





NEW RAILWAY
PROJECTS OWNED BY MTR



NEW RAILWAY
PROJECTS ENTRUSTED TO MTR



NEW RAILWAY
PROJECTS UNDER DISCUSSION

Hong Kong Network Expansion

Our Aims and Achievements

The expansion of our Hong Kong railway network contributes to our overall goals by building the additional capacity needed to meet the future transport needs of Hong Kong. It covers both railway projects owned by MTR and those entrusted to MTR by Government. In developing these new rail lines we make every effort to meet the community's expectations regarding the environment, safety and efficiency.

We opened two new rail lines in 2016, the Kwun Tong Line Extension on 23 October and the South Island Line (East) on 28 December, bringing the convenience of MTR travel to all 18 districts in Hong Kong. Work also continued to progress on the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link ("Express Rail Link") and the Shatin to Central Link.

We continue to work with Government on its strategy to continue using railway as the backbone in the development of Hong Kong's public transport network. Under Railway Development Strategy 2014 ("RDS 2014"), Government has identified seven additional rail projects. The project proposal for the Tuen Mun South Extension was submitted to Government in December 2016, and we are now preparing project proposals for three more rail lines.



Our Strategies

- **Delivery Targets:** Implementing good project management practices to ensure that the progress of the Ownership Projects, Kwun Tong Line Extension and South Island Line (East), were on track for opening by October and December 2016, respectively; and for projects entrusted by Government, on track for the Express Rail Link to open by the third quarter of 2018, the Shatin to Central Link East West Corridor to open in mid-2019, and the Shatin to Central Link North South Corridor to open in 2021
- **Interfacing Effectiveness:** Proactively strengthening channels for collaboration with interfacing departments and divisions within the Company and key external stakeholders. Enhancing integration, particularly with the Operations Division, on the handover of railway extension projects and works in the operating railway
- **Growth and Development:** Pursuing new railway development opportunities through RDS 2014 to establish a pipeline of future project deliveries in Hong Kong. Leveraging opportunities afforded by new projects in Hong Kong and overseas for staff career development and the enhancement of capabilities



Shatin to Central Link

- 68.1% complete
- 17km with ten stations

Express Rail Link

- 87.4% complete
- 26km served by West Kowloon Terminus

Shatin to Central Link

Tai Wai to Hung Hom Section

- extend the existing Ma On Shan Line from Tai Wai to the West Rail Line via East Kowloon to form the “East West Corridor”
- 83.1% complete

New Railway Projects Under Discussion

- 7 railway projects identified by Government under Railway Development Strategy 2014
- project proposal of the extension of West Rail Line to Tuen Mun South was submitted to Government

Shatin to Central Link

Hung Hom to Admiralty Section

- extend the existing East Rail Line across the harbour to Wan Chai North and Admiralty to form the “North South Corridor”
- 45.4% complete



New Rail Projects Owned by MTR

Kwun Tong Line Extension

Following extensive trials and testing, the 3-km Kwun Tong Line Extension opened on 23 October to great excitement amongst the Hong Kong public. The 3-km new line extends the Kwun Tong Line from Yau Ma Tei Station to new stations in Ho Man Tin and Whampoa. It reduces the journey time between Whampoa and Yau Ma Tei stations to 5 minutes from the previous 15-20 minutes using other modes of transport.

Since the opening of the extension to the end of February 2017, approximately 13 million passengers have used the extension, with daily average usage of over 100,000.

South Island Line (East) (“South Island Line”)

The 7-km South Island Line, which extends MTR services from Admiralty to the Southern District of Hong Kong Island, opened on 28 December and was warmly welcomed by residents of the Southern District as well as the travelling public. The line has four new stations, Ocean Park, Wong Chuk Hang, Lei Tung and South Horizons and finally brings MTR’s service to all 18 districts in Hong Kong. During the year our team overcame many construction challenges, including those relating to the extensive expansion of Admiralty Station, to enable the line to open by year end.

Since the opening of the South Island Line to the end of February 2017, approximately 7 million passengers have used the line, with daily average usage of over 110,000.

New Rail Projects Entrusted to MTR by Government

Express Rail Link

The 26-km Guangzhou-Shenzhen-Hong Kong Express Rail Link (“Express Rail Link”) will provide high-speed cross-boundary rail services connecting Hong Kong to Shenzhen, Guangzhou and the high speed rail network in the Mainland of China. It will be served by the 380,000 square metres gross floor area (“GFA”) West Kowloon Terminus, one of the largest underground high-speed rail stations in the world. As at 31 December 2016, overall the project was 87.4% complete with the Terminus 82.8% complete and all tunnel works substantially complete. Track installation in the main tunnels was completed in November 2016 and overall, 95.7% of tracks had been laid by the end of 2016.

In September 2016, the first of the nine high-speed trains for the Hong Kong Section of the line arrived in Hong Kong from Qingdao by sea. The train has successfully completed the first stage of dynamic testing in the pilot tunnel section in Hong Kong. The second train arrived in late January 2017.

The targeted opening date of the Express Rail Link remains the third quarter of 2018.

The Company’s project management responsibilities are set out in two Entrustment Agreements with Government. The first Entrustment Agreement (“XRL Preliminary Entrustment Agreement”) covers, among other things, preliminary and detailed design and site investigation, while the second Entrustment Agreement (“XRL Entrustment Agreement”) covers, among other things, completion of detailed design and construction and commissioning into service of the Express Rail Link.





The XRL Agreement relating to the further funding arrangements for the project was approved by the Company's independent shareholders on 1 February 2016 and became unconditional upon approval by the Finance Committee of the Legislative Council of the HKSAR ("LegCo") on 11 March 2016 of Government's additional funding obligations.

Under the XRL Agreement, Government will bear and finance the project cost up to HK\$84.42 billion (an increase of up to HK\$19.42 billion (the "Current Cost Increase") from the original project cost estimate of HK\$65 billion). If the project exceeds HK\$84.42 billion, MTR will bear and finance any project costs exceeding HK\$84.42 billion (if any) except in limited circumstances specified in the XRL Agreement. MTR will also pay a special dividend in cash of HK\$4.40 per share in aggregate. The first tranche of this special dividend of HK\$12.94 billion in total (being HK\$2.20 per share) was paid on 13 July 2016. The second tranche of special dividend (also of HK\$2.20 per share) will be paid in the second half of 2017. Other terms of the XRL Preliminary Entrustment Agreement and the XRL Entrustment Agreement (together, the "Entrustment Agreements") remain, except for amendments reflecting the XRL Agreement's proposed arrangements. These amendments also include an increase in the Project Management Fee payable to the Company under the XRL Entrustment Agreement to HK\$6.34 billion (from HK\$4.59 billion) and revision of the programme for completion of the Express Rail Link project to the third quarter of 2018. In addition, Government reserves the right to refer to arbitration the question of the Company's liability (if any) under the Entrustment Agreements for the Current Cost Increase, after the commencement of commercial operations on the new line ("Arbitration").

In the event that (i) Government refers to Arbitration the question of the Company's liability (if any) under the Entrustment Agreements for the Current Cost Increase; and (ii) the arbitrator does not determine that the liability cap contained in the XRL Entrustment Agreement ("Liability Cap")

is invalid and determines that, but for the Liability Cap, the Company's liability under the Entrustment Agreements for the Current Cost Increase would exceed the Liability Cap, then the Company shall bear such amount as is awarded to the Government up to the Liability Cap; seek the approval of its independent shareholders for the Company to bear the excess liability above the Liability Cap; and if the approval of the independent shareholders is obtained, pay the excess liability to Government.

Shatin to Central Link

The ten-station 17-km Shatin to Central Link connects existing railway lines to form an East West Corridor and a North South Corridor with six interchange stations creating vital new links across Hong Kong. Overall, the project was about 68.1% complete by the end of the year, with the East West Corridor and North South Corridor being 83.1% and 45.4% complete respectively.

For the East West Corridor, a significant milestone was the breakthrough of the whole 11-km tunnel section from Tai Wai to Hung Hom in August 2016. Track laying works are in progress with 54% of tracks laid. Three of the stations on the East West Corridor have been topped out, with good progress being made on the remaining stations.

For the North South Corridor, the first tunnel boring machine started operation in March 2016 and both the uptrack and downtrack tunnel drives from Causeway Bay to Exhibition Station were completed by year end. For the immersed tube cross-harbour tunnel, piling works at the Hung Hom marine cofferdam were completed in June 2016 and dewatering began the following month. Underwater dredging for the cross-harbour tunnel alignment was about 75% complete. The concrete structure of the immersed tube tunnel units has been completed and the associated works are now underway. We expect to start immersing and subsequently connecting these tunnel units in the first half of 2017.

Business Review and Analysis

Construction work for the diaphragm walls of Exhibition Station and relevant railway facilities are underway. Due to space limitation in Wan Chai North, temporary traffic management schemes are being implemented at different stages along Convention Avenue, Fleming Road and Expo Drive to create additional works areas. However, the number of traffic lanes will remain unchanged at peak hours to reduce the impact on the public.

Admiralty Station will become an interchange hub for the Shatin to Central Link, Island Line, Tsuen Wan Line and South Island Line. Upon the commissioning of the South Island Line in late December 2016, the work site for the future Shatin to Central Link platforms and concourse at Admiralty Station was handed over to the Shatin to Central Link project team. Civil and building services works on these platform and concourse areas commenced in January 2017.

As part of the North South Corridor project, the existing East Rail Line will be re-signalled. The phased testing of the new signalling systems with East Rail Line trains began in October 2016 during non-service hours.

Despite reasonable construction progress, and as reported a number of times previously, the programme for delivery of the Shatin to Central Link has been impacted by certain key external events. For the East West Corridor, the discovery of archaeological relics in the To Kwa Wan area has led to an 11-month delay but with the hard work of the teams involved and the successful implementation of a number of delay recovery measures, the length of this delay has now been reduced with the estimated completion of this corridor in mid-2019. For the North South Corridor, we had previously reported a six-month delay due to a number of external factors including the anticipated late handover by a third party of construction sites for the new Exhibition Station. We had also stated that any further delay in site handover

beyond those reported, will result in additional delay to the completion of this corridor. Now, as a result of the late site handover with incomplete entrusted works by another third party contractor at Wan Chai North, the completion of this corridor has been further delayed by an additional three months (to a total expected delay of nine months). However, the North South Corridor is still targeted to complete in 2021. Any additional delays by third parties in site handover or site handover with incomplete work may result in further delays in the completion of the North South Corridor.

For both the East West Corridor and the North South Corridor, our project teams continue to work diligently to explore and implement measures to improve progress and recover delays caused by external events and parties as far as possible.

The funding for construction of the Shatin to Central Link is set out in two Entrustment Agreements with Government. The Entrustment Agreement for Advance Works Relating to the Shatin to Central Link ("SCL Advance Works Entrustment Agreement") relates to advance works for the line predominately undertaken at Admiralty and Ho Man Tin stations. The subsequent agreement, the Entrustment Agreement for Construction and Commissioning of the Shatin to Central Link ("SCL Entrustment Agreement") relates to funding for the construction and commissioning of the Shatin to Central Link.

In December 2016, the Company completed its review for the project cost estimate of the works under the SCL Advance Works Entrustment Agreement and notified Government of the Company's revised estimate for the entrustment cost for such works of HK\$8,617.1 million. In December 2016, Government consulted the LegCo Panel on Transport Subcommittee on Matters Relating to Railways regarding such additional funding requirement before submitting the funding application to the LegCo Public Works Subcommittee in 2017.

For the SCL Entrustment Agreement, taking into account the continuing difficulties and challenges, including those described above, the Company considers that the cost estimate for the SCL Entrustment Agreement will need to be revised upwards significantly to take account of (i) the additional HK\$4,100 million that was previously reported as a result of the archaeological finds in the To Kwa Wan area, (ii) the late handover of construction sites at Exhibition Station, (iii) the previously unbudgeted foundation works for top-side development at Exhibition Station, (iv) the late site handover with incomplete entrusted works by another third

party contractor at Wan Chai North, and (v) other factors such as lower availability of labour in Hong Kong's construction sector. The Company has advised Government that it will therefore conduct a detailed review of the project cost estimate relating to the SCL Entrustment Agreement.

Given the complexity of the project works, the continuing uncertainties associated with some of the issues highlighted above and the fact that the North South Corridor is currently only 45.4% complete, this review will only be completed in the second half of 2017 after which the Company will formally report the findings to Government.

New Railway Projects Under Discussion

Beyond the two remaining Rail Gen 2.0 new rail projects currently under construction, Government has identified seven additional rail projects to be implemented under Railway Development Strategy 2014. Government has invited us to submit project proposals for four of these projects, namely the Tuen Mun South Extension, the Northern Link (and Kwu Tung Station), the East Kowloon Line and Tung Chung West Extension (and Tung Chung East Station). The

project proposal for the Tuen Mun South Extension was submitted to Government in December 2016. Technical studies for the Northern Link (and Kwu Tung Station) and East Kowloon Line are now underway in preparation for submission of project proposals in 2017. The project proposal for Tung Chung West Extension (and Tung Chung East Station) will be submitted thereafter.

New Engineering Division

Early in 2016 we established a new Engineering Division, headed by the new Engineering Director. This helps us to ensure excellence in our engineering functions and has strengthened our controls on all engineering related work.