

ITEM 11202.30 M - HANDLING, TRANSPORTATION, AND DISPOSAL OF HAZARDOUS SOIL

ITEM 11202.31 M - SAMPLING AND TESTING OF HAZARDOUS SOIL

ITEM 11202.32 M - POST EXCAVATION SAMPLING AND TESTING DESCRIPTION:

A. **General:** This work shall consist of handling, sampling, testing, transportation, and disposal of hazardous soil.

The Contractor shall ensure that all operations associated with the handling, sampling, loading, transportation, and disposal of hazardous materials are in compliance with applicable US Department of Transportation regulations, 40 CFR, Parts 262 and 264 as well as all applicable NYS Department of Environmental Conservation and local regulations.

The Contractor shall document the excavation, handling, sampling, and testing, transportation and disposal of hazardous soils. The NYSDOT shall be listed in the Disposal Documents as the Waste Generator.

The Contractor shall supply all equipment, material and labor required to conduct the specified work of this section.

The Contractor shall handle all excavated material in a manner to protect site personnel, the public and the environment in accordance with all applicable Federal, State, and local laws and regulations.

The Contractor shall decontaminate all equipment prior to its removal from an Exclusion Zone and/or following contact with hazardous material, as detailed in the Health and Safety Item. Payment for decontamination will be made under the Health and Safety Item.

B. **Regulations:** Applicable regulations include:

1. 49 CFR 100 to 179 - DOT Hazardous Materials Transport and Manifest System Requirements.
2. 40 CFR 260 to 272 - Hazardous Waste Management (RCRA).
3. 6 NYCRR 360 - Solid Waste Management Facilities.
4. 6 NYCRR 364 - Waste Transporter Permits.
5. 6 NYCRR 371 - Identification and Listing of Hazardous Wastes.
6. 6 NYCRR 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities.
7. 6 NYCRR 373-1 - Hazardous Waste Treatment, Storage and Disposal Facility Permitting Requirements.
8. 6 NYCRR 376 - Land Disposal Restrictions.
9. Posted weight limitations on roads on bridges.

ITEM 11202.30 M - HANDLING, TRANSPORTATION, AND DISPOSAL OF HAZARDOUS SOIL

ITEM 11202.31 M - SAMPLING AND TESTING OF HAZARDOUS SOIL

ITEM 11202.32 M - POST EXCAVATION SAMPLING AND TESTING

10. Transportation Skills Programs, Inc. 1985 - Hazardous Materials and Waste Shipping Papers and Manifests.
11. Other local restrictions on transportation of waste/debris.

C. Material Handling Plan. Within forty-five calendar days after award of Contract, the Contractor shall submit to the Engineer for his review and approval, a Material Handling Plan. The Material Handling Plan will be approved by the Engineer prior to the Contractor's commencement of work within the defined areas. The Material Handling Plan shall, at a minimum, consist of:

1. The Contractor's procedures for safely handling hazardous soil or soil which has not yet been tested but is believed to be potentially hazardous.
2. Identification of the Contractor's proposed waste transporter(s). This information shall include:
 - a. Name and EPA identification number.
 - b. Address.
 - c. Name of responsible contact for the hauler.
 - d. Telephone number for the contact.
 - e. Any and all necessary permit authorizations for each type of waste transported.
 - f. Previous experience in performing the type of work specified herein.
3. Identification of the Contractor's proposed Treatment, Storage, or Disposal (TSD) Facility for hazardous soil.
4. The Contractor shall submit the following information prior to any soil removal regarding the off-site disposal facility, TSD or facilities where he is proposing to take hazardous soil. The expense of furnishing all information will be included in the Contractor's bid price:
 - a. General Information. Facility name and EPA identification number.
 - (1) Facility location.
 - (2) Name of responsible contact for the facility.
 - (3) Telephone number for contact.
 - (4) Signed letter of agreement to accept waste as specified in this Contract, including land ban certification for wastes that may not be land-disposed.

ITEM 11202.30 M - HANDLING, TRANSPORTATION, AND DISPOSAL OF HAZARDOUS SOIL

ITEM 11202.31 M - SAMPLING AND TESTING OF HAZARDOUS SOIL

ITEM 11202.32 M - POST EXCAVATION SAMPLING AND TESTING

- (5) Unit of measure utilized at facility for costing purposes.
- b. A listing of all permits, licenses, letters of approval , and other authorization to operate, which are currently held and valid for the proposed facility as they pertain to receipt and management of wastes derived from this Contract.
 - c. A listing of all permits, licenses, letters of approval, and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued. Provide dates of application(s) submitted. Planned submittals shall also be noted.
 - d. The Contractor shall specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste and provide dates of construction and beginning of use, if applicable. Drawings may be provided. The Contractor shall identify the capacity available in the units and the capacity reserved for the subject waste.
 - e. The Contractor shall provide the date of the proposed facility's last compliance inspection under RCRA.
 - f. A list of all active (unresolved) compliance orders (or agreements), enforcement notices, or notices of violations issued to the proposed facility shall be provided. The source and nature of the cause of violation shall be stated, if known. If ground water contamination is noted, details of the facility's ground water monitoring program shall be provided.
5. The name, address, and telephone number of the contact for the Contractor's proposed chemical laboratory.
6. The name and experience of the Contractor's sampling technician.

MATERIALS:

Containers shall be watertight as required in the USDOT Regulations and must meet all applicable regulations including but not limited to those in B. above.

Polyethylene (30 mil. thickness minimum) to be placed under and over soil piles. If soil is placed in drums, polyethylene must be placed over the drums.

CONSTRUCTION DETAILS:

A. Material Handling

- 1. The Contractor shall institute procedures to protect site personnel and the public from the non-hazardous and hazardous material as described in the Health and Safety Item.

ITEM 11202.30 M - HANDLING, TRANSPORTATION, AND DISPOSAL OF HAZARDOUS SOIL

ITEM 11202.31 M - SAMPLING AND TESTING OF HAZARDOUS SOIL

ITEM 11202.32 M - POST EXCAVATION SAMPLING AND TESTING

2. The Contractor shall transport hazardous soil immediately after excavation to a TSD facility as approved in the Material Handling Plan. All exposed soil within the Exclusion Zone shall be covered with polyethylene during non-work hours, until confirmatory post-excavation grab samples indicate a "clean" work site.

3. Stockpiled material at the temporary TSD facility shall be handled according to the facility requirements but at a minimum: shall be drummed or placed on and covered with polyethylene to protect against erosion and leaching into surrounding soils, the stockpile area shall be graded for positive drainage away from the pile, and shall be labeled while being held for sampling prior to permanent disposal.

4. Provide any de-watering that is necessary to complete the work. Water from the exclusion zone shall be pumped out and treated and/or discharged to a water discharge point with a valid SPDES (State Pollutant Discharge Elimination System) permit or to a wastewater treatment plant if discharge is in compliance with all permit requirements or disposed at other permitted facilities. Water shall be sampled and analyzed as required by the intended discharge and/or disposal means and in accordance with New York City Department of Environmental Protection Bureau of Water Pollution Control and Bureau of Sewers Regulations. All sediments shall be properly disposed along with the hazardous soil. Handling and disposal procedures for contaminated water shall be included in the Material Handling Plan.

B. Sampling and Testing

1. Sampling and Testing Hazardous Soil

The Contractor shall collect samples after completing excavation in the areas that are shown in the Contract plans as containing hazardous wastes. Sampling will be conducted under the supervision of a NYSDOT inspector. A minimum of one sample will be collected of the stockpiled soil (in temporary storage at the TSD facility) to be disposed, and the sample will be analyzed for the four hazardous waste characteristics: toxicity, ignitability, corrosivity and reactivity. The stockpiled soil sample must be representative of the material to be disposed; it should be collected from below any weathered surface, and be a composite of material from several different areas in the stockpile. The Contractor must also contact the disposal facility where the hazardous waste will be sent for permanent disposal, and arrange to collect any additional samples which that facility may require.

2. Post Excavation Sampling and Testing

This second type of sample must be collected at the site to confirm that all hazardous wastes have been completely removed from the excavation. The Contractor shall collect samples after completing excavation in the areas that are shown in the Contract plans and after all hazardous wastes have been completely removed from the excavation. Sampling will be conducted under the supervision of a NYSDOT inspector. Five post-excavation grab soil samples will be taken, four samples from the side walls and one from the bottom of the excavation pit. These samples will be tested for the parameters on the

ITEM 11202.30 M - HANDLING, TRANSPORTATION, AND DISPOSAL OF HAZARDOUS SOIL

ITEM 11202.31 M - SAMPLING AND TESTING OF HAZARDOUS SOIL

ITEM 11202.32 M - POST EXCAVATION SAMPLING AND TESTING

Target Compound List which include metals, volatile and semi-volatile organic compounds, pesticides, and PCBs, and for the four hazardous waste characteristics: toxicity, ignitability, corrosivity and reactivity. The results of this testing will confirm the complete removal of hazardous soils and demonstrate that the cleanup objectives have been met. The Contractor must ensure that the size of the soil samples is sufficient to allow all these analyses to be performed, and must submit the results to the NYSDEC's Regional Hazardous Waste Remediation Engineer as soon as they are available.

3. Sampling Plan

- a. The quality of the data from the sampling program is the Contractor's responsibility. The Contractor must furnish all qualified personnel, equipment and instruments necessary to carry out the sampling. Unless directed otherwise, all sampling procedures must follow the U.S. EPA's sampling manual in SW-846.
- b. All sample containers shall be marked and identified with legible sample labels which shall indicate the project name, sample location and/or container, the sample number, the date and time of sampling, preservatives utilized, how the sample was chilled to 4 degrees C, and other information that may be useful in determining the character of the sample.
- c. Chain-of-Custody shall be tracked from laboratory issuance of sample containers through laboratory receipt of the samples.
- d. The Contractor shall maintain a bound sample log book. The Contractor shall provide the Engineer access to it at all times and shall turn it over to the Engineer in good condition at the completion of the work. The following information, as a minimum shall be recorded to the log:
 - o Sample identification number
 - o Sample location
 - o Field Observations
 - o Sample Type
 - o Analyses
 - o Date/Time of collection
 - o Collector's name
 - o Sample procedures and equipment utilized
 - o Date sent to laboratory / Name of laboratory
- e. Only dedicated sampling equipment may be used to collect these samples. All equipment involved in field sampling must be decontaminated before being brought to the sampling location, and must be properly disposed after use.
- f. Samples shall be submitted to the laboratory within holding times for the parameters analyzed.
- g. All analyses must be done by a laboratory that has received approval from the State Health Department's Environmental Laboratory Approval Program (ELAP) for the

ITEM 11202.30 M - HANDLING, TRANSPORTATION, AND DISPOSAL OF HAZARDOUS SOIL

ITEM 11202.31 M - SAMPLING AND TESTING OF HAZARDOUS SOIL

ITEM 11202.32 M - POST EXCAVATION SAMPLING AND TESTING

methods to be done. The Contractor must specify the laboratory in the Material Handling Plan.

- h. Analytical results must be submitted to the Engineer within two weeks after sample collection.
- i. All soil determined to be hazardous shall be delivered to the permanent disposal hazardous waste facility within 45 calendar days after approval of the facility by the Engineer.
- j. If the analytical results show the excavated material to be nonhazardous, it may NOT be returned to the site for any reason. The Contractor will dispose of the material as nonhazardous, industrial waste using the analytical results to dispose of it properly.

C. Off-Site Transportation and Disposal

- 1. The Contractor shall furnish all labor, equipment and supplies required to provide on-site scale(s), transport of hazardous material from the work area to the off-site TSD facility(ies) and to acquire the necessary transportation permits, and any other items and services required for transporting hazardous material for storage and/or disposal at an approved off-site facility.

2. General

- a. Manifests. The Contractor shall organize and maintain the material shipment records/ manifests required by the Federal Resource Conservation and Recovery Act (RCRA) (Public Law 94-580), the State of New York and the state where the TSD facility is located.
- b. The Contractor shall coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule. The schedule shall be compatible with the availability of equipment and personnel for material handling operations at the job site.
- c. The Contractor shall inspect all vehicles leaving the project site to ensure that hazardous soils adhering to the wheels or under carriage are removed prior to the vehicle leaving the site.
- d. The Contractor shall obtain letters of commitment from the waste haulers and the TSD facility to haul and accept shipments. The letter shall indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed necessary.
- e. All trucks entering or leaving the site that do not contain liquids shall be weighed on a portable certified truck scale provided by the Contractor.

3. Hauling.

ITEM 11202.30 M - HANDLING, TRANSPORTATION, AND DISPOSAL OF HAZARDOUS SOIL

ITEM 11202.31 M - SAMPLING AND TESTING OF HAZARDOUS SOIL

ITEM 11202.32 M - POST EXCAVATION SAMPLING AND TESTING

- a. The Contractor shall not deliver waste to any facility other than the TSD facility(ies) listed on the shipping manifest.
 - b. The Contractor shall coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities shall also be measured and recorded upon arrival at the TSD facility. If any deviation between the two records occurs, the matter is to be reported immediately to the Engineer.
 - c. The Contractor shall be held responsible for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site. This cleanup shall be accomplished at the Contractor's expense.
 - d. The Contractor shall ensure that trucks are protected against contamination by properly covering and lining them with compatible material (such as polyethylene) or by decontaminating them prior to any use other than hauling hazardous materials.
 - e. The Contractor shall be responsible for inspecting the access routes for road conditions, overhead clearance, and weight restrictions.
 - f. The Contractor shall only use the transporter(s) identified in his Material Handling Plan for the performance of work. Only a transporter with a current Part 364 Waste Transporter Permit from New York State Department of Environmental Conservation may transport this material. Any use of substitute or additional transporters must have previous written approval from the Engineer at no additional cost to the NYSDOT.
 - g. The Contractor shall develop, document, and implement a policy for accident prevention.
 - h. The Contractor shall not combine hazardous materials from other projects with material from this project.
 - i. The NYSDOT will obtain a hazardous waste generator identification number and will sign the manifest as the generator.
4. Off-Site Disposal
- a. The Contractor shall use only the TSD facility(ies) identified in his Material Handling Plan for the performance of the work. Substitutions or additions shall not be permitted without prior written approval from the Engineer, and if approved shall be at no extra cost to the NYSDOT.
 - b. The Contractor shall be responsible for acceptance of the material at an approved TSD facility, for ensuring that the facility is properly permitted to accept the stated material, and that the facility provides the stated storage and/or disposal services.
 - c. The Engineer reserves the right to contact and visit the disposal facility and regulatory agencies to verify the agreement to accept the stated material and to verify any other

ITEM 11202.30 M - HANDLING, TRANSPORTATION, AND DISPOSAL OF HAZARDOUS SOIL

ITEM 11202.31 M - SAMPLING AND TESTING OF HAZARDOUS SOIL

ITEM 11202.32 M - POST EXCAVATION SAMPLING AND TESTING

information provided. This does not in any way relieve the Contractor of his responsibilities under this Contract.

- d. In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The Contractor is responsible for making the necessary arrangements to utilize the facility(ies), and the alternate facility(ies) must be approved in writing by the Engineer in the same manner and with the same requirements as for the original facility(ies). This shall be done with no extra cost or delay to the NYSDOT.
5. Record Keeping . The Contractor shall obtain manifest forms, material code numbers, and complete the shipment manifest records as required by the appropriate regulatory agencies for verifying the material type (Code No.) and quantity of each load in unit of volume and weight. Copies of each manifest shall be submitted to the Engineer within four (4) business days following shipment, and within three (3) business days after notification of receipt from the TSD facility. Any manifest discrepancies shall reported immediately to the Engineer and be resolved by the Contractor to the satisfaction of the Engineer.

METHOD OF MEASUREMENT:

Quantities for hazardous soil shall be measured in metric tons. The tonnage will be determined by truck scales capable of generating load tickets.

Quantities for samples shall be measured as the number of samples that are tested and have results submitted to the Engineer.

BASIS OF PAYMENT:

The unit bid price shall include the cost of furnishing all labor, materials, handling, transportation, disposal, sampling, testing, documentation, permits, stockpiling, hauling, and any other incidentals necessary to complete the work.

Excavation and backfill will be paid for under their respective items.

Payment will be made under:

Item No.	Item	Pay Unit
11202.30 M	Handling, Transportation, and Disposal of Hazardous Soil	Metric Ton
11202.31 M	Sampling and Testing of Hazardous Soil	Each
11202.32 M	Post Excavation Sampling and Testing	Each