DESCRIPTION OF FIELD INVESTIGATION

GENERAL

The site was explored from September 5 to 7, 18 to 21, and October 1 to 4, 2018, by performing a visual reconnaissance of the site and drilling 24 test borings to depths ranging from about 4 to 16 feet with a Mobile CME-55 truck-mounted drill rig and portable Concore drilling equipment. In addition, four percolation test holes were drilled to depths ranging from about 6 to 7 feet and tested in general accordance with Department of Health guidelines.

During drilling operations, the soils were continuously logged by our field engineer and classified by visual examination in accordance with the Unified Soil Classification System. The boring logs indicate the depths at which the soils or their characteristics change, although the change could actually be gradual. If the change occurred between sample locations, the depth was interpreted based on field observations. Classifications and sampling intervals are shown on the boring logs. A Boring Log Legend is presented on Plate A3.1. The Unified Soil Classification and Rock Weathering Classification Systems are shown on Plates A3.2 and A3.3, respectively. The soils encountered are logged on Plates A4.1 through A4.24.

Borings were located in the field by measuring/taping offsets from existing site features shown on the plans. Surface elevations at boring locations were estimated based on the Topographic Survey Map provided by SSFM International, Inc. received on September 2, 2018. The accuracy of the boring locations shown on Plates A2.2 through A2.8 and the boring elevations shown on Plates A4.1 through A4.24 are therefore approximate, in accordance with the field methods used.

SOIL SAMPLING

Representative and bulk soil samples, as well as rock core samples, were recovered from the borings for selected laboratory testing and analyses. Representative samples were recovered by driving a 3-inch O.D. split tube sampler a total of 18

inches with a 140-pound hammer dropped from a height of 30 inches. The number of blows required to drive the sampler the final 12 inches are recorded at the appropriate depths on the boring logs, unless noted otherwise. Bulk soil samples were recovered from near borings B6, B10, and B15 between depths of about 0.5 and 1.5 feet below ground surface. The approximate location of borings B6, B10, and B15 are shown on Plates A2.3, A2.5, and A2.6, respectively.

ROCK SAMPLING

Core samples of rock were obtained by drilling with an NX core barrel having an inside diameter of 2.1 inches. Recovery percentages for each core run are shown on the enclosed Boring Logs.

The rock quality designation (RQD) for the core runs are also shown on the Boring Logs. This is a modified core recovery percentage which takes into account the number of fractures observed in the core samples. Only pieces of core 4 inches in length or longer, as measured along the centerline, were included in the determination of this modified core recovery percentage. Fractures caused by drilling or handling were ignored.

The following is a general correlation between RQD percentages and rock quality.

RQD (%)	Description of Rock Quality
0 - 25	Very Poor
25 - 50	Poor
50 - 75	Fair
75 - 90	Good
90 - 100	Excellent

Reference: Tunnel Engineering Handbook, Second Edition,
edited by J.O. Bickel, T.R. Kuesel, and E.H. King, 1996.

PERCOLATION TESTING

Four percolation test holes were drilled to depths ranging from about 6 to 7 feet. Falling head percolation tests were performed in the test holes in general

accordance with Department of Health guidelines. The approximate test hole locations are shown on Plates A2.2, A2.3, A2.5, and A2.7, and test results are shown on Plates A5.1 through A5.4.