## Exhibit 12.

## Evolution of Crashworthiness and Safety Changes in Bombardier BiLevel Rail Cars Since 2002<sup>149</sup>

[dated November 25, 2008]

Mr. Richard Downs Crashworthiness Working Group Chair Office of Railroads, Pipelines & Hazardous Materials National Transportation Safety Board 490 L'Enfant Plaza East, SW Washington, D.C. 20594

Re: Request for Technical Information Concerning Bombardier BiLevel Rail Cars

Thank you for your recent request for Bombardier's advice as to the evolution of crashworthiness and safety changes in Bombardier's BiLevel rail cars, with particular interest in changes that have been made since the 2002 time frame.

As you know, Bombardier Transportation is one of the world's leading manufacturers of passenger rail cars. At any given time Bombardier is routinely responding to passenger rail car requests for proposal s by municipalities and authorities all over the world. Safety issues are always incorporated in these requests for proposals and Bombardier's responses. One example is the recent SCRRA request for proposal that included both CEM technology and more crashworthy tables.

Most of those involved in the rail industry are also well aware that Bombardier is a very active participant in FRA, APTA, RSAC, ASME and other standards committees and working groups and task forces of all sorts. These include but are certainly not limited to RSAC's committees concerning deformation criteria for collision and corner posts, push-back couplers, general crashworthiness and glazing issues, emergency preparedness, and design of "Crash Energy Management" or "CEM" systems, and Volpe CEM research of various sorts.

There are more than 1,000 Bombardier BiLevel passenger rail cars in use around North America by more than a dozen different municipalities and authorities. Design differences from BiLevel generation to generation are sometimes initiated by Bombardier and sometimes by Bombardier's customers. As with all design evolutions, some relate to safety and regulatory changes, but most relate to durability, maintenance, efficiency, design preferences and manufacturing issues. It is sometimes difficult to make judgments as to which changes relate in some way to safety and which do not.

All this having been said, there have been multiple structural changes to Bombardier BiLevel passenger rail cars. I understand that these include changing the designs and increasing the strengths of:

- Side sills;
- Draft sills;
- Buffer wings;
- Car body outer skin;
- Corner posts;
- Collision posts;
- Structural shelves;Collision shields;
- Collision ship
- Roof rails;
- AT plates; and
- Table pedestal attachments.

While the passenger rail cars involved in the Chatsworth collision were all delivered in 2001 or earlier, you have specifically asked for those changes since 2002. Of the above list, I understand that those structural components with changed designs and strength increases are:

- Side sills;
- Draft sills;
- Buffer wings;
- Collision posts;
- Structural shelves;

<sup>149</sup> source: email dated Nov. 25, 2008 from a technical representative of Bombardier, on behalf of the Party representative for Bombardier, where also, the information tendered was quoted verbatim, to the extent possible (i.e. allowing for correction of incidental typographical errors, and slight reformatting to fit in this document space).

- Collision shields;
- Roof rails; and
- AT plates

Many of these structural changes have been made to precede or track the evolution of APTA's "Standard from the Design and Construction of passenger Railroad Rolling Stock" SS-C7S-034-99, Rev's 0, 1 & 2.

Please let us know if additional information would be useful.

Sincerely,

Craig Everly Site General Manager Services Los Angeles, CA

(323) Office [number redacted by NTSB as immaterial to the Investigation] (213) Cell [number redacted by NTSB as immaterial to the Investigation]

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