SHUMAKER
Consulting Engineering & Land Surveying, D.P.C.

August 17, 2021 SCE Project: 20010

Mr. Nathan Brown, AIA
Associate, LEED AP
HOLT Architects, P.C.
132 East Jefferson Street
Syracuse, NY 13202
nb@holt.com

Re: Hamilton College Boathouse Soil Work Plan
City of Rome, Oneida County, New York
VCA V00077 (D6-0001-97-01)

Dear Mr. Brown:

Shumaker Consulting Engineering and Land Surveying, D.P.C. (SCE) has prepared the attached draft Soil Work Plan pursuant to HOLT Architects Consultant Services Agreement, Amendment #004 dated August 4, 2021, to assist HOLT and Hamilton College with management of soils excavated during construction of the new Hamilton Boathouse at the former Rod Mill Parcel property. The former Rod Mill Parcel is subject to a Soil Management Plan (SMP) as part of a Voluntary Cleanup Agreement (VCA V00077 Index D6-0001-97-07). During excavation for the new Boathouse in May 2021, some excavated soil and debris were transported to and stockpiled at an offsite property. The New York State Department of Environmental Conservation (NYSDEC) was notified and requested preparation of this Soil Work Plan. Information about the project was gathered by email, anecdotal information, photo documentation, interviews, and observations.

Please review the attached draft Soil Work Plan and advise if there are any questions or comments. SCE appreciates the opportunity to provide support to Holt and Hamilton College for this project.

Very truly yours,

SHUMAKER CONSULTING ENGINEERING AND LAND SURVEYING, D.P.C.

Paul Speranza
Digitally signed by Paul Speranza
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Attachments: Figures 1-4

cc:
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Linda Shumaker – SCE lshumaker@shumakerengineering.com
Barry Rivet – Hamilton College brivet@hamilton.edu
Nathan Brown – Holt Architects nb@holt.com

Hamilton College Boathouse Soil Work Plan

City of Rome
Oneida County, New York

I. Background

The Hamilton College Boathouse is being constructed on property which was part of the former Rod Mill Parcel of the Old General Cable Site in the City of Rome. The former Rod Mill Parcel is subject to a Voluntary Cleanup Agreement (VCA) V00077, Index Number D6-0001-97-07 and NYSDEC spill numbers 02-12777 and 02-12778. The property is subject to a Soil Management Plan (SMP) approved by the NYSDEC in 2005. A copy of the SMP is provided in Appendix A.

According to the SMP, a cover system in the form of a minimum of six (6) inches of clean soil with vegetation, or six (6) inches of Concrete or six (6) inches of asphalt must be in place over subsurface materials at the site. Any soil removed for redevelopment is required to be sampled with the following guidelines. The composite sample will be analyzed by a NYSDOH ELAP certified laboratory for pH (EPA Method 9045C), Target Compound List (TCL) Semi Volatile Organic Compounds (SVOC)s, pesticides, and Polychlorinated-by-phenols (PCB)s, and Target Analyte List (TAL) metals, and cyanide. The grab sample will be analyzed for TCL Volatile Organic Compounds (VOC)s. The SMP does allow for excavated material to be reused on the former Rod Mill Parcel if analysis is within recommended Soil Cleanup Objectives (SCO)s and covered by the approved cover system.

In May 2021, work began on excavation for the new Hamilton Boathouse project. Excavation was planned to a depth of 8 feet below ground surface (bgs) but it was determined soils were unsuitable for the foundation for the Boathouse building. Also encountered were large amounts of concrete from previous building footings. This resulted in the excavation being wider and deeper than originally planned. The site footprint was too small to store the amount of stockpiled material from the excavation, therefore the contractor transported some of the stockpile to an offsite location near the Route 49 overpass on Martin Street. Based on estimates from the contractor and measurements from the offsite location, approximately 1,000 cubic yards ± of excavated material were transported. See Figure 1 for site and offsite locations.

Simultaneously, approval to stockpile material at a location on City of Rome property just north of the Hamilton Boathouse excavation was sought. Shortly after the SMP was discovered. This property is part of the former Rod Mill Parcel, within the bounds of the SMP and owned by the City of Rome. The City of Rome subsequently gave permission to stockpile excavated material in this location. Since the discovery of the SMP, all excavated material was transported and stockpiled there.

After discovery of the SMP and the transfer of material offsite, the NYSDEC was notified. Mr. Peter Ouderkirk was contacted, and he requested an email correspondence detailing the events of the project. This correspondence was sent July 2, 2021. The reply to the correspondence detailed the requirements from the NYSDEC to:

- Remove the material transported to the offsite location to a permitted disposal facility or back to the site of origin for proper restoration. If the soil is not removed, a deed restriction and SMP will be required for the offsite location.
- After removal, the area the material was in contact with is to be tested for the parameters outlined in the SMP to verify removal has been sufficient.
- All material excavated but left on the former Rod Mill Parcel must be placed, compacted, covered and controls as directed by the SMP. Documentation of these actions will be required.

- In a subsequent phone call, the NYSDEC was queried what parameters must be followed that would allow the material to remain at the offsite location without the deed restrictions and SMP. If soils are to remain at the offsite location they will need to be sampled for the parameters indicated in the SMP and results for all analysis will need to meet Residential Use - Soil Cleanup Objectives (SCO) for all samples collected.

SCE and the Subcontractor to Hamilton College will provide the following services to address the excavated material.

- Mobilization to the offsite location to conduct soil sampling of the material transported. Sample areas indicated in the attached Figure 2. Samples will be collected in a manner outlined in the SMP for composite and grab samples. Further discussion of sampling methodology is included in Section II and Section III below. Based on criteria in the SMP, twelve (12) samples of this material will be collected. Samples will be analyzed for the parameters outlined in the SMP.
- If sampling indicates any of the 12 samples collected is above Residential Use SCOs all the transported material at the offsite location will be removed and transported back to the site. If this material is removed, soil samples will be collected from areas in direct contact to removed material for the same parameters as listed in the SMP. Sample frequency using guidelines from DER-10 / Technical Guidance for Site Investigation and Remediation (DER-10) will be used to determine the appropriate number of samples.
- All excess material removed from the Boathouse excavation will be taken to the City of Rome owned parcel directly north of the Boathouse location. This material will be handled in a manner promulgated by the SMP. The material will be leveled out, the large pieces of concrete and other debris removed, then covered with a minimum of six (6) inches of clean cover and seeded with grass seed.
- Preparation of a Final Report will document the findings from the sample analysis and activities conducted.

II. Collection and Documentation of Soil Samples from Offsite property

Based on estimates from the contractor and measurements from the offsite location, approximately 1,000 cubic yards ± of excavated material were transported. See Figure 2 and Figure 3 for the location of the transported material and size calculations. The material was leveled off at the time of deposition and is currently at the same level as grade on the east side of the property. The material was used to fill in a low area that sloped down gradient to the west. This makes the material wedge shaped. The height of the material where it terminates on the east side is approximately five (5) to ten (10) feet above grade. The length is approximately 140 feet long and 40 feet wide at the widest point. There is an additional area on the southern portion that is more cube shaped approximately 30 feet long by 30 feet wide and 8 feet deep.

Using guidelines from the SMP and DER-10, a representative sample will be collected for every 100 cubic yards. To make up for any estimating shortfalls, two (2) additional samples will be collected. Sample will be collected using guidelines from the SMP. A Photoionization Detector (PID) calibrated to a 100-ppm isobutylene standard will be used to screen random soil samples from the stockpiled material. Depths will be chosen based on stockpile thickness so samples will be representative of the total volume. PID readings will be recorded and for every five (5) locations screened, one (1) composite sample will be collected, and one (1) grab sample will be collected from the sample exhibiting the highest PID reading, for VOC analysis. If no PID readings are recorded, a random sample of the five (5) locations will be used as the grab sample.

Soil samples will be composited by placing equal portions from each of the five (5) composite sample locations into a pre-cleaned, stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly

homogenized using a stainless-steel scoop or trowel and transferred to dedicated sample containers provided by the laboratory.

Composite samples will be submitted to a NYS ELAP certified lab for the following analysis.

- pH (EPA Method 9045C)
- Target Compound List SVOCs
- Pesticides
- PCBs
- TAL metals
- Cyanide
- TCL VOCs (Grab sample)
- Each sample will also be measured with a Photo ionization detector (PID) and the result recorded for inclusion in the analytical report.

If the analytical results from all 12 samples indicate analyte concentrations are below Residential Use SCOs, the NYSDEC will be requested to allow the soils to remain at the offsite location without issuing a deed restriction or Institutional and Engineering Controls for the property.

If sampling indicates one or more sample results are above Residential Use SCOs the material will be removed from the property and returned to the former Rod Mill Parcel for proper placement, compaction, cover and controls. See details in the Section III.

III. Removal of Transported Material from Offsite Property.

If the previous testing requires removal of the material back to the site of origin, SCE will oversee removal of the stockpiled material from the offsite location back to the former Rod Mill Parcel. With DEC approval, SCE will observe and conduct the contractor what material needs to be removed from the offsite location. This material will be loaded on trucks to be taken back to the area north of the Boathouse excavation, with in the boundary of the area managed by the SMP. If other soils have been placed on or around the material subsequent of original placement, the other soils will be displaced or removed to the point the material from the former Rod Mill Parcel is not disturbed. Material was placed in an area over vegetation and distinguishable from what is to be removed. The area at the offsite location is depicted in Figure 2 and Figure 3.

At the terminus of the material removal, samples will be collected following DER-10 excavation guidelines, for analysis as indicated in the SMP. Based on physical measurement calculations, the transported soil covers an area approximately 5,500 sf ±. DER-10 recommends one sample for every 900 sf of excavation. A total of six (6) samples will be collected from random areas of native material. Sample collection will be similar to what is outlined in Section II.

For each sample, a PID reading will be recorded at five (5) random locations. The material from these locations will be used to collect one (1) composite sample, and one (1) grab sample will be collected from the sample exhibiting the highest PID reading, for VOC analysis. If no PID readings are recorded, a random sample of the five (5) locations will be used as the grab sample.

Soil samples will be composited by placing equal portions from each of the five (5) composite sample locations into a pre-cleaned, stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly homogenized using a stainless-steel scoop or trowel and transferred to dedicated sample containers provided by the laboratory.

Samples will be submitted to a NYS ELAP certified lab for the following analysis.

- pH (EPA Method 9045C)
- Target Compound List SVOCs
- Pesticides
- PCBs
- TAL metals
- Cyanide
- TCL VOCs
- Each sample will also be measured with a Photo ionization detector (PID) and the result recorded for inclusion in the analytical report.

The results of the sampling will be included in the final report.

IV. Disposition of Excavated Material

All material excavated from the Boathouse location will be spoiled on the section of the former Rod Mill Parcel just north of the boathouse location, following the guidelines outlined in the SMP. This parcel is owned by the City of Rome. The City of Rome has granted permission for the material to be placed there. See Figure 4 for the area material will be spread. Any material with visual evidence of impacts (staining, elevated ID readings, etc.) will be segregated and stockpiled for removal to the Oneida Herkimer Solid Waste Authority (OHSWA). In addition, The City of Rome has asked all concrete too large to be covered by spreading the material, be removed to facilitate the appropriate cover. This concrete will be tested and removed for proper disposal with NYSDEC permission.

Following the guidelines in the SMP, material will be spread out on the area indicated on Figure 4. The material will be spread to a thickness to accommodate the volume with smoothed out transitions so there is no abrupt changes in the elevation. After the material is spread and all large pieces of concrete removed, the area the material occupies will be covered by a minimum of six (6) inches of clean fill and then hydroseeded and covered in mulch to promote rapid growth of vegetation.

It is estimated that the total volume of material excavated will be approximately 2,500 cubic yards. This will raise the current level of the parcel approximately 1.25 feet before additional clean cover is imported. The actual amount placed and covered will depend on how much is transported to OHSWA and back to the Boathouse to be used in final grading.

V. Reporting

After the completion of the aforementioned activities, SCE will prepare a Summary Report to document the investigation findings and final disposition of the excavated material. The report will contain results of the investigation events, discuss the findings of field screening, present a layout of soil sample locations, provide a detailed discussion of sample analytical results as they relate to the project and discussion of the final placement of excavated materials.

Based on review of the information, future remedial actions/recommendations as well as plans, specifications, and estimates will be evaluated and proposed, if warranted.

NOTE:
1. IMAGERY SHOWN IS NOT CURRENT.

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LOCATION MAP

MARTIN STREET, CITY OF ROME
ONEIDA COUNTY, NY

SCE PROJECT NO.	DATE	DRAWING NO.
20010	AUGUST 2021	FIGURE – 1

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NOT TO SCALE

NOTES:
1. IMAGERY SHOWN IS NOT CURRENT.
2. ROUGH AREA MATERIAL WAS SPREAD. GRADE BEGINS ON EASTERN BOUNDARY AND IS LEVELED OFF 5 TO 10 FEET ABOVE EXISTING GRADE ON WEST SIDE. MATERIAL WAS PUSHED INTO THE WOODS THAT SLOPES DOWN GRADIENT TO THE WEST.

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NOT TO SCALE

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OFFSITE LOCAITON
MATERIAL PLACEMENT MAP

MARTIN STREET, CITY OF ROME
ONEIDA COUNTY, NY

SCE PROJECT NO.	DATE	DRAWING NO.
20010	AUGUST 2021	FIGURE - 2

NOTE:
1. IMAGERY SHOWN IS NOT CURRENT.

LEGEND
PRE REMOVAL SAMPLING LOCATION
POST REMOVAL SAMPLING LOCATION

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NOT TO SCALE

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OFFSITE LOCAITON
MATERIAL AREA MAP

MARTIN STREET, CITY OF ROME
ONEIDA COUNTY, NY

SCE PROJECT NO.	DATE	DRAWING NO.
20010	AUGUST 2021	FIGURE - 3

NOTES:
1. IMAGERY SHOWN IS NOT CURRENT.
2. SITE OF UTILITY EXCAVATION WILL NOT HAVE EXCESS MATERIAL PLACED IN THIS LOCATION. TRANSITIONS OF COVER WILL BE GRADED TO ACCOMMODATE.

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NOT TO SCALE

SHUMAKER
Consulting Engineering & Land Surveying, D.P.C.

FORMER ROD MILL PARCEL
MATERIAL PLACEMENT MAP

MARTIN STREET, CITY OF ROME
ONEIDA COUNTY, NY

SCE PROJECT NO.	DATE	DRAWING NO.
20010	AUGUST 2021	FIGURE – 4