## COMMISSION OF INQUIRY INTO THE CONSTRUCTION WORKS AT AND NEAR THE HUNG HOM STATION EXTENSION UNDER THE SHATIN TO CENTRAL LINK PROJECT

## SUPPLEMENTAL WITNESS STATEMENT OF CHAN CHUN WAI CHRIS FOR MTR CORPORATION LIMITED

I, **CHAN CHUN WAI CHRIS**, c/o MTR Corporation Limited, MTR Headquarters Building, Telford Plaza, 33 Wai Yip Street, Kowloon Bay, Hong Kong, **WILL SAY AS FOLLOWS**:

- 1. I previously gave a witness statement dated 2 May 2019 for the purpose of the present Inquiry. I am again duly authorised by MTRCL to make this supplemental statement on its behalf.
- I am providing this supplemental witness statement to address various issues in relation to deviations (as identified in Messrs. Lo & Lo's letters dated 22 March 2019) at NAT [BB1/1-22] [BB1/23-33] and SAT (respectively "NAT Letter" and "SAT Letter"). Specifically, I am providing evidence in response to:
  - (1) Issues 3.14, 3.16, 3.17 and 3.18.2 of the NAT Letter ("NAT Issues"); and, correspondingly in like terms,
  - (2) Issues 2.14, 2.16, 2.17 and 2.18.2 of the SAT Letter ("SAT Issues").

NAT Letter Issue 3.14: Describe and explain, with reference to diagrams and drawings, the deviations "change on use of Type 1 coupler instead of lapped bar at some of the construction joints discovered at NAT (the "deviations"). Identify the locations of the deviations in the layout plan of NAT.

SAT Letter Issue 2.14: Describe and explain, with reference to diagrams and drawings, the deviation "change on use of Type 1 coupler instead of lapped bar at some of the

<u>construction joints</u>" and the deviation "no coupler was used for the standalone SER, TER, & CER rooms and associated E&M rooms" discovered at SAT (the "deviations"). Identify the locations of the deviations in layout plan of SAT.<sup>1</sup>

NAT Letter Issue 3.16 and SAT Letter Issue 2.16: Explain when and how such deviations came about and describe MTRCL's role and participation in such deviations. Confirm whether MTRCL was aware of these deviations and approved of them at the time of the construction of [NAT or SAT as the case may be].

NAT Letter Issue 3.17 and SAT Letter Issue 2.17: Explain whether BD's consultation and approval was necessary to effect such deviations and if so, whether such consultation and approval had been sought and if not, explain why it was not necessary.

NAT Letter Issue 3.18.2 and NAT Letter Issue 2.18.2: Explain and confirm whether a full set of RISC forms covering such deviations is available and if so, please produce them and if they are missing, please explain the reason for them to be missing.

- 3. I understand from the NAT Letter and the SAT letter that the NAT Issues and SAT Issues were identified by the Commission of Inquiry by reference to a power point presentation given by MTRCL to BD/RDO on 30 January 2019 ("Presentation").
- 4. As I explained in my first statement, I left MTRCL in December 2017. I therefore was not involved in the compilation of the Presentation.
- 5. However, as the issues originate from the Presentation, I have been shown a copy of it when preparing this witness statement.
- 6. The Presentation described the deviations as "minor". I agree with that description. In my experience, the change involving the use of coupler instead of lapped bar at construction joints to suit site conditions is very common in the industry.

<sup>&</sup>lt;sup>1</sup> My responsibility did not cover, and I am not aware that there were, SER, TER & CER rooms and associated E&M rooms at the SAT.

- 7. In the present case, the deviations involved the use of couplers instead of lapped bars in areas of the site which were needed for vehicular access. From memory, at the areas which my responsibility covered:
  - (1) as far as the NAT was concerned, there was a vehicular access route at the location which I have marked on the plan which I exhibit as [Exhibit-CCWC-1];
  - as far as the SAT was concerned, there was vehicular access on at the EWL level at the location which I have marked on the plan which I exhibit as [Exhibit-CCWC-2].
- 8. As the works under contract 1112 took shape and were constructed, the vehicular access affected the rebar fixing works at the NAT and the SAT. At site level, simple issues like this often occur and we have to resolve them. Since Leighton needed the vehicular access to access other parts of the site for the purpose of being able to progress the works, Leighton had used couplers instead of lapped bar for these parts of the rebar fixing works. The rebar fixing works in these areas were to be carried out later at a time when the vehicular access was no longer needed.
- 9. I cannot now recall the precise period during which the couplers were installed.

  Leighton will be in the best position to answer this question.
- I was aware of the deviations and, as far as I can recall, they were dealt with orally at site. Certainly, on those occasions when I was involved, I dealt with the change orally. There was a general consensus on site that the change from the use of lapped bars to couplers to suit site conditions was acceptable. For my part, I would not object to such a change as long as there was no change to the bar diameter and spacing, the couplers used had been properly tested, and Leighton would subsequently produce as-built records and drawings to document the change.
- 11. As I have already stated above, these deviations were in my view very minor in nature.

  The use of couplers in situations like the present example is very commonplace. The couplers used had in fact already been approved and used in this contract. The reality

of the situation is that lapped bars and couplers both serve the same purpose and have the same effect from an engineering perspective and are used interchangeably. I treated the deviations as minor because they did not have any ramifications in terms of the structural integrity of the structure and no calculations were required. In addition, for all practical purposes, the change did not amount to a departure or material departure from the working drawings.

[Item 49 of 3rd List]

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- 12. I have been shown a copy of the Project Management Plan. Appendix 7 thereto are the Flow Chart for Design Management and Assurance Process and the Flow Chart for Construction Management and Assurance Process. The former reflects my understanding that the only requirement was for the deviations to be documented with as-built records and it was not necessary for the deviation to undergo the consultation process prior to construction. In my view, as the deviations did not have any structural ramifications, as long as the deviations were documented by as-built records after the construction had taken place, there was no need to create further paper records to reflect the change prior to construction. I expect the use of couplers to be reflected in the as-builts records and drawings provided by Leighton.
- 13. By reason of the minor nature of the deviations, such changes would not be made the subject of a hold point, and as a result, there were no RISC forms covering the deviations.

**CHAN CHUN WAI CHRIS** 

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16 May 2019