

SCHEDULE EIGHT

ADDITIONAL TECHNICAL INFORMATION

1. INTRODUCTION

The Functional Requirements describe the requirements for a New Crossing. Several of the provisions of the Functional Requirements anticipate that the New Crossing will be a bridge. These provisions may require modification or amendment should the proposed Services include a crossing which would not be described as a bridge.

The documentation, drawings, plans, reports, studies, manuals, guidelines, codes, standards etc., referenced in the RFP can be found in the Data Room unless readily available from other sources e.g. CAN/CSA-S6-00 etc.

2. BCMoT PROPOSED DESIGN

The Province has completed extensive studies of the Project and has prepared a complete design for a potential New Crossing, the BCMoT Proposed Design, which includes detailed design drawings and construction specifications. This design is for a new five lane floating bridge (three westbound and two eastbound, with a pedestrian walkway adjacent to the eastbound lane) adjacent to the Existing Bridge. The BCMoT Proposed Design was designed to CAN/CSA-S6-88 and has not been verified for compliance with CAN/CSA-S6-00. The BCMoT Proposed Design is presented to the RFP Proponents for information only. In the event that the Concessionaire elects to utilize the concepts described by this design, the Concessionaire shall complete its own design investigations and analysis and prepare new construction plans and specifications in accordance with the Construction Output Specifications set out in the Concession Agreement.

3. Work outside the Project

3.1 Existing Bridge Repairs

The Province has tendered and completed deck repairs of the west and east transition, east approach and the elevated decks on the Existing Bridge. The work was completed in June 2004.

3.2 Causeway Fill and Preload Contract

The Province has scheduled the tendering and award of a contract to supply and install causeway fill and preload at the west approach. This work will be provided to the Concessionaire by the Province and is not within the scope of the Project. This work is scheduled to commence in mid September, 2004 in order to

facilitate sufficient ground consolidation prior to the Concessionaire beginning construction.

Details of the extent, location, thickness details and monitoring program proposed for the Causeway Fill and Preload Contract are provided in the Data Room.

3.3 Westside Works

The Province will be proceeding with the Westside Works for the New Crossing. These will consist of the reconstruction of Highway 97 from east of Spland Road intersection to the approximate midpoint of the curve between the Campbell Road intersection and the existing maintenance building i.e. from Station 6+86.02 to Station 26+60.00.

The scope of work for the Westside Works includes, but is not limited to, electrical, drainage, paving, pavement marking and signage, utilities, and pedestrian/cyclist access. It will include one or more intersections.

Highway 97 through the Westside Works will be divided and consist of 3 lanes for westbound traffic and 2 lanes for eastbound traffic. The cross section will include paved shoulders, concrete curb and gutters and a paved asphalt walkway.

Storm water will be collected within a drainage system using catch basins and underground storm piping. The storm water from the west approach to the New Crossing and Westside Works will be treated by the Concessionaire using oil/grit interceptors designed by the Concessionaire and installed near the west end of the New Crossing and Westside Works before it is discharged to Okanagan Lake.

4 Offsite Construction Work Areas

In anticipation that the Concessionaire may wish to use the Bear Creek South Property as a temporary construction work area, the Province is in the process of securing an option to lease for that property through BCTFA. If the Concessionaire wishes to use the Bear Creek South Property as the temporary construction work area, BCTFA may either assign the option to lease to the Concessionaire or exercise the option to lease in favour of the Concessionaire. The Concessionaire shall be responsible for finalizing the lease with the land owner directly on such conditions it considers appropriate. Details of the Bear Creek South Property have been provided in the Data Room.

5 Overall Project Schedule

The Concessionaire shall:

- (a) commence the operation and maintenance of the Existing Bridge at the

commencement of the Term;

(b) commence works for the design, construction, completion, commissioning and testing of the works in respect of the New Crossing within 60 days of the commencement of the Term, and ensure that Substantial Completion occurs on or before March 31, 2008; and

(c) commence the Decommissioning of the Existing Bridge and complete the Decommissioning within eight months of the Substantial Completion of the New Crossing .

6. Climate and seismicity

Okanagan Lake is a controlled water system and is subject to variations in water level. The lake surface may also freeze. Structures constructed in and adjacent to the water may be subject to significant dynamic forces generated by combinations of wind, wave and ice action.

Additionally, British Columbia is an active seismic region. The Okanagan Valley is an area of low seismicity. However, the lake bed sediments are very soft and therefore susceptible to relatively low seismic activity.

The Province has conducted several studies related to these issues which are provided in the Data Room.

7. Environmental

The preliminary environmental approval process is already underway. The Province intends to provide the details of the preliminary approval to RFP Proponents. RFP Proponents whose Proposals are consistent with the design and construction arrangements underlying the preliminary approval may be in a position to expedite the finalization of the environmental permits, approvals and authorizations for the Project. Other Proposals are likely to require resubmissions to the environmental authorities or amendments to the preliminary approval.

Approval in principle has been requested from the environmental agencies for the entire work, including the Decommissioning. Permission to dispose of portions or all of the floating pontoons within the lake has been requested. In the event that this permission is not provided, it will be necessary to remove the pontoons from the lake and dispose of them in an environmentally acceptable manner.

Information on environmental studies that the Province has undertaken and the status of reviews by environmental regulatory authorities has been provided in the Data Room.

The Province has completed an Environmental Impact Assessment (EIA) for the

BCMoT Proposed Design. The Province applied to Fisheries and Oceans Canada (FOC) on January 5, 2004 for a 'project approval, in-principle' based on existing drawings, concepts and environmental documentation. Final approval cannot be obtained until such time as all detailed drawings, specifications and construction methods have been reviewed and agreed upon by the agencies. It is the responsibility of the Concessionaire to obtain final approval.

The Province has commenced dialogue with environmental agencies regarding the sinking of the existing pontoons in the Okanagan Lake. The main issue is that the Project is limited to an environmental footprint of 2 hectares, which is inclusive of the area impacted by sinking the pontoons onto the bottom of the lake. It is estimated that sinking half of the pontoons will not exceed the current 2 hectare environmental footprint cap.

8. Existing anchors

The existing anchors, chains and cables were installed in circa 1982. If the RFP Proponent intends to re-use the existing anchoring system, it shall satisfy itself as to its adequacy for the intended service and service life. Details of the existing anchoring system design and installation are provided in the Data Room.

(Need to add note on 1983 failure on load testing)

9. Decommissioning

Extreme caution is required during demolition of the Existing Bridge to prevent progressive sinking caused by flooding. The BCMoT Proposed Design assumes that the New Crossing and Existing Bridge would be connected by common anchors and any progressive sinking would have caused damage to the new structure.

The Existing Bridge was designed to have only nominal dead load shear across pontoon joints. Construction records of actual permanent loads carried by the joints due to construction or design tolerances are not available. The RFP Proponents should be aware that there is the possibility that the joints carry significant forces and demolition procedures must address this potential. Furthermore, the breaking of the connections between individual pontoons requires special consideration and protective measures to prevent pontoon flooding.