

Descriptions of Sediment Boring Surveys

1979 - Pier 25 & Pier 26

In 1979, borings were made in the areas surrounding Pier 25 and Pier 26 by Warren George, Inc. for a proposed elevated highway called Westway. There is a map which depicts the locations of these borings, many of which fall between Harrison St and Vestry St. Out of the boring mapped, here are 14 borings from this study that have logs and sample descriptions. There is one boring to the west of Pier 26, whereas the rest of the borings are parallel to or underneath Pier 25 and Pier 26. For some borings, it is difficult to match the boring number to the map because of its poor quality. The map also includes the location of other borings made in 1977, 1995, and 1996 but there is no additional information for these samples.

1980 & 1981 - Pier 40, Pier 42, & Pier 45

Between November 3, 1980 and August 28, 1981, a total of 218 borings were made as part of Contract No. 4 for the West Side Highway Project, also referred to as Westway. These borings are depicted in multiple maps which focus on the areas surrounding Pier 40, Pier 42, and Pier 45. There is also a close-up map of just Pier 40 and Pier 42. Scanned document includes sample descriptions for 6 borings. On the two non close-up maps, there is also data that shows the depth of the samples taken and the contours of the bedrock surface.

2001 & 2002 - Pier 76 & Pier 88

In 2001 and 2002, a boring location plan was made for the section of the park that lies between Pier 76 and Pier 88. This plan includes borings made in 1981, 1990, 2001, and 2002. The document contains a map depicting the location of each boring, a subsurface profile of the bulkhead from Pier 81 to Pier 86, and boring logs for 8 of the 2001/ 2002 borings.

2002 - Pier 25, Pier 26, Pier 32, & Pier 34

A total of 24 test borings were made between April and June 2002 for Lagan Engineering and Environmental Services. The field investigation included 5 borings on water and 17 test borings on land behind the bulkhead or through piers along the Hudson River between Horatio Street and West 25th Street. This area encompasses Pier 25, Pier 26, Pier 32, and Pier 34. There is a map which depicts the location of the water borings from this study in addition to the nearby 1979-1981 Westway borings.

2008 - Pier 52 & Pier 53

In 2008, a geotechnical recommendations report was completed by Mueser Rutledge Consulting Engineers (MRCE) in order to assess the reconstruction of Pier 53. This report

focuses on the area of Pier 53 where FDNY Marine 1 Company resides, as well as the area between Pier 52 and Pier 53. There were two borings made for this project and the report includes boring logs for both of them. There is also a map in the report which depicts where the borings were made, as well as the location of borings made in 1968, 1979, 1980, and 2002 in the vicinity of Pier 53.

2008 - Pier 86

In 2008, a soil boring location plan and subsurface profile was made to display the location of four borings made at Pier 86, the location of the Intrepid Sea, Air & Space Museum. It is stated in the document that these borings were originally drilled in February 2004. Each of the four borings have boring logs.

2011 - Pier 97

In 2011, Mueser Rutledge Consulting Engineers (MRCE) made 11 borings at Pier 97. There is a location plan which depicts where the borings were taken, as well as the location of 5 segment 7 borings made in 2002 by Warren George Inc. There is a geologic section diagram for 7 of the 11 borings made in 2011 that includes a soil classification key. This diagram also includes the 5 borings made in 2002.

2014 - Pier 54

In 2014, Mueser Rutledge Consulting Engineers (MRCE) completed a geotechnical investigation for the new elevated Pier 54 structure and its access ramps, and a new bulkhead structure. This new Pier 54 was constructed between the old Pier 54 footprint to the south and the Pier 56 pile field to the north. The subsurface investigation included five borings drilled on the water between the existing Pier 54 and Pier 56 pile field, and four borings drilled on the existing Pier 54 platform. There is a map depicting the location of all these borings alongside borings made in the Pier 54/ Pier 57 area in 1979, 1980, 1981, and 2002. In addition to this map, there are two more maps with the boring locations; one which depicts the contours of compact granular soil surface and another which depicts the contours of rock surface elevation. There are geologic section diagrams and boring logs for most of the borings (including the pre-2014 ones).

2015 - Pier 55

This document is the same as pages 12-22 of the 2014 MRCE Geotechnical Report (described above) with some additional information. The structure previously described as Pier 54 has been relabeled as "Proposed Pier 55" in the 3 maps and there is a rectangular bubble drawn on the west side of this structure. In the map which depicts the contours of compact granular soil surface and the map that depicts the contours of rock surface elevation, dots have been added all over Pier 55, presumably for clarity since there is no description of what these dots depict.

2015 - Morton Street Bulkhead

In 2015, Mueser Rutledge Consulting Engineers (MRCE) completed a geotechnical investigation for the Morton Street Bulkhead Restoration project. The Morton Street Bulkhead site exists between Morton Street and St. Lukes Pl to the north and south, and between the esplanade and the bike path to the west and east. 12 borings were made and each has a geologic section diagram. 9 of the 12 borings have boring logs. There is also a map depicting where the borings were made, along with the location of nearby borings made in 1979 and 1980 for Westway. The geologic section diagrams also include the 1979 and 1980 borings, as well as the cones made by ConeTec Inc. as part of their cone penetration tests (described below).

2016 - Morton Street Bulkhead

In 2016, a report was made by ConeTec Inc., under contract to Mueser Rutledge Consulting Engineers (MRCE) of New York, New York in order to investigate the site conditions of the Morton Street Bulkhead site. This report summarizes the results of a seismic piezocone penetration testing (SCPTu or SCPT) program. A total of three seismic cone penetration tests were completed at three locations. The SCPT program was performed to evaluate the subsurface soil conditions. There are diagrams for each of these tests that depict the soil conditions with depth.

2018 - Pier 26

In 2018, a boring location plan was made for the proposed Pier 26 Tide Deck. This plan relies on 6 borings made near the western edge of Pier 26 in 1979 and 1980 for Westway. The document made in 2018 includes a geologic section diagram for the six borings. For 3 of these borings, their boring logs are located in the 1979 Pier 26 West End Boring Plans document (borings= HV-51U, HV-50U, HV-3).

2019 - Pier 98 & 99

In 2019, a boring location plan was made for Pier 98 and Pier 99. This plan relies on 2 borings made in December 2001 by Lagan Engineering and Environmental Services for a geotechnical report. The plan includes a map which depicts the approximate locations of the 2 borings and their corresponding boring logs.

2019/ 2020 - Gansevoort Peninsula

In 2019 and 2020, a geotechnical engineering study was completed for the proposed Gansevoort Peninsula Improvements project. The project site extends west from 11th Avenue into the Hudson River (Block 651, Lot 1), bordered to the north by about the hypothetical extension of Little W 12th Street and to the south by an unmapped portion of Gansevoort Street. This report includes summaries of previous subsurface explorations done at Gansevoort in 1948, 1990, 1992, 2002, 2012, and 2018. The 2018 borings were made as part of the Day's

End project. The 2019 geotechnical subsurface exploration program for this project by Langan consisted of drilling nine borings and pushing six seismic cone penetration tests (CPTs). A Ground Penetrating Radar (GPR) survey was also conducted to identify the positions of buried utilities prior to performing the borings and CPTs. There are two maps in the report with boring locations, one which contains the borings made in 2018 and 2019 and one which contains the borings made in 1948, 1990, 1992, and 2012. For all of these years except 2012, there are boring logs available in the appendix of this report.

2020 - Pier 97

In 2020, a geotechnical engineering study was completed for the proposed development at Pier 97 (also referred to as Pier 97 Comfort Station). The project site, along the shoreline between Piers 97 and 98, is just north of the western terminus of West 57th Street. The project is on the city block bordered by the Hudson River to the west, 12th Avenue to the east, and Hudson River Park to the north and south (Block 1109, Lot 25). There are 2 borings from 2002 discussed in the report, and a boring from 2020 made for this report by Warren George Inc.. There is a map which depicts the location of all three borings. There are also subsurface profiles and logs for all three borings. The appendix includes pictures of each boring's rock core in their wooden storage box as well.