Commission of Inquiry into the Construction Works at and near the Hung Hom Station Extension under the Shatin to Central Link Project

### FIRST WITNESS STATEMENT OF DEAN COWLEY

## I, DEAN COWLEY of 39/F, 30 Harbour Road, Hong Kong, say as follows:

- I am the General Manager of Safety, Health, Environment, Quality and Sustainability employed by Leighton Contractors (Asia) Limited ("Leighton"), the main contractor for the Hung Hom Station Extension contract (Contract SCL 1112) (the "Project") under the Shatin-Central rail link project. The project manager for the Project is MTR Corporation Limited ("MTRCL").
- 2. Unless otherwise stated, the facts stated herein are within my personal knowledge and are true. Where the facts and matters stated herein are not within my own knowledge, they are based on the stated sources and are true to the best of my knowledge, information and belief.

#### **Quality Management Framework**

- 3. Throughout 2018 to 2019, Leighton has been developing and implementing a new quality strategy which has included the establishment of a quality taskforce to review Leighton's corporate management system and conduct project reviews.
- 4. One of the outcomes of the quality taskforce was to develop a comprehensive Quality Management Framework ("**the QMF**"). The QMF has been under development since April 2018. It is designed to support the effective deliver of Leighton's existing quality management systems, and respond to current industry challenges. In particular, the QMF responds to the need to develop more sophisticated, simplified and efficient work practices, as the current industry approach can lead to outdated and bureaucratic processes.
- 5. The QMF is being progressively rolled out during 2019 and will form the basis of ongoing management and continual improvement of Leighton's quality management system and construction services.



- 6. A key goal of the QMF is to develop systems and processes which have an "end-user focus" and provide tools to enable and support Leighton's staff in the effective delivery of Leighton's projects. Underlying this is the recognition that large scale infrastructure projects involve significant amounts of data, and it is critical for Leighton to properly process and store this information. For that reason, digitization at key stages of construction is a key focus of the QMF. This is detailed further below.
- 7. The QMF is made up of 6 core elements, each of which is discussed below:
  - a) Quality Management System;
  - b) Digital Tools Platform;
  - c) Quality Best Practice;
  - d) Quality Metrics;
  - e) Quality Governance; and
  - f) Quality Culture and Leadership.

# **Quality Management System**

- 8. The enhanced and simplified Quality Management System ("QMS") involves developing and implementing tools for operational staff to manage key stages of the construction process. These tools are transparent, user-friendly and add value to the construction management process. These new tools will be easily accessible through a central platform that allows users to track performance of quality activities against the project requirements.
- 9. Central to this QMS is the development of "Tracker-Tools", which are designed specifically to monitor the status of all critical quality verification records that are required for the close-out of each element of construction. Tracker-tools are designed to ensure that the critical records associated with inspections and tests are compiled and maintained throughout the entire duration of the works and will assist in the completion and handover of fully compliant and defect-free projects.



10. As part of our enhanced QMS, Leighton has developed additional procedures for inspection and testing that provide a simplified and more robust framework for the management of critical tasks.

### **Digital Tools Platform**

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- 11. Leighton is currently developing a Digital Tools Platform to enhance its quality assurance systems. The platform is anticipated to go live progressively with completion at the end of 2019.
- 12. The Digital Tools Platform is being designed in collaboration with a leading IT developer, and is tailor-made to suit the specific needs of Leighton's clients and operational staff. It is being developed with the "end-user focus" as its primary objective. Its key characteristics include:
  - (a) user friendly digital tools accessible through personal mobile devices to ensure that the management of key construction stages is executed efficiently, whilst at the same time ensuring that key vital construction related data is effectively captured, stored and accessible to all those who need it; and
  - (b) tools to effectively manage key construction data for inspection processes, material management, defects management, drawings, photographs, event management and provide fast access to Leighton's quality best practices and quality alerts.
- 13. Leighton believes that the Digital Tools Platform will ensure that its supervision teams are able to efficiently make and retain all necessary records and documents associated with the construction process. The platform will be amongst the best quality assurance systems used for construction projects in Hong Kong when it is rolled out later this year.

## **Quality Best Practices**

14. Leighton is developing a set of operational "Quality Best Practice" guidelines as a codification of the benchmark practices that our project teams are required to deliver against and will set the benchmark for company-wide expectations of quality management. These guidelines are based on international best practice, contract and industry standards as well as lessons learnt. They will provide clear instruction and



guidance to all relevant levels of the organization and will align with contract documents such as the ITPs for each specific work lot and associated training modules.

# **Quality Metrics**

- 15. Another aspect of Leighton's QMF are enhanced protocols for measuring performance through a series of quality metrics to improve transparency and accountability at all levels of the organization.
- 16. Regular review and interrogation of these metrics will enable Leighton to quickly and efficiently identify and address critical areas of under-performance. This involves regular reviews of metrics at a number of levels as set out below.
- 17. These metrics have the aim of increasing accountability and team performance whilst improving the quality culture and behaviours across Leighton projects.

## **Quality Governance**

- 18. Leighton's enhanced quality governance approach includes a structured programme of project and business performance reviews. As part of these reviews, Leighton will develop tailor-made protocols that are mapped against project specific requirements to track and verify compliance against our internal systems, the needs of its clients and key stakeholders and all applicable regulatory requirements. Leighton's Quality Governance Framework consists of six major elements:
  - (a) firstly, a review of business quality performance by the corporate quality management committee across the entire business;
  - (b) Project SHEQ (Safety, Health, Environment and Quality) project reviews conducted by the General Manager of Leighton, Project Director, Operations Manager and myself;
  - (c) external accreditation surveillance and audits;
  - (d) client-specific audits;
  - (e) corporate led in-house reviews and independent audits; and

(f) project reviews, which are led by the Project Director, quality team and construction team.

#### **Quality Culture and Leadership**

- 19. The final aspect of Leighton's QMF, which is central to all of the initiatives that I have set out above involves fostering a strong culture of quality across our projects. This culture is driven from the top of Leighton's organization, right through to the project level and is achieved by establishing and systematically measuring against our business expectations, standards and performance targets whilst driving ownership and accountability in accordance with these requirements. It is a key objective to ensure that project teams are adequately resourced and that all personnel clearly understand what is required, have the right tools and systems available to use, and have received the necessary training.
- 20. An important aspect of the Leighton's current approach to quality management involves building upon the strong safety culture that Leighton has developed over many years and applying these same principles to its quality systems. The QMF provides the structure to build a quality culture and leadership model that will maintain and continue to improve quality performance across Leighton.

19 Dated the day of Signed:



