

**Steven Scharf - NG OU3 RI - Proposed Soil Borings in Parking Lot**

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**From:** "Stern, David" <David.Stern@arcadis-us.com>  
**To:** "Steven Scharf" <sxscharf@gw.dec.state.ny.us>  
**Date:** 2/16/2007 10:45 AM  
**Subject:** NG OU3 RI - Proposed Soil Borings in Parking Lot  
**CC:** "Cofman, John" <john.cofman@ngc.com>, <MHofgren@db-eng.com>, "San Giovan...  
**Attachments:** Phase 3 RI SBs.pdf; Proposed Soil Boring Locations\_2.pdf

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Steve:

As discussed, attached for informational purposes is a site plan and table specifying the soil sampling program for the Parking Lot. In general, these borings were specified based on soil gas and MIP data collected by ARCADIS and data provided by the Town. We have a window to complete the proposed work in the next few weeks, beginning on 2/20, as the Town is currently shut down in the area. The remainder of the soils program is under development in coordination with D&B, we hope to have the remainder of the work scope developed and appended to the attached by the end of next week. Please let me know if you have questions.

<<Phase 3 RI SBs.pdf>> <<Proposed Soil Boring Locations\_2.pdf>>

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Current Plotstyle : ByColor  
Layout Tab: ON-SITE

Acad Version : R17.0s (LMS Tech)  
User Name : alsanchez  
Date/Time : Thu, 15 Feb 2007 -- 2:06pm  
Path/Name : C:\PROJECT\Worthington\Grumman\Cadd\03\2007\PLAN\_VIEW\Proposed Soil Boring Locations.dwg

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NO.	ISSUED DATE	REVISION DESCRIPTION	BY/CKD
0	02-15-07	PHASE 3 RI WORK PLAN	DS

SEAL



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PROJECT TITLE  
OPERABLE UNIT 3  
FORMER GRUMMAN  
SETTLING PONDS  
BETHPAGE, NEW YORK

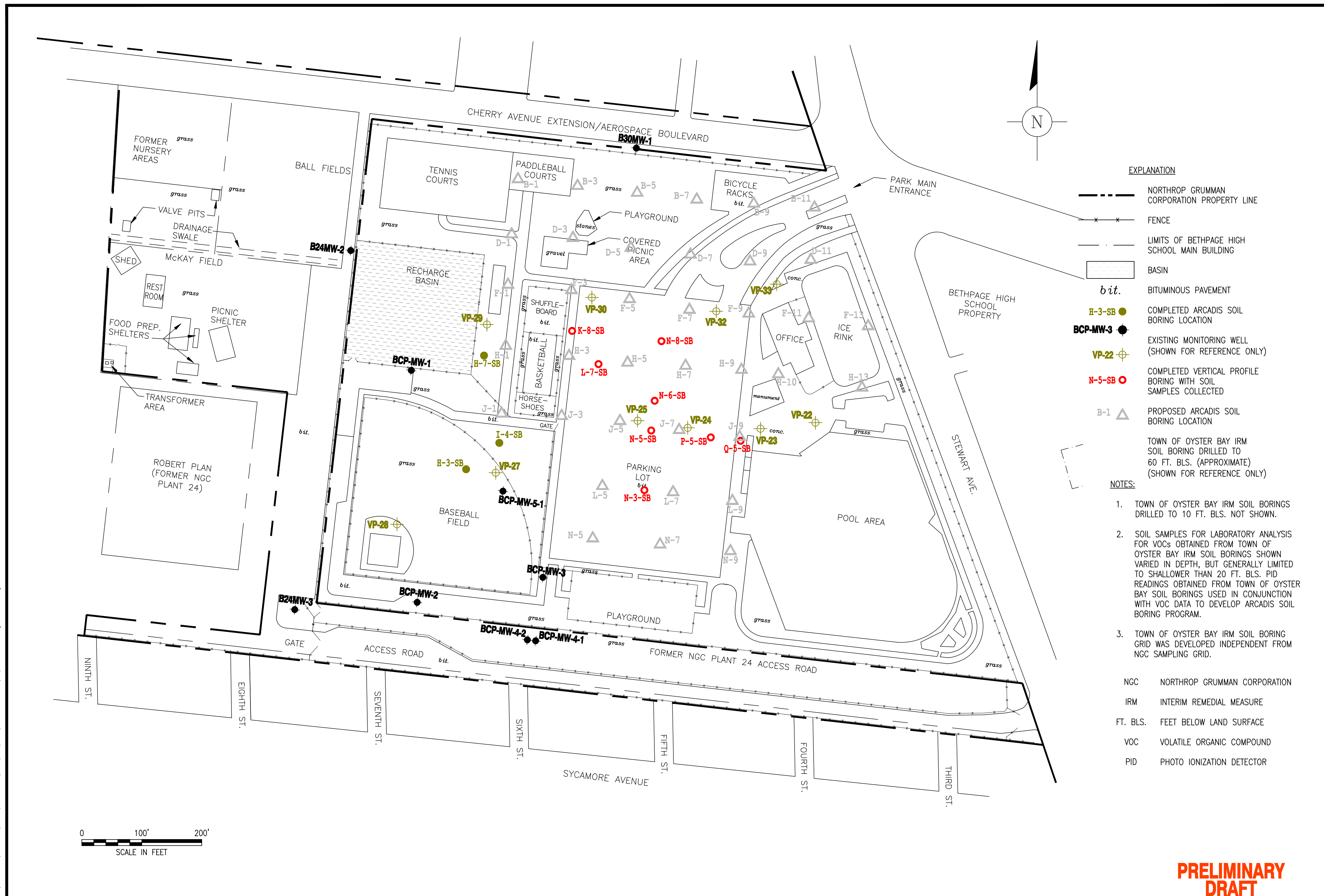
PROJECT MANAGER  
C. SAN GIOVANNI

SHEET TITLE  
SITE PLAN  
SHOWING COMPLETED AND  
PROPOSED SOIL BORING LOCATIONS

DEPARTMENT MANAGER  
M. WOLFERT

LEAD DESIGN PROF.  
TASK/PHASE NUMBER  
001SO  
PROJECT NUMBER  
NY001464.0807

CHECKED BY  
M. REINDL  
DRAWN BY  
A. SANCHEZ  
DRAWING NUMBER  
**1**



- EXPLANATION**
- NORTHROP GRUMMAN CORPORATION PROPERTY LINE
  - FENCE
  - LIMITS OF BETHPAGE HIGH SCHOOL MAIN BUILDING
  - BASIN
  - bit. BITUMINOUS PAVEMENT
  - H-3-SB ● COMPLETED ARCADIS SOIL BORING LOCATION
  - BCP-MW-3 ● EXISTING MONITORING WELL (SHOWN FOR REFERENCE ONLY)
  - VP-22 ⊕ COMPLETED VERTICAL PROFILE BORING WITH SOIL SAMPLES COLLECTED
  - N-5-SB ○ PROPOSED ARCADIS SOIL BORING LOCATION
  - B-1 ▲ TOWN OF OYSTER BAY IRM SOIL BORING DRILLED TO 60 FT. BLS. (APPROXIMATE) (SHOWN FOR REFERENCE ONLY)
- NOTES:**
- TOWN OF OYSTER BAY IRM SOIL BORINGS DRILLED TO 10 FT. BLS. NOT SHOWN.
  - SOIL SAMPLES FOR LABORATORY ANALYSIS FOR VOCs OBTAINED FROM TOWN OF OYSTER BAY IRM SOIL BORINGS SHOWN VARIED IN DEPTH, BUT GENERALLY LIMITED TO SHALLOWER THAN 20 FT. BLS. PID READINGS OBTAINED FROM TOWN OF OYSTER BAY SOIL BORINGS USED IN CONJUNCTION WITH VOC DATA TO DEVELOP ARCADIS SOIL BORING PROGRAM.
  - TOWN OF OYSTER BAY IRM SOIL BORING GRID WAS DEVELOPED INDEPENDENT FROM NGC SAMPLING GRID.
- NGC NORTHROP GRUMMAN CORPORATION  
IRM INTERIM REMEDIAL MEASURE  
FT. BLS. FEET BELOW LAND SURFACE  
VOC VOLATILE ORGANIC COMPOUND  
PID PHOTO IONIZATION DETECTOR

**PRELIMINARY DRAFT**

Table 1. Summary of Proposed Construction Area Soil Borings, Former Grumman Settling Ponds (Operable Unit 3 - Bethpage Community Park), Bethpage, New York.

Well Identification	Nominal Borehole/ Well Diameter (inches)	Total Depth (ft bmp)	No. Split Spoons	Split Spoon Sampling Intervals	Proposed Laboratory Analysis <sup>(1)</sup>	Shelby Tube Interval <sup>(2)</sup> (ft bls)	Proposed Geotechnical Testing	Gamma Log	Rationale
<b><u>Proposed Soil Borings (SB)</u></b>									
<b><u>On-Site, Primary</u></b>									
K8-SB	8	56	18	20 - 56	VOCs	N	N	Y	Characterize soil VOC impacts >20 ft bls in NW Parking Lot.
L7-SB	8	56	18	20 - 56	VOCs	N	N	Y	Characterize soil VOC impacts >20 ft bls in NW Parking Lot.
N3-SB	8	56	18	20 - 56	VOCs	N	N	Y	Delineate soil VOC impacts >20 ft bls in South Parking Lot.
N5-SB	8	56	23	10 - 56	VOCs	N	N	Y	Characterize soil VOC impacts >20 ft bls in Central Parking Lot.
N6-SB	8	56	23	10 - 56	VOCs	N	N	Y	Characterize soil VOC impacts >20 ft bls in Central Parking Lot.
N8-SB	8	56	18	20 - 56	VOCs	N	N	Y	Delineate soil VOC impacts >20 ft bls in East Parking Lot.
P5-SB	8	56	18	20 - 56	VOCs	N	N	Y	Delineate soil VOC impacts >20 ft bls in North Parking Lot.
<b><u>On-Site, Contingency</u></b>									
Q5-SB	8	56	18	20 - 56	VOCs	N	N	N	If needed based on P5-SB, delineate soil VOC impacts >20 ft bls in North Parking Lot.
<b><u>Proposed Geotechnical Borings (GB)</u></b>									
<b><u>On-Site</u></b>									
N5-GB	8	56	0	0	N	2-4; 10-12; 14-16; 20-22; 38-40; 48-50	<sup>(3)</sup>	N	In general, geotechnical soil borings will be drilled and sampled to determine soil properties of sand and lower permeability soils in area exhibiting high concentrations of VOCs.
N6-GB	8	56	0	0	N	2-4; 10-12; 14-16; 20-22; 38-40; 48-50	<sup>(3)</sup>	N	
Totals:	--	448	154	0	--	12		--	

<sup>(1)</sup> The soil samples will be analyzed for VOCs using methods specified in the NYSDEC-approved April 2006 RI/FS Work Plan. See RI/FS Work Plan QAPP and FSP for additional sample collection/analytical methodology.

Soil boring locations may be modified and/or additional borings may be drilled, depending on field conditions.

<sup>(2)</sup> Shelby Tube samples will be collected from sand and lower permeability soils in selected borings. Specified locations/intervals may be modified based on field conditions.

<sup>(3)</sup> Shelby Tube sample parameters and methods are specified in the NYSDEC-approved April 2006 RI/FS Work Plan.