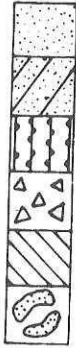


**SUBSOIL
INVESTIGATIONS**



SOIL MECHANICS DRILLING CORP.

3770 MERRICK ROAD • SEAFORD, L. I., NEW YORK 11783
(516) 221-2333 • FAX (516) 221-0254

October 26, 2020

Blue Sea Development Company, LLC
164 Main Street
Huntington, NY 11743
Att: Les Bluestone

Re: Brownsville Arts Center
Rockaway Avenue
Brooklyn, NY
Our Job #19-455

Gentlemen:

Forwarded herewith are the results of the test borings drilled at the above referenced site.

A copy of the report and boring logs are being e-mailed to Christopher Walker at Aufgang Architects.

The purpose of the subsurface investigation was to determine the nature and extent of the underlying soil deposits and determine the structural engineering characteristics of the soil at the site. Nine (9) test borings were drilled using truck mounted drilling equipment at the above referenced site. The borings were advanced using hollow stem auger casing. Sample recovery was obtained using a 2" diameter, 2'0" long split spoon sampler was advanced into the subsurface by the use of an automatic 140 lb. hammer with a 30" drop. From the drops of the hammer, blow counts required to advance the split spoon sampler over each 6" intervals were recorded and is shown on the boring logs. A written description of the recovered soil samples per our geologist's visual identification of same is also presented on the logs.

The CME automatic hammer operates with an efficiency of approximately 90%. The original conventional use of rope, cathead and drop weight, on the other hand, operates with an efficiency of approximately 60%. As a consequence, the standard penetration test results obtained using the CME auto-hammer are on the order of two-thirds the value that would have been obtained had the original rope and cathead method been used. This is significant if you are using design charts for soil strength parameters based on historical data associated with the rope and cathead method. If so, you should adjust our data accordingly.

Our investigation revealed that the area drilled are blanketed by 11 feet of soil and rubble fill and silt, underlain, generally, by a moderately dense to dense coarse to fine sand with traces of silt and gravel extending to the deepest depths drilled.

**TEST BORINGS • GROUND WATER DETERMINATIONS • FOUNDATION RECOMMENDATIONS • HOLLOW STEM AUGER BORINGS
LABORATORY ANALYSES • CONTROLLED LANDFILL • DIAMOND CORE DRILLING • SAND & GRAVEL PROSPECTING
BEARING VALUES • WELL POINT INSTALLATIONS • ENGINEERING SUPERVISION • PERCOLATION TESTS
SANITARY INVESTIGATIONS • UNDISTURBED SAMPLING • TEST PITS • TOP SOIL ANALYSES**

Blue Sea Development Company, LLC
Att: Les Bluestone

October 26, 2020
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Natural ground water was encountered within boreholes B- 3, 4, 5, 7, 11 and 18 at depths ranging from 37'9" to 39'8" below existing grade at the time the work was done.

All soils below the fill and silt will satisfactorily support foundation loads of 3 tons per square foot and exhibit excellent drainage characteristics.

Please note the thin silty sand layers at borings B-2, 7, 9, 10, 12, 13, 15 and 16. The silty sand layers are capable of supporting foundation loads of 2 tons per square foot.

We have not been informed of the details of the construction. However, we can offer the following recommendations at this time:

For structural purposes, we recommend removal of all fill and replace it with a supervised controlled fill consisting of a clean inorganic material, placed in lifts not to exceed 12 inches in depth, and be compacted, under independent supervision, to a minimum of 95% of the Modified Proctor maximum dry density at optimum moisture content per ASTM D 1557. Soils to be used for controlled fill shall have less than 10% passing a #200 sieve with no particle size larger than 2 inches.

Frost protection in this area is 4 feet. All foundations must have a minimum of 4 foot of cover.

Liquefaction is unlikely and need not be a design consideration.

For seismic purposes the site is classified as Site Class "D" per the New York City Building Code. Table 1613.5.3(1) has a Site coefficient F_a as a function of site class and mapped spectral response acceleration at short periods (S_s)^a is 1.57. Table 1613.5.3(2) has a Site Coefficient F_v as a function of site class and mapped spectral response acceleration at 1-second period (S_1)^a is 2.4.

Soil samples recovered during drilling operations will be stored in our lab for a period of 30 days after which they will be destroyed. During this period, we will deliver these samples to any prescribed location upon request.

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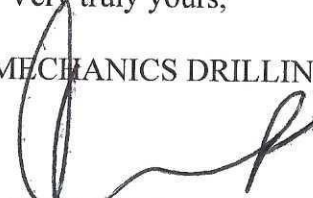
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If after you examine the enclosed you have any further questions, please feel free to call and discuss them with us.

Billing is enclosed.

Very truly yours,

SOIL MECHANICS DRILLING CORP.

A handwritten signature in black ink, appearing to read 'Carl Vernick', written over the company name.

Carl Vernick, P.E.
President

CV:mlf
Enclosures

Cc: christopher@aufgang.com