
MEMORANDUM

PWC-C 25-2019

Subject: Transportation Infrastructure Means Protection Update

Date: October 8, 2019

To: Public Works Committee

From: Frank Tassone, C.E.T., Associate Director Transportation Engineering

The purpose of this memo is to provide an update to Public Works Committee as follow-up to report PW 24-2019, April 16, 2019.

Design has been ongoing with staff, the consultant (Parsons) and specialized sub-consultants (RWDI) related to the infrastructure means protection.

Parsons, along with RWDI, has completed wind engineering studies related to the means protection system and the potential affects on the structure. The results of the studies have proven that the means protection will not adversely affect the structure.

As a follow up to Public Works Committee report PW 24-2019, staff was to report back, via memo, on the selection of the material for construction, once the appropriate testing was completed and a decision on the material solidified.

Additional reviews have been completed regarding the feasibility of utilizing aluminum as the primary material for the fabrication of the means protection versus galvanized steel. It has been determined that aluminum will require some minor vibration dampening measures to be designed into the means protection system. This vibration dampening is not expected to be cost prohibitive and the design team has assured staff that aluminum is a viable option for this application. The Region's consultant has confirmed that the cost of the means protection is currently in line with our anticipated budget.

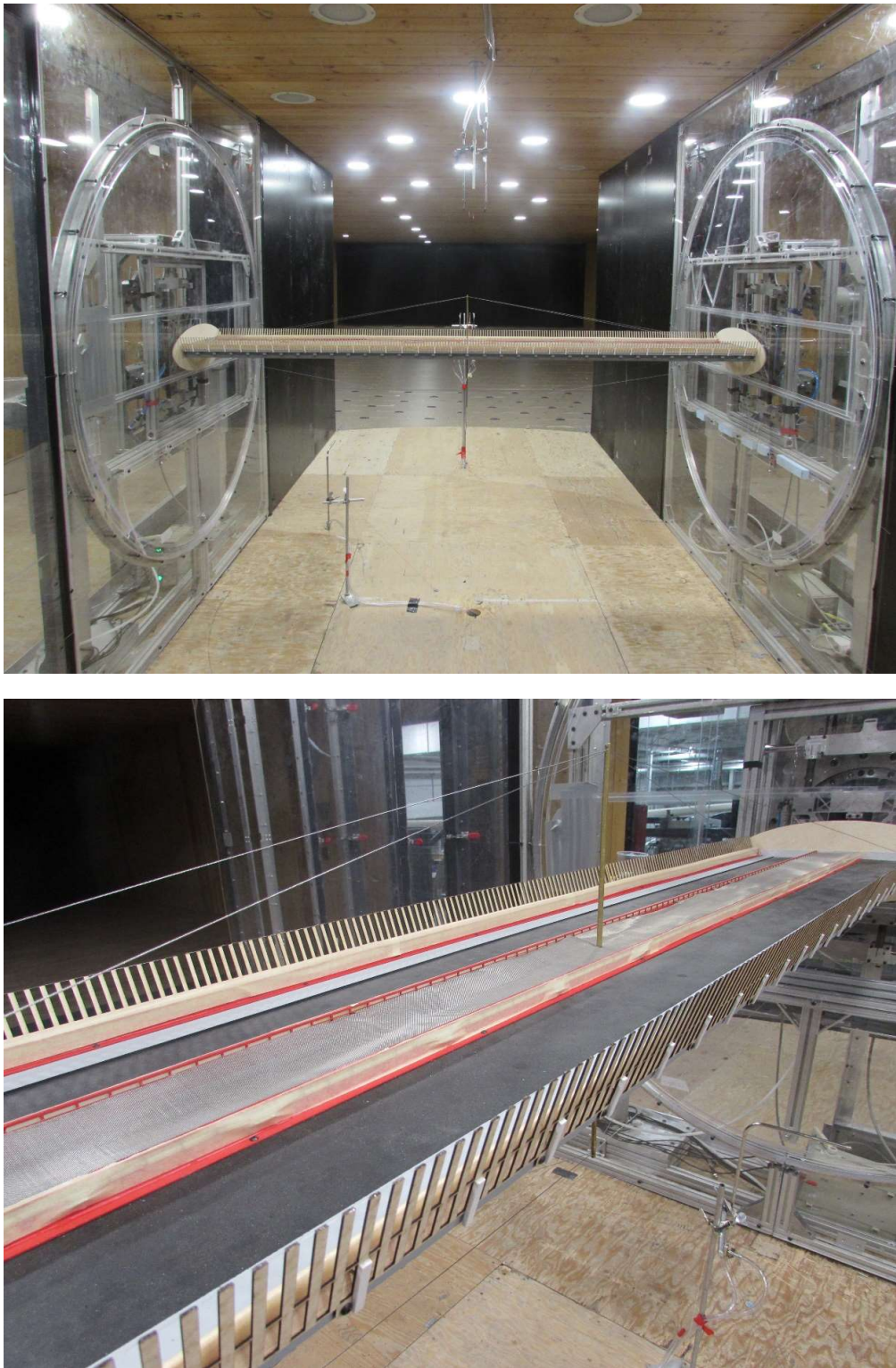
Given the information above, the design team will now move forward with specifying aluminum as the primary material for the fabrication of the means protection system.

The design team is to move along expeditiously with a target date of early October for tendering of the project. The construction schedule for this work will undergo further refinement in the next three (3) to four (4) weeks; however, it is expected that once the tender is awarded and the contractor mobilizes on site, the work will progress continually until full completion of the means protection system. Staff will report back to Committee once a completion date is known.

Respectfully submitted and signed by

Frank Tassone, C.E.T.
Associate Director, Transportation Engineering

Appendix 1 – Wind Tunnel Testing Photos



Sectional Model Test
As Built Section with Means Prevention Barrier and Horizontal Mesh
Full Icing Condition

Burgoyne Bridge - St. Catharines, Ontario

Project #1901852

Figure No. 3-2

May 31, 2019

