

**NEW KENT WOOD PRESERVATIVES, INC. SITE
PROVIDENCE FORGE, NEW KENT COUNTY, VIRGINIA**

**RESPONSE ACTION PLAN
PART C – SAMPLE COLLECTION METHODS AND PROCEDURES PLAN - ADDENDUM 1**

**ADMINISTRATIVE ORDER FOR REMOVAL RESPONSE ACTION
DOCKET NO. CERC-03-2015-0262DC**

Prepared for:
Thomas J. Liesfeld

Prepared by:
DRAPER ADEN ASSOCIATES
Richmond, Virginia

October 3, 2017

**NEW KENT WOOD PRESERVATIVES, INC. SITE
PROVIDENCE FORGE, NEW KENT COUNTY, VIRGINIA**

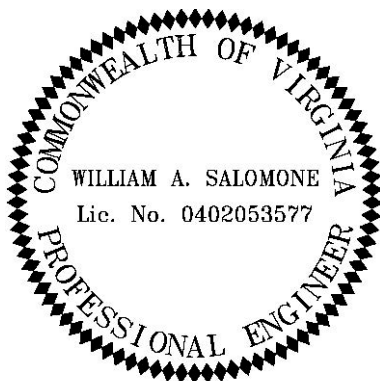
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DOCKET NO. CERC-03-2015-0262DC**

Draper Aden Associates prepared this document in accordance with a contract between Draper Aden Associates (DAA) and Mr. Tom Liesfeld. This document is an addendum to the document titled "Part C – Sample Collection Methods and Procedures Plan", dated January 2016, by DAA. The Part C document is a module of the complete Response Action Plan (RAP). The RAP meets the requirements of the Administrative Order for Removal Response Action listed above.

The purpose of this document is to present the detailed plan for pre-excavation and testing of the contaminated surficial fill inside the four excavation areas shown in the Response Action Plan design documents. The objective of the pre-excavation efforts are to characterize the material inside the Excavation Area in order to determine the applicable off-site disposal location prior to excavation. The results of chemical testing will be presented to the Environmental Protection Agency (EPA) and the Virginia Department of Environmental Quality (VADEQ) for review and determination prior to the initial excavation of each Area.

"I certify that the information presented herein, is true and correct to the best of my knowledge."



William A. Salomone, P.E.
Virginia Professional Engineers License No: 0402053577
Project Coordinator
Draper Aden Associates

1.0 BACKGROUND

The Response Action Plan (RAP) meets the requirements of the Administrative Order for Removal Response Action (Order) and consists of multiple modules:

- Part A - Plan Overview
- Part B - Site Characterization Plan
- Part C - Sample Collection Methods and Procedures Plan (SCMAPP)
- Part D - Quality Assurance Project Plan (QAPP)
- Part E - Health and Safety Plan (HASP)
- Part F - Erosion and Sediment Control Plan / Grading Plan
- Part G - Stormwater Management Plan (VSMP) + Stormwater Pollution Prevention Plan (SWPPP)

The Part C Sample Collection Methods and Procedures Plan (SCMAPP) module of the RAP prescribes protocols for obtaining samples for chemical analyses that will be conducted during construction to meet the requirements of the Order. The SCMAPP also provides protocols for field procedures to be conducted during all phases necessary toward meeting the requirement of the Order, including site characterization, and post-excavation verification sampling.

This document (Part C-Addendum 1) supplements the approved SCMAPP, has been developed in coordination EPA and the VADEQ, and is subject to approval by these agencies.

For Addendum 1, stockpiling of waste for characterization as described in the SCMAPP is replaced with a pre-excavation sampling and testing plan. Addendum 1 includes provisions for pre-determining the acceptability of the excavated material to be transported to Weanak Land LLC. (WL), located in Charles City County, VA. If approved, after the completion of pre-excavation testing, the New Kent Wood Preservatives Inc (NKWP) material will be transported to the WL property and managed under a beneficial use determination (BUD). Mr. Charles Carter (WL) requested approval from the VADEQ to manage the NKWP material at WL in a letter to Mr. Jason Miller (VADEQ) dated July 21, 2017 (Attachment 1). The VADEQ approved the BUD in a letter to Mr. Charles Carter from Mr. Jason Miller dated August 17, 2017 (Attachment 2).

2.0 SUMMARY

Addendum 1 included herein, presents the soil sampling procedures for composite soil sampling for waste characterization. Addendum 1 does not affect the sampling procedures described for purposes of *suitability of soils to be used as backfill*, or for *post-excavation sampling*, which is intended to verify the waste delineation.

Section 2.4 of the SCMAPP states the following:

During the excavation phase of the program, discrete samples of soil may be obtained from stockpiled soils and combined to form at least one composite sample from each stockpile in order to determine if such soils meet the requirement for classification as hazardous waste, based on the toxicity characteristic. Each composite sample will consist of material obtained from eight or more locations. Such samples will be extracted using the Toxicity Characteristic Leaching Procedure and chemically analyzed for the parameters required by the facility, to which the soils will be delivered.

Under Addendum 1, stockpiling of excavated soils will not be conducted. Composite soil samples will be taken from each Excavation Area prior to the removal excavation being initiated.

Pre-excavation sampling and chemical testing will be completed within four defined Excavation Areas to determine waste classification of the material. Composite samples collected from the pre-excavated site will be chemically analyzed for criteria required by the intended receiving facility. If samples from any Area do not meet the criteria of the receiving facility, the samples will be extracted using the Toxicity Characteristic Leaching Procedure in accordance with the SCMPP.

Scheduling of the pre-excavation sampling will be conducted in coordination with the EPA and VADEQ.

3.0 PRE-EXCAVATION SOIL SAMPLING PROCEDURES

1. DAA will conduct the soil sampling tests at a frequency of two grab samples per 2,500 square feet within each of the four delineated Excavation Areas (EA1, EA2, EA3 and EA4). A drawing including as Attachment 3 shows the Excavation Areas subdivided with a 2,500 square-foot grid spacing. Within each 2,500 sq. ft. grid

space, the Contractor will excavate a test pit to a maximum depth of 2 feet below ground surface (bgs) and DAA will collect two grab samples at each grid space.

2. One grab sample will be obtained at a depth of 0-12" and one grab sample will be collected at a depth of 12-24". Collected samples will be labelled and homogenized into one sample for each of the two sample depths per Area
3. The Contractor will backfill all test pit excavations after sampling has concluded.

4.0 ANALYSIS

Soil samples will be chemically analyzed by Air, Water, & Soil laboratory, Inc., in Richmond, VA. (AWS) in accordance with the screening criteria for beneficial use at Weanack Land, LLC. (VPA permit 000579). The screening criteria required for WL is presented in the VPA permit. AWS meets the criteria for a testing lab in accordance with the Order.

As part of the WL criteria, soil samples will be chemically analyzed for agricultural quality parameters, with the purpose of determining its suitability for upland placement and conversion to agricultural uses. These analyses will be performed by Virginia Tech Soil Testing laboratory in Blacksburg, Virginia.

5.0 CHARACTERIZATION

If chemical results meet the WL criteria and as approved by the EPA, then the material from the corresponding Excavation Area sampled will be considered acceptable to be managed under the beneficial use determination at Weanack Land. The Contractor will excavate and transport material from each Excavation Area approved for WL, to the Weanack Land site to be managed under the WL BUD.

Samples having chemical results that do not meet the WL criteria, will be extracted for the Toxicity Characteristic Leaching Procedure (TCLP) criteria in accordance with the SCMAPP. Material that is not deemed hazardous will be evaluated for disposal at a municipal landfill.

ATTACHMENT 1

**BENEFICIAL USE DETERMINATION REQUEST
LETTER
(WEANACK LAND, LLC TO VADEQ)**



Via email to Jason.Miller@deq.virginia.gov

Friday, July 21, 2017
Page 1/5

Mr. Jason Miller
Land Protection Manager
Virginia Department of Environmental Quality
Piedmont Regional Office
4949 Cox Road A
Glen Allen, Virginia 23060

RE: Beneficial Use Determination – Structural Fill from New Kent Wood Preservatives at Weanack Land LLC (Permit VPA00579)

Dear Mr. Miller:

Weanack Land LLC, requests approval by the Virginia Department of Environmental Quality for the beneficial use by Weanack of contaminated surficial fill material removed from the New Kent Wood Preservatives (NKWP) Site (aka. L-Wood Inc. and Southern Pine Specialists) in New Kent County, Virginia under EPA Administrative Order (EPA Docket No. CERC-03-2015-0262DC) at the Weanack Land Reclamation Project facility located at 461 Shirley Plantation Road Virginia in Charles City, Virginia.



Port Tobacco at Weanack // Weanack Land LLC
461 Shirley Plantation, Charles City, VA 23030

804 357-3913
www.remadeland.com

charles@remadeland.com
804 251-1310 fax

Weanack currently manages dredged material under an Authorization to Manage Pollutants under a Virginia Pollution Abatement Permit and the Virginia State Water Control Law (VPA 00579). Weanack disposes of dredged material meeting the parameter concentrations at less than the Exclusion Criteria listed in the permit. The permit does not include a component for a beneficial use determination.

Under Section 9VAC20-81-97(A) of the Virginia Solid Waste Management Regulations (VSWMR):

“The department may consider other waste materials and uses to be beneficial. The generator or proposed user of such materials may request that the department make a case-specific determination that the solid waste may be beneficially used in a manufacturing process to make a product or as an effective substitute for a commercial product. In all such cases, the materials will be managed so they do not create an open dump, hazard, or public nuisance.”

9VAC20-81-97(A) applies to facilities permitted to manage solid waste including waste soils. Weanack is not a solid waste facility, and is not proposing to manage solid or hazardous waste materials under this request. Weanack proposes to manage the NKWP material in accordance with its Authorization to Manage Pollutants Permit, and as described under the Section 9VAC20-81-97(A) of the VSWMR. In accordance with the Permit, the results of chemical testing of the NKWP soils will be submitted to the VADEQ for review prior to final approval as beneficial use at Weanack. Since the material is under EPA regulation, the results will also be submitted to the EPA as well. If the BUD is approved, then only approved materials meeting the VPA00579 permit chemical criteria shall be used at Weanack.

Weanack currently consumes clean native or commercially produced sand and gravel for structural fill at the site. The use of these materials includes construction of dikes or berms inside of the permitted basin areas as well as elevating the roadways over internal dikes within the permitted basin. Weanack proposes to use the NKWP material in lieu of the clean imported fill. If approved, all material will be placed within the delineated and permitted basins. A Figure showing the Weanack Land basins and interior roads is attached.

The NKWP site, a former wood preserving facility, is under EPA Order, and a Removal Response Action, where contaminated surface soil and gravel will be excavated by the Owner. The Owner has contracted with an excavation company for removal, transportation, and disposal

of contaminated material at an approved facility. The EPA is overseeing the Action per the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Regulations. The work overseen by the EPA, is Coordinated by Draper Aden Associates (DAA) as the Certifying Engineer of Record.

Prior to the Order, previous chemical testing for metals and Semi-Volatile Organic Compounds, showed levels of arsenic and total chromium above 30, and 63 mg/kg, consecutively. The EPA Order includes the removal of approximately 8,000 cubic yards of material from the land surface to a maximum of 24" below the existing ground. The approved design drawings from DAA show four excavation Areas that represent the phases of construction. The NKWP material is primarily surficial fill consisting of a mixture of native soil and commercially produced gravel that is used to surfaces existing roads. Previous soil boring reports describe soil underlying the site consists of sand, silty sand and sandy silt to approximately 14 feet below ground surface. The NKWP material is not classified as dredged material. A Figure showing the New Kent site Excavation Areas is attached.

Prior to excavation, NWKP will perform pre-excavation sampling and chemical testing within four defined Excavation Areas to determine classification of the material for either beneficial use or disposal, as required by the EPA Order. Scheduling of the pre-excavation sampling will be conducted under coordination of the EPA and DEQ.

In accordance with the Order, NKWP shall perform chemical analysis of soils prior to disposal. The analysis shall include the parameters required by the facility to which the soils will be delivered and additional testing using the Toxicity Characteristic Leaching Procedure (TCLP) for determination of classification as hazardous waste. Potentially hazardous soil stockpiles will be segregated and stored at the NKWP site for determination of final disposal. The pre-excavation testing procedures to be completed by NKWP include the following:

1. A composite soil sample will be collected for each Excavation Area by the Engineer of Record. The composite will be comprised of grab samples collected at a frequency of 1/2500 sf for each Excavation Area at various depths to a maximum of 24" below the surface. Each composite sample will be analyzed by an EPA-approved lab for the constituents listed in the attached permit.
2. The sample results will be provided to the EPA, VADEQ and to Weanack for review and approval. If approved, by the VADEQ, the NKWP will remove soils from each "approved" Excavation Area for disposal at Weanack Land.

3. A total of 4 composite samples, one per each Excavation Area, will be taken for the site.
4. During Construction, the contractor may continue to move forward by excavating only areas of the site that are approved by this process.

The Weanack site contains permitted basins where approved dredged material is managed by the operator. In order to place dredged materials by heavy equipment, the basins are accessible by a series of internal dike roadways. The basin and roadways are located on privately owned land used for dredge placement, and are not open to the public. The areas along the side of the internal roadways are heavily vegetated. These structures are currently overtopped with silty materials from episodes of dredged material placement and require resurfacing in order to maintain operation. Weanack proposes to use approved material from the NKWP site to resurface these roads. The basins were designed, permitted and built with an external perimeter dike, which serves to contain the dredge material and contains surface runoff to within the basin. Weanack does not propose for material from the NKWP site be used on the perimeter dikes, or outside of the basin. Following placement and compaction, the operator will place seed over the surface to establish a vegetative cover for stabilization purposes.

Under Section 9VAC20-81-97 (A) (2), the applicant shall demonstrate that the proposed product complies with industry standards and specifications. Given the current use of the material as surface treatment for driving and parking areas, the material should have sufficient structural capacity for the construction of internal dike roads at Weanack. The NKWP material is currently located on the surface of roadway and parking areas of the New Kent site and is successfully supporting a traffic load.

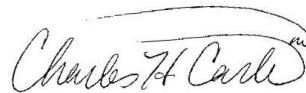
Assuming approximately 8,000 cubic yards of material is approved for use at Weanack, the material, once placed would raise the elevation of the existing 1,700-foot roadway by an average 4 feet high over its 35-foot width. In addition, Weanack has approximately 4,700 feet of driving surfaces over its internal dikes in the two permitted dredge disposal basins, which would hold additional volume of approved material, if necessary. During construction, if it is determined that the approved material does not meet the structural capacity for its intended use, Weanack will mix weaker material with clean imported gravel prior to compaction. Approved material transported to Weanack will be initially placed along the roadway and heavy equipment will spread and compact the material within 24 hours of arrival, unless severe weather constricts operations. No material will be stored outside of the permitted areas. Spreading and compacting of the material along the roadway will be completed in a maximum of one week from the time of placement. All material will be compacted by heavy equipment and stabilized upon completion of the project. Material placed within the basin along roadways shall be at a maximum elevation

that is 24 inches below the rim of the basin. Placement of the New Kent material inside the basin shall ensure that runoff will be discharged into the basin. Rainfall within the basin is controlled by the perimeter dike and runoff is collected in the basin, which does not discharge stormwater for rainfall events that are less than the intensity of a 250-year storm event. These procedures for material management are consistent with the Operations and Maintenance Manual for dredged material. In accordance with the VPA permit, Weanack submits annual reports to the VADEQ that include a description of material received and fill volumes.

In summary, Weanack Land LLC, requests approval by the VADEQ under Section 9VAC20-81-97 of the Virginia Solid Waste Regulations, to allow beneficial use of contaminated surficial fill material excavated from NKWP under the EPA Order that meets the chemical test result standards of the VPA Permit.

If you have any questions, or require additional information, please feel free to contact me at (804)-357-3913.

Sincerely,

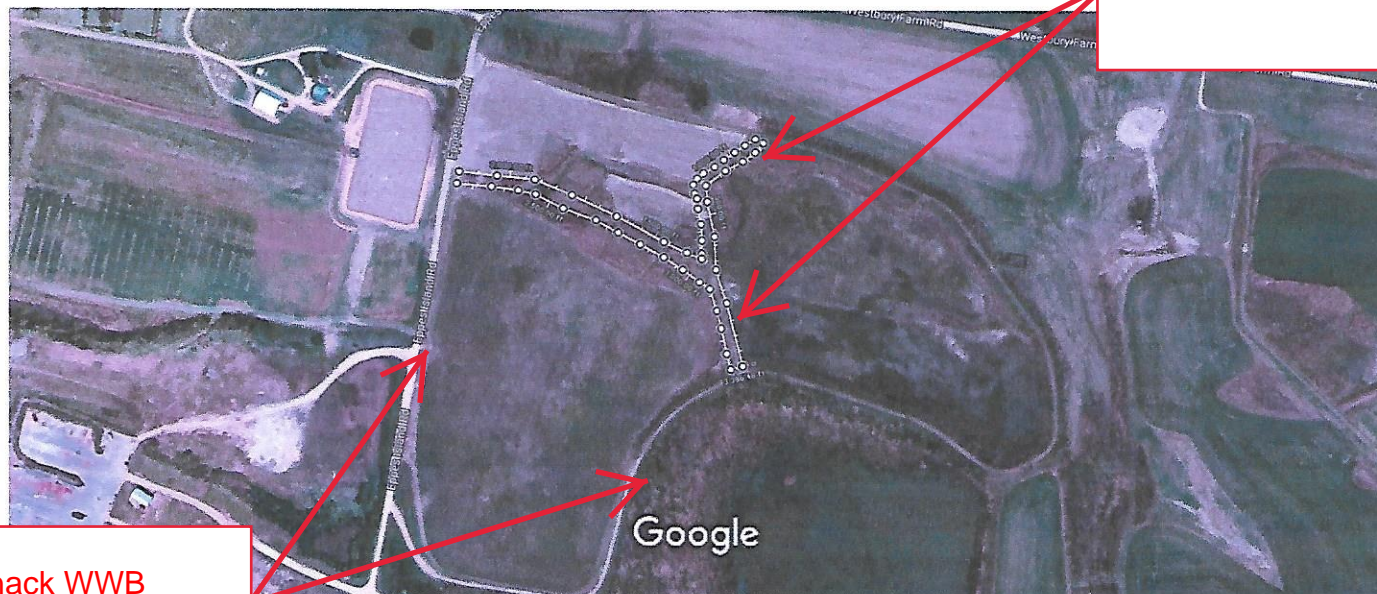
A handwritten signature in cursive script, reading "Charles H. Carter, III".

Charles H. Carter, III
Weanack Land, LLC

cc: Winter, Kyle (DEQ)
Mark Mongold (DEQ)
Devlin Harris (DEQ)
William Salomone, P.E (Draper Aden Associates)
William Hase, P.E. (Draper Aden Associates)

FIGURES

Go gl e Maps

Weanack WWB Basin
Internal RoadsWeanack WWB
External Basin
Rim

Imagery ©2017 Google, Map data ©2017 Google 200 ft



Imagery ©2017 Google, Map data ©2017 Google 100 ft

Measure distance

Total area: 68,039.99 ft² (6,321.12 m²)

Total distance: 3,386.48 ft (1.03 km)

ATTACHMENT 2

**BENEFICIAL USE DETERMINATION APPROVAL
LETTER
(VADEQ TO WEANACK LAND, LLC)**



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE

4949A Cox Road, Glen Allen, Virginia 23060

(804) 527-5020 Fax (804) 527-5106

www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Jeffery A. Steers
Regional Director

August 17, 2017

Mr. Charles Carter
Weanack Land LLC
461 Shirley Plantation
Charles City, VA 23030

RE: Beneficial Use of Contaminated Surficial Fill Material generated at the New Kent Wood Preservatives Site in New Kent, Virginia

Dear Mr. Carter:

The Virginia Department of Environmental Quality (DEQ) Piedmont Regional Office (PRO) received your Beneficial Use request dated July 21, 2017, for the use of contaminated surficial fill material to be generated during site excavation activities at the New Kent Wood Preservatives (NKWP) site located in New Kent, Virginia. The NKWP site is a former wood preserving facility currently under an Environmental Protection Agency (EPA) Administrative Order to conduct remediation activities at the site. Under the Order and associated Removal Response Action, contaminated surface soil and gravel is to be excavated and removed from the site.

The proposed beneficial use of this material is for use as structural fill at the Weanack Land Reclamation Project (WLRP) facility, which operates under Virginia Pollution Abatement Permit No. 00579 (VPA00579). The material will be used for construction of dike or berms inside the permitted basin areas, as well as elevating roadways over internal dikes within the permitted basin. The proposal indicates approximately 8,000 cubic yards of material may be generated at the NKWP site for beneficial use as structural fill.

The use of contaminated surficial fill material from the NKWP site for use as structural fill at the WLRP facility is considered a beneficial use of solid waste in accordance with 9 VAC 20-81-97 of the Virginia Solid Waste Management Regulations (VSWMR, 9 VAC 20-81) and is authorized with the following conditions:

Mr. Charles Carter
Beneficial Use Determination
August 17, 2017

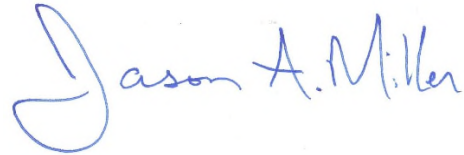
1. Contaminated surficial fill material from the NKWP site is a solid waste until beneficially used as a structural fill material at the WLRP facility in accordance with this letter.
2. The contaminated surficial fill material shall not be speculatively accumulated on site at the WLRP or NKWP facilities. "Speculatively accumulated material" means any material that is accumulated before being used, reused, or reclaimed or in anticipation of potential use, reuse, or reclamation. Materials are not being accumulated speculatively when they can be used, reused or reclaimed, have a feasible means of use, reuse, or reclamation available and 75% of the materials accumulated are being removed from the facility annually.
3. The contaminated surficial fill material shall be used within 90 days of delivery to the WLRP facility in accordance with 9 VAC 20-81-97.A.1.d.(1)(d).
4. Stockpiles of the contaminated surficial fill material shall be stored within the permitted basin areas at the WLRP facility. Dust, run-off, and siltation from the stockpiles must be controlled.
5. The contaminated surficial fill material shall be utilized and managed, including pre-excavation soil sampling and analysis, in accordance with the procedures outlined in the July 21, 2017, Beneficial Use Determination Request and VPA00579.
6. In accordance with 9 VAC 20-81-97.A.4., the DEQ may revoke this determination if it finds that one or more of the items of information submitted serving as the basis for this determination was incorrect or is no longer valid, the DEQ finds that there has been a violation of any condition attached to this determination, or that the use, reuse or reclamation process has become a public nuisance.

If you do not agree to any of the above conditions in this approval, you must notify the DEQ prior to the use of the solid waste as a beneficial material. In doing so, you may request either a meeting with staff or an informal fact-finding pursuant to Va. Code § 2.2-4019 to present argument or information regarding why this approval should be granted without the contested conditions and to receive a final decision on the requirement of the conditions for approval.

Mr. Charles Carter
Beneficial Use Determination
August 17, 2017

Please note that it is the responsibility of applicant to obtain any other permits or authorizations that may be necessary. If you have any questions regarding this matter, please contact Jason Miller at (804) 527-5028 or Jason.miller@deq.virginia.gov.

Respectfully,

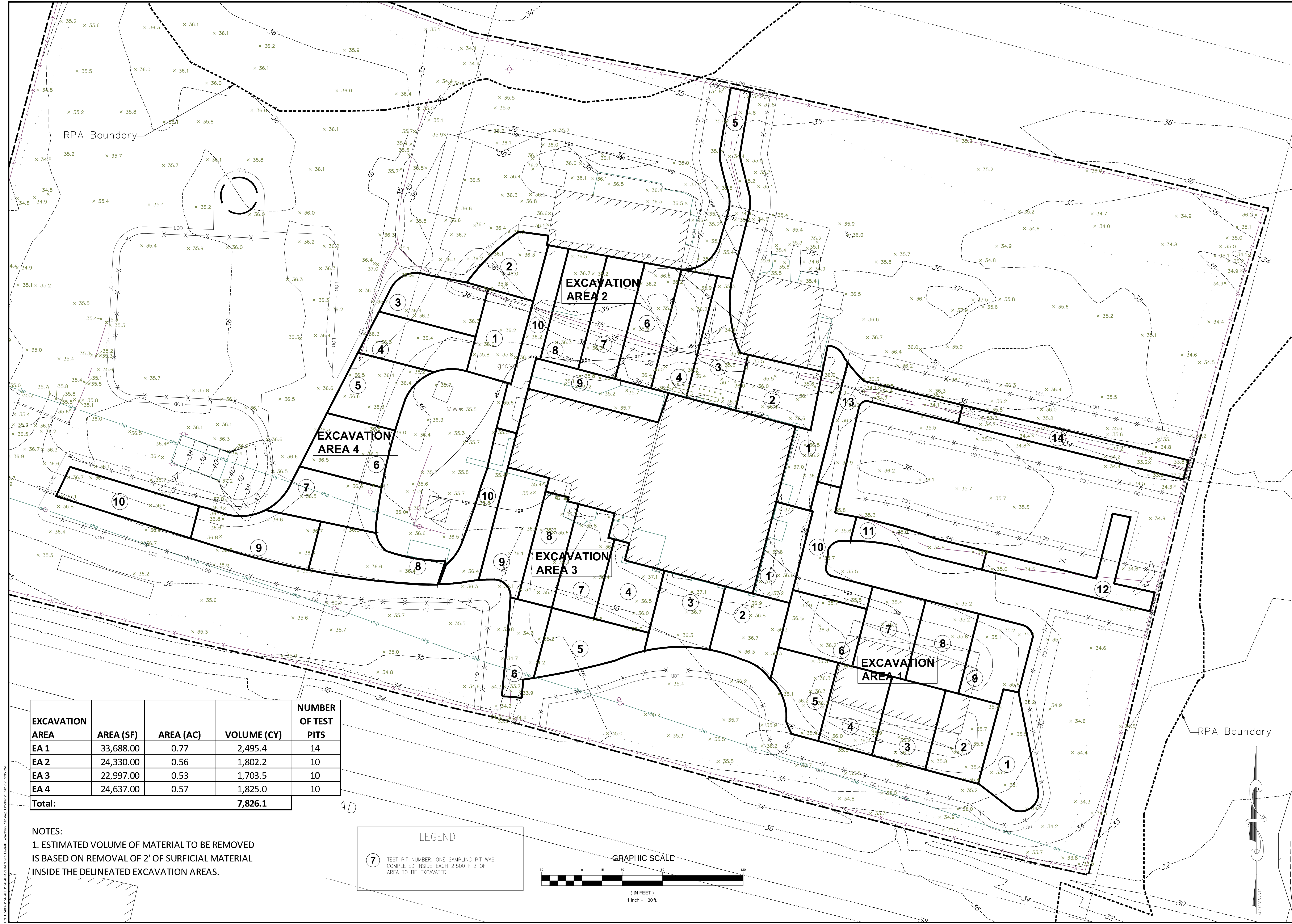
A handwritten signature in blue ink that reads "Jason A. Miller". The signature is written in a cursive style with a large, looped initial "J".

Jason A. Miller
Regional Land Protection Program Manager

cc: Neil Zahradka, DEQ-CO
Devlin Harris, DEQ-CO
Kathryn Perszyk, DEQ-CO
Ruth Scharr, EPA
William Salomone, P.E., Draper Aden Associates
Tom Liesfield

ATTACHMENT 3

OVERALL PRE-EXCAVATION TEST PIT GRID PLAN



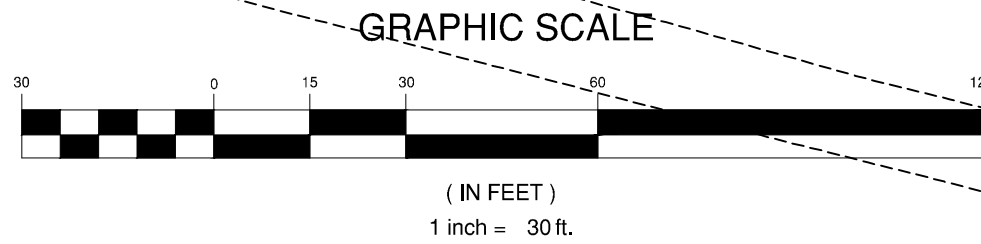
EXCAVATION AREA	AREA (SF)	AREA (AC)	VOLUME (CY)	NUMBER OF TEST PITS
EA 1	33,688.00	0.77	2,495.4	14
EA 2	24,330.00	0.56	1,802.2	10
EA 3	22,997.00	0.53	1,703.5	10
EA 4	24,637.00	0.57	1,825.0	10
Total:			7,826.1	

NOTES:
1. ESTIMATED VOLUME OF MATERIAL TO BE REMOVED IS BASED ON REMOVAL OF 2' OF SURFICIAL MATERIAL INSIDE THE DELINEATED EXCAVATION AREAS.

LEGEND

7

TEST PIT NUMBER. ONE SAMPLING PIT WAS COMPLETED INSIDE EACH 2,500 FT² OF AREA TO BE EXCAVATED.



Draper Aden Associates

Engineering • Surveying • Environmental Services

Richmond, VA
8090 Villa Park Drive
Richmond, VA 23228
804-264-2228 Fax: 804-264-8773
www.daa.com

Blacksburg, VA
Charlottesville, VA
Hampton Roads, VA
Coats, NC

OVERALL PRE-EXCAVATION TEST PIT GRID PLAN

RESPONSE ACTION PLAN

L-WOOD, INC.

SOUTHERN PINE SPECIALISTS

NEW KENT COUNTY, VIRGINIA

REVISIONS

MAY 4, 2016
PER COUNTY COMMENTS

DESIGNED BY:

WGH

DRAWN BY:

MQD

CHECKED BY:

DCM

SCALE:

1" = 30'

DATE:

9/29/2017

PROJECT NUMBER:

R15434R-12