

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
942 WASHINGTON STREET BATH, MAINE 04530
TEL (207) 443-5447 FAX (207) 443-5560

September 25, 2009

Mr. William Needelman
Senior Planner
City of Portland Planning & Development Department
389 Congress Street
Portland, Maine 04101

RE: *Ocean Gateway Garage*
Portland, Maine
07-0019

Dear Bill:

I recently returned to measure illuminance levels at the sidewalk along Fore Street immediately in front of the new Ocean Gateway Garage. I conducted my survey on September 24 at 9:00 PM. The following lighting fixture types are installed at the project site (as designated below):

Type B: Wall light with cutoff distribution.

Type C: Recessed canopy downlights with metal halide lamps as submitted in the planning board application.

Type D: Wall-mounted luminaires with compact fluorescent lamps as submitted in the planning board application.

I measured illuminance levels at grade along the parking garage sidewalk center line at Fore Street from Hancock Street extension to India Street. The results of these measurements are noted in the plan shown in Figure 1 below. When the measurements were recorded, one of the Type D wall lights and one of the street lights were not operating. The section of the sidewalk between the India Street side of the garage and the India Street sidewalk was measured to have an average illuminance of 2.7 footcandles. The section of the sidewalk immediately in front of the curved garage wall, between the two corners of the building that have canopies was measured to have an average illuminance of 3.2 footcandles. The minimum illuminance level measured in front of the garage was 0.3 footcandles.

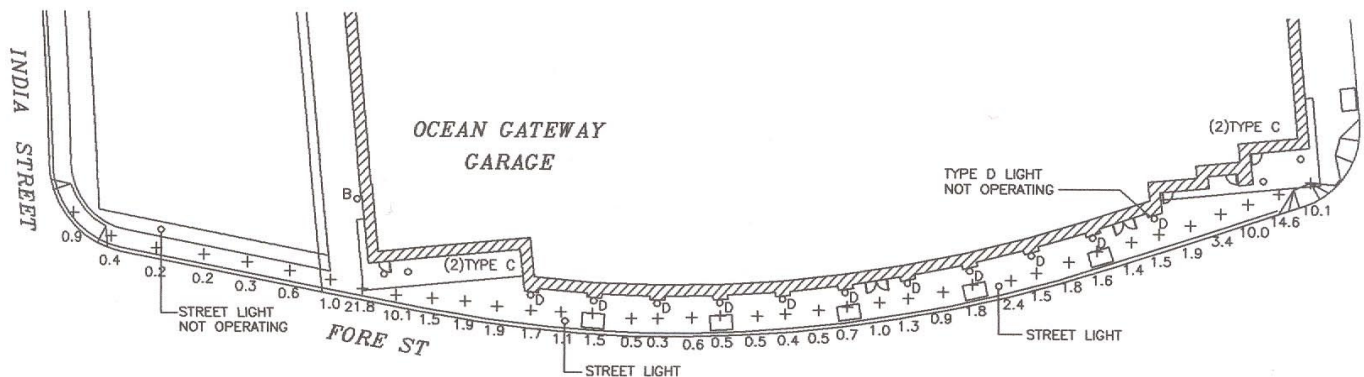


FIG. 1
Horizontal Illuminance measured in footcandles at grade

Mr. William Needelman
September 25, 2009
Page 2

The Illuminating Engineering Society of North America (IESNA) publishes recommendations for illuminance levels at sidewalks that are adjacent to streets in RP-8 Roadway Lighting. For locations where there is a high potential for pedestrian/vehicle conflict (such as at the entrance to a parking garage), the recommended average maintained horizontal illuminance is 2.0 footcandles. The measured average illuminance at the sidewalk in front of the garage is 3.2 footcandles. This is somewhat higher than the recommended maintained illuminance of 2.0 footcandles; however, as the lamps in the luminaires age, the light output will diminish. Maintained illuminance levels take the light depreciation associated with lamp aging into account, and therefore, the 3.2 average illuminance will be reduced over time to what will likely be about 2.0 footcandles maintained. Accordingly, it is my opinion that the existing sidewalk lighting is in conformance with the IESNA recommendations.

Let me know if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Lawrence E. Bartlett". The signature is written in a cursive, slightly slanted style.

Lawrence E. Bartlett, PE
LEB/vmb

Cc: N.Iselin