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Division of Environmental Remediation
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Denise M. Sheehan
Commissioner

MEMORANDUM

TO: Salvatore Ervolina, Assistant Division Director, DER

FROM: John Swartwout, Chief Section C, thru Chittibabu Vasudevan, Director, Remedial Bureau A

SUBJECT: Conceptual Approval Memo for Immediate Investigation Work Assignment For (1) Engineering Standby Contractor at the Bethpage Community Park-Former Grumman Settling Ponds

DATE:

Site No., Name, Location: No. 1-30-003A-OU3, Former Grumman settling Ponds AKA Bethpage Community Park. Town of Oyster Bay, Nassau County

Site Information: See Attachment A for site information.

Conflict of Interest: Northrop Grumman, Town of Oyster Bay, Department of the Navy,

Program Element: Immediate Investigation Work Assignment (IIWA)

Project Duration: May 2007 - May 2008

Contractor Preference:

Estimated WA Budget:

Work Plan Development (Task 1)	$	2,500
Soil Vapor Sampling (Task 2)	$	7,500
Structure Sampling (Task 3)	$	7,500
Mitigation (Task 5)	$	25,000
	$	2,500
Work Assignment Amount	$	45,000

Funding Source: State Superfund

Brief Description of Scope of Work:

The contractor will be responsible for performing a soil vapor intrusion evaluation and structure mitigation at the Bethpage Community Park site as indicated within this IIWA. The scope of work for this IIWA project will encompass activities contained in the Work Assignment, provided as Attachment A. To facilitate this program, the Standby Contractor will establish all of the management procedures necessary to provide the required services to the Department with very short notice and will be expected to mobilize manpower and equipment within 14 days immediately following the date of the Notice to Proceed letter issued by the Department.

The work assignment scope of work and cost includes sampling of four (4) temporary soil vapor points/groundwater wells, indoor air sampling at six (6) structures, and installation of a sub-slab depressurization system (SSDS) in one previously sampled structure. All drilling and laboratory work will be subcontracted by the Contractor who will also provide field staff to collect the groundwater, soil vapor, and structure samples and transport the samples to the laboratory. The number of soil vapor and groundwater samples are estimated at four (4) each and the number of structure samples is estimated at twenty-four (24) each (excluding requisite QA/QC samples).

At the direction of the Department, additional structure sampling and mitigation may be required. The scope of work also includes a provision for amendment if additional sampling or mitigation of structures in the vicinity of the former Roxy Cleaners building is determined to be necessary.

Attachment

ec: w\Att.
D. Weigel
M. Cruden
T. Wolosen
J. Swartwout
S, Scharf
eDocs

Immediate Investigation Work Assignment (IIWA)
Type of Contract: Cost Plus Fixed Fee
Project: Soil Vapor Intrusion Evaluation at Former Grumman Settling Ponds and Town of Oyster Bay Ice Rink
Nassau County, Town of Oyster Bay New York
NYSDEC Project Manager: Steven Scharf
Phone: (518) 402-9620

SITE LOCATION AND DESCRIPTION:

General/Location

The Bethpage Community Park is located in a suburban area of Nassau County, Town of Oyster Bay, New York. The surrounding parcels are a combination of commercial and residential use . The 18-acre Bethpage Community Park is located on the west side of Stewart Avenue near the intersection with Cherry Avenue. The park is owned by the Town of Oyster Bay and includes a swimming pool, a demolished ice skating rink, baseball field, playgrounds and picnic areas.

The park is adjacent to a 575-acre industrial facility constructed in 1936 and used by Grumman Aircraft Engineering Corporation (Grumman) to build military aircraft. As demand for military aircraft increased through World War II the facility expanded to include 105 acres that were owned by the U.S. Navy and operated by Grumman. Grumman donated the18 acre portion of 575 acre facility land for the park to the Town of Oyster Bay on October 17, 1962.

In the past several years, investigation of the Bethpage Community Park has identifed that, prior to this donation, the part of the 18 acre site were used to dispose of liquid wastes and sludge from the adjacent Grumman Aerospace manufacturing facility. A portion of the site was also used for fire control training purposes. There are no known residential wells downgradient of the park, and public water supplies are monitored for water quality. Downgradient water supply wells in Bethpage are being treated for volatile organic contamination from the former 575 acre facility.

The area of concern that must be addressed:

Soil contaminants in the park and surrounding industrial properties,

Operational/Disposal History

Remedial History

PROPOSED SITE ACTIVITIES INCLUDED WITHIN THIS WORK ASSIGNMENT:

The Contractor will be responsible for performing a soil vapor intrusion investigation at the site and will be required to conduct the following activities at the site:

TASK 1 - Work Plan Development

A meeting shall be held at the site included in this Work Assignment in order to discuss the requirements of the Work Plan. The Contractor shall visit the site prior to field mobilization in order to verify the proposed sampling locations with the NYSDEC. Based on the meeting, the Contractor will compile a Work Plan which shall detail the following Tasks. The Contractor shall be responsible for hiring a driller as well as locating underground utilities prior to any sub-surface investigative work.

TASK 2 - Soil Vapor Investigation

Soil vapor samples will be performed, as directed by the NYSDEC.

Temporary Soil Vapor Probe Installation

Temporary soil vapor probes will be installed at approximately four (4) locations selected by the NYSDEC, to determine whether vapor phase contaminants are present within the investigation area.

Two (2) temporary soil vapor probes will be installed at each location using direct-push technology to drive stainless steel rods equipped with detachable stainless steel drive points to the desired depth. The paired soil vapor probes will be installed at different depths, the shallow one at a depth equivalent to that of a typical building foundation (approximately 8 ft bgs) and the deeper one approximately 1-2 ft. above the water table. If the water table is determined to be less than 12 ft bgs, then one soil vapor probe at 8 ft bgs may be sufficient. If the water table is less than 5 ft bgs, a decision whether or not to install a soil vapor probe at that location will be made by the NYSDEC based on field conditions.

Once the desired depth is reached, the drive rod will be retracted revealing a six (6) inch sampling screen attached to dedicated Teflon tubing of laboratory or food grade which will be used to collect the soil vapor samples. The borehole will then be backfilled with sand to a minimum of six (6) inches above the screened interval. Bentonite chips or pellets will then be placed from approximately six (6) inches above the screen to the ground surface, and immediately hydrated. Sufficient time should then be provided for the bentonite to set-up (24 hours minimum).

If groundwater is anticipated to be encountered less than 16 ft bgs, a GeoProbe® 5400 or equivalent direct-push technology should be sufficient to obtain the desired sampling depths. If this rig is deemed insufficient, the sampling will be reevaluated using either a larger direct push drill rig or a hollow stem auger (HSA).

Temporary Soil Vapor Probe Sampling

Prior to collection of soil vapor samples, the temporary soil vapor probes will be purged in accordance with the NYSDOH guidance for evaluating soil vapor intrusion. Three to five implant volumes (i.e. volume of the sample probe and tube) will be purged at a flow rate which does not exceed 0.2 liters per minute. Tracer gas will be used to evaluate short-circuiting of the sampling zone with ambient air. Unless otherwise directed by the NYSDEC, all soil vapor sampling locations at each site will be evaluated with tracer gas in accordance with the NYSDOH guidance.

Samples will be collected using laboratory-certified clean SUMMA canisters with two-hour regulators and dedicated Teflon lined tubing of laboratory or food grade quality. The flow rate during sampling shall not exceed 0.2 liters per minute to minimize outdoor air infiltration during sampling. In the event of freezing weather, a portable heating device (e.g., electric socks or hand warmers) will be used to prevent the regulator and filter assembly from freezing during sample collection.

The soil vapor samples will be analyzed by an ELAP certified lab for volatiles using EPA Method TO-15. A minimum reporting limit of 1 microgram per cubic meter ($\mu g/m^3$) must be achieved for all analytes and all results must be reported in $\mu g/m^3$. The laboratory should report preliminary results within 10 days of receipt of the samples. Additional analytical parameters may be specified depending on site-specific contaminants of concern.

Upon completion of the sampling, the sample tubing will be removed and the temporary soil vapor probe

location backfilled with bentonite. Each location will then be marked with a stake/flag labeled with the proper sample identification and illustrated on the site map so that it can be located at a later date. Borings performed in paved or concrete areas will be backfilled and refinished at the ground surface with concrete or cold patch.

Field Documentation Procedures

Field notebooks will be used during all on-site work. A dedicated field notebook will be maintained by the field technician overseeing the site activities. In addition to the notebook, any and all original sampling forms, purge forms and notebooks used during the field activities, shall be submitted to the NYSDEC as part of the final report. Field and sampling procedures, including installation of the soil vapor probe points and groundwater sampling, should be photo-documented.

Sample Identification

The following nomenclature shall be used for the soil vapor sample identification:

[SITE ID][1]-V-xxS-*[SAMPLE_DATE]* (for shallow locations) or
[SITE ID]-V-xxD-*[SAMPLE_DATE]* (for deep locations)

TASK 2a - Soil Vapor Sampling Data Validation/Usability Report

All samples collected must be validated by a party that is independent of the laboratory which performed the analyses and the Contractor which performed the fieldwork. A usability analysis will be conducted by a qualified data validator and a Data Validation/Usability Report will be submitted to the NYSDEC.

TASK 2b - Soil Vapor Sampling Reporting

Reporting will include information pertaining to the installation, collection and sampling of the property. All appropriate text, data and figures will be compiled and provided to the Department. No conclusions shall be contained within the reports. In addition, all field and laboratory data shall be submitted electronically in a standardized format consistent with EPA Region 2 Multimedia Electronic Data Deliverable (MEDD) format.

TASK 3 - Structure Sampling

This work assignment includes budgeting for structure sampling of approximately six (10) structures in the vicinity of the Bwthpage Community Park. At the direction of the Department, indoor air, outdoor ambient air and/or subslab soil vapor sampling will be executed. The protocol for this effort shall follow the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Final, October 2006. (SVI Guidance). The turnaround time for preliminary sample results will be two weeks.

Additional sampling phases may be required if the State finds it necessary to sample additional structures or to resample the same structures at a later time.

Up to three types of samples will be collected at each structure:

1. indoor air;

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[1] SITE ID = NYSDEC site identification number (e.g. 1-30-003A-OU3)

2. subslab soil vapor; and/or
3. outdoor air

As shown in the following table, up to four (4) samples will be associated with each building:

Type of Sample	Number of Samples Per Building	Description
Subslab	1	One centrally-located with potentially one located approximately 3 feet from the "source side" perimeter wall
Indoor air	2	One basement indoor ambient air (centrally-located at a breathing zone height) and one first floor indoor ambient air
Outdoor air	1	One outdoor ambient air, located upwind of the structure at a breathing zone height

Prior to the structure air sampling, an inspection of general site conditions will be performed at each structure. The pre-sampling inspection will determine the locations for the indoor air and outdoor air sampling. The inspection will include the completion of a chemical product inventory, ambient air PID readings, and the completion of a property owner questionnaire. The appropriate field forms for the chemical product inventory and property owner questionnaire shall be obtained from the SVI Guidance.

Sub-Slab Soil Vapor Sample Collection:

A minimum of one (1) centrally-located sub-slab soil vapor sample will be collected from beneath the basement flooring/foundation slab of each residential property. If deemed appropriate by the Department, additional sub-slab points may be added.

After the basement flooring/foundation slab has been inspected, the location of any subsurface utility determined, and the ambient air surrounding the proposed sampling location screened with a PID, a hammer drill will be used to advance a boring to a depth of approximately three to six inches beneath the basement flooring/foundation slab.

The annular space between the bored hole and the sample tubing will be filled and sealed with beeswax (or equivalent) at the surface. The tubing will be connected to a low-flow sample pump. Approximately 1 liter of gas will be purged from the subsurface probe and captured in a Tedlar® bag using the low-flow pump. PID readings will be observed from this sample and the highest reading shall be recorded on the appropriate field form. The air sampling pump will be disconnected and the end of the tubing will be connected directly to the summa canister's regulator intake valve. Flexible silicone tubing will be used at a minimum and as a tubing adapter only. The sample shall be collected with a laboratory-certified summa canister with dedicated regulator set for a 24-hour sample collection.

The analysis for sub-slab soil vapor samples will achieve detection limits of 1 $\mu g/m^3$ for each compound. For specific parameters identified by the NYSDOH, where the selected parameters may have a higher detection limit (e.g., acetone), the higher detection limits will be designated by the NYSDOH.

Indoor Air Sample Collection:

Up to two (2) indoor air samples will be collected from each residential property that can include up to one sample within the basement area and one within the first floor. If the residential property does not contain a basement, only a first floor indoor air sample will be collected.

All indoor air samples will be collected with a laboratory-certified summa canister regulated for a 24-hour sample collection. The summa canister will be placed in such a location as to collect a representative sample from the breathing zone at four to six feet above the floor.

The analysis for indoor air samples will achieve detection limits of 1 $\mu g/m^3$ for each compound except for TCE which will have a detection limit of 0.25 $\mu g/m^3$. For specific parameters identified by the NYSDOH, where the selected parameters may have a higher detection limit (e.g., acetone), the higher detection limits will be designated by the NYSDOH.

Outdoor Air Sample Collection:

All outdoor air samples will be collected with a laboratory-certified summa canister regulated for a 24-hour sample collection. The summa canister will be placed in such a location as to collect a representative sample from the breathing zone at four to six feet above the ground.

The analysis for outdoor air samples will achieve detection limits of 1 $\mu g/m^3$ for each compound except for TCE which will have a detection limit of 0.25 $\mu g/m^3$. For specific parameters identified by the NYSDOH, where the selected parameters may have a higher detection limit (e.g., acetone), the higher detection limits will be designated by the NYSDOH.

Sample Identification

The following terminology shall be used for the structure sample identification:

[SITE ID]-SS-xx-*[SAMPLE_DATE]* (for subslab locations)
[SITE ID]-BS-xx-*[SAMPLE_DATE]* (for basement indoor ambient air)
[SITE ID]-FF-xx-*[SAMPLE_DATE]* (for first floor indoor ambient air)
[SITE ID]-OA-xx-*[SAMPLE_DATE]* (for outdoor ambient air)

Task 4a - Structure Sampling: Data Validation/Usability Report

All samples collected must be validated by a party that is independent of the laboratory that the analyses and the Contractor that performed the fieldwork. A usability analysis will be conducted by a qualified data validator and a Data Validation/Usability Report will be submitted to the NYSDEC.

Task 4b - Structure Sampling: Progress Reporting

Progress reporting will be provided and will include information pertaining to the installation, collection and sampling of the properties. All appropriate text, data and figures will be compiled and provided to the Department. Progress reports shall be submitted to the Department and will include preliminary data summary tables as soon as they become available. No conclusions shall be contained within the reports. All field and laboratory data shall be submitted electronically in a standardized format consistent with EPA Region 2 MEDD format.

The reports will be required to be issued in both Confidential Version (containing personal addresses, etc.)

and Non-Confidential Version (containing coded sample ids and locations) and in hard copy and electronic format.

TASK 5 - Structure Mitigation

This work assignment includes budgeting for potential installation of a sub-slab depressurization systems (SSDS). At the direction of the Department, mitigation systems may be installed within homes found to be impacted by sub-slab soil vapors. The protocol for this effort shall follow the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) [Section 4: Soil Vapor Intrusion Mitigation].

Estimated Budget and Level of Effort (LOE) Summary
Soil Vapor Intrusion Evaluation at Former Grumman Settling Ponds and Town of Oyster Bay Ice Rink
Nassau County, Town of Oyster Bay New York
Site No. 1-30-003A-OU3

Task Items	Description/Cost	Dollars
1	Work Plan Development	$2,500
2	Soil Vapor Sampling	$9,000
2a	Soil Vapor Sampling - Data Validation/Usability Report	$1,000
2b	Soil Vapor Sampling - Reporting	$2,500
3	Groundwater Sampling	$4,500
3a	Groundwater Sampling - Data Validation/Usability Report	$1,000
3b	Groundwater Sampling - Reporting	$2,000
4	Structure Sampling	$20,000
4a	Structure Sampling - Data Validation/Usability Report	$2,000
4b	Structure Sampling - Reporting	$3,000
5	Mitigation	$2,500
	Total Estimate Budget (Tasks 1 - 4)	**$50,000**

Tentative Project Schedule
Soil Vapor Intrusion Evaluation at Former Grumman Settling Ponds and Town of Oyster Bay Ice Rink
Nassau County, Town of Oyster Bay New York
Site No. 4-42-024

Project Milestone	Date
Issue Work Assignment (WA)	May 1, 2007
Acknowledge Receipt of WA	5 Days after Issuance
Notice to Proceed (NTP)	May 15, 2007 January 9, 2007
Scoping session/site visit	May 19, 2007 uary 12, 2007
Submit Task 1 (Work Plan) Deliverable	May 30, 2007 ry 29, 2007
Commence Task 2 Field Work	June 25, 2007 ary 20, 2007
Task 2 Field Work Completed	February 27, 2007
Commence Task 3 Field Work	February 20, 2007
Task 3 Field Work Completed	February 27, 2007
Commence Task 4 Field Work	February 6, 2007
Task 4 Field Work Completed	February 20, 2007
Commence Task 5 Field Work	March 5, 2007
Task 5 Completed	March 6, 2007
Submit Draft Report	May 7, 2007
Approve Draft Report	15 Days after Draft Report Submitted
Submit Final Report	30 Days after Approval of Draft Report

Schedule 2.11 (a)

Summary of Work Assignment Price

Work Assignment Number D004438-16

1)	Direct Salary Costs (Schedules 2.10(a) and 2.11(b))	$8,412
2)	Indirect Costs (Schedule 2.10(g))	$12,824
3)	Direct Non-Salary Costs (Schedule 2.10(b)(c)(d) and 2.11(c)(d))	$7,885
4)	Subcontract Costs	

Cost-Plus-Fixed-Fee Subcontracts (Schedule 2.10(e) and 2.11(e))

	Name of Subcontractor	Services To Be Performed	Subcontract Price
i)			*$0*
ii)			*$0*
A)	**Total Cost-Plus-Fixed-Fee Subcontracts**		$0

Unit Price Subcontracts (Schedule 2.10(f) and 2.11(f))

	Name of Subcontractor	Services To Be Performed	Subcontract Price
ii)	TBD	Laboratory Air Analyses	*$15,675*
iii)	TBD	Data validation	*$1,425*
iv)	TBD	Drilling Services	*$5,100*
B)	**Total Unit Price Subcontracts**		$22,200
5)	Subcontract Management Fee		$855
6)	Total Subcontract Costs (Lines 4A + 4B + 5)		$23,055
7)	Fixed Fee (Schedule 2.10(h))		$1,486
8)	Total Work Assignment Price (Lines 1 + 2 + 3 + 6 + 7)		$53,662

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	21-Jun-07
Project Name:	Former Grumman Settling Ponds - ISVI	**Billing Period:**	
Work Assignment No.:	D004438-16	**Invoice No.**	
Task#/Name:	Task 2 - Soil Vapor Investigation		
Complete:			

	Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid To Date*	*C* *Total Disallowed To Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs To Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1	Direct Salary Costs				$0.00		$1,570.12		($1,570.12)
2	Indirect Costs				$0.00		$2,393.65		($2,393.65)
3	Subtotal Direct Salary Costs and Indirect Costs				$0.00		$3,963.77		($3,963.77)
4	Travel				$0.00		$979.00		($979.00)
5	Other Non-Salary Costs				$0.00		$2,433.60		($2,433.60)
6	Subtotal Direct Non-Salary Costs				$0.00		$3,412.60		($3,412.60)
7	Subcontractors				$0.00		$9,431.25		($9,431.25)
8	Total WA Cost				$0.00		$16,807.62		($16,807.62)
9	Fixed Fee 7%				$0.00		$277.46		($277.46)
10	Total WA Price				$0.00		$17,085.08		($17,085.08)

Program Manager(Engineer) _____ Date: _____

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	21-Jun-07
Project Name:	Former Grumman Settling Ponds - ISVI	**Billing Period:**	
Work Assignment No.:	D004438-16	**Invoice No.**	
Task#/Name:	Task 3 - Structure and Outdoor Air Sampling		
Complete:			

	Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid To Date*	*C* *Total Disallowed To Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs To Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1	Direct Salary Costs				$0.00		$2,515.36		($2,515.36)
2	Indirect Costs				$0.00		$3,834.67		($3,834.67)
3	Subtotal Direct Salary Costs and Indirect Costs				$0.00		$6,350.03		($6,350.03)
4	Travel				$0.00		$1,919.00		($1,919.00)
5	Other Non-Salary Costs				$0.00		$1,435.75		($1,435.75)
6	Subtotal Direct Non-Salary Costs				$0.00		$3,354.75		($3,354.75)
7	Subcontractors				$0.00		$12,127.50		($12,127.50)
8	Total WA Cost				$0.00		$21,832.28		($21,832.28)
9	Fixed Fee 7%				$0.00		$444.50		($444.50)
10	Total WA Price				$0.00		$22,276.78		($22,276.78)

Program Manager(Engineer) _____ Date: _____

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	21-Jun-07
Project Name:	Former Grumman Settling Ponds - ISVI	**Billing Period:**	
Work Assignment No.:	D004438-16	**Invoice No.**	
Task#/Name:	Task 4 - Summary Reports/DUSR		
Complete:			

	Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid To Date*	*C* *Total Disallowed To Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs To Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1	Direct Salary Costs				$0.00		$2,497.96		($2,497.96)
2	Indirect Costs				$0.00		$3,808.14		($3,808.14)
3	Subtotal Direct Salary Costs and Indirect Costs				$0.00		$6,306.10		($6,306.10)
4	Travel				$0.00		$0.00		$0.00
5	Other Non-Salary Costs				$0.00		$206.25		($206.25)
6	Subtotal Direct Non-Salary Costs				$0.00		$206.25		($206.25)
7	Subcontractors				$0.00		$1,496.25		($1,496.25)
8	Total WA Cost				$0.00		$8,008.60		($8,008.60)
9	Fixed Fee 7%				$0.00		$441.43		($441.43)
10	Total WA Price				$0.00		$8,450.03		($8,450.03)

Program Manager(Engineer) _____ Date: _____

SCHEDULE 2.11(g) - Supplemental

Cost Control Report For Subcontracts

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	21-Jun-07
Project Name:	Former Grumman Settling Ponds - ISVI	**Billing Period:**	
Work Assignment No.:	D004438-16	**Invoice No.**	

Subcontract Name	*A Subcontract Costs Claimed this Application Inc. Resubmittals*	*B Subcontract Costs Approved for Payment on Previous Applications*	*C Total Subcontract Costs to Date (A plus B)*	*D Subcontract Approved Budget*	*E Management Fee Budget*	*F Management Fee Paid*	*G Total Costs to Date (C plus F)*
1 TBD			$0.00	$15,675.00	$783.75		$0.00
2 TBD			$0.00	$1,425.00	$71.25		$0.00
3 TBD			$0.00	$5,100.00	$255.00		
4 TOTALS	$0.00	$0.00	$0.00	$22,200.00	$855.00		$0.00

Project Manager _____ Date: _____

Notes:
1) Costs listed in Columns A, B, C, & D do not include any management fee costs.
2) Management fee is applicable to only properly procured, satisfactorily completed, unit price subcontracts over $10,000.
3) Line 11, Column G should equal Line 7 (Subcontractors), Column D of Summary Cost Control Report.

SCHEDULE 2.11(h)

MONTHLY COST CONTROL REPORT
SUMMARY OF LABOR HOURS
Number of Direct Labor Hours Expended to Date/Estimated Number of Direct Labor Hours to Completion

Engineer: EA Engineering, P.C.
Contract No: D004438
Project Name: Former Grumman Settling Ponds - ISVI
Work Assignment No.: D004438-16

Date Prepared: 21-Jun-07
Billing Period:
Invoice No.:

NSPE Labor Classification	IX Exp/Est*	VIII Exp/Est	VII Exp/Est	VI Exp/Est	V Exp/Est	IV Exp/Est	III Exp/Est	II Exp/Est	I Exp/Est	Total No. of Direct Labor Hours Exp/Est
Task 1	0.0	0.0	0.0	8.0	0.0	2.0	16.0	28.0	20.0	74.0
Task 2	0.0	0.0	0.0	4.0	0.0	0.0	8.0	30.0	30.0	72.0
Task 3	0.0	0.0	0.0	4.0	0.0	2.0	10.0	52.0	50.0	118.0
Task 4	0.0	0.0	0.0	8.0	0.0	4.0	24.0	24.0	48.0	108.0
										0.0
										0.0
										0.0
										0.0
										0.0
										0.0
										0.0
										0.0
										0.0
Total Hours	0.0 0.0	0.0 0.0	0.0 0.0	0.0 24.0	0.0 0.0	0.0 8.0	0.0 58.0	0.0 134.0	0.0 148.0	0.0 372.0

* Expended/Estimated

Engineer/Contract #	EA Engineering, P.C. D004438	**Date Prepared**	21-Jun-07
Project Name	Former Grumman Settling Ponds - ISVI		
Work Assignment No.	D004438-16		

Schedule 2.11 (b)
Direct Labor Hours Budgeted

Labor Classification	*IX*	*VIII*	*VII*	*VI*	*V*	*IV*	*III*	*II*	*I*	*Admin.*	*Total Direct Labor Hrs.*
2007 Average Salary Rates		64.15	54.14	48.80	44.55	35.55	25.84	21.83	17.11		
2008 Average Salary Rates		66.07	55.76	50.26	45.89	36.62	26.62	22.48	17.62		
Task 1 - 2007				8			16	24	20	6	74
Task 1 - 2008										0	0
Task 1 Total Hours	0	0	0	8	0	0	16	24	20	6	74
										Task 1 Direct Labor Total Cost	$1,828.38
Task 2 - 2007				4			8	30	30	0	72
Task 2 - 2008										0	0
Task 2 Total Hours	0	0	0	4	0	0	8	30	30	0	72
										Task 2 Direct Labor Total Cost	$1,570.12
Task 3 - 2007				4			10	50	50	4	118
Task 3 - 2008										0	0
Task 3 Total Hours	0	0	0	4	0	0	10	50	50	4	118
										Task 3 Direct Labor Total Costs	$2,515.36
Task 4 - 2007				8		4	24	24	40	8	108
Task 4 - 2008										0	0
Task 4 Total Hours	0	0	0	8	0	4	24	24	40	8	108
										Task 4 Direct Labor Total Costs	$2,497.96
Total Hours 2007	0	0	0	24	0	4	58	128	140	18	372
Total Hours 2008	0	0	0	0	0	0	0	0	0	0	0
										Total Hours fo the WA	372
Direct Labor Cost ($) 2007	$0.00	$0.00	$0.00	$1,171.20	$0.00	$142.20	$1,498.72	$2,794.24	$2,395.40	$410.06	$8,411.82
Direct Labor Cost ($) 2008	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
										Total Direct Labor Cost $	$8,411.82

* For multiple years use one average salary rate row for each year and each years subtotal Labor Cost.

Engineer/Contract # EA Engineering, P.C. D004438
Project Name Former Grumman Settling Ponds - ISVI
Work Assignment No. D004438-16

Date Prepared 21-Jun-07

Schedule 2.11 (b-1)
Direct Administrative Labor Hours Budgeted

Labor Classification	*IX*	*VIII*	*VII*	*VI*	*V*	*IV*	*III*	*II*	*I*	*Total No. of Direct Labor Hrs.*
2007 Average Salary Rates*		64.15	54.14	48.80	44.55	35.55	25.84	21.83	17.11	
2008 Average Salary Rates*		66.07	55.76	50.26	45.89	36.62	26.62	22.48	17.62	
Task 1 - 2007						2		4		6
Task 1 - 2008										0
Task 1 Total Hours	0	0	0	0	0	2	0	4	0	6
									Task 1 Direct Administravtive Total Cost	$158.42
Task 2 - 2007										0
Task 2 - 2008										0
Task 2 Total Hours	0	0	0	0	0	0	0	0	0	0
									Task 2 Direct Administravtive Total Cost	$0.00
Task 3 - 2007						2		2		4
Task 3 - 2008										0
Task 3 Total Hours	0	0	0	0	0	2	0	2	0	4
									Task 3 Direct Adminstrative Total Costs	$114.76
Task 4 - 2007									8	8
Task 4 - 2008										0
Task 4 Total Hours	0	0	0	0	0	0	0	0	8	8
									Task 4 Direct Administravtive Total Cost	$136.88
Total Hours - 2007	0	0	0	0	0	4	0	6	8	18
Total Hours - 2008	0	0	0	0	0	0	0	0	0	0
									Total Hours for the WA	18
Direct Labor Cost ($) 2007	$0.00	$0.00	$0.00	$0.00	$0.00	$142.20	$0.00	$130.98	$136.88	$410.06
Direct Labor Cost ($) 2008	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
									Total Direct ADminstrative Labor Cost ($)	$410.06

* For multiple years use one average salary rate row for each year and each years subtotal Labor Cost.

Contract/Project administrative hours would include (subject to contract allowability) but not necessarily be limited to the following activities:

1) Work Plan Budget Development
- Conflict of Interest Check
- Budget schedules & supporting documentation

2) Review work assignment (WA) progress
- Conduct progress reviews
- Prepare monthly project report
- Update WA progress schedule
- Prepare M/WBE Utilization Report

3) Contractor Application for Payment (CAP)
- Oversee and prepare monthly CAP

4) Program Management
- Prepare monthly cost control report
- Cost control reviews
- Staffing plans
- Manage subcontracts
- NSPE list update
- Equipment inventory

5) Miscellaneous
- Conduct Health and Safety Reviews
- Word processing and graphic artists
- Report editing

Contract/Project administration hours would not include:
- QA/QC reviews
- Technical oversight by management
- Develop subcontracts
- Work plan development
- Review of deliverables

Schedule 2.11 (c)

Direct Non-Salary Costs

Engineer: EA Engineering, P.C.
Contract No.: D004438
Project Name: Former Grumman Settling Ponds - ISVI
Work Assignment No.: D004438-16

Item		Maximum Reimbursement Rate	(Specify Unit)	Est. No. of Units	Total Estimated Cost ($)
A)	**In-house Costs**				
1)	8.5 x 11 print/copy (black and white)	$0.05	$/page	1,500	$75.00
2)	8.5 x 11 print/copy (color)	$0.75	$/page	170	$127.50
3)	Full Size Construction Drawings (i.e. permit, contract, as-builts)	$1.80	each	0	$0.00
4)	Reproduction - Bid Documents	$0.10	each	0	$0.00
5)	Reproduction - Full Size Construction	$0.30	each	0	$0.00
6)	Report Cover Sets	$1.75	each	0	$0.00
7)	Microcomputer GIS (Arc/info)	$6.25	$/hour	8	$50.00
8)	Microcomputer Graphics/CADD	$1.50	$/hour	4	$6.00
9)	Personal Protective Equipment (Level C)	$27.00	$/man-day	0	$0.00
10)	Personal Protective Equipment (Level D)	$13.00	$/man-day	12	$156.00
11)	Equipment Purchased Under Contract	$0.00	Lump Sum	1	$0.00
12)	Consultant Owned Equipment	$74.60	Lump Sum	1	$74.60
13)	Vendor Rented Equipment	$2,025.00	Lump Sum	1	$2,025.00
14)	Site Dedicated Equipment	$0.00	Lump Sum	1	$0.00
15)	Consumable Supplies	$815.00	Lump Sum	1	$815.00
16)	Shipping - Submittals	$50.00	each	4	$200.00
17)	Shipping - Samples	$50.00	each	15	$750.00
				In-house Costs Total	$4,279.10
B)	**Miscellaneous**				
	Travel:				
	Per diem: Nassau County	$48.00	travel day	3	$144.00
	Per diem: Nassau County	$64.00	day	9	$576.00
	Lodging: Nassau County	$159.00	night	9	$1,431.00
	Local Mileage:	$0.485	mile	3,000	$1,455.00
				Miscellaneous Total	$3,606.00

Total Direct Non-Salary Costs **$7,885.10**

*See Schedule 2.10(b) for rates.

Work Assignment No. D004438-16

Schedule 2.11(d) 2

Maximum Reimbursement Rates for Consultant Owned Equipment

Item	Purchase Price ($) x 85%	Usage Rate* ($/Unit of Time)	Capital Recovery** Rate ($/Unit of Time)	O&M Rate ($/Unit of Time)	Est. Usage (Unit of Time)	Est. Usage Cost ($) (Col. 3 x 6)
Task 2						
Laptop Computer		$3.73 hour			20	$74.60
						$0.00
					TOTAL	**$74.60**

Work Assignment No. D004438-16

Schedule 2.11(d) 5

Consumable Supplies

Item	Estimated Quantity	Unit Cost ($)	Total Budgeted Cost (Col . 2 x 3) ($)
Task 2			
Field log book	1	$18.00	$18.00
Nitrile gloves	4	$17.50	$70.00
		Task 2 Total	$88.00
Task 3			
Bees wax	12	$14.50	$174.00
Teflon Tubing	250	$1.50	$375.00
Nitrile Gloves	2	$20.00	$40.00
Quikcrete	2	$12.00	$24.00
60cc Syringes	1	$50.00	$50.00
Low Value Equipment (field hours)	80	$0.80	$64.00
		Task 3 Total	$727.00
		TOTAL	**$815.00**

Schedule 2.11(f)

Unit Price Subcontracts

Work Assignment Number D004438-16

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**	**Management Fee**
TBD	Laboratory Air Analyses	$15,675.00	$783.75

Item	**Max. Reimbursement Rate (Specify Unit)**	**Est. No. of Units**	**Total Est. Cost**
Task 2			
VOC analysis of Soil Vapor Samples	$275.00 each	15	$4,125.00
Task 3			
VOC analysis of Structure Air/Vapor Samples	$275.00 each	42	$11,550.00
Subtotal Subcontract Price			$4,125.00
Subcontract Management Fee			$206.25
TOTAL			$4,331.25

Schedule 2.11(f)

Unit Price Subcontracts

Work Assignment Number D004438-16

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**	**Management Fee**
TBD	Data validation	$1,425.00	$71.25

Item	**Max. Reimbursement Rate (Specify Unit)**	**Est. No. of Units**	**Total Est. Cost**
Task 4			
Validation of Soil Vapor Samples	$25.00 each	15	$375.00
Validation of Structure Air/Vapor Samples	$25.00 each	42	$1,050.00
Subtotal Subcontract Price			$1,425.00
Subcontract Management Fee			$71.25
TOTAL			$1,496.25

Schedule 2.11(f)

Unit Price Subcontracts

Work Assignment Number D004438-16

Name of Subcontractor	Services to be Performed	Subcontract Price	Management Fee
TBD	Drilling Services	$5,100.00	$255.00

Item	Max. Reimbursement Rate	(Specify Unit)	Est. No. of Units	Total Est. Cost
Task 2				
Mobilization/demobilization	$500.00	lump sum	1	$500.00
Geoprobe to install approximately 14 soil borings 8-20 feet deep for the purpose of soil vapor sample collection	$1,700.00	day	1	$1,700.00
Stainless steel screen points	$150.00	each	14	$2,100.00
Sand	$20.00	bag	12	$240.00
Benonite Pellets	$40.00	bag	4	$160.00
Decontamination Pad - if necessary	$400.00	lump sum	1	$400.00
Subtotal Subcontract Price				$5,100.00
Subcontract Management Fee				$255.00
TOTAL				$5,355.00

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	21-Jun-07
Project Name:	Former Grumman Settling Ponds - ISV	**Billing Period:**	
Work Assignment No.:	D004438	**Invoice No.**	
Task#/Name:	Summary		
Complete:			

	Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid To Date*	*C* *Total Disallowed To Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs To Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1	Direct Salary Costs				$0.00		$8,411.82		($8,411.82)
2	Indirect Costs				$0.00		$12,823.82		($12,823.82)
3	Subtotal Direct Salary Costs and Indirect Costs				$0.00		$21,235.64		($21,235.64)
4	Travel				$0.00		$3,606.00		($3,606.00)
5	Other Non-Salary Costs				$0.00		$4,279.10		($4,279.10)
6	Subtotal Direct Non-Salary Costs				$0.00		$7,885.10		($7,885.10)
7	Subcontractors				$0.00		$23,055.00		($23,055.00)
8	Total WA Cost				$0.00		$52,175.74		($52,175.74)
9	Fixed Fee 7%				$0.00		$1,486.49		($1,486.49)
10	Total WA Price				$0.00		$53,662.23		($53,662.23)

Program Manager(Engineer) _____ Date: _____

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	21-Jun-07
Project Name:	Former Grumman Settling Ponds - ISVI	**Billing Period:**	
Work Assignment No.:	D004438-16	**Invoice No.**	
Task#/Name:	Task 1 - Site Visit and Work Plans		
Complete:			

	Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid To Date*	*C* *Total Disallowed To Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs To Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1	Direct Salary Costs				$0.00		$1,828.38		($1,828.38)
2	Indirect Costs				$0.00		$2,787.37		($2,787.37)
3	Subtotal Direct Salary Costs and Indirect Costs				$0.00		$4,615.75		($4,615.75)
4	Travel				$0.00		$708.00		($708.00)
5	Other Non-Salary Costs				$0.00		$203.50		($203.50)
6	Subtotal Direct Non-Salary Costs				$0.00		$911.50		($911.50)
7	Subcontractors				$0.00		$0.00		$0.00
8	Total WA Cost				$0.00		$5,527.25		($5,527.25)
9	Fixed Fee 7%				$0.00		$323.10		($323.10)
10	Total WA Price				$0.00		$5,850.35		($5,850.35)

Program Manager(Engineer) _____ Date: _____