

SECTION 02 81 00
ENVIRONMENTAL MANAGEMENT OF EXCAVATED MATERIALS

PART 1—GENERAL

1.01 DESCRIPTION

- A. The Contractor is alerted to the possibility that hazardous waste and/or contaminated material other than already identified in the Contract Documents may be discovered during the course of this Contract. In the event that such hazardous / contaminated material is discovered, the Contractor shall immediately notify the City Representative both verbally and in writing. Upon receipt of such notification, the City, at its sole option, may either (a) perform the remediation / abatement work using its own forces or using an outside contractor specializing in abatement work or, (b) direct the Contractor to perform all or any part of the remediation / abatement and hazardous materials removal work
- B. This Section alerts the Contractor that work in this Contract will involve working environments that may be hazardous, contaminated, or non-hazardous to activities associated with the excavation, handling, transportation, and disposal of all excavated materials and other wastes in the project area with emphasis to hazardous and contaminated materials.
- C. Such hazardous, contaminated, and non-hazardous environments include, and are not limited to hazardous and non-hazardous materials, soils, groundwater, heavy metals, petroleum hydrocarbons, polynuclear aromatic hydrocarbons, organic compounds, serpentine rock and ultramafic material (which may contain natural occurring asbestos - NOA), lead-based paint materials, sewage, sludge, debris, grit, sewer gases, bacterial/biological contamination, rail road ties, oxygen deficiency, and confined spaces.
- D. Hazardous and non-hazardous waste shall only be disposed at permitted California landfills (22 CCR 66262), equivalent out-of-state landfills (40 CFR 262), permitted recycling facilities, and at other projects as approved by the City.
- E. The Contractor is hereby notified that any screening or crushing operations of excavated materials cannot proceed without the appropriate BAAQMD and Cal-EPA/DTSC permits.
- F. All work in this Section shall be incidental to Bid Item No. SW-11: Mobilization and Demobilization, except for unforeseen conditions and the transportation and disposal of surplus waste excavated materials, which will be paid for by Bid Item No. 12: Allowance for Transportation, Handling, and Disposal of Surplus Excavated Material and Unforeseen Environmental Work.
- G. ENVIRONMENTAL TRAINING: At no cost to the City, the Contractor shall ensure that its workers and that of its subcontractors have the following appropriate environmental training. It is the Contractors responsibility (and not that of the City) to ensure that its workers and its subcontractors have the necessary training certifications, and personal protective equipment (PPE) as required by federal, state and local laws and regulations. The Contractor shall submit certifications or proof of

such training to the City within 15 working days prior to excavation of soils or disturbance of building materials.

1. Health and Safety training
2. HAZWOPER training
3. Asbestos awareness training (as per Cal/OSHA Class II 8CCR 1529)
4. Lead awareness training (for all trades who will come in contact and disturb lead containing paints as per Cal/OSHA 1532.1 Lead in Construction standard)
5. Dust Control and Mitigation awareness training as per Section 01 57 19, Environmental Mitigation Measures
6. Medical examination and blood tests (as warranted)
7. Respiratory protection (including current respirator fit test records)
8. Storm water pollution prevention awareness training, and
9. Other training pertaining to the work being conducted.

1.02 RELATED SECTIONS

- A. Section 01 41 00 Regulatory Requirements
- B. Section 01 57 19 Environmental Mitigation Measures

1.03 SUBMITTALS

- A. The Contractor shall submit the documents listed below, and have the Plans approved by the City Representative at least 20 working days before any soil disturbing activity, and no later than 30 calendar days after the Notice to Proceed. Pursuant to the provisions of Section 26 of the General Provisions and Section 01 33 00, Submittal Procedures, the Contractor shall submit the following as separate submittals:
 1. Waste Profile Application Package on each waste stream that the Contractor plans for disposing the excavated soil. The Contractor shall prepare and submit waste profile application to each proposed disposal facilities for acceptance. The formal waste profile application will also include, if any, additional information (such as slurry additive applied by the construction contractor as part of the construction) will be included in the formal waste profile application. Only the Generator (City) will be sign the profile application.
 2. Waste Profile # (s) from the permitted landfills or the permitted disposal & recycling facilities that the Contractor will use.
 3. Monthly Soil Disposal Spreadsheet in accordance with Article 1.04 herein.

4. Workers HAZWOPER Training Records in accordance with Article 1.06 herein.
5. Transporter's current Class 1 Certificate of Compliance from the California Highway Patrol and Hazardous Substance Removal Certification in accordance with Article 1.08 herein, as warranted.
6. Copy of the Non-Hazardous Waste form for and subsequent copies attached to the monthly Soil Disposal Spreadsheet in accordance with Article 1.09 herein.
7. Hazardous Waste Manifest in accordance with Article 1.10 herein, as warranted.
8. Monthly Import fill Spreadsheet in accordance with Article 3.03 herein.

1.04 CLASSIFICATION AND MANAGEMENT OF EXCAVATED MATERIALS

- A. **An intermediate soil staging and loading facility is not provided as part of this Section.** The Contractor may use its own or a Subcontracted intermediate soil staging and loading facility. Such a facility shall be permitted in accordance with federal, State, and local regulations and meet the definitions of the California Code of Regulations (CCR) Title 22, 66260.10 for "Individual generation site", "Onsite", "Onsite facility".
- B. Except as otherwise stated in the Contract Documents, the Contractor is responsible for the excavation, loading, handling, transportation, and disposal of all surplus waste excavated soils and sediments from dewatering activities, meeting requirements of a certified and permitted California landfill or an equivalent out-of-state landfill. All such disposal activities shall require the approval of the City Representative prior to actual loading and disposal.
- C. Conditions for acceptance at various local landfills/waste disposal facilities include, filling out of a waste profile, that the surplus waste excavated soil hauled to the landfill will have greater than 50 percent solids, and cannot have any free liquids. It is the Contractor's responsibility to meet landfill requirements for disposal.
- D. If the soils from this area cannot be reused, such surplus waste excavated soils shall be disposed at a certified and permitted California landfill for Class I, or Class II, or Class III, disposal or an equivalent out-of-state landfill. **Acceptable landfills/waste disposal facilities for California Class I, II and III wastes are:**
 1. Republic Services, <http://www.republicservices.com/Corporate/Business/WasteRecycling/Facilities/landfills.aspx>
 2. Waste Management Inc, <https://www.wm.com/find-a-facility.jsp>
 3. Baylands Soil Processing LLC, <http://thebaylands.com/import/>
 4. Clean Harbors Buttonwillow LLC, www.cleanharbors.com
- E. With the exception of this Article 1.03 herein, the Contractor shall not conduct any environmental sampling or analysis without prior permission from the City Representative. This does not include the Contractor's obligation for any personnel air monitoring.

- F. The Contractor shall inform the City Representative in writing and obtain City's approval prior to any sale, supply, or offer to sell excavated material. The Contractor shall similarly comply with Bay Area Air Quality Management District's (BAAQMD's) Regulation 11, Rule 14 for asbestos-containing serpentine. Additional information may be found at <http://www.baaqmd.gov/regs/rg1114.pdf>, the California Air Resource Board Advisory #161 (<http://www.arb.ca.gov/cd/advs161.htm>), and Title 17, Section 93106 of the California Code of Regulation (CCR). In such a case, the Contractor, at its own expense, shall perform all the engineering and chemical testing as required by the City and by federal, State, and local statutes, laws, regulations, and policies.
- G. Asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound or deleterious matter shall be excavated separately from the soil layer, and shall not be reused as backfill. The removal, management, transportation, and disposal of asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound, or deleterious matter shall be incidental to its respective bid items.
- H. Soils of different waste disposal classification shall be segregated when excavated, managed, transported, and disposed separately with no mixing of the different types of wastes.
- I. Soil Disposal Spreadsheet: As warranted, the Contractor shall submit five hardcopies or a digital copy of a monthly spreadsheet of all imported fill deposited at the project site to the City Representative. The spreadsheet shall include information on project name, Contract No., date the soil was excavated, the location the soil was excavated (street address and depth range), quantity (cubic yards and tons), soil type, non-hazardous waste form No., or manifest No., Weight ticket No, transporter, and landfill information.
- J. For work in this Contract, the Contractor shall take into account the productivity losses, if any, due to but not limited to encountering and managing hazardous or non-hazardous materials, the use of respirators and personal protective equipment. The City will not pay additional compensation to the Contractor due to encountering and managing hazardous or non-hazardous materials, use of respirators, and personal protective equipment.
- K. The City reserves the option and right, at any time, to use its own forces to excavate, remediate, bioremediate, haul, recycle, or dispose of both, hazardous and non-hazardous materials at its own facilities, California State approved facilities, contracted facilities or contracted out-of-state facilities.

1.05 DEFINITIONS

- A. Generator: The City is the "generator" as defined in Section 66260.10 of Article 2, Chapter 10, Division 4.5 of Title 22 of the California Code of Regulations (CCR) and in Title 40, Code of Federal Regulations (CFR) of any excavated pre-existing hazardous waste. The City will be responsible as the generator to the extent of the law.
- B. Waste: Discarded material of any form as defined by the Code of Federal Regulations 40 CFR 261.2 (<http://www.access.gpo.gov/nara/cfr>) and the California Code of Regulations 22 CCR 66261.2 (<http://ccr.oal.ca.gov>).
- C. Hazardous Waste: This may include excavated material, asbestos, loose and peeling lead-based paints, and other material that is regulated by and requires

management, handling, transport, treatment, storage, and disposal according to the requirements of the Federal Resource conservation Recovery Act (RCRA) and associated regulation 42 U.S.C. 6901 et seq. (<http://www.access.gpo.gov/congress/cong013.html>) and 40 CFR Part 260 et seq., or the California Hazardous Waste Control Law (<http://crl.losrios.cc.ca.us/~hodappd/20a/callaw/index.htm>) and associated regulations (Health and Safety Code 25000 et seq. (<http://www.leginfo.ca.gov/calaw.html>) and 22 CCR 66260 et seq.).

- D. References to hazardous material or contaminated material incorporate definitions of hazardous pollutants, hazardous contaminants, hazardous material, hazardous substances, hazardous waste, toxic pollutants, and toxic substances applicable in accordance with federal, State, and local statutes, laws, and regulations.
- E. Management of excavated materials or "management" means transportation, transfer, recycling, recovery, disposal, handling, processing, storage, and treatment of excavated materials in accordance with federal, State, and local laws and regulations
- F. Soil: earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles as classified by the U.S. Soil Conservation Service. Soil does not include asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound, or deleterious matter.
- G. Excavated material includes all soils (fill, alluvium, bedrock), and other materials generated in the course of the project work, which are to be excavated, handled, or disposed of as part of the Contract.
- H. Waste excavated soil is excavated soil that is a waste and cannot be reused within the project site in accordance with reuse criteria of this Section. It is surplus and shall be managed, transported, and disposed of as part of the Contract. Waste excavated soil does not include asphalt, concrete, vegetation, wood, debris, obstructions, and other organic, unsound, or deleterious matter.
- I. Naturally Occurring Asbestos (NOA): NOA is typically associated with ultramafic rocks within the Franciscan mélange, including serpentinite, greenstone, and blueschist. There are six regulated naturally occurring asbestos minerals: chrysotile, crocidolite (asbestiform riebeckite), amosite, tremolite, actinolite, and anthrophyllite (CGS 2002). The six asbestos minerals are divided into two distinct mineral groups; serpentine minerals (chrysotile), and amphibole minerals, which include the remaining five above-mentioned minerals. These asbestos minerals are considered hazardous to humans, and are classified as known human cancer-causing substances by local, state, and federal health agencies (DTSC 2004).
- J. The following soil classifications with corresponding requirements are established solely for the purpose of payment for the handling, transportation and disposal of the excavated materials determined to be a waste:
1. California Class I (non-RCRA) hazardous waste: is waste excavated material that is classified as California (non-RCRA) hazardous waste, requires disposal at a California Class I disposal facility or a similarly permitted out-of-state facility and requires transport by a registered hazardous waste transporter.
 2. California Class II and Class III designated waste (Class II and Class III): is non-hazardous waste, and is not a California or Federal hazardous waste. It

requires disposal at a California Class II or Class III disposal facility or at a similarly permitted out-of-state facility without the need of a registered hazardous waste transporter.

1.06 WORKER'S HAZWOPER TRAINING

- A. At no cost to the City, the Contractor shall provide sufficient numbers of properly trained personnel who may come in contact with, may be exposed to, disturb, operate equipment in, or otherwise excavate, handle, transport and dispose hazardous or contaminated excavated material. This training shall be required irrespective of whether contaminated or hazardous substances are found. Each such employee shall possess a current 40-hour Hazardous Waste Operation and Emergency Response ("HAZWOPER") training and certification and the associated 8-hour HAZWOPER refresher training (in accordance with Sections 5192 and 5144 of Title 8, CCR and Title 29 CFR, Sections 1910.120 and 1910.134), and shall be certified to wear appropriate personal protective equipment.
- B. Only qualified persons shall engage in hazardous materials-related work. Contractor and Subcontractor personnel, who come in contact with, are exposed to, disturb, operate equipment in, or otherwise handle hazardous or contaminated materials, or demolition debris shall have appropriate hazards communication, environmental training and medical monitoring.
- C. The City will not grant extensions of time or increases in payment for costs associated with the Contractor's inability to provide properly trained personnel, costs of training Contractor's workers, or hiring of required personnel.

1.07 REGULATORY INDEMNIFICATION

- A. The City will not indemnify against liability of the Contractor resulting from the activities or duties, which are the responsibility of the Contractor under the terms of this Contract. This includes, but is not limited to, liability arising from the arrangement of transportation of excavated material, whether on- or off-site. Therefore, the City will not assume any liability, present or future, incurred by the Contractor by reason of these activities.
- B. The Contractor is specifically alerted to, and shall familiarize itself and its Subcontractor(s) to, the liability statutes of:
 - 1. The Comprehensive Environmental Responses, Compensation, and Liability Act (CERCLA) of 1980 found in 42 USC, Section 9601 et seq.
 - 2. The Superfund Amendments and Re-authorization Act (SARA) of 1986 found in 42 USC, Section 9601 et seq.
 - 3. The California Hazardous Substance Account Act (HSAA) of 1981 found in California Health and Safety Code, Section 25300 et seq.
 - 4. California Health and Safety Code, Division 20, Regulations and CCR 22 Section 6600 et. seq.
 - 5. Cal/OSHA Lead in Construction Standard, Title 8, CCR, Section 1532.1.

6. BAAQMD Regulation 6 for Particulate Matter and Visible Emissions (<http://www.baaqmd.gov/regs/rg0600.pdf>) and Regulation 11 for Hazardous Pollutants (<http://www.baaqmd.gov/regs/rulereg.htm>).
 7. The Final Regulation Order of the California Code of Regulations (CCR) Title 17, Public Health, Section 93105, on Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (<http://www.arb.ca.gov/toxics/atcm/asb2atcm.htm>).
 8. The San Francisco Building Code Section 106.3.2.6
 9. San Francisco Health Code, Article 22B - Construction Dust Control Requirements.
 10. The DPW Dust Control Order 171,378.
- C. The Contractor shall be responsible for all liability and costs necessary to prevent its own or Subcontractors' operations from violating federal, State, or local statutes, laws, regulations, and policies.

1.08 REQUIREMENTS FOR THE TRANSPORTER

- A. As warranted, the Contractor shall ensure that its drivers as well as the subcontractor drivers have in their possession, during the hauling of material and soil, all applicable California State and local vehicle insurance requirements, valid driver's license, and vehicle registration and licensing. A current Class 1 Certificate of Compliance from the California Highway Patrol shall be affixed to each vehicle.
- B. All hazardous materials/waste haulers shall possess a Hazardous Substance Removal Certification granted by the State of California, Contractors State License Board (1 800-321-2752 or <http://www.cslb.ca.gov>), and all other required certifications and insurance.
- C. Haul trucks carrying excavated material shall be loaded so that the material does not extend above the walls of the truck bed, and there is no leakage from any vehicle.
- D. All loads require covering and lining underneath, regardless if the material is wet, hazardous, or non-hazardous.
- E. The Contractor shall be responsible for cleaning up excavated material spill, which occurs during loading, handling, and transportation.
- F. Preparation for shipment: Marking, labeling, placards, and packaging prior to transport shall be in accordance with all regulations and shall be the responsibility of the Contractor.

1.09 USE OF NON-HAZARDOUS WASTE MANIFEST FOR CLASS II & CLASS III MATERIAL OR LESSER

- A. For transportation and disposal of the waste, the Contractor shall provide and prepare for the City Representative's signature, a Non-Hazardous Waste Manifest form obtained from the landfill provider. The Non-Hazardous Waste Manifest form shall be completed for each vehicle carrying excavated material classified as California Class II and Class III designated waste, or of a lesser waste classification.

The Contractor shall submit the Non-Hazardous Waste Manifest form to the City Representative for the Generator's signature at least 72 hours in advance of the day of the off-haul with an estimate of the number of loads scheduled for off-haul. The Non-Hazardous Waste Manifest form shall contain the following information before providing the final copy for the City Representative to sign:

1. Name, address and phone number of the Generator, Project name, and Specification Section number.
 2. The Contractor's billing information
 3. The soil profile approval number and description of the waste.
 4. Name, address and phone number of the transport company.
 5. The Name, address, and telephone number of the receiving facility i.e., disposal facility.
- B. The City will not be responsible for off haul delays if the Contractor does not notify the City Representative in a timely manner to sign the Non-Hazardous Waste Manifest forms.
- C. On a monthly basis, the Contractor shall provide the City Representative with a copy of each completed Non-Hazardous Waste Manifest Form (with the landfills signature) and its corresponding certified weight ticket.

1.10 HAZARDOUS WASTE MANIFESTING PROCEDURES FOR CLASS I MATERIAL

- A. As warranted, the Contractor shall furnish all labor, materials, equipment, and incidentals required to transport those materials identified as hazardous waste for the purpose of disposal.
- B. The Contractor shall comply with all applicable regulatory requirements listed as well as other applicable federal, State, or local laws, codes, and ordinances, which govern or regulate transportation of wastes (including but not limited to DOT-HM 181 in accordance with 49 CFR 172).
- C. All material classified as hazardous waste (Federal Class1 RCRA and California Class1 non-RCRA wastes only) shall be hauled off using a licensed hazardous waste transporter and the uniform hazardous waste manifest form (DTSC Form 8022A and/or EPA Form 8700-22 a.k.a. the manifest).
- D. Preparation and handling of waste manifests:
1. The Contractor shall provide and prepare the waste manifests and landfill profiles for each shipment of hazardous wastes from the site. The Contractor is hereby notified that hazardous waste manifest, waste profiling, and landfill service agreements have to be prepared and have to be approved by the landfill in advance of the off-haul. The Contractor shall consult with the City Representative for local requirements in filling out the forms.
 - a. The manifest shall describe the contents of each truck carrying materials to the waste disposal site, including the weight of the waste materials. Weight, not volume, shall be used to measure waste quantities.

- b. The City Representative will provide a hazardous waste generator identification number for use on the manifest. The Contractor shall provide the State Transporter identification number and telephone number.
 - c. The licensed transporter shall also sign and date the manifest indicating that it has accepted the load described in the manifest on that particular day.
 - d. Only a City employee (and not the Contractor) will sign the manifest for the "generator" of the waste.
 2. The Contractor shall notify the City Representative 72 hours prior to off-haul of all excavated material. If the manifest and other forms above are to be signed by the City Representative during periods other than the hours stipulated above, the Contractor shall give an additional 72-hour advance notice to the City Representative.
 3. The City Representative will sign and keep the Generator's copy and give the remaining copies to the licensed transporter.
 4. The licensed transporter shall carry the hazardous waste manifest with each truckload using the traffic control approved routes for off haul
 5. Within 2 days of its return, the Contractor shall provide the City Representative with the completed waste manifest. The completed waste manifest shall be certified by the receiver of the waste shipment, confirming that the shipment was received at the waste treatment or disposal facility designated in the Contractor's bid, and certifying the weight of the shipment.
 6. Should any waste manifest not be returned within 35 days of shipment, the Contractor shall initiate follow-up, shall document such follow-up effort in writing with an Exception Report in accordance with 40 CFR 262.42 and/or 22 CFR 66262.42, and shall provide a copy to the City Representative.
- E. Mandatory City Information for the Manifest
 1. Manifest Item 1: Generator's US EPA ID Number for Project. (Will be provided by the City Representative after NTP as deemed necessary)
 2. Manifest Item 3: Emergency response Phone: # 24 hours line to be provided by the Contractor
 3. Manifest Item 5:
 - a. Generator's Name and Mailing Address:
City and County of San Francisco
Department of Public Health/BEHM
1390 Market St., Suite 210
San Francisco, CA. 94102
 - b. Generator's Site Address:
Port of San Francisco
Pier 1, The Embarcadero
San Francisco, Ca 94111

4. Manifest Item 14: The following information is mandatory:
 - a. Contract :2725J Amador Street Port Sewer Replacement
 - b. Project Manager and Phone Number #: Ken Chu (415) 274 0593
 - d. Profile # _____(Defined when manifest is generated. To be obtained and provided by the Contractor)
 - e. Include the following statement for soil disposal on line 14 of the manifest: The City of San Francisco applies for an exemption from the BOE Land Disposal Generator fees in accordance with H&SC 25174.7, 25174.1; 25205.5, and 25345. The soils were excavated from beneath a public street.

1.11 UNDERGROUND TANK REMOVAL PROCEDURES [remove this section as warranted]

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- A. The Contractor is alerted to the fact that underground structures and tanks may be encountered during excavation. In the event that an underground storage tank, pipes, and associated fixtures are encountered, the Contractor shall immediately suspend the work in the immediate area and notify the City Representative.
- B. The City Representative reserves the right to use City forces or City Contractors to remove any underground storage tank that may be discovered as part of this Contract. The Contractor shall work cooperatively with any City Contractor or City force in an effort to expedite the removal of the underground tank.
- C. If directed by the City, the Contractor under differing site conditions, shall be responsible for removing and disposing the underground storage tank, pipes, and associated piping in the excavation area according to applicable laws and regulations including:
 1. California Health and Safety Code (H&SC), Division 20, Chapter 6.9 (Section 25280 et.seq.)
 2. California Code of Regulations (CCR), Title 23, Division 3, Chapter 16 (Section 2610 et.seq.)
 3. California State Water Resources Control Board (SWRCB), Leaking Underground Fuel Tank (LUFT) Manual.
 4. City & County of San Francisco, Department of Public Health, Underground Storage Tank Removal Regulations.
- D. The Contractor shall obtain all permits, excavate, sample, analyze and prepare all reports as required by the City's Department of Public Health.
- E. The Contractor shall remove the underground tanks, pipes, and associated piping only in the presence of an inspector from the City's Department of Public Health.
- F. The Contractor shall furnish three (3) copies of the draft report for review, and five (5) copies of the final report documenting the removal of an underground tank.
- G. Such work will be considered as change order work.

1.12 DISPOSAL OF RAILROAD TIES AND TREATED WOOD WASTE

- A. Railroad ties and wood treated with preservatives (e.g. utility poles, piers, pilings, posts, pressure treated lumber, etc), such as creosote, and/or pentachlorophenol, and/or Copper Napthenate, Zinc Napthenate, and/or Copper, Chromium, Arsenate (CCA), and/or Ammonical Chromium, Zinc, and Arsenate (ACZA) (that are not otherwise recycled by the Contractor) shall be transported and disposed of at a California Class 2 (non-hazardous) landfill.
- B. The Contractor shall fill out a separate waste profile with the landfill for such materials.
- C. The transportation and disposal of the railroad ties and treated wood waste shall be paid as a change order

1.13 POLLUTION INSURANCE

- A. All Work that involves the management, handling, transportation, and disposal of hazardous and contaminated (non-hazardous) materials shall be performed either by the Contractor or a properly licensed subcontractor, who shall furnish evidence of Contractor's Pollution Liability Insurance as specified in Section 00 73 16 – Insurance Requirements. This insurance coverage shall be included in the Contractor's original bid price.
- B. The Contractor's commercial and general liability insurance coverage shall include Sudden and Accidental Pollution coverage as specified in Section 00 73 16 – Insurance Requirements.
- C. In the event that hazardous/contaminated material is discovered during the course of the Work, and the Contractor or its subcontractor is required to perform abatement or disposal of such material, then the Contractor or its subcontractor, who performs abatement of hazardous or contaminated materials removal shall maintain in force, throughout the term of this Contract, Contractor's pollution liability insurance with limit not less than \$1,000,000 each occurrence combined single limit (true occurrence form), including coverages for on-site or off-site third party claims for bodily injury and property damage, with any deductible not to exceed \$50,000 each occurrence.

PART 2—PRODUCTS

NOT USED

PART 3—EXECUTION**3.01 TEMPORARY STOCKPILING OF EXCAVATED MATERIAL AND IMPORT MATERIAL**

- A. The Contractor is not permitted to stockpile excavated materials, backfill materials, or import materials overnight along the project alignment.

- B. If feasible and in the event that the City Representative permits the Contractor to temporarily stockpile excavated and import material along the project alignment, the following conditions shall apply:
1. Material shall be stockpiled at a location approved by the City Representative. The volume of the stockpile will be limited within the discretion of the City Representative.
 2. Stockpiled materials shall not be stored for more than 48 hours.
 3. The City Representative retains the right to suspend the use of temporary stockpiling in the event of negative public perception, aesthetic concerns, and regulatory concerns. In such an event, the Contractor is directed to remove the stockpile within 24 hours.
 4. After a stockpile has been removed, the Contractor shall wet sweep and vacuum the area, street, and sidewalk to remove residual soil.
- C. All costs associated with the temporary stockpiling of soils shall be borne by the Contractor, unless necessitated by an event that is otherwise compensable under the terms of the Contract. Such related incidental costs include, but are not limited to dust control, vacuum and wet sweeping, covering of stockpiles, multiple handling and transportation, multiple staging, work re-sequencing or rescheduling, time loss and standby time due to the duration of storage, and complying with federal, State, and local requirements.

3.02 REUSE OF EXCAVATED SOILS AS BACKFILL

- A. [use or remove this section as warranted] For work under the jurisdiction of the SFPUC's Water Department: For all water pipeline trench excavation under the jurisdiction of the SFPUC's Water Department, the Contractor shall use clean import sand to backfill trench/excavation that shall meet the CDD standard specifications of the Water Department. The Contractor shall not reuse existing soils excavated from the trench.
- B. For other work not under the jurisdiction of the SFPUC's Water Department: The Contractor shall maximize the reuse of soils from the excavation, unless directed otherwise by the City Representative. In such a case, the following conditions shall apply:
1. The reuse of soils as backfill material shall meet the requirements of Section 31 23 33, Trenching and Backfilling, other Sections of this specification, and Sections 707 and 709 of the Standard Specifications and Plans, Department of Public Works, City and County of San Francisco. The Standard Specifications and Standard Plans are accessible online at <http://www.sfdpw.org/index.aspx?page=294>.
 2. With the City's approval, Class I soils may be reused within the "area of contamination" and within 150 linear feet from its origin, as long as its meets the engineering backfill and compaction requirements, is delineated with markers, documented, and meets the San Francisco Department of Public Health (SFDPH) requirements.
 3. Asphalt, un-crushed existing concrete, bentonite, bay mud, clay, bricks, cobblestones, rocks, rubble, scrap metal, railroad tracks and ties, debris,

imported contaminated soils, vegetation, wood, debris, obstructions, and other organic, unsound, or deleterious matter will not be accepted as backfill material. The Contractor shall remove such materials matter prior to the placement and reuse of fill.

4. The Contractor shall notify the City Representative when and where the soils are used as backfill.

3.03 REUSE AND RECYCLING OF EXCAVATED SOILS AT OTHER FACILITIES

- A. If the Contractor seeks to reuse or recycle surplus excavated soils at other projects or recycling facilities rather than dispose of them at a permitted landfill, the contractor at its cost shall:
 1. Demonstrate that with the existing environmental test results that the soils can be reused or recycled. The Contractor at its expense may be allowed to conduct additional testing, and characterization of the soils, only with the City's prior approval.
 2. Submit the acceptance criteria of the receiving facility or project.
 3. Submit a letter of acceptance from the receiving facility or project. The letter shall indicate the volumes of soils accepted. Submit a value engineering calculation demonstrating cost savings to the City. Savings should be a split 50/50.
- B. If the City accepts the above, the Contractor shall prior to reuse or recycling:
 1. Incur on the risk of, and indemnify the City from any and all increased cost and future liability arising from the reclassification, recycling, or reuse of the surplus excavated soils if, upon reuse or recycling of such soils at any time thereafter, it is determined that the surplus excavated soils are in fact hazardous, and should not have been reused or recycled.
 2. Submit a copy of the letter of acceptance and all records, including the financial statements for the value engineering saving prior to the approval of the reuse or recycling of these soils.
 3. Bear all costs for any additional testing, characterization and profiling of the soils, including the value engineering cost.
 4. Bear all costs for the transportation, and any other associated cost for moving these soils to another project or to a recycling facility.
 5. Revise and retain its Pollution Liability insurance to cover this work.
 6. Repay any cost that the City at its discretion will incur to conduct its own testing to confirm the Contractor's findings.
 7. Submit a monthly Reuse and Recycling spreadsheet of all reused and recycled materials generated from the project. The spreadsheet shall include information of the receiving facility or project, quantity transported (Cubic Yards), weight tags from the recycling facility.

8. The City will issue a Change Order for this work to effectuate any saving that may accrue from this Section.
9. Such work will only be done as a change order after the acceptance and approval of the City and after the change order is processed.

3.04 IMPORT MATERIAL

- A. In advance of hauling in and use of any import material, the Contractor shall provide chemical analytical results in accordance with the Recommended Fill material sampling schedule stated in the Department of Toxic Substances Control (DTSC) Advisory Note for Clean Imported Material. One four-point composite per source for the same soil type, but a minimum of one four-point composite per 500 cubic yards shall be analyzed. Analyze each sample for Total Petroleum Hydrocarbons-Gasoline/BTEX/MTBE (EPA Method 8015 mod/8021), TPH-Diesel/Motor Oil (EPA Method 8015 with silica gel cleanup), Volatile Organic Carbons VOC's (EPA Method 8260), Semi-Volatile Organic Carbons SVOC's (EPA Method 8270), Organochlorine Pesticides (EPA Method 8081), Polychlorinated Biphenyls (EPA Method 8082), Title 22 Metals (EPA Methods 6000/7000 Series), Asbestos (CARB Method 435), Chromium +6 (EPA Method 7199), and soluble Total Concentration Leaching Potential (TCLP) and Soluble Threshold Limit Concentration (STLC) metals as warranted.
- B. Analytical costs for imported fill material incurred by the Contractor shall be Incidental Work to Section 31 23 33, Trenching and Backfilling.
- C. The Contractor shall furnish the above analytical results at least 10 working days prior to bringing in the import material. The acceptance of import fill will be made by the City Representative and will depend on the results of the analytical testing, backfill requirements in this Section, regardless if it meets the testing requirements of Section 31 23 33, Trenching and Backfilling, and has to be equal or less than the values set forth in the RWQCB's Environmental Screening Levels (ESLs), Volume 1, Table A for Surface Soils - Residential Land Use Permitted. In addition, Total Petroleum Hydrocarbons or Oil and Grease of any type shall not exceed 100 mg/kg. Import fill shall not be brought on-site, prior to the City Representative's approval of the analytical results submittal. Analytical results submitted shall be referenced on the import fill spreadsheet submittal. Analytical costs for imported fill material incurred by the Contractor shall be Incidental Work to Section 31 23 33, Trenching and Backfilling. The acceptance of import fill shall also be concurrent with the approval on the results of the analytical testing and compliance with Section 31 23 33, Trenching and Backfilling.
- D. Import material for backfill shall comply with the Section 714 Standard Specifications and Plans, Department of Public Works, City and County of San Francisco. The Standard Specifications and Standard Plans are accessible online at <http://www.sfdpw.org/index.aspx?page=294> ; and the specifications of the Water Department for work under the jurisdiction of the SFPUC's Water Department.
- E. Asphalt, crushed concrete, bentonite, bay mud, clay, bricks, cobblestones, rocks, rubbles, scrap metal, railroad tracks and ties, debris, serpentine, soils containing asbestos, imported contaminated soils, vegetation, wood, debris, obstructions, and other organic, unsound, or deleterious matter will not be accepted as Import Fill material.

- F. Import material shall be brought on-site at a rate where it is immediately used in the excavation. If the City Representative allows for import material to be stored overnight (only, and not longer) on site, then such import material shall be covered and placed at the Contractor's soils management yard, approved soil stockpile staging area or an area within the project alignment authorized by the City Representative. Stockpiles being stored overnight shall be completely covered with 10-mil HDPE plastic and weighted or tied down securely.
- G. Import Fill Spreadsheet: As warranted, the Contractor shall submit five hardcopies or a digital copy of a monthly spreadsheet of all imported fill deposited at the project site to the City Representative. The spreadsheet shall include information on the project name, contract No., origin of import (street address, city), location of deposit (street address and depth range), quantity (cubic yards), soil type, correspondent environmental analytical results submitted, truckers and trucking firm(s) used and trucking logs and invoices.

3.05 SECURING AREAS WITH EXPOSED, EXISTING SOIL

- A. Wherever construction work exposes the existing soil or where existing soil is stockpiled, these areas shall be barricaded all around with continuous (no gaps greater than 4 inches) fencing (either metal wire or orange plastic), Triton barriers or other barricades at least 3 feet high. The Contractor shall ensure that barricades are installed taut and secured against strong winds. Alternatively, the exposed, existing soil in excavation areas such as trenches, may be covered over with plates or other acceptable means. The intent is to secure the exposed, existing soil from public contact.

END OF SECTION