

Certificate Form

Certificate Ref. No 285380-03-129-0006

INDEPENDENT STRUCTURAL DESIGN CHECK CERTIFICATE

Defined terms and expressions used in this Certificate have the same meanings given in the agreement between HMQ and Project Co dated December 15, 2010 ("the Project Agreement") relating to the Project.

Form of certificate to be used by the Checking Team for certifying the design of structures incorporated in the Parkway, in accordance with Part 2 of the Design and Construction Specifications to the Project Agreement.

- 1) We certify that we have the requisite professional qualifications, skill and experience to perform an independent check of the Design Data referred to herein in accordance with the requirements of the Project Agreement.
- 2) We certify that we have performed an independent check (as required by the Project Agreement for significant and complex Structures) of the Design Data for **Bridge B10 - Hwy 3 Underpass West of Geraedts Drive - Substructure** listed in the Schedule hereto and utilizing the standards of care, skill and diligence that, in accordance with the standards of our profession, are required of experienced professionals undertaking such an independent check, and that in our professional opinion:
 - i) the said Design Data meets performance expectations outlined in the Project Agreement, [including Technical Appraisal Form] No. **285380-03-127-0009** dated **19 March 2012**, as amended by the following:
 - [List, if any, the changes made and any addenda to the foregoing Technical Appraisal Form]; and
 - ii) the design, methodologies and assumptions are consistent with Good Industry Practice.



SCHEDULE

DOCUMENTS

Document No.	Description	Rev	Date
285380-03-127-0009	Technical Appraisal Form	0	19/03/12
285380-04-119-0018	Geotechnical Investigation and Design Report –	0	20/03/12
285380-03-109-0001	Structural Design Criteria – Seismic Design Guidelines	0	19/07/11
285380-03-109-0002	Structural Design Criteria – Structures Design Criteria	1	10/08/11
285380-03-109-0003	Structural Design Criteria – Structural Design Check Process	0	19/07/11

DRAWINGS

Drawing No.	Description	Rev	Date
S1000	Cover Page	0	19/03/12
S1001	General Arrangement	0	19/03/12
S1002	Borehole Location & Soil Strata	0	19/03/12
S1003	Soil Stratigraphy	0	19/03/12
S1004	North Structure – Foundation Layout I	0	19/03/12
S1005	North Structure – Foundation Layout II	0	19/03/12
S1006	North Structure – Foundation Layout III	0	19/03/12
S1007	South Structure – Foundation Layout I	0	19/03/12
S1008	South Structure – Foundation Layout II	0	19/03/12
S1009	South Structure – Foundation Layout III	0	19/03/12
S1010	Abutment Excavation and Backfill Details I	0	19/03/12
S1011	Abutment Layout and Reinforcement – NW	0	19/03/12
S1012	Abutment Layout and Reinforcement – NE	0	19/03/12
S1013	Abutment Layout and Reinforcement – SW	0	19/03/12
S1014	Abutment Layout and Reinforcement – SE	0	19/03/12
S1015	Wingwall Layout and Reinforcement I	0	19/03/12
S1016	Wingwall Layout and Reinforcement II	0	19/03/12
S1017	RSS Walls Layout and Details	0	19/03/12
S1018	Pier Layout and Reinforcement	0	19/03/12
S1042	Standard Details	0	19/03/12
S1045	Construction Notes – Backfill at Structures	0	19/03/12
S1046	Construction Notes – Lightweight Fill Material	0	19/03/12
S1047	Construction Notes – Expanded Polystyrene	0	19/03/12
S1049	Abutment Excavation and Backfill Details II	0	19/03/12

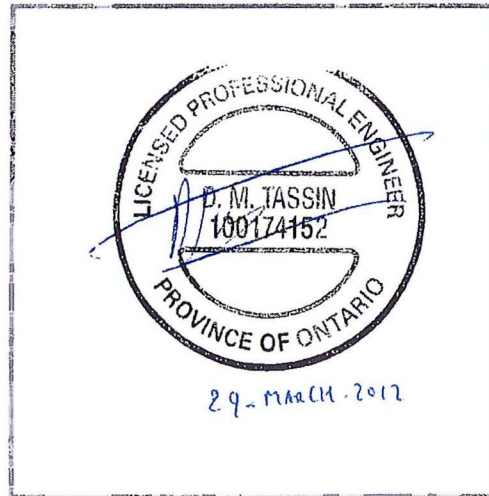
Signed: 


Checking Team (Principal)

Name: Daniel Tassin

Date: 29 MARCH 2012

Professional Registration Number: 100174152



Signed: 

Project Co Representative

Name: Francisco Li

Date: Apr 30 2012