C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.

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December 11, 2020 **Via Email**

Mr. Joshua Haugh
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
1130 North Westcott Road
Schenectady, NY 12306
joshua.haugh@dec.ny.gov

RE: ***Site Characterization Work Plan***
Site Boundary Modification
Old Troy Municipal Incinerator Site
Town of Brunswick, Rensselaer County
Site No. 4-42-001
C.T. Male Project No.: 20.0592

Dear Mr. Haugh:

C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C. (C.T. Male), on behalf of MATOPATO, LLC, has prepared this Site Characterization Work Plan (SCWP) for the portion of the above referenced Site currently the subject of a Site Boundary Modification (SBM).

The proposed SBM parcel is approximately 2.87 acres in area, is zoned for industrial use and is located within the western portion of the Old Troy Municipal Incinerator (OTMI) Site. The SBM parcel is bound to the north by a retail plaza that was previously a portion of the OTMI Site that was approved by the Department for an SBM in 2009/2010; bound to the west by Oakwood Avenue and residential development; and bound to the east and south by the OTMI Site. The SBM parcel is located west of the former landfill footprint and southwest of the incinerator building remains. A site plan map showing the approximate boundary of the proposed SBM parcel is presented as Figure 1.

Project Background

The OTMI Site is approximately 40 acres, 30 acres of which were occupied by the incinerator and associated landfill. The site is identified on the County of Rensselaer, Town of Brunswick Tax Map Number 80.00, Section 2, Parcel 2.2. The OTMI Site is listed in the NYS Registry of Inactive Hazardous Waste Sites (Site No. 4-42-001). The landfill was purportedly used from approximately 1947 to 1969.

The OTMI Site has been the subject of various environmental investigations and reviews dating back to 1976, the most recent being reported in November 2008 which was provided to C.T. Male for review. According to the report entitled: "Site Characterization Report for the Old Troy Municipal Incinerator Site" Site No. 4-42-001, Brunswick, New York, as prepared for the Department, the purpose of the most recent OTMI Site evaluation was to:

- Confirm the presence of contamination and determine if it is migrating off-site;
- Examine the risks of contamination;
- Evaluate groundwater flow, and the influence of the bedrock topography on groundwater movement, and
- Aid in determining the need for a Remedial Investigation/Feasibility Study (RI/FS).

As indicated in the 2008 Site Characterization Report, limited investigation of the area of the OTMI Site subject to this SBM was completed mainly because there was little indication that this portion of the OTMI Site was subject to filling when the site was operated as a landfill. The investigations completed within or in close proximity to the subject area included the collection and laboratory analysis of three (3) surface soil samples, three (3) subsurface soil samples from three (3) soil borings, two (2) groundwater samples from two (2) monitoring wells, one (1) surface water sample and one (1) sediment sample.

Figure 2: Sampling Location Map and Figure 2-1 from the Site Characterization Report (attached) shows the approximate locations of the various media samples. A summary of the analytical findings for these select samples is presented below.

As a note, surface and subsurface soil sampling analytical results in the 2008 Site Characterization Report were compared to Soil Cleanup Objectives (SCOs) and Cleanup Levels promulgated in the New York State Department of Environmental Conservation (NYSDEC), Technical and Administrative Guidance and Memorandum #4046 (TAGM #4046), Revised January 24, 1994, and SCOs for Commercial Use Site promulgated at 6 NYCRR Part 375. The values in TAGM #4046 are no longer applicable. As such, the analytical results for soil are now compared to SCOs for Unrestricted and Restricted Use Sites promulgated at 6 NYCRR Part 375.

Surface Soil (Sample ID #'s GT-01, SS-201 and SS-6)

Surface soil sample GT-01 was analyzed for geotechnical purposes only; no chemical analyses was performed on this sample. Surface soil sample SS-201 constituted ash material that was analyzed for 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). Surface soil sample SS-6 was analyzed for Target Compound List (TCL) semi-volatile organic compounds (SVOCs), pesticides and PCBs, Target Analyte List (TAL) metals (including mercury) and cyanide.

The analytical results are compared to SCOs for Unrestricted and Restricted Use Sites in Tables 375-6.8(a) and (b) of 6 NYCRR Part 375.

2,3,7,8-TCDD was detected in surface soil sample SS-201 at a concentration of 0.303 nanograms per kilogram (ng/kg) or parts per trillion (ppt), or 0.000000303 milligrams per kilogram (mg/kg) or parts per million (ppm). SCOs have not been developed for 2,3,7,8-TCDD.

The analytical data for surface soil sample SS-6 reports SVOC, pesticide, PCB and metal detections at concentrations below Unrestricted Use SCOs with the following exceptions: two (2) pesticides (4',4'-DDE, 4',4'-DDT); the PCB congener Aroclor 1254; and three (3) metals (lead, mercury, zinc) were detected above their respective Unrestricted Use SCOs, but below Residential Use SCOs. The exceedances are presented in the table below.

Surface Soil Samples Exceeding SCOs

Parameter	Concentration (mg/kg)	Unrestricted Use SCO	Residential Use SCO	Restricted-Residential Use SCO	Commercial Use SCO	Industrial Use SCO
Surface Soil Sample SS-6						
4',4'-DDE	0.0039J	0.0033	1.8	8.9	62	120
4',4'-DDT	0.0044J	0.0033	1.7	7.9	47	94
Aroclor 1254	0.13	0.1	1	1	1	25
Lead	170	63	400	400	1,000	3,900
Mercury	0.3	0.18	0.81	0.81	2.8	5.7
Zinc	222J	109	2,200	10,000	10,000	10,000

Subsurface Soil (Sample ID #'s SB-01, MW-BR-01 and MW-BR-07)

Sample SB-01 was collected from the 4 to 4.5-foot sampling depth interval. Sample MW-BR-01 was collected from the 1.8 to 2.9-foot sampling depth interval. Sample MW-BR-07 was collected from the 10 to 12-foot sampling depth interval.

Subsurface soil samples collected from MW-BR-01 and MW-BR-07 were analyzed for TCL volatile organic compounds (VOCs), SVOCs, pesticides and PCBs, TAL metals (including mercury) and cyanide. The subsurface soil sample collected from SB-01 was analyzed for TCL VOCs, SVOCs, pesticides and PCBs.

The analytical results are compared to Soil Cleanup Objectives (SCOs) for Unrestricted and Restricted Use Site in Tables 375-6.8(a) and (b) of 6 NYCRR Part 375.

The analytical data for subsurface soil sample SB-01 reports VOC, SVOC, pesticide and PCB concentrations below Unrestricted Use SCOs with the following exceptions: the pesticide 4',4'-DDD and the PCB congener Aroclor 1260 were detected above their respective Unrestricted Use SCOs, but below Residential Use SCOs.

The analytical data for subsurface soil sample MW-BR-01 reports VOC, SVOC, pesticide, PCB and metal detections at concentrations below Unrestricted Use SCOs with the following exception: the metal arsenic was detected above its Unrestricted Use SCO, but below its Residential Use SCO.

The analytical data for subsurface soil sample MW-BR-07 reports VOC, SVOC, pesticide, PCB and metal detections at concentrations below Unrestricted Use SCOs with the following exceptions: six (6) SVOCs were detected above Unrestricted Use SCOs with two (2) SVOCs (benzo[k]fluoranthene, chrysene) detected below their Residential and Restricted-Residential Use SCOs, three (3) SVOCs (benzo[a]anthracene, benzo[b]fluoranthene, indeno[1,2,3-cd]pyrene) detected below their Commercial Use SCOs, and one (1) SVOC (benzo[a]pyrene) detected above its Industrial Use SCO; three (3) pesticides (4',4'-DDD, 4',4'-DDE, 4',4'-DDT, dieldrin) were detected above Unrestricted Use SCOs, but below Residential Use SCOs; the PCB congener Aroclor 1260 was detected above its Unrestricted Use SCO, but below its Industrial Use SCO; and six (6) metals were detected above Unrestricted Use SCOs with five (5) metals (copper, mercury, nickel, selenium, zinc) detected below their Residential Use SCOs and lead detected below its Commercial Use SCO. The exceedances are presented in the table below.

Subsurface Soil Samples Exceeding SCOs

Parameter	Conc. (mg/kg)	Unrest. Use SCO	Resid. Use SCO	Rest.-Resid. Use SCO	Comm. Use SCO	Ind. Use SCO
Subsurface Soil Sample SB-01 (4 to 4.5-Foot Sampling Depth Interval)						
4',4'-DDD	0.006	0.0033	2.6	13	92	180
Aroclor 1260	0.7	0.1	1	1	1	25

Parameter	Conc. (mg/kg)	Unrest. Use SCO	Resid. Use SCO	Rest.-Resid. Use SCO	Comm. Use SCO	Ind. Use SCO
Subsurface Soil Sample MW-BR-01 (1.8 to 2.9-Foot Sampling Depth Interval)						
Arsenic	13.1	13	16	16	16	16
Subsurface Soil Sample MW-BR-07 (10 to 12-Foot Sampling Depth Interval)						
Benzo(a)anthracene	1.5	1	1	1	5.6	11
Benzo(a)pyrene	1.3	1	1	1	1	1.1
Benzo(b)fluoranthene	1.9	1	1	1	5.6	11
Benzo(k)fluoranthene	0.95	0.8	1	3.9	56	110
Chrysene	1.7	1	1	3.9	56	110
Indeno(1,2,3-cd)pyrene	0.74	0.5	0.5	0.5	5.6	11
4',4'-DDD	0.011	0.0033	2.6	13	92	180
4',4'-DDT	0.17	0.0033	1.7	7.9	47	94
4',4'-DDE	0.015	0.0033	1.8	8.9	62	120
Dieldrin	0.0079	0.005	0.039	0.2	1.4	2.8
Aroclor 1260	1.1	0.1	1	1	1	25
Copper	131J	50	270	270	270	10,000
Lead	634J	63	400	400	1,000	3,900
Mercury	0.54	0.18	0.81	0.81	2.8	5.7
Nickel	35.4J	30	140	310	310	10,000
Selenium	4.6	3.9	36	180	1,500	6,800
Zinc	1,110J	109	2,200	10,000	10,000	10,000

Unrestricted and Restricted Use SCOs promulgated at 6 NYCRR Part 375.
Concentrations are expressed in mg/kg.

Monitoring Wells (Sample ID #'s MW-BR-01 and MW-BR-07)

Monitoring wells MW-BR-01 and MW-BR-07 are bedrock wells. Groundwater samples collected from MW-BR-01 were analyzed for TCL VOCs, TAL metals (including mercury) and cyanide. Groundwater samples collected from MW-BR-07 were analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL metals (including mercury) and cyanide.

The analytical results were compared to NYSDEC Technical and Operational Guidance #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 Table 1 (with addendums), Class GA (AWQS).

The analytical data for groundwater sampling at MW-BR-01 reports VOCs below the laboratory's method detection limits, and the metals iron, magnesium and selenium at concentrations exceeding AWQS.

The analytical data for groundwater sampling at MW-BR-07 reports VOCs, pesticides and PCBs below the laboratory's method detection limits, SVOCs below AWQS, and the

metals iron, magnesium and selenium at concentrations exceeding AWQS. The exceedances are presented in the table below.

Groundwater Samples Exceeding Screening Criteria

Parameter	AWQS (ug/l)	MW-BR-01	MW-BR-07
Iron	300	7,100	1,550
Magnesium	35,000	51,600	35,500
Selenium	10	12.2J	16.6J

Surface Water (Sample ID # SW-7)

Surface water sample SW-7 was analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL metals (including mercury) and cyanide.

The analytical results were compared to NYSDEC Technical and Operational Guidance #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 Table 1 (with addendums), most stringent non-H(WS) type freshwater class.

The analytical data reports VOCs below the standard and SVOCs, pesticides and PCBs below the laboratory's method detection limits. All metals were at concentrations below standards with the exception of iron, manganese and selenium. The exceedances are presented in the table below.

Surface Water Sample Exceeding Screening Criteria

Parameter	Screening Criteria (ug/l)	SW-7
Iron	300	6,290
Manganese	300	2,350
Selenium	4.6	4.9J

Sediment (Sample ID # SD-7)

Sediment sample SD-7 was analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL metals (including mercury) and cyanide.

The analytical results were compared to the NYSDEC Division of Fish, Wildlife and Marine Resources, Technical Guidance for Screening Contaminated Sediments, January 1999. The organics (VOCs, SVOCs, pesticides and PCBs) were compared to the Lower Criteria for the Benthic Aquatic Life Chronic Toxicity and Wildlife Bioaccumulation – Sediment Criteria in Table 1: Sediment Criteria for Non-Polar Organic Contaminants.

The inorganics (metals, mercury and cyanide) were compared to Lowest Effect Level (LEL) and the Severe Effect Level (SEL) in Table 2: Sediment Criteria for Metals.

The analytical data reports organics at concentrations below applicable standards in Table 1. Inorganics were detected at concentrations below applicable standards in Table 2 with the exception of arsenic, cadmium, copper, nickel, silver and mercury, which were detected above the LEL, but below the SEL; and lead and zinc, which were detected above the SEL. The exceedances are presented in the table below.

Sediment Sample Exceeding Screening Criteria

Parameter	Conc. (mg/kg)	LEL	SEL
Arsenic	6.6	6.0	33.0
Cadmium	2.3	0.6	9.0
Copper	88.8	16.0	110.0
Lead	269	31.0	110.0
Mercury	0.47	0.15	1.3
Nickel	22.8	16.0	50.0
Silver	1.2J	1.0	2.2
Zinc	332	120.0	270.0

Proposed Sampling Locations and Methods

The proposed investigation for the portion of the OTMI Site subject to the SBM will include the collection and analysis of surface soil samples, the advancement of test pits for identifying possible buried waste materials and to aid in the collection of subsurface soil samples, the potential collection of groundwater samples should groundwater enter the test pit excavations at the depths explored, and the collection of surface water and sediment from standing water, if present. The proposed sampling locations are depicted on Figure 2.

Surface Soil Sampling

Nine (9) surface soil samples are proposed to be collected over the SBM parcel. The sampling locations are identified as SBM-SS1 to SBM-SS9 on Figure 2.

- Four (4) of the sampling locations (SBM-SS1 to SBM-SS4) are located within eastern portions of the SBM parcel nearest the OTMI Site's historic landfilling area.

- Three (3) of the sampling locations (SBM-SS5 to SBM-SS7) are located within the approximate central portions of the SBM parcel.

- Two (2) of the sampling locations (SBM-SS8, SBM-SS9) are located within western portions of the SBM parcel.

The surface soil sampling locations provide overall coverage of the SBM parcel and are skewed towards portions of the OTMI Site that was historically used for landfilling. The sampling points may be slightly altered in the field to account for physical obstructions in the field.

The samples will be analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL metals (including mercury), cyanide, and the emerging contaminants (ECs) 1,4-dioxane and the New York State (NYS) list of 21 per- and polyfluoroalkyl substances (PFAS).

If incinerator waste or ash is encountered at a surface soil sampling location, the sample will also be analyzed for dioxin. If there is no evidence of incinerator waste or ash at any of the surface soil sampling locations, then one (1) representative surface soil sample each will be collected from the northern and southern portion of the SBM parcel and will be analyzed for dioxin.

The surface soil samples will be collected from 0 to 6-inches below the ground surface (bgs) or vegetative root zone using a field decontaminated hand shovel or equal method. The portion of the sample representative of the 0 to 2-inch depth interval will be analyzed for TCL SVOCs, pesticides, PCBs, TAL metals (including mercury), cyanide, and the ECs. The portion of the sample representative of the 2 to 6-inch depth interval will be analyzed for TCL VOCs. If incinerator waste or ash is encountered, it will be collected from the 0 to 2-inch depth interval, or if not encountered at this depth interval, at the depth interval that it is encountered at. If incinerator waste or ash is not encountered at any of the surface soil sampling locations, then the sample will be collected from the 0 to 2-inch depth interval from the representative surface soil samples described in the preceding paragraph.

<u>Subsurface Soil and Groundwater Sampling</u>

Sixteen (16) exploratory test pits are proposed to be completed at the locations depicted as SBM-TP1 to SBM-TP16 on Figure 2. The test pits will be completed to identify possible buried waste materials and to aid in the collection of subsurface soil samples. An excavator will be used to perform the test pits. As depicted on Figure 2, the test pit locations provide overall coverage of the SBM parcel.

At each test pit location, subsurface soil samples will be collected from each 2-foot soil sampling depth interval within the depths explored. The selection of the subsurface sample interval for laboratory analysis will be made on the basis of subjective observations (presence of deleterious materials, organoleptic perception [sight and smell], photoionization detector [PID] headspace screening, previous sampling results from nearby historic sampling locations) of the excavated materials. If subjective evidence of environmental impacts or buried waste materials are not noted, materials representative of the 1 to 3-foot sampling depth interval will be collected for laboratory analysis. One (1) soil sample from eight (8) of the 16 test pits will be collected for laboratory analyses.

Total test pit depths are expected to be terminated upon encountering bedrock or at the water table, whichever is encountered first. If a test pit cannot be extended to the aforementioned depths, an assessment of the data collected from the test pit will be made in conjunction with the Department Project Manager to determine if other methods (i.e., drill rig) should be employed to further explore deeper strata within the test pit.

If groundwater is encountered in the test pits, the test pit(s) will be backfilled and groundwater monitoring well(s) will be subsequently installed adjacent to the backfilled test pit(s), the well(s) developed and subsequently sampled. Depending on the subsurface conditions encountered at the test pits, a maximum of four (4) groundwater monitoring wells will be installed to provide overall coverage in the northeastern, southeastern, northwestern and southwestern quadrants of the SBM parcel.

The subsurface soil samples will be analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL metals (including mercury), cyanide, and the ECs. If incinerator waste or ash is encountered in the subsurface soil samples, the samples will also be analyzed for dioxin.

The groundwater samples will be analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL metals (including mercury), cyanide, and the ECs. If the turbidity levels in the groundwater sample(s) exceed 50 NTUs employing a field decontaminated turbidity meter, the analytical laboratory will be instructed to filter the portion of the samples subject to analyses for TCL SVOCs, TAL metals (including mercury) and cyanide. The laboratory will then analyze both the filtered and unfiltered samples.

Groundwater samples will also be collected for laboratory analyses from existing monitoring wells MW-BR-01 and MW-BR-07 if the wells are still intact and produce

groundwater. Groundwater samples collected from these wells will be analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL metals (including mercury), cyanide, and the ECs.

Surface Water and Sediment Sampling

One (1) surface water and one (1) sediment sample will be collected from areas of standing water within the Site, if present.

The surface water sample will be collected directly into laboratory provided containers or with a new, factory sealed disposable bailer. The surface water sample will be analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL metals (including mercury), cyanide, and the ECs.

The sediment sample will be collected employing a field decontaminated hand auger, macro-core sampler, hand shovel, or equal method. The sediment sample will be analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL metals (including mercury), cyanide, the ECs, and hardness.

Field Quality Control Samples

One (1) set of field quality control (QC) samples will be collected per each 20 media-type samples collected. The types of media samples include surface soil, subsurface soil, groundwater, and possibly surface water and sediment. Each set of QC samples will include a duplicate, matrix spike, matrix spike duplicate and equipment blank.

Reporting

The results of the investigation will be presented in a written report which describes the methods of investigation, data and observations made in the field, summary of the analytical results compared to standards, criteria and guidance (SCGs) and our overall conclusions and recommendations. The report will append SBM parcel maps, field sampling logs, test pit logs, PID soil screening logs, photographs, and the laboratory analytical reports. The analytical data will be submitted in the NYSDEC electronic data deliverable (EDD) format.

The sampling locations will be determined on the basis of a survey of the SBM parcel by a NYS licensed land surveyor (LLS), along with the proposed boundaries for the SBM.

Health and Safety Plan

A Site specific Health and Safety Plan (HASP) to be used by field personnel has been developed for the proposed investigations detailed in this work plan. The HASP is attached hereto.

Community Air Monitoring Program

A Community Air Monitoring Program (CAMP), consistent with DER-10 Appendix 1, will be implemented during ground intrusive activities. The CAMP is included in the HASP.

Upon your review and approval of this plan, we will schedule the work for completion. The overall investigation, considering completion of the field work, laboratory turnaround time and report preparation is estimated to be approximately 6 to 8 weeks from initiation.

If you have any questions or require additional information, please contact the undersigned at 518.860.9737.

Respectfully submitted,

C.T. MALE ASSOCIATES

Stephen Bieber, CHMM
Project Scientist

Reviewed and Approved By:

Kirk Moline, PG
Managing Geologist

Attachments

c: Thomas Murley, P.E.

Tax ID: 80.-2-2.1
Owner: Matopato LLC
2.71 acres

Approximate Site
Boundary Modification
2.87 acres

Tax ID: 80.-2-2.2
Owner: Matopato LLC
39.97 acres

Tax ID: 80.-2-2.3
Owner: Matopato LLC
9.87 acres

Hyland Dr
Hyland Cir
Stratton Cir
Horizon Ln
Pond Ln
Highpointe Dr
Outlook Ct
Ridge Cir
Apex Ln
Oakwood Ave
Woods Path
Farrell Road Ext
Farrell Rd

Figure 1: Site Location Map
Site Boundary Modification
Old Troy Municipal Incinerator

Town of Brunswick — Rensselaer County, NY

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N W E S

0 125 250 500 FT

1 inch = 250 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0592
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: October 09, 2020
File: OldTroyMunicipalIcinerator_11x17.mxd
GIS: D Landreville

Legend

Site Boundary Modification (Approximate)
Roads

FIgure 2: Sampling Location Map
Site Boundary Modification
Old Troy Municipal Incinerator Site

Town of Brunswick — **Rensselaer County, NY**

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0 50 100 200 FT

1 inch = 100 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

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Data Source: NYSGIS Clearinghouse
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GIS: D Landreville

Legend

Proposed Sampling Locations (Approximate)
- Surface Soil Locations
- Test Pit Locations

Historic Sampling Locations
- Approximate Location of Surface Water/Sediment Sample
- Approximate Location of Subsurface Soil/Groundwater Sample
- Approximate Location of Surface Soil Sample
- Site Boundary Modification (Approximate)
- Tax Parcels

Figure 2-1

Site Base Map
Old Troy Municipal Incinerator Site
Brunswick, New York

December 2020

Site Specific Health & Safety Plan

Site Boundary Modification
Old Troy Municipal Incinerator Site
Town of Brunswick
Rensselaer County, New York
Site #442001

Prepared by:

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C.T. Male Associates Project No: 20.0592

SITE SPECIFIC HEALTH & SAFETY PLAN
SITE BOUNDARY MODIFICATION
OLD TROY MUNICIPAL INCINERATOR SITE
TOWN OF BRUNSWICK, RENSSELAER COUNTY, NY

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1.0 GENERAL

1.1 Overview

This Site-Specific Health and Safety Plan (HASP) has been prepared for use during implementation of a Site Characterization (SC) for a parcel of land located within the western portion of the Old Troy Municipal Incinerator (OTMI) Site. This parcel of land is referenced as the Site Boundary Modification at the Old Municipal Incinerator Site in the Town of Brunswick, Rensselaer County, New York ("Site").

Site specific training may be required in addition to the procedures presented within this plan including health and safety, emergency communications and procedures, and monitoring.

A designated Office Health and Safety Officer (OHSO) will be responsible for implementing CT Male's health and safety policies and to ensure field work is in compliance with CT Male policies. A designated Health and Safety Officer (HSO) will be responsible for implementing this HASP during the completion of the RI field work. All persons or parties who enter the work area (support zone, decontamination zone or exclusion zone) must review, sign and comply with this HASP. A partial list of individuals authorized to enter the exclusion zone at the Site is presented in Section 13.0 of this HASP. Others may be added to the list as needed. A copy of this HASP will be maintained at the Site throughout the duration of the project. A complete description of the SC work is presented in the SC Work Plan. A brief description of the proposed scope of work is outlined below:

<u>Site Characterization:</u>

- Collection of surface soil samples at the Site for field evidence (scan for organic vapors with a photoionization detector [PID] and olfactory [sight/smell] evidence of contamination) of contamination and laboratory analyses;
- Advancement of test pits for identifying possible buried waste materials and to aid in the collection of subsurface soil samples for field evidence of contamination and laboratory analysis, and characterization of the Site's subsurface
- Potential installation of new groundwater monitoring wells. Collection and laboratory analysis of groundwater samples from pre-existing and new monitoring wells;

- Collection of surface water and sediments samples if water features are found within the site;
- Collection of field quality control samples of soil, sediment, surface water and groundwater for laboratory analysis; and
- Other unforeseen environmental conditions which may be encountered during the SC work.

1.2 Contact Names & Numbers

For this project, the following project contacts have been assigned.

SITE CONTACT:

SITE OWNER:	Thomas Murley, P.E. Matopato, LLC 32 Hialeah Drive Troy, New York 12182	518.469.8589(C)

CONSULTANT CONTACTS:

CONSULTING ENGINEER:	C.T. Male Associates 50 Century Hill Drive Latham, New York 12110	518.786.7400 (O)
	Daniel P. Reilly, P.E., Project Principal	518.786.7625 (O) 518.928.9792 (C)
	Kirk Moline, P.G., Project Manager	518.786.7502 (O) 518.265.1708 (C)
	Nancy Garry, P.E., CSP Office Health & Safety Officer	518.786.7541 (O) 518.320.5783 (C)
	Jonathon Dippert, P.G. Site Health & Safety Officer (HSO)	518.786.7563 (O) 518.469.1183 (C)

EMERGENCY PHONE NUMBERS:

PERSONAL INJURY	Emergency	911
OR EMERGENCY:	Samaritan Hospital -St. Mary Campus 1300 Massachusetts Avenue Troy, New York 12180 (approx. 7 minutes)	518.268.5000
FIRE DEPARTMENT:	Emergency Speigletown Volunteer Fire Department 146 Speigletown Road Troy, New York 12182	911 518.235.5431
POLICE:	Emergency Rensselaer County Sheriff Public Safety Facility 4000 Main Street Troy, New York 12180	911 518.270.5448 (Non-emergency number)
NYS Police	Emergency NYS Police Troop G Zone 1 Station 298 Brickchurch Road Troy, New York 12180	911 518.279.4426
UPSTATE NEW YORK REGIONAL POISON CONTROL CENTER:	University Hospital Upstate Medical University SUNY Health Science Center 750 East Adams Street Syracuse, New York 13201	800.222.1222
NATIONAL RESPONSE CENTER:	c/o United States Coast Guard (G-OPF) 2100 2nd Street, Southwest - Room 2611 Washington, DC 20593-0001	800.424.8802
NYSDEC SPILL HOTLINE:	24-hours	800.457.7362

2.0 HEATLH AND SAFETY PERSONNEL

The Office Health and Safety Officer (OHSO) will be responsible for implementing CT Male's health and safety policies and to ensure field work is in compliance with CT Male policies.

The Site Health and Safety Officer (SHSO) will be responsible for implementation of the HASP and the delegation of health and safety duties. The SHSO will coordinate the resolution of safety issues that arise during site work or ask the OSHO for direction and compliance of the situation. When field operations require only Level D protection, it will not be necessary for the SHSO to be present on-site at all times. When the SHSO is not present on-site, a designee will be authorized to perform the duties of the SHSO, and the designee will be responsible for implementation of the HASP.

The SHSO or designee has authority to stop work upon their determination of an imminent safety hazard, emergency situation or other potentially dangerous situations (e.g. weather conditions). Authorization to resume work will be issued by the OHSO or the SHSO.

3.0 SITE LOCATION AND DESCRIPTION

The proposed SBM parcel is approximately 2.87 acres in area, is zoned for industrial use and is located within the northwestern portion of the Old Troy Municipal Incinerator (OTMI) Site. The SBM parcel is bound to the north by a retail plaza that was previously a portion of the OTMI Site that was approved by the Department for an SBM in 2009/2010; bound to the west by Oakwood Avenue and residential development; and bound to the east and south by the OTMI Site. The SBM parcel is located west of the former landfill footprint and southwest of the incinerator building remains.

The OTMI Site is approximately 40 acres, 30 acres of which were occupied by the incinerator and associated landfill. The site is identified on the County of Rensselaer, Town of Brunswick Tax Map Number 80.00, Section 2, Parcel 2.2. The OTMI Site is listed in the NYS Registry of Inactive Hazardous Waste Sites (Site No. 4-42-001). The landfill was purportedly used from approximately 1947 to 1969.

The portion of the OTMI Site containing the landfill is bounded on the north by the steep face of the landfill, which faces a wetland area. Beyond the wetlands to the north, a residential development surrounds the Lansingburgh Reservoir. This waterbody is not currently used as a reservoir but is used for recreational purposes. Oakwood Avenue (Route 40) is located approximately 20 to 50 feet west of the fill area's western border, while agricultural lands border the site's eastern side.

4.0 POTENTIAL SITE CONTAMINANTS

According to previous site assessment documents, the site was used from 1947 to 1962 for the disposal of residues from the Troy municipal incinerator operation (Ecological Analysts, Inc. 1984). That incinerator was located in the northwest section of the property and reportedly operated inefficiently, resulting in the waste being only partially combusted. In addition to municipal solid waste from the City of Troy, records indicate that the facility processed 2,000 tons of waste from the General Electric Company's (GE's) silicone products facility in Waterford, New York. These wastes included facility trash (98%), and a sludge containing heavy metals, organic chemicals, and paint (2%) (Ecological Analysts, Inc. 1984). After the incinerator closed, the Site was used until 1969 for municipal and industrial waste disposal. The 1984 Site assessment report states that historical records indicate an unknown quantity of F001 (halogenated solvents) waste generated by Paris Cleaners was disposed of at the Site from 1966 to 1969, and that 1.5 tons of paint waste scrapings from Garden Way Manufacturing, Inc., were disposed of there every year from 1962 to 1969 (Ecological Analysts, Inc. 1984).

The OTMI Site has been the subject of various environmental investigations and reviews dating back to 1976, the most recent being reported in November 2008 which was provided to C.T. Male for review. According to the report entitled: "Site Characterization Report for the Old Troy Municipal Incinerator Site" Site No. 4-42-001, Brunswick, New York, as prepared for the Department, the purpose of the most recent OTMI Site evaluation was to:

- Confirm the presence of contamination and determine if it is migrating off-site;
- Examine the risks of contamination;
- Evaluate groundwater flow, and the influence of the bedrock topography on groundwater movement, and
- Aid in determining the need for a Remedial Investigation/Feasibility Study (RI/FS).

As indicated in the 2008 Site Characterization Report, limited investigation of the area of the OTMI Site subject to this SBM was completed mainly because there was little indication that this portion of the OTMI Site was subject to filling when the site was operated as a landfill.

Contaminants that may be encountered during the SC include volatile organic compounds, semi-volatile organic compounds, metals, and dioxins in the Site media.

		Chemical Name	Media	Primary Routes of Exposure	OSHA PEL	ACGIH TLV	IP electron volts (eV)
Metals	☐	Antimony	Soil	Dermal	0.5 mg/m³	0.5 mg/m³	n/a
	☐	Arsenic	Soil	Dermal	0.5 mg/m³	0.2 mg/m³	n/a
	☐	Barium	Soil	Dermal	0.5 mg/m³	0.5 mg/m³	n/a
	☐	Beryllium	Soil	Dermal	2 µg/m³	0.05 µg/m³	n/a
	☐	Cadmium	Soil	Dermal	0.005 mg/m³	0.01 mg/m³	n/a
	☐	Chromium III	Soil	Dermal	0.5 mg/m³	0.5 mg/m³	n/a
	☐	Chromium VI	Soil	Dermal	0.005 mg/m³	0.005 mg/m³	n/a
	☐	Cobalt	Soil	Dermal	0.1 mg/m³	0.02 mg/m³	n/a
	☒	Copper	Soil	Dermal	1.0 mg/m³	1.0 mg/m³	n/a
	☒	Lead	Soil	Dermal	0.05 mg/m³	0.05 mg/m³	n/a
	☐	Manganese	Soil	Dermal	5 mg/m³	0.2 mg/m³	n/a
	☒	Mercury	Soil	Dermal	0.1 mg/m³	0.025 mg/m³	n/a
	☐	Molybdenum soluble	Soil	Dermal	5 mg/m³	0.5 mg/m³	n/a
	☐	Nickel	Soil	Dermal	1 mg/m³	0.5 mg/m³	n/a
	☒	Selenium	Soil	Dermal	0.2 mg/m³	0.2 mg/m³	n/a
	☐	Silver	Soil	Dermal	0.01 mg/m³	0.01 mg/m³	n/a
	☐	Vanadium	Soil	Dermal	0.05 mg/m³	0.05 mg/m³	n/a
	☒	Zinc	Soil	Dermal	15 mg/m³	10 mg/m³	n/a
Common Site COCs	☒	Benzo(a)anthracene	Soil, GW	Inhalation, Dermal	0.2 mg/m³	0.2 mg/m³	7.45
	☒	Benzo(a)pyrene	Soil, GW	Inhalation, Dermal	0.2 mg/m³	0.2 mg/m³	7.12
	☒	Benzo(b)fluoranthene	Soil, GW	Inhalation, Dermal	0.2 mg/m³	0.2 mg/m³	
	☒	Benzo(k)fluoranthene	Soil, GW	Inhalation, Dermal	0.2 mg/m³	0.2 mg/m³	
	☒	Chrysene	Soil, GW	Inhalation, Dermal	0.2 mg/m³	0.2 mg/m³	7.6
	☒	Indeno(1,2,3-cd)pyrene	Soil, GW	Inhalation, Dermal	0.2 mg/m³	0.2 mg/m³	
	☐	Di-(2-Ethylhexyl)phthalate	Soil, GW	Inhalation, Dermal	5 mg/m³	5 mg/m³	9.64
	☐	Diesel fuel (TPH-DRO)	Soil, GW	Inhalation, Dermal	n/a	15 ppm	n/a
	☒	Dioxins/furans	Soil, GW	Inhalation, Dermal	n/a	n/a	9.19/8.89
	☒	Dust	Soil, GW	Inhalation	15 mg/m³	10 mg/m³	n/a
	☐	Ethylbenzene	Soil, GW	Inhalation, Dermal	100 ppm	20 ppm	8.77
	☐	Gasoline (TPH-GRO)	Soil, GW	Inhalation, Dermal	n/a	300 ppm	n/a
	☐	Hydrogen sulfide	Soil, GW	Inhalation, Dermal	20 ppm	1 ppm	10.46
	☐	Methane	Soil, GW	Inhalation, Dermal	n/a	1,000 ppm	12.61
	☐	Methylene Chloride	Soil, GW	Inhalation, Dermal	100 ppm	50 ppm	11.32
	☐	Phenol	Soil, GW	Inhalation, Dermal	5 ppm	5 ppm	8.5
	☐	Tetrachloroethylene (PCE)	Soil, GW	Inhalation	100 ppm	25 ppm	9.32
	☐	Trichloroethene	Soil, GW	Inhalation, Dermal	100 ppm	10 ppm	9.5
	☐	Toluene	Soil, GW	Inhalation	200 ppm	20 ppm	8.82
	☐	Vinyl Chloride	Soil, GW	Inhalation	1 ppm	1 ppm	9.99
	☐	Xylene	Soil, GW	Inhalation	100 ppm	100 ppm	8.45, 8.56
	☐	Other	Soil, GW				
	☐	4,4' – DDE[1]	Soil, GW	Dermal	1 mg/m³	0.5 mg/m³	n/a
	☐	4,4' – DDT[1]	Soil, GW	Dermal	1 mg/m³	0.5 mg/m³	n/a
	☐	4,4' – DDD[1]	Soil, GW	Dermal	1 mg/m³	0.5 mg/m³	n/a

PEL = Permissible Exposure Limit

TLV = Threshold Limit Value

1. *Exposure limits based on DDT.*

4.1 Potential Exposure Pathways

Occupational exposure to chemical hazards associated with the work activities could potentially occur by dermal contact (skin contact), inhalation and an indirect route (incidental ingestion).

4.1.1 Dermal Contact

The primary route of potential exposure for C.T. Male employees is dermal contact. Personnel walking or handling associated equipment may be exposed to chemical hazards by skin contact or adsorption. However, exposure is expected to be limited since workers will be required to wear appropriate personal protective equipment (PPE) (i.e. appropriate work gloves, shoes, clothing, and safety glasses).

4.1.2 Ingestion

Personnel handling of associated equipment, including project hazardous materials, could be exposed by incidental ingestion. Typically, this exposure occurs if proper PPE was not used or personal hygiene was not practiced. Personal protection against exposure via ingestion can be accomplished by performance of proper decontamination procedures when exiting contaminated work areas as well as using the correct PPE.

4.1.3 Inhalation

Constituents that potentially pose an occupational concern to employees by the inhalation route are not expected for this scope of work. If a potential inhalation hazard is noted on-Site, C.T. Male staff will immediately stop work and take the appropriate steps to notify SHSO, PM or OHSO. The work being conducted will be reevaluated to determine the potential exposure and further PPE that may be needed.

5.0 HAZARD ASSESSMENT

5.1 General

The hazard assessment, use of specific protective equipment, and monitoring associated with each field work task of the RI to be conducted at the subject Site are presented in following subsections.

For this project, C.T. Male will be subcontracting portions of the SC activities. Each subcontractor will be responsible for developing and implementing their own Site-specific HASP and for possessing applicable training and/or professional certificates for the work to be conducted per OSHA or other applicable regulations.

5.2 Media Sampling

5.2.1 Soil, Sediment, Surface Water and Groundwater Sampling

Soil and potential sediment, surface water and groundwater sampling are planned for the Site. The potential hazards to personnel during this work are dermal contact. Level D protection should be sufficient to protect against dermal contact during handling of soils, sediment, surface water and groundwater. If organic vapors are present at the action levels described in Section 5.4, on the basis of organic vapor monitoring of the area during the work, it may be necessary to upgrade to Level C respiratory protection.

5.3 Subsurface Work

Exploratory test pits (and possibly test borings) into subsurface soils are planned for the site. The potential hazards to personnel during this work are dermal contact. Level D protection should be sufficient to protect against dermal contact during excavation/drilling of and/or handling of the subsurface soils and groundwater. If organic vapors are present at the action levels described in Section 5.4, on the basis of organic vapor monitoring of the area during the work, it may be necessary to upgrade to Level C respiratory protection.

5.4 Air Monitoring

During ground intrusive activities and activities outlined in section 5.2, the ambient air in the work area will be monitored with a photoionization detection (PID) meter (total volatile

compounds – MiniRAE 3000) prior to the start of work and periodically as conditions warrant.

If a concentration of 10 ppm (sustained for 5 minutes) of total volatile compounds are detected within the work area on the instrument, relative to an isobutylene standard (used to calibrate the instrument), work will cease immediately, and the workers shall shut down equipment and leave the area immediately. The level of personal protective equipment (PPE) protection will be evaluated prior to continuing work. If a PPE upgrade to Level C is required, it will include: a half face air purifying respirator equipped with combination organic vapor and particulate cartridges for 10-15 ppm exposure levels; and a full-face air purifying respirator for greater than 15 ppm to less than 50 ppm exposure levels, prior to continuing work. If a concentration greater than 50 ppm is encountered, work will cease immediately and the situation will be evaluated prior to continuation of work. Table 1 summarizes the action levels relative to the required respiratory protection.

Table 1
C.T. Male Action Levels & Required Respiratory Protection

Action Level	Level of PPE	Type of Respiratory Protection
0-10 parts per million	Level D	No respiratory protection
10-15 parts per million	Level C	Negative pressure half-face respirator
15-50 parts per million	Level C	Negative pressure full-face respirator
Greater than 50	Cease Work	Evaluate work procedures

- Facial hair is not permitted while wearing most respirators.

- Workers required to wear a respirator must have a minimum of OSHA 40 Hour training with current medical monitoring and fit test documentation.

5.5 Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) will be followed for the project based on the New York State Department of Health Generic Community Air Monitoring Plan dated May 2010. The CAMP will be followed during ground intrusive remedial activities (i.e., subsurface investigation activities). The intent of the CAMP is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of the SC. The CAMP is not intended for use in establishing action levels for worker respiratory protection. The CAMP

will monitor the air for dust (particulate air monitoring, see Section 5.5.1) and volatile organic compound vapors (VOC air monitoring, see Section 5.5.2) at the downwind perimeter of the work area. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown.

The New York State Department of Health Generic Community Air Monitoring Plan dated May 2010 is included in Appendix A.

5.5.1 Particulate Air Monitoring

Two (2) real-time particulate monitors capable of continuously measuring concentrations of particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) will be utilized. The instruments will be placed inside environmental enclosures at temporary monitoring stations based on the prevailing wind direction each work day, one (1) upwind and one (1) downwind of the designated work areas.

Each particulate monitor will be equipped with a telemetry unit capable of transmitting real-time particulate data to the C.T. Male Project Manager and/or the C.T. Male Project Manager's field representative. The particulate monitoring instruments will be capable of displaying and transmitting the short term exposure limit (STEL) or 15-minute averaging period, which will be compared to the NYSDOH Generic Community Air Monitoring Plan action levels for particulates, as listed below. The instruments are programmed to alarm at preset action levels. At the end of each day, the readings for each instrument will be downloaded to a computer and retained for future reference and reporting.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that the downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, the downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the

downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

In the event of poor weather such as heavy rain, particulate monitoring will not be performed for protection of instrumentation. These weather conditions would limit the effectiveness of the sensitive monitoring equipment and likely suppress particulate generation. Work activities will be halted if fugitive dust migration is visually observed for a sustained period of time during poor weather conditions.

5.5.2 Volatile Organic Compound Air Monitoring

C.T. Male will continuously monitor for volatile organic compounds (VOCs) at the downwind perimeter of the immediate work areas with a MiniRAE 3000 VOC monitor (10.6 eV lamp) or equal. The VOC monitor will be placed in the downwind environmental enclosure containing a particulate monitor. The downwind VOC monitor will be equipped with a telemetry unit capable of transmitting real-time VOC data to the C.T. Male Project Manager and/or the C.T. Male Project Manager's field representative. The VOC monitoring instrument will be capable of displaying and transmitting the short-term exposure limit (STEL) or 15-minute averaging period, which will be compared to the NYSDOH Generic Community Air Monitoring Plan action levels for VOCs, as listed in the bulleted list below. The downwind VOC STEL readings will be downloaded to a computer and retained for future reference and reporting.

Upwind VOC STEL concentrations will be measured at the start of the work day, and periodically thereafter, employing a handheld MiniRae 3000 VOC monitor (10.6 eV lamp) to evaluate the Site's background conditions. The upwind VOC STEL readings will be manually recorded for future reference and reporting.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work

activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. Work activities will then be evaluated to determine the source of the organic vapors and the engineering controls required to reduce/eliminate the organic vapors.

5.6 Hazard Identification and Control

The following table presents generalized hazards potentially involved with the tasks to be completed on this project. Table 2 identifies general procedures to follow to prevent or reduce accident, injury or illness. Any worker on-site who identifies a potential hazard must report the condition to the SHSO or designee, and initiate control of the hazardous condition.

Table 2
Potential Hazards and Control

Potential Hazard	Control
Vehicular Traffic	1. Wear Hi-Vis safety vest when vehicular hazards exist. 2. Use cones, flags, barricades, and caution tape to define work area. 3. Use vehicle to block work area. 4. Use vehicle caution lights in high traffic areas within the Site. 5. Contact local police for high traffic situations on public roadways.
Slip, Trip, and Fall Protection	1. Assess work area to determine if there is a potential for falling. Additional PPE can be utilized to reduce slip, trip, fall hazards. 2. Make sure work area is neat and tools are staged in one general area. 3. Wear steel-toe boots with adequate tread and always watch where the individual is walking. Carry flashlight when walking in poorly lighted areas.
Inclement Weather	1. Stop outdoor work during electrical storms and other extreme weather conditions such as extreme heat or cold temperatures.

Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
	2. If there is lighting or thunder, staff need to stop work for 30 minutes since last occurrence and take cover in a safe location. Not in a field or under a tree. 3. Take cover indoors or in vehicle. 4. Listen to local forecasts for warnings about specific weather hazards such as tornadoes, hurricanes, and flash floods.
Utility Lines Contact	1. Contact UFPO to have utility lines marked prior to any underground excavation, trenching or drilling. UFPO must be contacted at least 72 hours prior to work. 2. Conduct onsite utility mark out by a subcontractor, if needed. 3. Refer to site drawings for utility locations. 4. Pre-clear the utility. Refer to the guidance on clearance from Dig Safely 811.
Noise	1. Wear hearing protection when equipment such as a drill rig, excavator, jackhammer, or other heavy equipment is operating on-site. 2. Wear hearing protection whenever you need to raise your voice above normal conversational speech due to a loud noise source; as this much noise indicates the need for protection. 3. Hearing protection is required when measured sound exceeds 85 decibels (dB) where employees stand or conduct work.
Electrical Shock	1. Maintain appropriate distance between heavy equipment and overhead utilities; 20 foot minimum clearance from power lines; and 10 foot minimum clearance from shielded power lines. 2. Contact local underground utility locating service prior to penetrating the ground surface.
Hand and Power Tools	1. Ensure cords to tools are not frayed and are properly grounded. 2. Ensure guards for power tools are in place (such as portable circular saw) as recommended by the manufacturer. 3. Tool cutting edges are kept in proper condition so the tool will operate properly. 4. Worn or bent tools are not to be used. Tool handles must be secure. 5. When not in use, tools are stored in a dry, secure location.

Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
	6. Ensure proper PPE use with hand and power tools. Cut or puncture resistant gloves, or work gloves to provide protection may be used. Check with OSHO or SSHO prior to use of the power tools. 7. If a generator is used with the power tools, ensure there is proper ventilation for the generator.
Physical Injury	1. Wear safety glasses, reflective Hi-vis safety vest and/or shirt always when on-site. Personnel to have hearing protection on them and in use when it is required. 2. Maintain visual contact with any equipment operators and wear hard hats and Hi-vis safety vest when heavy equipment is operating on-site. Be aware of other vehicle traffic while heavy machinery is operating onsite. 3. Avoid loose clothing, long hair, and jewelry when working around rotary equipment. 4. Keep hands and feet away from drilling augers, excavation equipment tracks/tires, and other onsite heavy equipment. 5. Test emergency shut-off switches on equipment prior to daily use. 6. Wear life preserver in boats. 7. Do not enter manholes or confined spaces. 8. Be aware of openings into manholes and keep area clear of trip hazards. 9. Be aware of outside terrain – steep slopes and slip, trip hazards while working. 10. Be aware of biological hazards onsite such as insects (bees, mosquitoes, and flies), ticks, spiders, and snakes. 11. Be aware of botanical hazards such as poison ivy, poison sumac, and giant hogweed.
Back Injury	1. Use a mechanical lifting device or a lifting aid where appropriate. 2. Ensure the route is free of obstructions. 3. Bend at the knees and use leg muscles when lifting. 4. Use the buddy system if lifting heavy or awkward objects. 5. Do not twist or jerk your body when lifting.
Heat Stress	1. Increase consumption of water and electrolytes while working.

Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
	2. Avoid excessive alcohol intake the night before working in heat stress situations. 3. Avoid excessive caffeine intake when working in heat stress situations. 4. Increase number of rest breaks as necessary, and rest in a shaded area. 5. Watch for signs and symptoms of heat exhaustion and fatigue. 6. Rest in cool, dry areas. 7. In the event of heat stress or heat stroke, bring the victim to a cool environment and call 911.
Cold Stress	1. Wear cotton, wool or synthetic (polypropylene) undergarments to absorb perspiration from the body. 2. Wear additional layers of light clothing as needed for warmth. The layering effect holds in air, trapping body heat, and some layers could be removed as the temperature rises during the day. 3. Pay close attention to body signals and feelings (hypothermia symptoms), especially to the extremities. Correct any problem indicators by breaking from the work activity and moving to a rest area to warm up and add additional clothing. 4. Increase water intake while working. 5. Avoid excessive alcohol intake the night before working in cold conditions. 6. Increase the number of rest breaks as necessary, and rest in a warm area. 7. In the event of hypothermia or frost bite, bring the victim to a warm environment and call 911.
Fire Control	1. Smoking is not allowed on-site. 2. Keep flammable liquids in closed containers. 3. Isolate flammable and combustible materials from ignition sources. 4. Keep fire extinguisher nearby and use only if deemed safe. 5. Inform SHSO prior to a chemical being brought onsite. 6. Facility Hot Work permit may be required for certain tasks. "Hot work" means riveting, welding, flame cutting or other fire or spark-producing operation.

Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
Media Sampling (water, soil, sediment, soil gas, etc.)	1. Wear appropriate PPE to avoid skin, eye, and inhalation contact with contaminated media. 2. Stand upwind to minimize possible inhalation exposure, especially when opening monitoring wells or closed containers/vessels. 3. Conduct air monitoring, whenever necessary, to determine level of respiratory protection. 4. If necessary, employ engineering controls to assist in controlling chemical vapors. 5. When collecting samples on or near water bodies, wear a life jacket and employ the buddy system. 6. When collecting samples from water bodies, assess water conditions and the water current and ensure that the sampling vessel is stabilized, or the water is safe to enter..
Working on Water	1. Review Job Hazard Analysis for Working on water. 2. Wear proper PPE per hazard assessment along with USCG approved life jackets. If water temperature below 50F, mustang coat should be worn, if under 40F full mustang suit should be worn. 3. Prior to and after each use, the life jackets shall be inspected for defects which would alter their strength or buoyancy. Defective units shall not be used. 4. If placing a boat into the water from a trailer - Lower driver's side window and remove seat belt for escape when launching at boat ramp in the event vehicle enters water. 5. If launching canoe from shoreline check for uneven footing or slippery conditions, level or clear as necessary. 6. Assess launch areas for poisonous plants, animals, spiders, bee nests. 7. Operators of motorized vessels must have NY State boating safety certificate/training. Check requirements for other states 8. Boat should be operated with 2 people on board or one person on shore/in communication with vessel. 9. Follow/obey boating laws, maintain safe speeds and recognize aids to navigation.

Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
Working in Water	1. Review Job Hazard Analysis for Working in water. 2. Wear proper PPE per hazard assessment along with USCG approved life jackets. If water temperature below 50F, mustang coat should be worn, if under 40F full mustang suit should be worn. 3. Prior to and after each use, the life jackets shall be inspected for defects which would alter their strength or buoyancy. Defective units shall not be used. 4. Ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. Distance between ring buoys shall not exceed 200 feet. 5. When entering water body from shoreline check for uneven footing or slippery conditions, level or clear as necessary. 6. Assess area in which you are entering the water body for poisonous plants, animals, spiders, bee nests.
Working from Heights	7. Review clients HASP regarding working from heights. 8. Review job tasks for working from heights and complete job hazard analysis for the tasks 9. Review C.T. Male fall protection written program. 10. Use proper PPE, such as harness and tie off, for the project. 11. Only staff trained in fall protection program and the use of harnesses can work from heights.
Cleaning Equipment	12. Wear appropriate PPE to avoid skin and eye contact with Alconox or other cleaning materials. 13. Stand upwind to minimize possible inhalation exposure. 14. Properly dispose of spent chemical cleaning solutions and rinse accordingly.
Poor Structural Building Condition	1. Assess building and rooftop condition prior to accessing and note where exit points are at all times. 2. Be cautious when walking inside a building. Always look for holes in the floors or hanging debris which could cause injury. 3. Carry a high powered flashlight and use as necessary in low light areas. 4. If working in a building, ensure work area is neat and tools are staged in one general area.

Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
	5. If working on a rooftop, maintain a safe distance from the roof ledge and do not access sloped roof surfaces without proper safety controls. 6. Wear steel-toe boots with adequate tread. 7. Attempt to employ the buddy system so someone knows what part of the building individuals are located.
Deer Ticks	1. Wear long pants and long sleeve shirts. Pants could be tucked into the top of socks at boot level. Shirt tucked into pants. 2. Wear insect repellant clothing, if available, see SHSO for appropriate clothing. 3. Use tick repellent, this will need to be cleared with OSHO or SHSO to ensure that new chemicals are not introduced to the Site. 4. Perform personal body checks for the presence of ticks, after field work is complete and before the personnel have left the Site. 5. Notify the Office Health and Safety Officer immediately if you have been bitten by a tick or discovered a tick on yourself.
Note: A first aid kit and fire extinguisher will be located in the C.T. Male company vehicle.	

Response actions to personal exposure from on-site contaminants include skin contact, eye contact, inhalation, ingestion, and puncture or laceration. The recommended response actions are presented in Section 11.2.

5.7 COVID-19

To address work site safety regarding COVID-19, C.T. Male has utilized information from OSHA, CDC, NYSDOH, NYS, and other public officials. C.T. Male staff shall follow C.T. Male 'Safety Plan for COVID-19", dated May 2020 (Appendix B).

For field activities, C.T. Male shall follow C.T. Male's SOP – 'Procedures for field staff in relation to COVID-19 or other virus', dated March 19, 2020 (included in Appendix B).

In addition to the above referenced SOP, C.T. Male employees will not report to work and notify their supervisor immediately if they are experiencing illness such as fever, cough, shortness of breath or difficulty breathing, chills, repeated shaking with chills, muscle aches,

sore throat, loss of taste or smell, or runny/stuffy nose. Refer to CDC guidance on "Symptoms of Coronavirus (COVID-19)" and "How to protect yourself and others" (included in Appendix B).

C.T. Male will also:

- Per NYS Executive Order 202.16 by Gov. Cuomo, C.T. Male's staff will wear face coverings when on-Site, with exception of when in C.T. Male vehicle. C.T. Male staff shall follow the guidelines for face coverings issued by the CDC and NYSDOH (included in Appendix B);
- C.T. Male staff that have a temperature at or above 100.4 degrees shall notify the project manager immediately and shall refrain from entering the Site;
- Maintain Social Distancing: Six-foot distance with others, as is possible;
- Cease shaking hands with coworkers, contractors, subcontractors, clients, et cetera;
- Make effort to hold safety/tailgate meetings outdoors; maintain social distancing of six feet;
- Eat lunch separately, at least six feet apart;
- Avoid sharing tools and equipment without cleaning and disinfecting;
- Avoid touching their eyes, nose and mouth with unwashed hands;
- Cover their cough or sneeze with a tissue, then throw the tissue in the trash;
- Clean and disinfect frequently touched objects and surfaces using a bleach solution or wipe;
- Wash their hands often with soap and water for 20 seconds, and use an alcohol-based hand sanitizer that is 60% alcohol when soap and water are unavailable;
- Upon return, the vehicle steering wheel and door handles are wiped down with disinfect wipe or spray disinfectant; and
- All personal field gear should remain with the individual employee; it should not be left in a company vehicle, job site, or in the office.

6.0 TRAINING

Site specific training of workers and personnel will be conducted and provided by the OSHO or SHSO or designee prior to any on-site activity. The training will specifically address the activities, procedures, monitoring and equipment for the site operations. It will include area and facility layout, hazards, emergency services (police, hospital, fire, etc.), and review of this HASP. Questions by workers, field personnel, etc. will be addressed at this time.

Workers and personnel conducting and/or supervising the project must have attended and successfully completed a 40 Hour Health and Safety Training Course for Hazardous Waste Operations and an annual 8 hour Refresher Course. Workers must take part in an employer medical surveillance program in accordance with OSHA 1910.120 requirements, including that the workers have had a medical physical within one (1) year prior to the date work begins and that they are physically able to wear a respirator.

Documentation of training and medical surveillance will be submitted to the OSHO of designee prior to the start of any on-Site work. A copy of the training certificates shall be maintained by the OSHO and Human Resources Department at the C.T. Male Latham office.

7.0 SITE ACCESS

The SC will be conducted within and at the inside perimeter of the Site boundaries. Due to the site location, it is possible that the public or curious bystanders may be present at the time of the work. As such, the work area and exclusion zone will be considered as the following, dependent on the investigative tasks performed.

- Cones will be used to delineate an approximate 100-foot square (10' by 10') around the test boring location or 400-square (20' by20') around the test pit locations. If the field operations are in an area of high traffic or potential public encounters, caution tape in conjunction with the cones can be used. All work and equipment will remain within the designated work area/exclusion zone until completion of the test pits and test boring/monitoring well installations.

Only OSHA trained individuals who are qualified to do the work and have read and signed this Site-specific HASP will be allowed within the work/exclusion zone. The SHSO or designee will be responsible for limiting access to unauthorized individuals.

The Contamination Reduction Zone (decontamination area), and Support Zone (clean area, everywhere else) will be established outside the Exclusion Zone, as necessary. The exclusion, contamination reduction, and support zone during the SC work have been identified and designated as follows:

Work/Exclusion Zone - The location of the work/exclusion zone will be determined in the field prior to the start of work and will vary depending on the work activities conducted. For the most part, the work/exclusion zone is anticipated to be defined with caution tape and cones (see above). Only authorized persons with proper training and protective gear will be allowed to enter the work/exclusion zone.

Contamination Reduction Zone – If applicable, this zone will generally be a 30'± x 30'± area, marked off with stakes, colored flagging, cones, or equal method, containing the decontamination pad. The location will be determined in the field prior to the start of work and will vary depending on the area(s) the work is being conducted. This zone is where decontamination of personnel and equipment will take place, as necessary, on the basis of the work being performed.

Support Zone - Area outside of the contamination reduction zone; not including the work/exclusion zone. Unauthorized or untrained individuals must remain in this zone.

8.0 PERSONAL PROTECTION

8.1 Level of Protection

Based on an evaluation of the potential hazards, the minimum level of protection to be worn by workers during implementation of the SC activities is defined as Level D protection and will be controlled by the HSO or designee.

The minimum level D protective equipment will consist of field clothes, Hi-Vis shirts or vests, rubber and/or nitrile gloves, safety glasses, face covering (COVID-19), and safety boots (steel or composite toe). As appropriate, this level of protection may be modified to include hard hats, ear plugs, protective suits, coveralls, leg chaps, or face shield for additional protection.

If required, level C protective equipment will consist of the items listed for Level D protection with the added protection of a half face air purifying respirator or a full-face air purifying respirator equipped with combination organic vapor and particulate cartridges as outlined in Section 5.6., chemical resistant clothing, inner and outer chemically resistant gloves (i.e. nitrile and/or PVC), and chemical resistant safety over boots. Prior to field staff donning a respirator, C.T. Male's Project Manager and Corporate Safety Manager will need to approve the use of the respirator and staff donning them. Staff that have medical clearance and have been fit tested, should have their full-face or half-face air purifying respirators available. Appropriate combination organic vapor and particulate cartridge filters will be available at the Site to use, if necessary, with the air purifying respirators.

Level A or B is not anticipated, but if required, level B protective equipment will consist of the items listed for Level D protection except a self-contained breathing apparatus (SCBA) will be worn dependent on the level of contaminants present in the work zone, and protective suits will be required. When site conditions warrant the need for level A or B protective equipment, work will cease, and the project will be re-evaluated to determine the necessity for employing engineering controls to reduce or eliminate the potential contaminants of concern. C.T. Male staff are not approved for donning SCBA equipment.

8.2 Safety Equipment

Basic emergency and first aid equipment will be available at an area within the Support Zone clearly marked and available or within C.T. Male's company vehicle. This shall include, at a minimum, a first aid kit, fire extinguisher, supply of potable water, soap, towels, face covering, Clorox wipes or bleach solution. Extra PPE will also be kept in the work area, or within CT Male company vehicle. The SHSO or designee shall be equipped with a cellular phone in case of emergencies.

9.0 COMMUNICATIONS

The SHSO or designee will be equipped with a cellular phone in case of emergencies. The SHSO or designee shall notify the C.T. Male Project Manager and OSHO as soon as safely possible in the event of an accident, injury or emergency action.

Hand signals for certain work tasks will be employed, as necessary, and the buddy system will be employed, if feasible, during test pits, test borings, and installation of monitoring wells.

10.0 DECONTAMINATION PROCEDURES

10.1 Personnel Decontamination Procedures

Decontamination procedures will be carried out by all personnel leaving the Work/Exclusion Zone (except under emergency evacuation). The amount of decontamination performed will be dependent on the level of personal protection currently being worn within the exclusion zone.

1. Do not remove respiratory protection until all steps have been completed.
2. Clean outer protective gloves and outer boots, if worn, with water (preferably with a pressurized washer) over designated wash tubs in the exclusion zone to remove the gross amount of contamination.
3. Deposit equipment used (tools, sampling devices, and containers) at designated drop stations - on plastic drop sheets or in plastic lined containers. If disposable equipment is used, it can be discarded in the designated container.
4. Rinse outer boots if worn and gloves with clean water in designated rinse tubs. Remove outer boots if worn and gloves and deposit in designated area to be determined in the field for use the next day or when necessary. If disposable outer boots are worn, remove and discard in designated container.
5. Remove protective suit, if worn, and discard in designated container. If ear plugs were used, they can be discarded in designated container. Remove respirator at this time, if used; wash and rinse with clean water. Organic vapor and particulate cartridges, when used, will be replaced daily. Used cartridges will be discarded in the designated waste container. Remove inner gloves and discard in designated container.
6. Remove hard hat & safety glasses, clean with Clorox wipes or Clorox bleach solution (or similar) prior to placing into C.T. Male vehicle.
7. Prior to entering the C.T. Vehicle, ensure that C.T. Male SOP for field staff in relation to COVID-19 is followed.

10.2 Equipment and Sample Containers Decontamination

All decontamination will be completed by personnel in protective gear appropriate for the level of protection determined by the site SHSO or designee. Manual sampling equipment including scoops, hand augers, and shovels which come into contact with the site's soils and sludge will be cleaned with a tap water (or filtered water)/detergent wash and a tap water (or filtered water) rinse. The sampling equipment will be decontaminated after each sample is collected at the Contaminant Reduction Zone (Decontamination Station).

Drill rig and excavator equipment (i.e., casing, drill rods, bits, core samplers, excavator bucket) which comes into contact with the site's soils will be decontaminated with a high pressure/hot water wash and/or other methods within the Contaminant Reduction Area. The cleaning will be performed at the completion of each boring location.

Larger equipment (i.e., drill rig, excavator) which comes into contact with the site's soils will be decontaminated with a high pressure/hot water wash and/or other methods within the Contaminant Reduction Area on a decontamination pad. The decontamination procedure will focus on portions of the equipment that has come into contact with the site's soils. The cleaning will be performed prior to the equipment leaving the site.

If cleaning wash and rinse water and/or the media (soil/groundwater) being cleaned from the equipment does not exhibit field evidence of contamination (as noted in the first bullet of section 1.1), it will be spread out over the site's ground surface. If there is evidence of field contamination, then the impacted cleaning wash and rinse water and/or media will be placed in 55-gallon drums for profiling and subsequent off-site disposal at a permitted treatment, storage and disposal facility (TSDF). The drums will be staged in a secure area within the Site. The same procedures will apply for media exhibiting field evidence of contamination during sampling of the site's media.

Exterior surfaces of sample containers will be wiped clean with disposable paper towels in the decontamination zone and transferred to a clean cooler for transportation or shipment to the analytical laboratory. Sample identities will be noted and checked off against the chain-of-custody record. The disposable paper towels will be placed in the designated disposal container and disposed of as solid waste.

11.0 EMERGENCY RESPONSE PROCEDURES

THE PROJECT EMERGENCY COORDINATOR IS:

Office Health and Safety Officer (OHSO)	Nancy Garry
Site Health and Safety Officer (SHSO)	Jonathan Dippert
Project Manager	Kirk Moline

The following standard emergency procedures will be used by on-site personnel. The Project Manager and OHSO shall be notified of any on-site emergencies and be responsible for assuring that the appropriate procedures are followed.

11.1 Personal Injury

Emergency first aid shall be administered on-site as deemed necessary and only by a trained individual, if available at the site. If a trained individual is not available on-site, decontaminate if feasible, and transport individual to nearest medical facility (Samaritan Hospital). If feasible, the injured individual shall not transport themselves to the nearest medical facility. The SHSO will be responsible for completing the incident report in conjunction with the employee.

11.2 Personal Exposure

The recommended response to worker exposure from contaminants on-site includes the following:

SKIN CONTACT: Use generous amounts of soap and water. Wash/rinse affected area thoroughly, then provide appropriate medical attention, as necessary.

EYE CONTACT: Wash eyes thoroughly with potable tepid water supply provided on site. Eyes should be rinsed for at least 15 minutes subsequent to chemical contamination. Provide medical attention, as necessary.

INHALATION: Move worker to fresh air and outside of the work zone and/or, if necessary, decontaminate and transport to hospital (Samaritan Hospital). If respirator use is implemented at the time of inhalation,

worker must not remove respirator until completely away from the work zone.

INGESTION: Decontaminate, if feasible, and transport to hospital (Samaritan Hospital).

PUNCTURE WOUND OR
LACERATION: Provide first aid at the site and if wound needs medical attention, decontaminate, if feasible, and transport to hospital (Samaritan Hospital).

If the affected worker is exposed to contaminants on-site and the injury or accident prevents decontamination of the individual, the emergency responders must be notified of this condition and the exposure must be kept to a minimum.

11.3 Potential or Actual Fire or Explosion

Immediately evacuate area in the event of potential or actual fire or explosion. Notify the local Fire and Police Departments, and other appropriate emergency response groups as listed in Section 1.2. Perform off-site decontamination and contain wastes for proper disposal. If a fire or explosion occurs, all on-site personnel must meet in the designated area of the site (established by the SHSO or designee – prior to work starting and relayed to site workers) for an accurate head count.

11.4 Equipment Failure

Should there be any equipment failure, breakdown, etc. the Project Manager and SHSO shall be contacted immediately. The Project Manager or the SHSO will make every effort to replace or repair the equipment in a timely manner.

11.5 Spill Response

The site SHSO or designee shall initiate a corrective action program with the subcontractors in the event of an accidental release of a hazardous material, suspected hazardous material or petroleum. The SHSO or designee will act as the Emergency Coordinator with the subcontractors for the purposes of: spill prevention; identifying releases; implementing clean up measures; and notification of appropriate personnel.

The corrective action program will be implemented by the SHSO or designee and subcontractor to effectively control and minimize any impact accidental releases may have to the environment.

Effective control measures will include:

- Preliminary assessment of the release.
- Control of the release source.
- Containment of the released material.
- Effective clean-up of the released material.

Potential sources of accidental releases include: hydraulic oil spills or petroleum leaks from heavy equipment; cooling oils (potentially PCB containing) for electrical equipment handling and cleaning; and spills from drums and tanks. The SHSO or designee in conjunction with the subcontractor shall respond to an accidental release in the following manner:

- Identify the character, source, amount and area affected by the release.
- Have subcontractor take all reasonable steps to control the release.
- Notify facility personnel.
- Notify the NYSDEC Spill Hotline at 1-800-457-7362 if required.
- Contain the release with sorbent material which should include speedi-dry, spill socks and sorbent pads.
- Prevent the release from entering sensitive receptors (i.e., catch basins and surface water) using the specified sorbent material or sandbags.
- Coordinate cleanup of the released material.
- Oversee proper handling and storage of contaminated material for disposal.

At no time should personal health or safety be compromised or jeopardized in an attempt to control a release. All health and safety measures as outlined in this HASP should be adhered to.

12.0 ADDITIONAL WORK PRACTICES

Workers will be expected to adhere to the established safety practices. Work on the project will be conducted according to established protocol and guidelines for the safety and health of all involved. The following will be adhered to:

- Employ the buddy system when possible, and for those work tasks which require it. Establish and maintain communications.
- Minimize contact with potentially contaminated soil, sediment, surface water and groundwater.
- Employ disposable items when possible to minimize risks during decontamination and possible cross-contamination during sample handling.
- Smoking, eating, or drinking after entering the work zone and before decontamination will not be allowed.
- Avoid heat and other work stress related to wearing personal protective equipment. Take breaks as necessary and drink plenty of fluids to prevent dehydration.
- Withdrawal from a suspected or actual hazardous situation to reassess procedures is the preferred course of action.
- The removal of facial hair (except mustaches) prior to working on-site will be required to allow for a proper respiratory face piece fit.
- The Project Manager, OHSO, SHSO, and field personnel shall maintain records recording daily activities, meetings, facts, incidents, data, etc. relating to the project. These records will remain at the project site or electronically available during the full duration of the project so that replacement personnel may add information while maintaining continuity. These daily records will become part of the permanent project file.

13.0 AUTHORIZATIONS

Personnel authorized to enter the exclusion zone at the OTMI SBM Site in the Town of Brunswick, Rensselaer County, New York while operations are being conducted must be certified by the OHSO or SHSO. Authorization will involve completion of appropriate training courses and review and sign off of this HASP.

Personnel authorized to perform work on-site are as follows:

Company Representing	Written Name
C.T. Male	Kirk Moline, Jeffrey Marx, Dan Reilly, Jon Dippert, Dan Achtyl, Chris Ormsby, Dan King, Kendall Cietek, Cliff Bondi, Brittany Taranto, Ryan Hubbard, Nancy Garry, Steve Bieber, Jorel Spain, Adam Rodgers, Rosaura Andujar-McNeil, Mary Loughlin.

14.0 FIELD TEAM REVIEW

Each field team member shall sign this section after site specific training is completed and before being permitted to work on-site.

I have read and understood this Site Specific Health and Safety Plan, and I will comply with the provisions contained therein.

PROJECT: Site Characterization
OTMI SBM
Town of Brunswick
Rensselaer County, New York

Name: Printed	Signature	Date

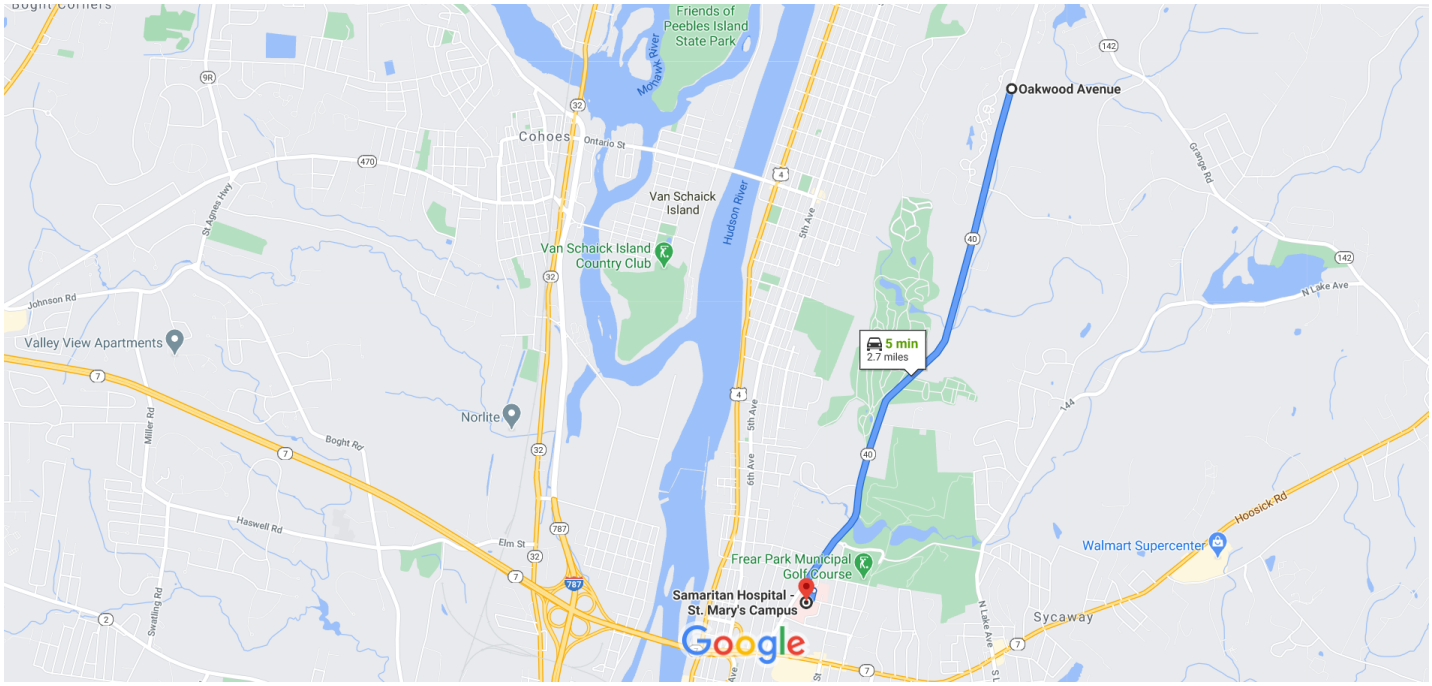
FIGURE 1

MAP SHOWING ROUTE TO SAMARITAN HOSPITAL, St. Mary's Campus

Google Maps

Oakwood Ave, Troy, NY 12180 to Samaritan Hospital - St. Mary's Campus

Drive 2.7 miles, 5 min



Map data ©2020 2000 ft

Oakwood Ave

Troy, NY 12180

1. Head south on NY-40 S/Oakwood Ave toward Farrell Rd

2.6 mi

2. Turn left onto Massachusetts Ave

285 ft

3. Turn right to stay on Massachusetts Ave

Destination will be on the right

213 ft

Samaritan Hospital - St. Mary's Campus

1300 Massachusetts Ave, Troy, NY 12180

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

APPENDIX A

COMMUNITY AIR MONITORING PLAN

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. APeriodic@ monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

APPENDIX B

C.T. MALE – Safety Plan for COIVD-19

Dated May 2020, revised November 2020

C.T. MALE ASSOCIATES ENGINEERING,
SURVEYING, ARCHITECTURE,
LANDSCAPE ARCHITECTURE &
GEOLOGY, D.P.C

COVID-19 SAFETY PLAN

May 26, 2020

Revisions to Safety Plan – Date / Reason	
11/19/20, update appendices, guidelines	

Contents

INTRODUCTION

Coronavirus or "COVID-19," is a respiratory disease caused by a novel coronavirus not previously seen in humans. C.T. Male has developed COVID-19 exposure prevention, preparedness, and response to be implemented, to the extent feasible and appropriate, throughout the company and at job sites. C.T. Male will continue to monitor the related guidance provided by the U.S. Center for Disease Control and Prevention ("CDC"), Occupational Safety and Health Administration ("OSHA"), New York State and other state and public agencies as it is made available.

This Plan is based on information from the CDC, OSHA, and NYS at the time of its development and is subject to change based on further information provided by the CDC, OSHA, NYS and other public officials. The Company may also amend this Plan based on operational needs.

C.T. Male has a NYS Business Reopening plan as required by NYS executive orders and guidance.

C.T. Male has appointed Nancy Garry, PE, CSP as the COVID-19 Safety Officer (CSO) to monitor and implement recommended safety practices regarding the COVID-19 virus. As Corporate Safety Manager, Ms. Garry's duties are to implement this HASP and other safety programs throughout the company. With a professional license as a Certified Safety Professional (CSP), the Corporate Safety Manager has the experience for the COVID-19 response.

RESPONSIBILITIES

Corporate Safety Manager

- Ensure the guidelines and recommendations of CDC, OSHA, NYS and other public agencies, with respect to COVID-19, are followed.
- Authorized to stop or modify activities to ensure conformance with recommendations and guidelines for safety.
- Prepare COVID-19 safety plans, with division and project managers, for project sites.

Division Managers

- Ensure project managers, supervisors, and staff abide by the plan.
- Notify PMs and supervisors of new notifications in relation to client procedures or safety plans.

Project Managers and Supervisors

- Ensure the COVID-19 Safety Plan is properly followed at project sites.
- Ensure employees are completing the C.T. Male mandatory pre-screening process, and other client/agency requirements.
- Notify employees of any client related COVID-19 procedures that will need to be followed before and at the project site.
- Authorized, through consultation with the Corporate Safety Manager or division manager, to halt all activities that do not adhere to the COVID-19 safety practices.

Employees

- Complete the daily health screenings.
- Know and follow the procedures and tasks outlined in the COVID-19 Safety Plan.
- Prior to working at a project site, review scope of work with PM or supervisor and review, if applicable, additional client safety or COVID-19 guidelines or plans for the project.
- Immediately report any injury, job related illness, spill or damage to property or vehicle to immediate supervisor or project manager, and the Corporate Safety Manager.

Subcontractor/Vendors

- To adhere to CDC, NYS, County, OSHA COVID-19 Guidelines (e.g., Social Distancing, hand washing/sanitizing, etc.).
- Shall submit a COVID-19 Safety Plan when requested. Subcontractor's COVID-19 Safety Plan shall comply with above mentioned COVID-19 Guidelines and the Contractor COVID-19 Safety Plan at a minimum. Where a Subcontractor's COVID-19 Safety Plan is not submitted, Subcontractor shall comply with the Contractor COVID-19 Safety Plan.
- Employees shall be screened for potential COVID-19 symptoms at the beginning of each day, on-site.
- To report suspected and/or confirmed cases to the C.T. Male project manager.

Designated Representative

- Responsible for compliance with the COVID-19 Safety Plan.
- Identify procedure which they will implement to screen employees for potential COVID-19 exposure.

DAILY HEALTH SCREENINGS

In response to guidance issued by NYS DOH "Interim guidance for Construction Activities during the COVID-19 Public Health Emergency", C.T. Male will conduct mandatory daily health screenings before an employee reports to the out of office jobsite. The health screenings will be conducted electronically, every morning, with all staff. At that time each employee will be asked the questions that are required by NYS DOH. If an employee has an answer other than "No" to these questions, they will have to contact, or they will be contacted by, C.T. Male Director of Human Resources to discuss next steps.

C.T. Male employees will notify C.T. Male Director of Human Resources immediately if they are experiencing illness such as fever, cough, shortness of breath or difficulty breathing, chills, repeated shaking with chills, muscle aches, sore throat, loss of taste or smell, or runny/stuffy nose. Refer to CDC guidance on "Symptoms of Coronavirus (COVID-19)" and "How to protect yourself and others" (Appendix A). After notification to their supervisor, a determination will be made as to the ability of the person to be at the Sites.

During the workday, project managers and supervisors will assess employees and may ask the same questions again if they feel it is warranted.

Job Site Visitors

Visitors to the job site, that are working for C.T. Male, including an office trailer, will be limited to only those necessary for the work.

Visitors must pre-screen in advance of arriving on the job site. Jobsites will have signage outlining the requirements of the pre-screening questions. If the visitor answers "yes" to any of the following questions, he/she should not be permitted to access the jobsite.

Pre-screening Questionnaire

Employers should ask the following questions to all employees, visitors and vendors prior to allowing access to the workplace and/or jobsite:

1. Have you knowingly been in close or proximate contact in the past 14 days with anyone who has tested positive for COVID-19 or who has or had symptoms of COVID-19? Yes or No

2. Have you tested positive for COVID-19 in the past 14 days? Yes or No

3. Do you currently have a fever (greater than 100.4 F or 38.0 C)? Yes or No

4. Have you experienced any symptoms of COVID-19 in the past 14 days. (symptoms of lower respiratory illness such as cough, shortness of breath, or difficulty breathing, loss of sense of teat or smell)? Yes or No

*NOTE: If a visitor answers 'Yes' to any of the above questions, ask them to leave the workplace or jobsite immediately and contact their company. In addition, you should strongly consider following the tips below.

FIELD PROCEDURES

For field activities, C.T. Male shall follow C.T. Male SOP – 'Procedures for field staff in relation to COVID-19 or other virus', for vehicle and equipment protocols for disinfection, and protocols for staff, dated March 19, 2020 (Appendix B). It should be noted that PPE for site conditions are maintained in the C.T. Male vehicles.

C.T. Male will also ensure that:

- Per NYS Executive Order 202.16 by Gov. Cuomo, C.T. Male staff will wear face coverings when on-site, with exception of when in C.T. Male vehicle or another enclosed space solely occupied by one (1) C.T. Male staff;
- The single occupant per vehicle policy implemented at the beginning of the crisis will remain in effect until social distancing procedures are no longer needed;
- Maintain Social Distancing: Six-foot distance with others, as is possible;
- Cease shaking hands with coworkers, contractors, subcontractors, clients, etc.
- Make effort to hold safety/tailgate meetings outdoors; maintain social distancing of six feet;
- Eat lunch separately, at least six feet apart;
- Avoid sharing tools and equipment without cleaning and disinfecting;
- Avoid touching eyes, nose and mouth with unwashed hands;
- Cover cough or sneeze with a tissue, then throw tissue in the trash
- Clean and disinfect frequently touched objects and surfaces using a bleach solution or wipe;
- Wash hands often with soap and water for 20 seconds, and use an alcohol-based hand sanitizer that is 60% alcohol when soap and water are unavailable;
- Upon return, the vehicle steering wheel and door handles are wiped down with disinfect wipe or spray disinfectant;
- All personal field gear should remain with the individual employee; it should not be left in a company vehicle, job site, or in the office; and
- C.T. Male does not anticipate receiving deliveries at a job site. Deliveries of items for a project will be delivered to the C.T. Male office prior to the job beginning.

Staff will abide by the guidelines in this section. If an employee does not maintain social distancing, where it is possible, they will be told to maintain the distance. If an employee repeatedly does not maintain social distancing, the project manager or supervisor can take action to remove the employee from the site.

COMMUNICATION

For field staff the site-specific safety officer or supervisor on-site will maintain a log of each person that enters the site. The log will be kept either with the site-specific health and safety plan or with the site daily logs maintained by the site supervisor.

As appropriate at the work site, signage will be posted throughout the site to remind personnel to adhere to proper hygiene, social distancing rules, appropriate use of PPE, and cleaning and disinfecting protocols.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Field staff have available for use, reusable face covering, gloves, safety glasses, and other appropriate PPE for the job tasks on the site. When work requires staff to be within six feet of someone a face covering must be worn. Staff should enter and exit the work site with a face covering on and face covering should be donned when exiting the vehicle. Guidelines from NYS and CDC on proper wearing of face coverings is included in Appendix C.

Note that cloth face coverings or disposable masks shall not be considered acceptable face coverings for workplace activities that impose a higher degree of protection for face covering requirements. For example, if N95 respirators are traditionally required for specific construction activities, a cloth or homemade mask would not suffice. OSHA standards for such safety equipment must be adhered to.

HYGIENE and CLEANING

Employees will adhere to hygiene and sanitation requirements from the Centers for Disease Control and Prevention (CDC) and NYS Department of Health (DOH).

Employees will also adhere to:

- C.T. Male Standard Operating Procedure – 'Procedures for field staff in relation to COVID-19 or other virus', for vehicle and equipment protocols for disinfection, and protocols for staff, dated March 19, 2020 (Appendix B);
- Provide and maintain hand hygiene stations for personnel, including handwashing with soap, water, and paper towels, or an alcohol-based hand sanitizer containing 60% or more alcohol for areas where handwashing is not feasible; and
- For field staff, each field vehicle has been provided hand washing and sanitizing products. Extra supplies are available for field staff to pick up from the safety supply room at the office.

Cleaning products used will be ones that are in accordance with CDC guidelines and EPA's list of approved products against COVID-19.

EXPOSURE AND CONTACT TRACING

If an employee exhibits COVID-19 symptom, the employee must remain at home until he or she is symptom free without the use of fever-reducing or other symptom-altering medicines (e.g., cough suppressants). The Company will similarly require an employee that reports to work with symptoms to return home until they are symptom free.

An employee that tests positive for COVID-19 will be directed to self-quarantine away from work. Employees that test positive and are symptom free may return to work when at least 14 days have passed since the date of his or her first positive test and have not had a subsequent illness. The Company will require an employee to provide documentation clearing their return to work.

If C.T. Male learns that an employee has tested positive, the Company will investigate co-workers and visitors that may have been within 6 feet, for at least 15 minutes, with the confirmed-positive employee in the prior 14 days. Employees will be notified if there is a potential that they have been exposed to COVID-19.

Employees will be notified in the following circumstances:

- If they have been in contact or potential contact with a fellow employee that tests positive for COVID-19;
- Potential exposure due to a fellow employee who has been in close or proximate contact (within six feet) with anyone that tested positive for COVID-19 or who has had symptoms of COVID-19; and
- Potential exposure at a project/work site, visit or meeting outside the office. This exposure could also be a notification from a client project /work site about COVID-19 positive results.

Notification will involve letting the employee know they have been in close contact with an exposure. Employees that have had a potential exposure to COVID-19 and have been notified will be asked about their contacts and potential exposure risks.

The local health department and State DOH must be notified immediately upon being informed of any positive COVID-19 test result by a worker in the office or at a job site.

In the case of a worker or visitor testing positive, cooperation with the local health department is required to trace all contacts in the workplace, and the local health department must be notified of all workers and visitors who entered the site dating back to 48 hours before the worker began experiencing COVID-19 symptoms or tested positive, whichever is earlier, but confidentiality must be maintained as required by federal and state law and regulations.

Local health departments may, under their legal authority, implement monitoring and movement restrictions of infected or exposed persons including home isolation or quarantine.

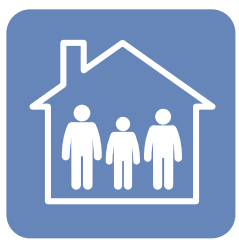
Appendix A
CDC guidance on "Symptoms of Coronavirus (COVID-19)" and "How to protect yourself and others"

Protect yourself from COVID-19 and stop the spread of germs.

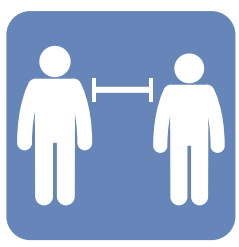
Wash your hands thoroughly with soap and water **for at least 20 seconds**, especially before eating.

Avoid close contact with people who are sick and stay home if you are sick.

Avoid touching your eyes, nose, and mouth.



Stay home as much as possible. **Everyone** – even young people and those who feel well.



If you must go out, **stay at least 6 feet away** from others.

You must wear a face mask or face covering in public when social distancing (staying 6 feet apart) is not possible, especially on public transport, in stores and on crowded sidewalks.

Cover your cough or sneeze with a tissue, then throw the tissue in the trash.

Clean and disinfect frequently touched objects and surfaces.

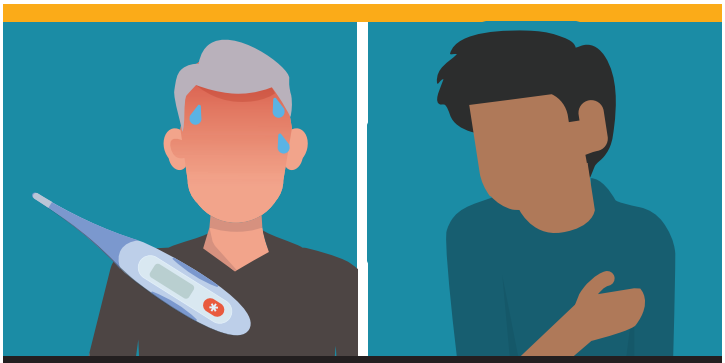
Stay Home. Stay Safe. Save Lives.
www.ny.gov/coronavirus

NEW YORK STATE | Department of Health

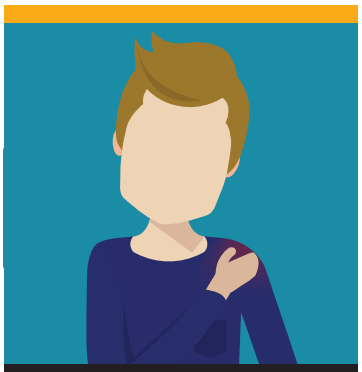
Symptoms of Coronavirus (COVID-19)

Know the symptoms of COVID-19, which can include the following:

Cough, shortness of breath or difficulty breathing



Fever or chills



Muscle or body aches

Vomiting or diarrhea

New loss of taste or smell

Symptoms can range from mild to severe illness, and appear 2-14 days after you are exposed to the virus that causes COVID-19.

Seek medical care immediately if someone has emergency warning signs of COVID-19.

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Bluish lips or face

This list is not all possible symptoms. Please call your healthcare provider for any other symptoms that are severe or concerning to you.

cdc.gov/coronavirus

316475-A 07/21/2020

How to Protect Yourself and Others

Know how it spreads

- There is currently no vaccine to prevent coronavirus disease 2019 (COVID-19).
- **The best way to prevent illness is to avoid being exposed to this virus.**
- The virus is thought to spread mainly from person-to-person.
  - » Between people who are in close contact with one another (within about 6 feet).
  - » Through respiratory droplets produced when an infected person coughs, sneezes or talks.
  - » These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.
  - » Some recent studies have suggested that COVID-19 may be spread by people who are not showing symptoms.

Everyone should

Clean your hands often

- **Wash your hands** often with soap and water for at least 20 seconds especially after you have been in a public place, or after blowing your nose, coughing, or sneezing.
- If soap and water are not readily available, **use a hand sanitizer that contains at least 60% alcohol.** Cover all surfaces of your hands and rub them together until they feel dry.
- **Avoid touching your eyes, nose, and mouth** with unwashed hands.

Avoid close contact

- **Avoid close contact** with people who are sick.
- **Stay at home as much as possible.**
- **Put distance between yourself and other people.**
  - » Remember that some people without symptoms may be able to spread virus.
  - » This is especially important for **people who are at higher risk of getting very sick.** www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html

CS 316291A 04/18/2020

Cover your mouth and nose with a cloth face cover when around others

- **You could spread COVID-19 to others** even if you do not feel sick.
- **Everyone should wear a cloth face cover when they have to go out in public,** for example to the grocery store or to pick up other necessities.
  - » Cloth face coverings should not be placed on young children under age 2, anyone who has trouble breathing, or is unconscious, incapacitated or otherwise unable to remove the mask without assistance.
- **The cloth face cover is meant to protect other people** in case you are infected.
- Do **NOT** use a facemask meant for a healthcare worker.
- Continue to **keep about 6 feet between yourself and others.** The cloth face cover is not a substitute for social distancing.

Cover coughs and sneezes

- **If you are in a private setting and do not have on your cloth face covering, remember to always cover your mouth and nose** with a tissue when you cough or sneeze or use the inside of your elbow.
- **Throw used tissues** in the trash.
- Immediately **wash your hands** with soap and water for at least 20 seconds. If soap and water are not readily available, clean your hands with a hand sanitizer that contains at least 60% alcohol.

Clean and disinfect

- **Clean AND disinfect frequently touched surfaces** daily. This includes tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks. www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html
- **If surfaces are dirty, clean them:** Use detergent or soap and water prior to disinfection.

Appendix B

C.T. Male's SOP
'Procedures for field staff in relation to COVID-19 or other virus'

C.T. MALE ASSOCIATES ENGINEERING,
SURVEYING, ARCHITECTURE,
LANDSCAPE ARCHITECTURE &
GEOLOGY, D.P.C

STANDARD OPERATING PROCEDURE

Procedures for field staff in relation to COVID-19 or other viruses

March 19, 2020

Print Technical Reviewer	Signature	Date
Print QA Manager	Signature	Date

Review of the SOP has been preformed and the SOP still reflects the current practice			
Initials		**Date**	
Initials		**Date**	

SOP: Procedures for field staff in relation to COVID-19 or other viruses

Due to the COVID-19 virus, C.T. Male field staff shall take the following measures while working and performing their job functions at client sites or other remote locations.

NOTIFICATION & ACCESS PROTOCOLS

1. C.T. Male Managers and Supervisors will notify employees if there are any steps or additional items that will need to be completed before entering a site.

2. On-site access shall be limited to only those staff that are required for each task.

VEHICLES & EQUIPMENT PROTOCOLS

1. Employees shall utilize the vehicle fleet to the maximum extent in order to minimize or eliminate there being multiple employees traveling in the same vehicle. Use of personal vehicles (with mileage reimbursement) may be required.

2. Prior to entering the C.T. Male vehicle assigned to you for the day, use a disinfecting wipe (Clorox or Lysol) or bleach solution to wipe down the exterior and interior surfaces of the vehicle that you will be in contact with. This includes, but is not limited to, exterior/interior door handles, steering wheel, dashboard controls, etc. Use of latex/nitrile gloves and safety glasses/googles are required when conducting these procedures. Please also conduct this procedure at the end of your workday when the vehicle is returned to C.T. Male office location. Dispose of gloves and wipes, paper towels, etc. properly.

3. If you are assigned a vehicle for work use and you are the only driver, at the end of each workday disinfect the vehicle. Latex/nitrile gloves, safety glasses or goggles must be worn when conducting this procedure.

4. After the use of C.T. Male field equipment or rental equipment, disinfect the equipment with Clorox or Lysol wipes or by using a dilute solution of bleach and water. If it is sensitive equipment, that cannot use these types of disinfectants, please refer to the operations manual to determine how the surfaces can be cleaned. Latex/nitrile gloves, safety glasses or goggles must be worn when conducting this procedure.

5. Coolers received from laboratories to C.T. Male locations to be used during sampling activities will be wiped down by a C.T. Male employee when the cooler is received by C.T. Male either at an office or in the field. Disinfect the equipment with Clorox or Lysol wipes or by using a dilute solution of bleach and water. Latex/nitrile gloves, safety glasses or goggles must be worn when conducting this procedure.

STAFF PROTOCOLS

1. C.T. Male staff shall maintain the recommended physical distance from others, to the maximum extent practicable, as established by The Center for Disease Control (CDC), which is currently 6 feet.

2. C.T. Male staff shall utilize PPE of latex, vinyl or nitrile gloves and safety glasses or goggles when not in our office/vehicle. Select activities in isolated locations may exclude the use of latex gloves.

3. C.T. Male staff shall utilize dish soap and clean water for hand washing, for each vehicle and/or Site location. The hand washing system shall include a small (ex., 2.5 gallon) carboy or plastic bucket for soapy water and one for clean water, used with paper towels for drying.

4. C.T. Male staff shall utilize a spray bottle and bleach solution (or disinfecting wipes) and paper towels for use on surfaces.

Location of Materials for field staff

The materials listed below will be maintained in the maintenance storeroom located in the basement, right before the men's locker room. In this room there is a source of water to use for clean water.

Materials

Dish soap
Spray bottles – White, clear plastic, 32 oz. – white spray top.
Spray bottles – HDPE, blur spray top, 22 oz. – To be used at certain client specific sites
2.5 gallon carboys for clean water
Clorox bleach
Clorox bleach mixture
Plastic buckets
Disinfection wipes
Hazard Communication labels for Clorox bleach mixture
Safety Data Sheet for Clorox

The 2.5 gallon carboys and 1 gallon water jugs are not be thrown out but shall be reused to refill the clean water into them as needed.

Clorox bleach mixture will need to be prepared if there is not a mixture already prepared.

Prepare a bleach solution by mixing:

- 1/3 cup of bleach per gallon of water, or
- 4 teaspoons bleach per quart of water. A quart is 32 ounces, which is the size of the white clear plastic spray bottles, with white spray tops.

**PPE is required to be worn when making this solution, inclusive of nitrile gloves and safety glasses or goggles, and is to be performed in a ventilated area. Please do not shut the door to the room.

- If you need to prepare this solution, add the bleach to the water, then mix. For the 32-ounce spray bottles, fill the bottles ¾ of the way full of tap water and then add the 4 teaspoons of bleach. Secure top and mix. Then fill the remainder of the bottle with tap water, with approximately one inch from the top. Secure spray top ensure it is tightly screwed on. Mix the bottle, by lightly shaking. Ensure spray bottle is labeled as "Dilute Bleach Solution".
- There will be premade labels to place on the spray bottles. There will also be a guide on completing a label.
- The containers with clean water – 1-gallon jugs or 2.5-gallon carboys shall be labeled as tap water. They need to have a label so someone not familiar with the container knows what is in it.

"NOTICE: Not all Clorox products that have the traditional Clorox label and logo are appropriate for use as disinfectants. In particular, the "splash-less" formulations are specifically labeled as "not for use as disinfectant or sanitizer". Appropriate bleach solutions should specifically indicate on the label a sodium hypochlorite concentration of approximately 6.5%. Actual concentrations of sodium hypochlorite may vary by manufacturer in a range of 5.5% to 7.25%."

Any questions on procedure or items to be used in this procedure, please reach out to the Corporate Safety Manager.

Appendix C
NYS and CDC on proper wearing of face coverings

Face Masks and Coverings for COVID-19

- You must wear a face mask or face covering in public when social distancing (staying at least 6 feet apart) is not possible, unless a face covering is not medically tolerated. This includes on public transport, in stores and on crowded sidewalks.
- Children over 2 years of age should wear a face mask in public, too. Children under 2 years of age should NOT wear face coverings for safety reasons.
- Cloth face coverings should be made from fabric you can't see through when held up to the light. They must be cleaned before reusing.
- Disposable paper face masks should be used for one outing outside the home. They cannot be properly cleaned.
- The best way to prevent COVID-19 is to continue social distancing (staying at least 6 feet away from others), **even when wearing a face covering.**

Putting On Face Covering

- **DO** clean your hands with soap and water or if that's not available, alcohol-based hand sanitizer, before putting on your face covering.
  - Make sure the face covering covers both your nose and mouth.
- **DON'T** wear your mask hanging under your nose or mouth or around your neck. You won't get the protection you need.
- **DON'T** wear the face covering on top of your head, or take it off and on repeatedly. Once it is in place, leave the covering in place until you are no longer in public.

Taking Off Face Covering

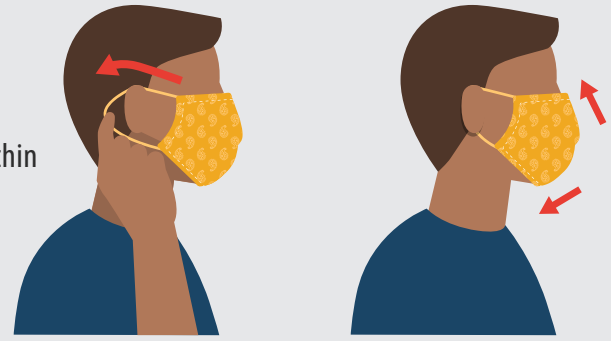
- **DO** clean your hands with soap and water or if that's not available, alcohol-based hand sanitizer, before taking off your face covering.
  - Remove your mask only touching the straps.
  - Discard the face covering if it is disposable. If you are reusing (cloth), place it in a paper bag or plastic bag for later.
- Wash your hands again.
- When cleaning a cloth face covering, **DO** put in the washer (preferably on the hot water setting).
  - Dry in dryer at high heat. When it is clean and dry, place in a clean paper or plastic bag for later use. If you live in a household with many people, you might want to label the bags with names so the face coverings are not mixed up.

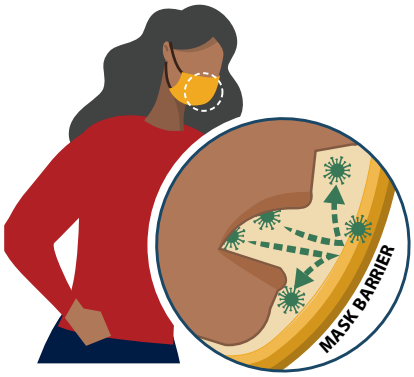
How to Safely Wear and Take Off a Mask

Accessible: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html

WEAR YOUR MASK CORRECTLY

- Wash your hands before putting on your mask
- Put it over your nose and mouth and secure it under your chin
- Try to fit it snugly against the sides of your face
- Make sure you can breathe easily
- Do not place a mask on a child younger than 2



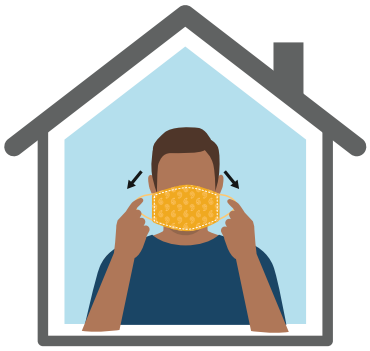


USE A MASK TO HELP PROTECT OTHERS

- Wear a mask to help protect others in case you're infected but don't have symptoms
- Keep the mask on your face the entire time you're in public
- Don't put the mask around your neck or up on your forehead
- Don't touch the mask, and, if you do, clean your hands

FOLLOW EVERYDAY HEALTH HABITS

- Stay at least 6 feet away from others
- Avoid contact with people who are sick
- Wash your hands often, with soap and water, for at least 20 seconds each time
- Use hand sanitizer if soap and water are not available



TAKE OFF YOUR MASK CAREFULLY, WHEN YOU'RE HOME

- Untie the strings behind your head or stretch the ear loops
- Handle only by the ear loops or ties
- Fold outside corners together
- Place mask in the washing machine
- Wash your hands with soap and water

Personal masks are not surgical masks or N-95 respirators, both of which should be saved for health care workers and other medical first responders.

For instructions on making a mask, see: **cdc.gov/coronavirus**

CS 316488l 08/19/2020

APPENDIX D

CDC, NYS and NYSDOH GUIDELINES - COVID-19

Protect yourself from COVID-19 and stop the spread of germs.

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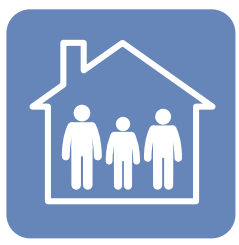
Avoid touching your eyes, nose, and mouth.



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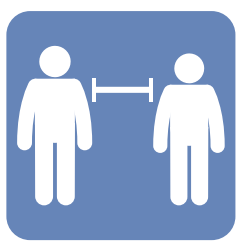

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NEW YORK STATE | Department of Health

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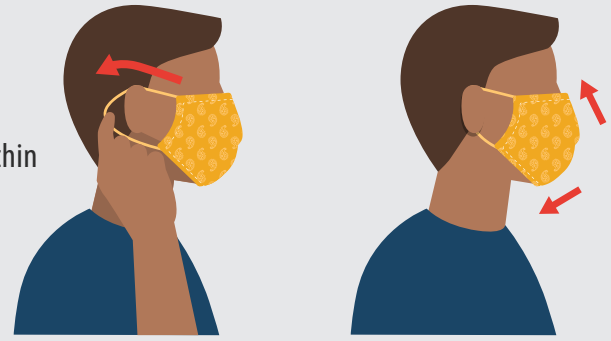

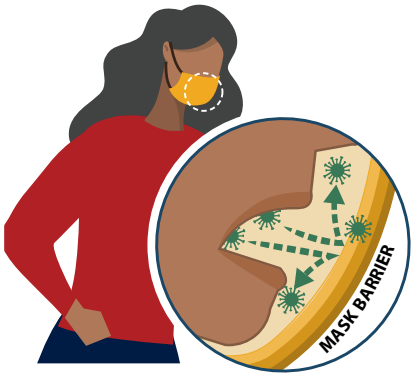

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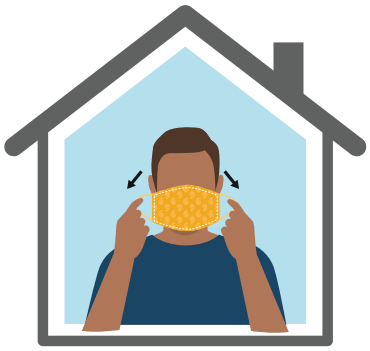

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  - Dry in dryer at high heat. When it is clean and dry, place in a clean paper or plastic bag for later use. If you live in a household with many people, you might want to label the bags with names so the face coverings are not mixed up.

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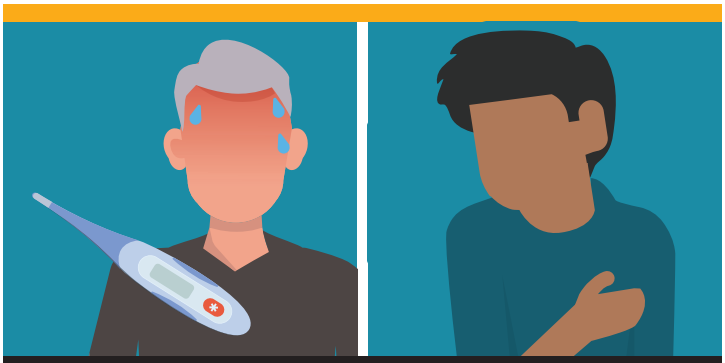

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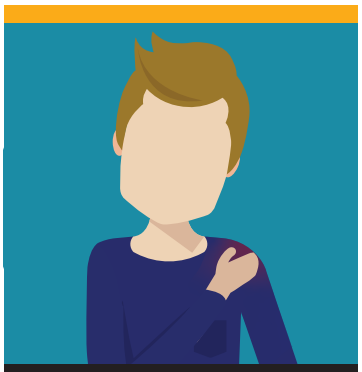


Muscle or body aches

Vomiting or diarrhea

New loss of taste or smell

Symptoms can range from mild to severe illness, and appear 2-14 days after you are exposed to the virus that causes COVID-19.

Seek medical care immediately if someone has emergency warning signs of COVID-19.

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Bluish lips or face

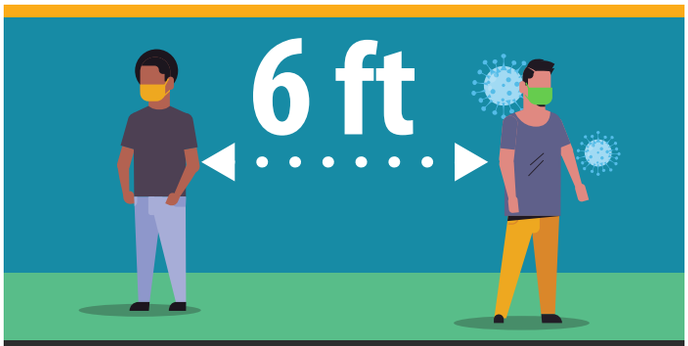
This list is not all possible symptoms. Please call your healthcare provider for any other symptoms that are severe or concerning to you.

cdc.gov/coronavirus

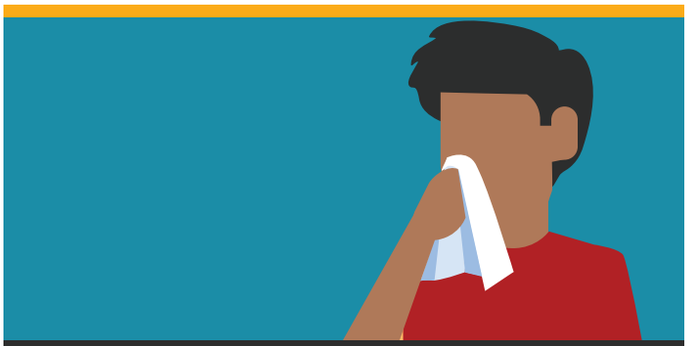
316475-A 07/21/2020

Stop the Spread of Germs

Help prevent the spread of respiratory diseases like COVID-19.

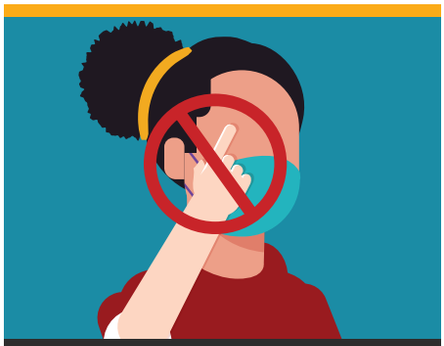


Stay at least 6 feet (about 2 arms' length) from other people.



Cover your cough or sneeze with a tissue, then throw the tissue in the trash and wash your hands.

When in public, wear a mask over your nose and mouth.



Do not touch your eyes, nose, and mouth.

Clean and disinfect frequently touched objects and surfaces.

Stay home when you are sick, except to get medical care.

Wash your hands often with soap and water for at least 20 seconds.

cdc.gov/coronavirus

316917-A August 6, 2020 7:24 PM

10 things you can do to manage your COVID-19 symptoms at home

Accessible Version: https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html

If you have possible or confirmed COVID-19:

1. **Stay home** from work and school. And stay away from other public places. If you must go out, avoid using any kind of public transportation, ridesharing, or taxis.

2. **Monitor your symptoms** carefully. If your symptoms get worse, call your healthcare provider immediately.

3. **Get rest and stay hydrated.**

4. If you have a medical appointment, **call the healthcare provider** ahead of time and tell them that you have or may have COVID-19.

5. For medical emergencies, call 911 and **notify the dispatch personnel** that you have or may have COVID-19.

6. **Cover your cough and sneezes** with a tissue or use the inside of your elbow.

7. **Wash your hands often** with soap and water for at least 20 seconds or clean your hands with an alcohol-based hand sanitizer that contains at least 60% alcohol.

8. As much as possible, **stay** in a specific room and **away from other people** in your home. Also, you should use a separate bathroom, if available. If you need to be around other people in or outside of the home, wear a mask.

9. **Avoid sharing personal items** with other people in your household, like dishes, towels, and bedding.

10. **Clean all surfaces** that are touched often, like counters, tabletops, and doorknobs. Use household cleaning sprays or wipes according to the label instructions.

cdc.gov/coronavirus

CS 315822-A 07/01/2020