate the construction of Hin Keng Station, the New Territories South Animal Management Centre and Shatin Plant Quarantine Station in Che Kung Miu Road were demolished and reinstated in To Shek, Sha Tin. The above reprovisioning work was completed in November 2013, which was two months earlier than scheduled.

9. The 2,400 metre long Hin Keng to Wong Tai Sin Ma Chai Hang railway tunnels will be constructed using the drill and blast method. The advance excavation works at Hin Keng is progressing at a slower pace as additional

³ Major construction contract means individual contract with value above \$50 million.

temporary strengthening works are required owing to the complicated ground condition. To speed up the programme, 24-hour works for tunnel excavation have commenced since early May 2014, after the completion of noise enclosure installation for the access shaft and the related permit granted. The drill and blast tunnel works are expected to be commenced in the third quarter of 2014 at Hin Keng heading towards Wong Tai Sin.

Wong Tai Sin Section

10. The Diamond Hill to Ma Chai Hang tunnels will be constructed by tunnel boring machine (TBM). Parts and components of the TBM have been delivered and are being assembled in the former Tai Hom Village works site since May this year. It is expected to be launched in the third quarter of 2014 for constructing the 1,400 metre up-track tunnel towards Ma Chai Hang. Following the completion of diaphragm wall in May, excavation for the Ma Chai Hang vent shaft will start in the third quarter of this year. For the emergency access point to be constructed at the junction of Wong Tai Sin Road and Sha Tin Pass Road, diaphragm wall for the shaft was completed in April and excavation has commenced in the second quarter of this year.

11. In the former Tai Hom Village works site, over 90% of diaphragm wall for the extended Diamond Hill Station has been completed. The progress is slower than expected as we encountered difficulties with fault during the construction for some of the diaphragm wall panels. The Corporation has requested the contractor to adjust the works procedures with a view to catch up with the programme. The excavation works for the station box will be carried out in phases with the first phase commenced in the second quarter of 2014.

12. Station modification works are underway in the existing Diamond Hill Station, which include new lifts, escalators and jack-arch wall strengthening works at the southern concourse down to the track level to prepare for the construction of a pedestrian subway linking to the new part of the station.

13. Construction of the TBM launching shaft for the Kai Tak to Diamond Hill tunnel is progressing as scheduled. The TBM parts were transported to the works site near Kai Ching Estate in May 2014, and the TBM is expected to be launched in the third quarter of this year, heading towards Diamond Hill for the 750 metre up-track tunnel.

14. As part of the SCL, improvement works on the pedestrian link facilities will be carried out in Tsz Wan Shan area. This includes the provision of

footbridges, covered walkways, lifts and escalators. The above works were commenced in the third quarter of 2012. As Tsz Wan Shan is a densely populated area, works sites are close to residential blocks, schools and social facilities etc. Taking into consideration the impacts on residents and the environment, construction methods for some of the facilities and the related temporary traffic management schemes have been revised in response to concerns expressed by the local community. As a result, some of the facilities may take longer time to build than expected. The programme and works arrangements are currently under review to catch up with the programme. Meanwhile, those unaffected facilities are expected to be completed as early as possible.

Kowloon City Section

15. 80% of the excavation works at Kai Tak Station and the sheet piling works have been substantially completed. The structural works of the station have commenced in the first quarter of 2014. The tunneling works between Kai Tak Station and To Kwa Wan Station is in progress and the tunnel structural works have started in June.

16. Parts of the piling works are in progress at the works area of Kai Tak Development Area for the construction of To Kwa Wan station box, pedestrian subways and the launching shaft of the tunnel boring machine have been suspended as a result of the unexpected extended archaeological survey. As a result, the works programme and the completion of the project will be delayed. The Corporation is adjusting the works as far as practicable to minimize the programme impact.

17. An archaeological survey-cum-excavation at the To Kwa Wan station works site was steered according to the recommendation of the Approved Environmental Impact Assessment (EIA) Report of the SCL Project and has been completed in 2013. Following to the interim report submitted to the Antiquities and Monuments Office (AMO), an extended survey beyond the designated area in the EIA report is being conducted thereafter upon the request of the AMO. The extended survey is expected to be completed by the third quarter of 2014.

18. Since the excavation works of the launching shaft have been suspended to make way for the archaeological survey, the original plan for assembling the tunnel boring machine has been affected. As of June 2014, the critical construction works for the tunnel and station have been affected with a delay of

about six months which has a direct impact on the tunnel works between To Kwa Wan and Ho Man Tin. Meanwhile, the way forward in handling the heritage remains discovered in Area T1 has yet to be agreed. As the discovered remains are located at the southwestern corner of the launching shaft, a protection wall and revision in the design of the strut of the shaft are required along with the adjustment in works procedures. This may further affect the programme by at least 5 months in addition. As some of the archaeological excavation work is still ongoing, the extent of its impact to the SCL programme is yet to be concluded.

19. Ma Tau Wai Station diaphragm wall construction works are in progress. As the construction works are being carried out at Ma Tau Wai Road, the related temporary traffic arrangements have been adjusted to take into account of views and concerns expressed by the local community. During the course, additional adjustment on the work procedures are required in the handling of underground public utilities, unforeseen ground conditions and concerns raised by local residents on the vibration level. The construction of the diaphragm wall is currently five months behind its original plan. The Corporation has requested the contractor to step up its manpower and put in additional machinery to expedite the progress. The construction of diaphragm wall in the east side of Ma Tau Wai Road has gradually completed in end 2013 and early this year, and the works areas have proceeded to the western side of Ma Tau Wai Road starting from early 2014. In order to enhance the walking environment of the pedestrian walkway of Ma Tau Wai Road, transparent hoardings with mesh screen and additional lighting have been installed so as to enhance illumination level and minimize dust and noise level.

Hung Hom Section

20. Two railway tunnels will be built to the north of Hung Hom Station for the SCL. Of which, one will form a new section of underground section of the East Rail Line from the south of the petrol station at Princess Margaret Road to Hung Hom Station and extend across the harbour to Hong Kong Island. Another railway tunnel will link up Ho Man Tin Station, Hung Hom Station and the West Rail Line. The current piling works at Chatham Road North, Winslow Street and next to East Rail Line is to prepare for the upcoming tunnel excavation. Some of these works sites are in close proximity to the East Rail Line, and construction works have to be carried out with extra care in order not to affect the existing railway service. As such, works have to be carried out after normal railway service hours at night. 21. Hung Hom Station will become an interchange station of the SCL's "East West Corridor" and "North South Corridor". Hung Hom Station will be modified with new station layout. The construction of new platforms has commenced in June 2013 with the construction of diaphragm walls and foundation for the new platforms being carried out. In order to minimize the impact to passengers and the current station operation, the modification works of Hung Hom Station concourse will commence in the third quarter of this year in stages. Passengers would be able to enjoy a better travelling environment with upgraded station facilities upon the completion of modification works.

22. The former Hung Hom Freight Terminal is currently being modified as Stabling Sidings for the SCL since July 2013. The old platforms have been demolished and the foundation works have commenced to prepare for track laying works.

23. The re-provisioning of Central Mail Centre in Kowloon Bay had been completed and was handed over to Hong Kong Post in 2013. Mailing services and facilities have been gradually relocated to the new building from the former International Mail Centre at Hung Hom, which is planned to be demolished later this year to make way for the construction of the SCL.

Cross Harbour and Hong Kong Island Sections

24. The sections of Cross Harbour and Hong Kong Island of the SCL have many interfacing with other major infrastructure projects on the northern shore of Hong Kong Island. To avoid abortive works and minimize any possible impacts to the community and the completed works of these projects, the protective works of the SCL was entrusted to Wan Chai Development Phase II and Central-Wan Chai Bypass. Both parts are close to completion. Advance works for the Cross Harbour and Hong Kong Island Sections have commenced in 2013. Preparatory works in various works sites have gradually started, which involves temporary closure of public facilities, erection of hoardings to segregate pedestrians and works sites, etc. Major construction works for these two Sections are expected to commence in the second half of 2014 after the contract award .

25. To prepare for the railway tunnels construction, underpinning and box culvert diversion are being carried out at the approach area of Cross Harbour Tunnel in Wan Chai. Meanwhile, construction of facilities for temporary or permanent re-provision, including part of the northern stand of Wan Chai Sports

Ground, Harbour Road Sports Centre and Wan Chai Swimming Pool, have commenced. It is estimated that the re-provisioning works of the temporary Wan Chai Ferry Public Transport Interchange will commence immediately upon the handover of the newly reclaimed land under Wan Chai Development Phase II to SCL in the third quarter this year to facilitate the construction of Exhibition Station.

26. The Exhibition Station is located in Wan Chai North with busy traffic. Part of the work sites can only be handed over to SCL after the completion of the Wan Chai Development Phase II and Central-Wan Chai Bypass tunneling works which will further complicate the construction of the Exhibition Station. According to the latest information from Government, some of the critical works areas at Expo Drive East and Convention Avenue would only be available and handed over to the SCL six months later than the original schedule, and the last piece of works area would only be handed over in early 2017. At the same time, the structural design of the Exhibition Station has to be revised as a result of the land use changes⁴ introduced in early 2014 to allow flexibility for future development. The delays in the handover of works areas and the land use changes introduced earlier this year will affect the programme of the SCL.

(b) Improvement works for the operating railway facilities

27. To cater for the 8-car train operation of the East West Corridor, modification works would be carried out along Ma On Shan Line Stations, while Pat Heung Depot would also undergo extension works. Automatic Platform gates will also be retrofitted at East Rail Line and Ma On Shan Line Stations.

Ma On Shan Line (MOL) Platform Modifications

28. To cater for the 8-car train operation of the East West Corridor, modification works including extension of platforms and roofs are being carried out at MOL stations since the fourth quarter of 2012. Works are nearly 50% complete. To avoid interrupting normal train service, most of the platform and roof works could only be carried out overnight for only two to four hours after normal train service hours.

⁴ According to the Wan Chai North Outline Zoning Plan (OZP) approved by the Chief Executive in Council, the proposed Exhibition Station are zoned "Comprehensive Development Area" to allow flexibility for land use of convention and meeting facilities and other commercial related uses above the station.

Automatic Platform Gates (APGs) Retrofitting on East Rail Line (EAL) and Ma On Shan Line

29. Platform strengthening, construction of equipment rooms for telecommunication and signalling system, as well as E&M and building service facilities are required before the commencement of APGs retrofitting works along the EAL. To avoid interrupting normal train service, the above works could only be carried out overnight after the normal train service hours. There are limited hours allowed for carrying out the very complicated works. Platform strengthening works at the Racecourse Station has commenced since the summer break of horse racing seasons in 2013. Similar platform modification works at Tai Wo, Sheung Shui, Fanling, Tai Po Market, Sha Tin and University Stations are in progress. APGs retrofitting works for the whole EAL are expected to be completed by 2020.

30. The contract for APGs retrofitting for the MOL was awarded in December 2012. The new APG prototype was delivered to Hong Kong in October 2013 for conducting reliability tests. The first pair of APGs retrofitting are expected to commence at Tai Wai Station by the end of 2014. The Corporation is committed to bringing forward the completion of APGs installation in MOL stations by 2017, one year earlier than originally scheduled.

Pat Heung Depot Extension

31. To facilitate the 8-car train operation for the East West Corridor, modification and extension works are being carried out at the existing Pat Heung Depot. Foundation works for the Maintenance Building extension have been completed, followed by the commencement of superstructure construction in the second quarter of 2014. The superstructure works of the Ancillary E&M Plant Building will commence in the third quarter. In addition, modification works are underway in the eastern part of the depot for train stabling.

(c) Rolling Stocks and E&M Works

32. The contracts to purchase new rolling stocks and new signalling system for the SCL North South Corridor were awarded in December 2012. The design and manufacture of the 37 sets of new trains and new signalling system are in progress. The first train is scheduled to be delivered to Hong Kong for testing and commissioning in 2015. Overnight installation, and testing and commissioning on signalling system will start in 2015. Static tests, dynamic tests, integrated testing with other electrical and mechanical systems and train fleet, new and old systems interface testing etc. will be conducted accordingly. 33. The contract for new rolling stocks for the East West Corridor was awarded in January 2014 for the design and manufacture of 14 sets of new trains and 348 modified train cars of the existing train fleets of West Rail Line, EAL, and MOL.

34. Details of the progress of works are set out at Attachment C.

(II) Preparation and Co-ordination for Construction Works

(a) Temporary traffic arrangements

35. To facilitate the works of the SCL projects, a number of temporary traffic management schemes are being implemented across different districts. Currently, 3 traffic lanes are temporarily closed on Ma Tau Wai Road for the construction of Ma Tau Wai Station, and the traffic has to be revised into one northbound and two southbound lanes. The traffic of Ma Tai Wai Road remains normal throughout the various stages of the traffic scheme.

36. For the construction of the railway tunnel to the north of Hung Hom Station, temporary traffic management schemes have been implemented in stages in the vicinity of Chatham Road North since June 2013. The eastbound Chatham Road North is planned to shift to the north by stages starting in mid-2014.

37. Since the commencement of SCL construction, there are close liaison with the local communities and relevant District Councils on the above arrangements. Local District Councillors have been consulted on the relevant traffic diversion schemes. Site visits have been arranged to better understand the impacts and listen to different views on the proposed schemes. Moreover, owners, residents and tenants of relevant housing estates and buildings are informed of the latest temporary traffic arrangements through timely information updates as well as through SCL website.

38. Caring ambassadors are deployed at strategic locations such as road crossings and bus-stops to provide assistance to pedestrian in crossing roads and getting used to the new traffic arrangements.

(b) Community Liaison

39. In order to keep the local communities and general public informed of the progress of the SCL project and to listen to their views, an Information Centre

for the SCL was set up in To Kwa Wan area in October 2012. Over 600 enquiries have been handled. An Information Counter was also set up at Hin Keng Shopping Centre in February 2014 for the convenience of the local residents in Sha Tin District. Over 200 enquiries have been handled since its opening of service. To reach out to the travelling public along the MOL, four rounds of Information Zones on the platform modification works were carried out along MOL stations. Apart from displaying related project information, passengers could obtain information about the works and our engineers at the events.

40. Community Liaison Groups (CLGs) have been set up across districts for SCL as a channel to communicate with the local communities. At the regular meetings of the CLGs, project progress reports and possible impacts to the community are provided. A total of 36 meetings have been conducted so far. Members of the CLGs comprise of local district councillors, representatives of residents, schools, local organizations, etc, and representatives from government departments such as Highways Department, Hong Kong Police Force, Transport Department, Lands Department and Home Affairs Department.

41. Since most SCL works areas are close to residents and shops, Community Liaison Officers and the construction teams of the Corporation proactively visit the shops and residents nearby to maintain close dialogues and to address concerns in a timely manner.

(c) Handling of enquiries and complaints

42. The Corporation has always attached great importance to communication with the public and local communities. Various channels including mailing, fax, email, dedicated MTR and Contractors' Hotlines as well as CLGs are established for the members of the public to express their views and to make enquiries concerning the SCL projects. Feedback from the public including suspected damage to buildings, traffic management, environmental implications, and the tidiness and cleanliness of works sites, etc. are followed up and dealt with promptly.

(III) Employment Opportunities

43. As at March 2014, about 4,615 construction workers and technical/ professional staff members are employed. It is estimated that the project manpower figure will be around 8,000 when reaching its peak in the third quarter of 2015.

MAJOR CHALLENGES ON THE COMPLETION OF SCL

44. The Tai Wai to Hung Hom Section was originally expected to be completed and put into service by December 2018. As a result of the extended archaeological survey in the site area of the station and tunnel section in To Kwa Wan, some of the critical construction works have been suspended causing a direct impact to the overall progress of the SCL Project. Whilst the archaeological survey is still in progress, the extent of its impact to the railway design, programme and project costs are yet to be determined.

45. The Hung Hom to Admiralty Section was planned for completion and put into service by December in 2020. The very challenging construction works in the Cross Harbour Section and Wan Chai District will be further complicated by their interfacing with the Wan Chai Development Phase II and Central-Wan Chai Bypass Projects. The risk levels for this part of the project require special attention. The Corporation will continue to liaise with relevant government departments on the progress of the other infrastructure projects so that appropriate adjustment and fine-tuning of the SCL works could be carried out in a timely manner.

CONCLUSION

46. SCL is a railway link running through numerous developed areas on Hong Kong Island, in Kowloon and New Territories. The Project involves a significant amount of works in the existing operating railway lines and has many interfaces with other major infrastructure projects. Despite the challenges, the project team continues to overcome the difficulties by constantly reviewing the progress and develop mitigation measures accordingly. Every effort has been put together to co-ordinate with relevant authorities for the implementation of the project. Updated information of the project progress will be communicated to the public in a timely manner.

MTR Corporation June 2014

Attachment A



Shatin to Central Link Alignment

Attachment B

Expenditure report as of 31 May 2014

Table 1 – Situation of expenditure

	Awarded contract sum for the contracts (\$ million)	Cumulative expenditure (\$ million)	Estimated amount* of unresolved claim (\$ million)
Civil works	26,539	8,386**	209.3
E&M works	11,942	369**	0
Total	38,481	8,755	209.3

*Amount stated in the contractor's detailed claim report.

**Amount by Government expenditure

Table 2 – Situation of substantiated claims

	Claims resolved			Claims unresolved		
	Number	Amount claimed originally* (\$million)	Amount awarded (\$ million)	Number	Amount claimed* (\$ million)	Interim award (\$ million)
Civil works	9	12.0	6.8	54	209.3	0
E&M works	0	0	0	4	0	0
Total	9	12.0	6.8	58	209.3	0

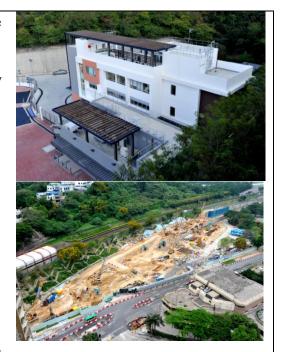
*Amount stated in the contractor's detailed claim report

1. The Government and the MTR Corporation conducted risk assessment at the planning and budgeting stages of the project to minimise claims arising from the works. Nevertheless, there were often unforeseeable situations in the course of works. For instance, the foundation or excavation works might come across a larger amount of or more complicated obstructions than expected. As this would add difficulties to the works, the contractors might have to use more machines or switch to other machines that were more suitable and employ more staff to cope with these situations. The contractors would submit claims in accordance with the contract terms to cover the additional expenditures. Upon receipt of claims from contractors, the corporation would examine such claims and assess the amount concerned based on the relevant contract terms, justifications, documents, records, etc. 2. As at 31 May 2014, the Corporation received 67 substantiated claims and the amount claimed in total was about \$221.3 million, representing 0.6% of the awarded contract sum for the contracts. The Corporation has been discussing the details of the claims with the contractors concerned, and would thoroughly assess the amount claimed. The Corporation would process each claim in a prudent manner, and the contractors would have to provide sufficient justifications and information. As at 31 May 2014, 9 cases were resolved and about \$6.8 million was awarded, representing about 0.02% of the awarded contract sum for the contracts. The Corporation would continue to handle the cases cautiously.

Attachment C

Shatin Section

- The foundation works for Hin Keng Station was completed in May 2014. The structural works for the station are ongoing;
- For the construction of elevated railways connecting Hin Keng Station and the Lion Rock railway tunnels, advance works including underground utilities diversion are being carried out;



- New Territories South Animal Management Centre and Shatin Plant Quarantine Station in Che Kung Miu Road was demolished and reinstated in To Shek Lane, Sha Tin in November 2013;
- Excavation works are in progress for the Hin Keng to Wong Tai Sin Ma Chai Hang Railway Tunnels. The tunnel access shaft noise enclosure has been installed. Drill and blast tunnel works are expected to commence in the third quarter of 2014.



Wong Tai Sin Section

• The Diamond Hill to Ma Chai Hang tunnels will be constructed by tunnel boring machine (TBM). The TBM parts and components have been delivered and are being assembled in the former Tai Hom Village works site since May this year. It is expected to be launched in the third quarter of 2014;

• Following the completion of diaphragm wall in May, excavation for the Ma Chai Hang vent shaft will commence in the third quarter this year;

• For the emergency access point to be constructed at the junction of Wong Tai Sin Road and Sha Tin Pass Road, diaphragm wall for the shaft was completed in April and excavation would commence in the third quarter of this year.







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Wong Tai Sin Section

• Over 90% of diaphragm wall for the Diamond Hill Station extension has been completed. First phase excavation works has commenced in the second quarter of this year;

• Station modification works including building new lifts and escalators are underway in Diamond Hill Station. Jack-arch wall strengthening works are being carried out at the southern concourse and to the track level;

• Construction of Kai Tak to Diamond Hill tunnel shaft is ongoing as scheduled. The TBM parts were transported to the works site near Kai Ching Estate in May 2014 for assembling. It is expected to be launched in the third quarter.







Wong Tai Sin Section

- The improvement works on pedestrian link facilities in Tsz Wan Shan were commenced in the third quarter of 2012. As Tsz Wan Shan is a densely populated area, the works sites are close to residential blocks, schools and social facilities etc. Taking into consideration the impacts on residents and the environment, design and construction methods for some of the facilities and the related temporary traffic management schemes have been revised accordingly in response to the concerns expressed by the local community. As a result, construction time for some of the individual facilities may take longer time to build than expected. The programme and works arrangements are currently under review to catch up with the programme. Meanwhile, those unaffected facilities are expected to be completed as early as possible.
- The covered walkway in Fung Tak Road northern footpath will open to public in the third quarter of 2014.







Kowloon City Section

• 80% of the excavation works at Kai Tak Station and the sheet piling works have been completed. The structural works of the station have commenced in the first quarter of 2014. The tunneling works between Kai Tak Station and To Kwa Wan Station is in progress and the tunnel structural works will be started in June;

- The foundation works of To Kwa Wan station box, and the launching shaft of the tunnel boring machine were partially suspended due to the extended archaeological survey;
- The extended archaeological survey at To Kwa Wan station could be completed in the third quarter of 2014;
- Ma Tau Wai Station diaphragm wall construction works for the west side are in progress.











Hung Hom Section

• Piling works are undergoing at Chatham Road North, Winslow Street and next to East Rail Line for the upcoming tunnel excavation;

• The former Hung Hom Freight Terminal is currently being modified as SCL's Stabling Sidings. The old platforms were demolished and the foundation works is being carried out;

• Re-provisioning of Central Mail Centre in Kowloon Bay had been completed and was handed over to Hong Kong Post last year to replace the International Mail Centre in Hung Hom.







Cross Harbour and Hong Kong Island Section

• Re-provisioning of Harbour Road Sports Centre and Wan Chai Swimming Pool has commenced to facilitate the construction of Exhibition Station. Foundation of the swimming pool is under construction;

• Advance works, such as underpinning and box culvert diversion at Tunnel Approach Rest Garden is undergoing for the railway tunnels construction begins in the end of this year.





Improvement works on the operating railway facilities - APGs Retrofitting on EAL

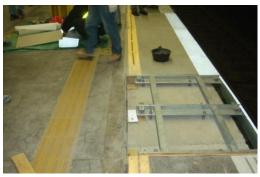
- To pave way for the APGs retrofitting works, platform strengthening, construction of equipment rooms for telecommunication and signalling system, as well as E&M and building service facilities are in progress;
- Platform strengthening works have already taken place at the Racecourse Station by making use of the summer break of horse racing in 2013. Similar platform modification works at Tai Wo, Sheung Shui, Fanling, Tai Po Market, Sha Tin and University Stations are ongoing. APGs for the whole EAL is expected to be completed by 2020.



Racecourse Station



Tai Wo Station



Sheung Shui Station



Fanling Station



Tai Po Market Station



University Station

Improvement works on the operating railway facilities - APGs Retrofitting and Station Modifications on MOL

- To cater for the 8-car train operation of the East West Corridor, modification works including extention of platforms and roofs are being conducted at MOL stations since the fourth quarter of 2012. Works are nearly 50% complete;
- The new APG prototype was delivered to Hong Kong in October 2013. Reliability tests are currently ongoing. APGs retrofitting works are expected to be commenced at Tai Wai Station by end 2014 the earliest.



Che Kung Temple Station



City One Station



Wu Kai Sha Station

Improvement works on the operating railway facilities - Pat Heung Depot Extension

• Foundation works for the Maintenance Building extension have been completed, followed by the commencement of superstructure construction in the second quarter of 2014. The superstructure works of the Ancillary E&M Plant Building will be started in the third quarter. In addition, modification works are underway in the eastern part of the depot as the train stabling.



附件4

Enclosure 4

