



# Massachusetts Bay Transportation Authority

*Mitt Romney*  
Governor

*Kerry Healey*  
Lt. Governor

*John Cogliano*  
Secretary and MBTA Chairman

*Daniel A. Grabauskas*  
General Manager

May 31, 2005

Mr. Terrance Morris  
Emerald Development Group, Inc.  
103 Morse Street  
Watertown, MA 02471

**RE: Summer Street Vent Shaft Development**

Dear Mr. Morris:

Reference is made to our meeting of April 25, 2005 regarding the above referenced development and the letter dated May 12, 2005 from LeMessurier Consultants.

Operations Support has no objection to the revised development including the passage of authorized vehicles over the grating system that is currently in place. The following restrictions would apply to the development:

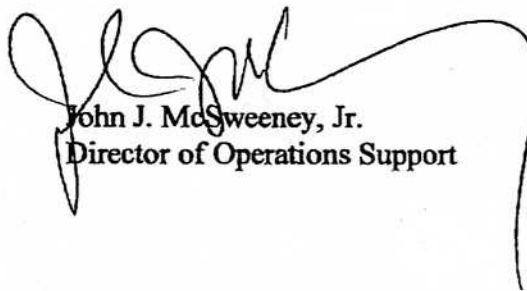
- The proposed driveway width of 12' is preferred, whereby overall impact to the vent shaft is minimized. The Authority will require written analysis and confirmation that there will be no consequential reduction in ventilation equipment performance characteristics.
- Area drainage shall be directed away from the grates and access hatches.
- The grates and access hatches shall be protected in such a way to assure that snow will not be piled/plowed on top.
- No parking would be allowed over the vent shaft at any time.
- The Authority does restate the conditions as outlined in earlier correspondence regarding noise, and smoke that could come out of the vent shaft at any time of the day or night. In addition, the site contains emergency ventilation equipment, tunnel dewatering equipment and unit sub-station electrical equipment as well as an emergency exit. Consequently, inspection, maintenance and repair activities are to be expected for routine and unscheduled events.
- Owners or renters of the property should be notified in advance of the vent shaft and be aware of the aforesaid conditions.
- During construction the vent shaft area must be kept clear at all times.
- The shaft may not be used as a staging or storage area. Equipment, materials, debris, etc., must not be placed on or around the grates and access hatches.
- The emergency exit shall remain accessible and usable at all times.
- The dry standpipe connection shall remain accessible and usable at all times.
- Temporary fencing must protect the emergency exits during construction to allow twenty-four hour per day access to the exits.
- No trees or shrubs can be planted within fifteen feet of the vent shaft at any time.

*Massachusetts Bay Transportation Authority, Ten Park Plaza, Boston, MA 02116-3974*

**Emerald Development Group, Inc.**  
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If additional information is required, please advise.

Sincerely,

A handwritten signature in black ink, appearing to read 'John J. McSweeney, Jr.', with a long, sweeping flourish extending to the right.

**John J. McSweeney, Jr.**  
**Director of Operations Support**

cc: C. Terzakis  
M. Shirkus  
TRA

# LeMessurier Consultants

675 Massachusetts Avenue Cambridge, MA 02139  
Tel: (617)868-1200 Fax: (617)661-7520

12 May 2005

Mr. Terrence P. Morris  
Emerald Development Group, Inc.  
103 Morse Street  
Watertown, Massachusetts 02472

Subject: Summer Street Development, Somerville, MA  
Vent Shaft Grating Platform Evaluation  
LeM File No. 21245

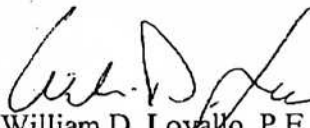
Dear Terry:

At your request, we examined the construction of the vent shaft grating platform at the reference project site. We reviewed drawings prepared by Bechtel and dated September 1978 under Contract Number 091-164 for the Massachusetts Bay Transportation Authority. These drawings described the concrete frame that supports the grating platform. The as-built conditions appeared consistent with the contract drawings. We also examined existing steel framing based on site measurements.

The existing MBTA vent shaft grating platform is rectangular in plan with measurements of approximately 13 feet by 42 feet. The perimeter walls are cast in place concrete measuring 16 inches in width. The top of the wall forms a ledge on which 16 inch deep wide flange steel beams bear and span across the platform width. These steel beams are spaced at 3 feet on center and a total of 8 steel beams are in place. Alternating between the steel beams are 6 concrete beams measuring 12 inches wide by 30 inches deep. On top of the concrete and steel beams bears the steel bar grating which consists of 3/8 inch wide by 3 inch deep bars with a 1 1/2 inch clear space between each bar.

It is the opinion of LeMessurier Consultants that the grating system is capable of supporting highway truck traffic conforming to AASHTO HS20-44 axle loading. This loading includes fire trucks, moving trucks, construction vehicles rated for highway travel and passenger vehicles. Our analysis is based on low speed driving and/or parking. Our analysis considers only axle wheel loads and excludes stabilizer outriggers and other heavy concentrated loads that are inconsistent with axle wheel loads.

Very truly yours,  
LeMessurier Consultants, Inc.

  
William D. Lovallo, P.E.  
Vice President

