

EXECUTIVE SUMMARY

A New York City Department of Design and Construction (DDC) contractor conducted soil sampling for waste characterization purposes at the Red Hook Coastal Resiliency Project (DDC Project #: SANDRDHK) in Brooklyn, New York. The sample areas were divided into grids and identified as follows: Grid #18, Grid #17B, Grid #17A, Grid #16, Grid #15, Grid #14A, and Grid #14B/13. The grids were then split into approximately 500-cubic yard three-dimensional cells, each one represented by a sample set. Twenty-seven investigatory test pits were advanced to collect 16 sample sets: WC-18-1, WC-18-2, WC-18-3, WC-17a-1, WC-17a-2, WC-17b, WC-16-1, WC-16-2, WC-16-3, WC-15-1, WC-15-2, WC-15-3, WC-14a-1, WC-14a-2, WC-13/14b-1, WC-13/14b-2 – from the above-referenced grids to characterize approximately 6,700 cubic yards of soil for off-site disposal or reuse. The samples were collected between October 2 and 8, 2025. The soil samples were submitted to Phoenix Environmental Laboratories, Inc. for analysis. The laboratory report was received on October 28, 2025, by DDC.

One of the samples, WC-16-1, collected from 0 to 3 feet below grade at Grid 16 (corner of Reed Street and Van Brunt Street) contained hazardous levels of lead exceeding the United States Environmental Protection Agency (USEPA) Maximum Concentration of Contaminants for the Toxicity Characteristic (40 CFR 261.24). Sample WC 16-1 was a composite sample from four test pits excavated along portions of Reed Street and Van Brunt Street (TP-30, TP-31, TP-32, TP-33) within Grid 16. The soil from this sample was a composite of the top three feet (0-3') of soil from these test pits. A concentration of 5.13 milligrams per liter (mg/L) of lead was identified as a result of the Toxicity Characteristic Leachate Procedure (TCLP) analysis, which exceeds the Maximum Concentration threshold of 5.0 mg/L, and confirms soil from this sample location is characteristically hazardous.

The test pits were backfilled and temporarily covered with asphalt patches following the sampling. The subsurface soil in these areas is no longer exposed to ensure public safety. The test pit locations are shown on the attached Sample Location Map.

Prior to removal and disposal, the contractor will conduct soil removal work in accordance with the DDC-approved Material Handling Plan (MHP) prepared by Factor Group, Inc. for Perfetto Contracting Company, Inc. along with the project's Environmental Health and Safety Plan (EHASP). A community air monitoring plan (CAMP) will also need to be implemented during soil removal activities.

The SANDRDHK project involves the installation of a flood protection system (FPS) that includes flood walls and street raising for the Red Hook neighborhood in Brooklyn, New York. The project also includes the addition of ADA compliant curbs and sidewalks, the installation of new water main lines and sewers, new street lighting, and planting of new trees along the streets within the project area.



Legend:

- General Utility Excavation to ~10' bgs
- Water Main Utility Excavation to ~4' bgs
- Flood Wall Excavation to ~6' bgs
- Proposed Test Pit Locations (with depths)
- Waste Characterization Sampling Grids

Soil Sampling Summary:

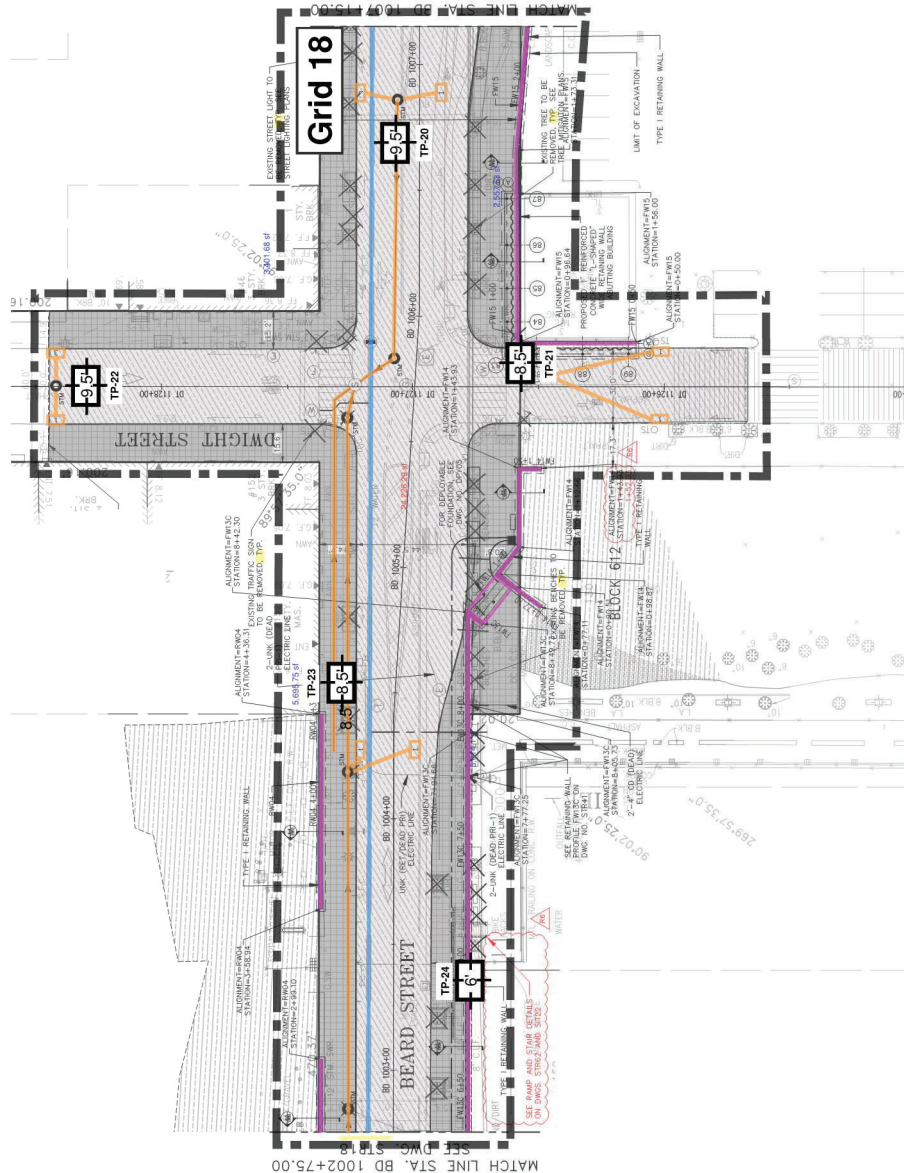
1,400 CY	Soil Volume
1	# of Grids (18)
3	# of Vertical Tiers
3	# of Samples
5	# of Test Pits (20-24)

Grid:	Sample ID	Depths (ft)	Sample Type	Locations
18	WC-18-1	0-3	5-Pnt	TP-20
			Comp	TP-21
				TP-22
				TP-23
18	WC-18-2	3-6	VOC	TP-24
			Grab	TBD
			5-Pnt	TP-20
			Comp	TP-21
18	WC-18-3	6-10	VOC	TP-22
			Grab	TP-23
			5-Pnt	TP-24
			Comp	TBD

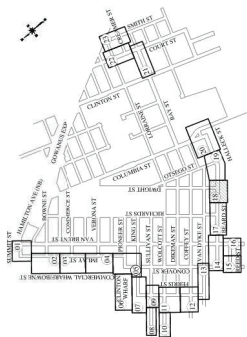


SAMPLE LOCATIONS MAP
Phase 1 (Beard Street Areas 1-4)
Red Hook Coastal Resiliency (RHCR)
NYCDDC Project #SANDRDHK
Red Hook, Brooklyn, NY
Date: 10/21/2025

FIGURE
3a

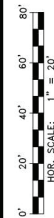


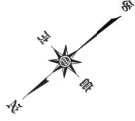
PLAN
SCALE: 1"=20'



KEY PLAN

EXCAVATION ZONE 6
SUBSECTION #18





Legend:

- General Utility Excavation to ~8.5' bgs
- Water Main Utility Excavation to ~4' bgs
- Flood Wall/Gates Excavation to ~5' bgs
- Proposed Test Pit Locations (with depths)
- Waste Characterization Sampling Grids

Soil Sampling Summary:

Grid	Sample ID	Depths (ft)	Sample Type	Sample Locations
17a	WC-17a-1	0-5	5-Pnt Comp	TP-25 TP-26 TP-27
			VOC Grab	TBD
17b	WC-17a-2	5-8.5	5-Pnt Comp	TP-25 TP-26 TP-27
			VOC Grab	TBD
17b	WC-17b	0-5	5-Pnt Comp	TP-28 TP-29
			VOC Grab	TBD

1,200 CY Soil Volume

2 # of Grids (17a, 17b)

3 # of Vertical Tiers

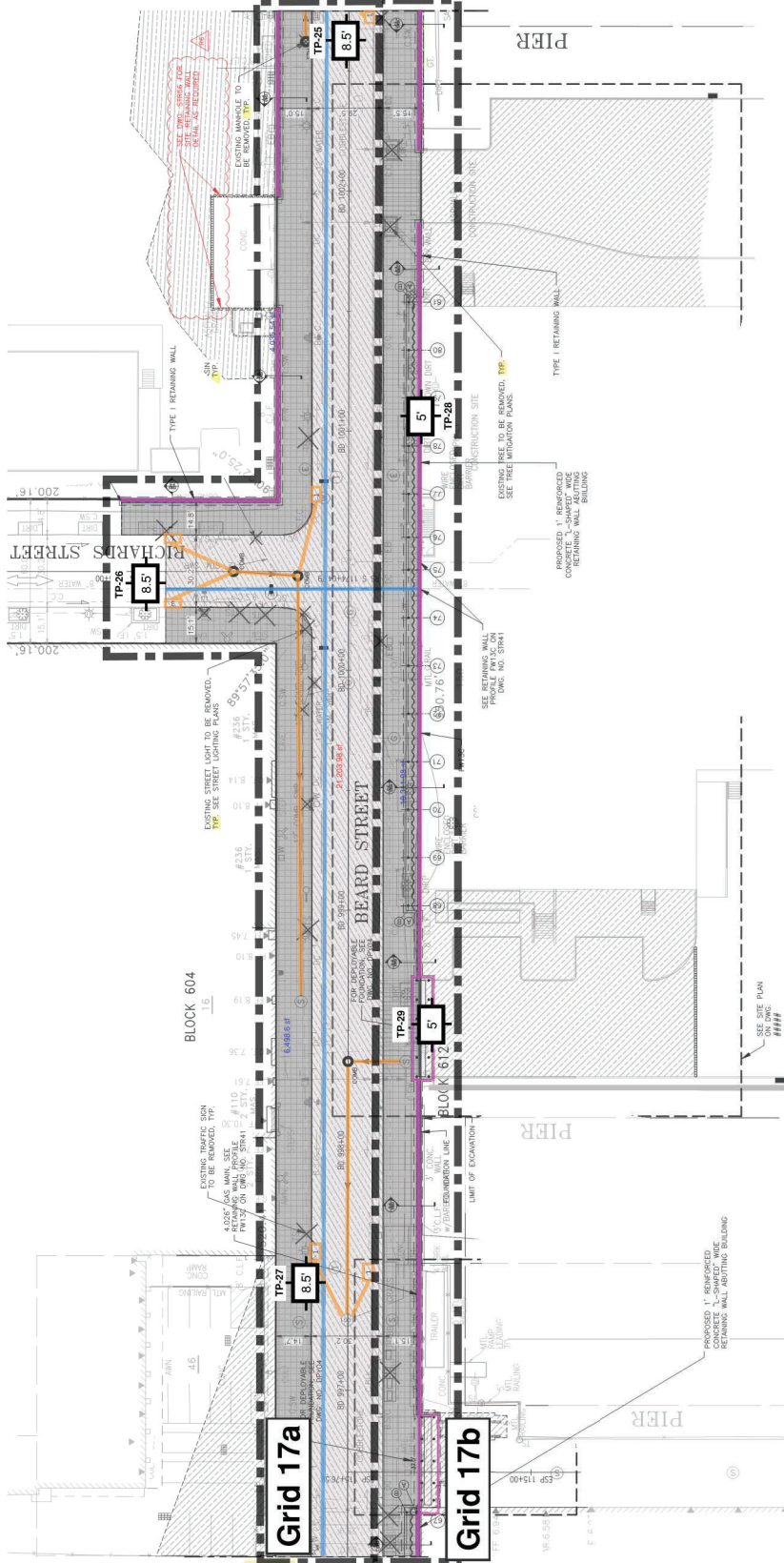
3 # of Samples

5 # of Test Pits (25-29)

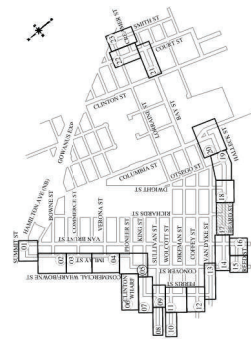
Grid	Sample ID	Depths (ft)	Sample Type	Sample Locations
17a	WC-17a-1	0-5	5-Pnt Comp	TP-25 TP-26 TP-27
			VOC Grab	TBD
17b	WC-17a-2	5-8.5	5-Pnt Comp	TP-25 TP-26 TP-27
			VOC Grab	TBD
17b	WC-17b	0-5	5-Pnt Comp	TP-28 TP-29
			VOC Grab	TBD



SAMPLE LOCATIONS MAP
Phase 1 (Beard Street Areas 1-4)
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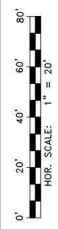


PLAN
SCALE 1"=20'



KEY PLAN

EXCAVATION ZONE 7
SUBSECTION #17





Legend:

- General Utility Excavation to ~10' bgs
- Water Main Utility Excavation to ~4' bgs
- Flood Wall/Gates Excavation to ~6' bgs
- Proposed Test Pit Locations (with depths)
- Waste Characterization Sampling Grids

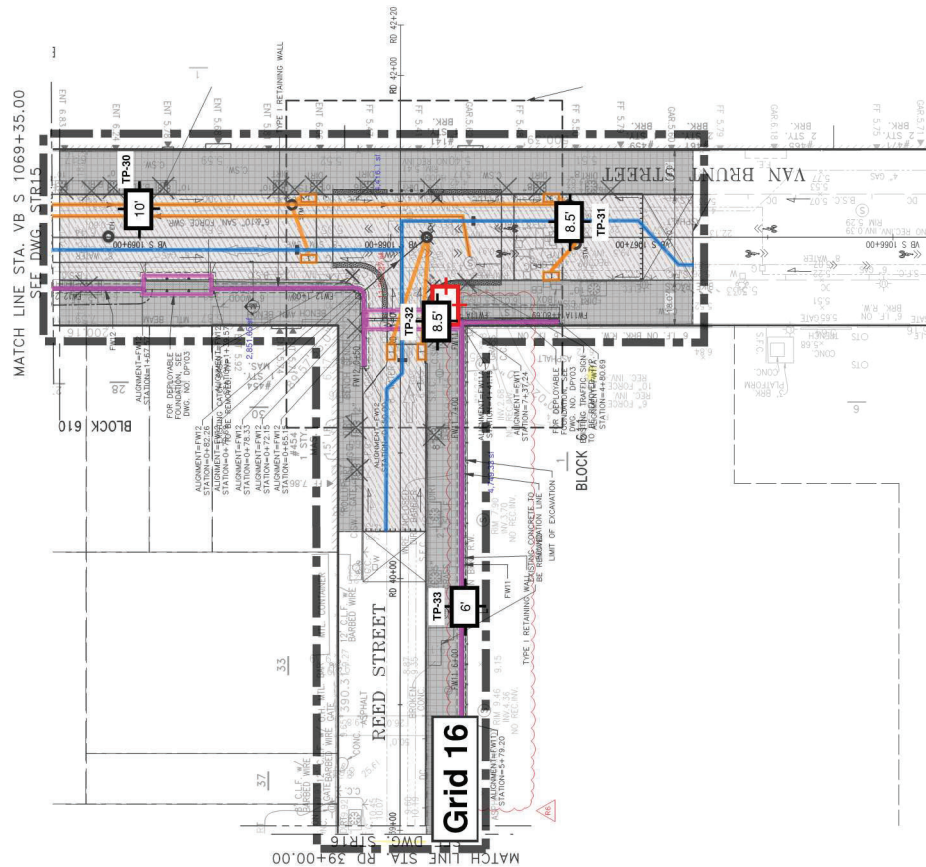
Soil Sampling Summary:

1,300 CY	Soil Volume
1	# of Grids (16)
3	# of Vertical Tiers
3	# of Samples
4	# of Test Pits (30-33)

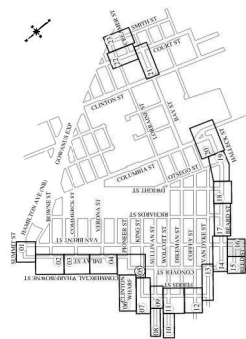
Grid:	Sample ID	Depths (ft)	Sample Type	Sample Locations
16	WC-16-1	0-3	5-Pnt	TP-30
			Comp	TP-31
			VOC	TP-32
			Grab	TP-33
16	WC-16-2	3-6	5-Pnt	TP-30
			Comp	TP-31
			VOC	TP-32
			Grab	TP-33
16	WC-16-3	6-10	5-Pnt	TP-30
			Comp	TP-31
			VOC	TP-32
			Grab	TP-33



SAMPLE LOCATIONS MAP
Phase 1 (Beard Street Areas 1-4)
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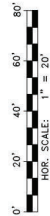


PLAN
SCALE: 1"=20'



KEY PLAN

EXCAVATION ZONE 8
SUBSECTION #16





Legend:

- General Utility Excavation to ~8.5' bgs
- Water Main Utility Excavation to ~4' bgs
- Flood Wall/Gate Excavation to ~6' bgs
- Proposed Test Pit Locations (with depths)
- Waste Characterization Sampling Grids

Soil Sampling Summary:

1,000 CY	Soil Volume
1	# of Grids (15)
2	# of Vertical Tiers
2	# of Samples
4	# of Test Pits (34-37)

Grid:	Sample ID	Depths (ft)	Sample Type	Sample Locations
15	WC-15-1	0-3	5-Pnt	TP-34
			Comp	TP-35
			VOC	TP-36
	WC-15-2	3-6	Grab	TP-37
			TBD	TBD
			5-Pnt	TP-34
	WC-15-3	6-8.5	Comp	TP-35
			VOC	TP-36
			Grab	TP-37
			5-Pnt	TBD
			Comp	TP-34
			VOC	TP-35
			Grab	TBD
			TBD	TBD
			TBD	TBD



SAMPLE LOCATIONS MAP
Phase 1 (Beard Street Areas 1-4)

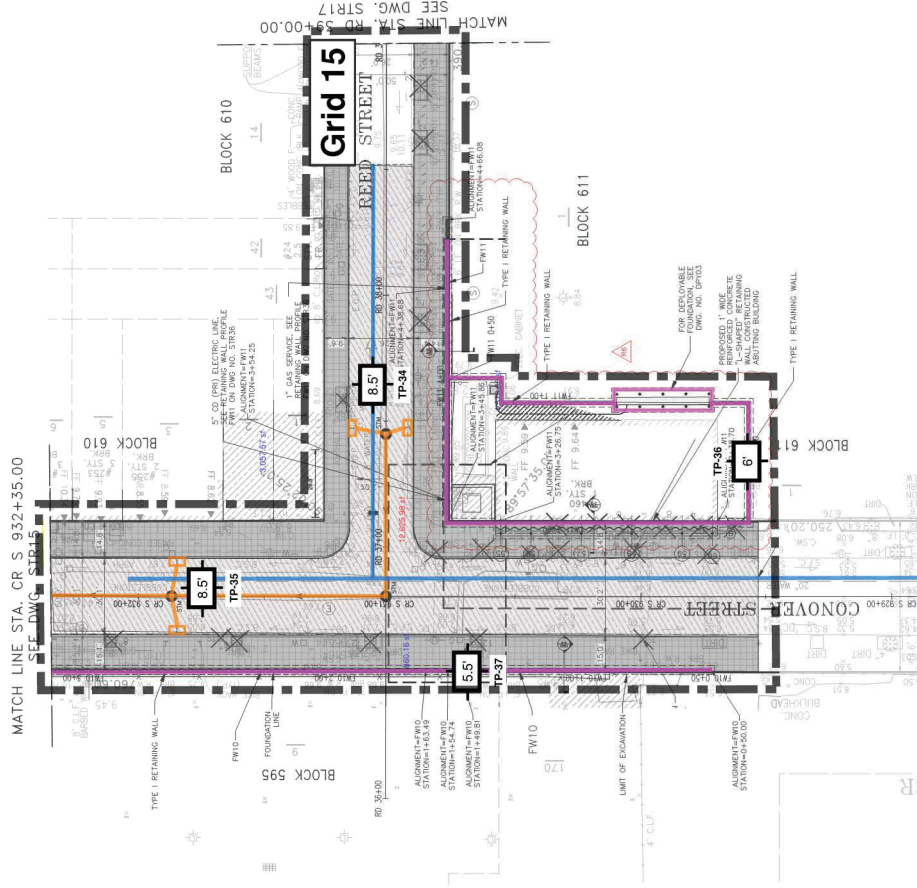
Red Hook Coastal Resiliency (RHCR)
NYCDDC Project #SANDRDHK
Red Hook, Brooklyn, NY

Date: 10/21/2025

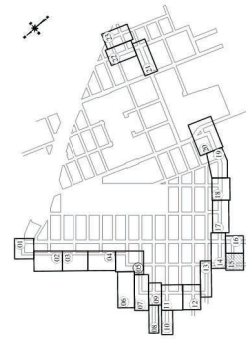


Factor Group Inc.
111 Town Square Place, Ste 1203
Jersey City, NJ 07310

FIGURE
3d

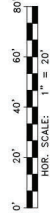


PLAN
SCALE: 1"=20'



KEY PLAN

EXCAVATION ZONE 9
SUBSECTION #15





Legend:

- General Utility Excavation to ~10' bgs
- Water Main Utility Excavation to ~4' bgs
- Flood Wall/Gate Excavation to ~5.5' bgs
- Proposed Test Pit Locations (with depths)
- Waste Characterization Sampling Grids

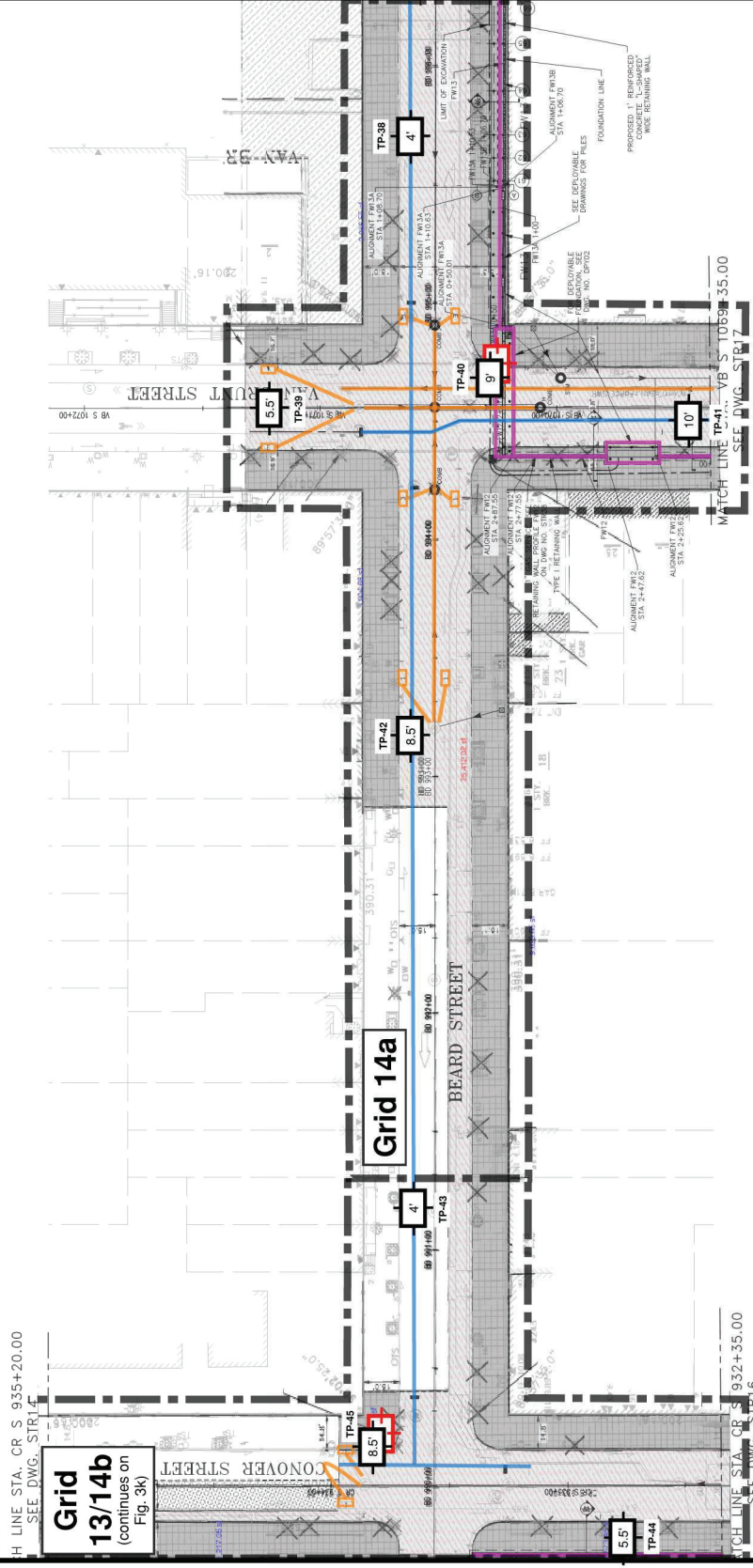
Phase 1 Soil Sampling Summary (continues on Fig 3k)

- 1,800 CY Soil Volume
- 2 # of Grids (14a, 13/14b)
- 2 # of Vertical Tiers
- 4 # of Samples
- 9 # of Test Pits (38-46)

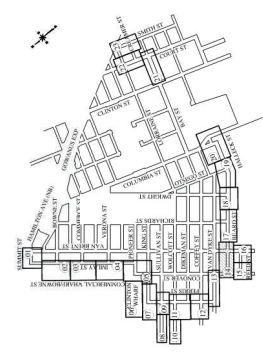
Grid:	Sample ID	Depths (ft)	Sample Type	Sample Locations	
14a	WC-14a-1	0-5.5	5-Pnt	TP-38	
			Comp	TP-39	
	VOC	Grab	TP-40		
		VOC	TP-41	TP-42	
			TBD		
13/ 14b	WC-14a-2	5.5-10	5-Pnt	TP-40	
			Comp	TP-41	
	VOC	Grab	TP-42		
		WC-13/ 14b-1	0-5.5	5-Pnt	TP-43
				Comp	TP-44
VOC	Grab	TP-45			
	WC-13/ 14b-2	5.5-8.5	5-Pnt	TP-46	
			Comp	TP-45	
VOC	Grab	TP-46			
	TBD				



SAMPLE LOCATIONS MAP
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PLAN
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KEY PLAN

EXCAVATION ZONE 10
SUBSECTION #14

