



Oregon

Theodore R. Kulongoski, Governor

Department of Transportation
Technical Services
Roadway Engineering Section
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DATE: October 2, 2009

Addenda No. 1

TO: PLAN HOLDERS

PREPARED BY:

Ron Crom
Sr. Specification Writer
David Evans and Associates, Inc.

APPROVED BY:

Dave Davies
Project Manager
David Evans and Associates, Inc.

SUBJECT: 2008 ITS Urban and Rural Corridor Sec.
Various Highways
Various Counties
Signals Project
(Bids to be opened and read October 8, 2009)

The following changes are made to the Project Bid Booklet:

1. The following changes are made to the Project Bid Items:
 - a. Deleted item:

Number

Item

0310

SITE 18: 48 INCH DIAMETER TYPE 2 VMS SUPPORT DRILLED SHAFT

b. Added items:

| <u>Number</u> | <u>Item</u> | <u>Unit</u> | <u>Quantity</u> |
|---------------|--|-------------|-----------------|
| 0640 | CONTAMINATED SOIL DISPOSAL | TON | 330.0 |
| 0650 | EQUIPMENT DECONTAMINATION | LS | ALL |
| 0660 | HASP/CMDP | LS | ALL |
| 0670 | GROUNDWATER COLLECTION EQUIPMENT | LS | ALL |
| 0680 | GROUNDWATER TREATMENT AND DISPOSAL | GAL | 6,800 |
| 0690 | SITE 18: VMS SUPPORT EXCAVATED FOUNDATIONS | LS | ALL |

Make a copy of and use the new attached Bid Sheets. A Bid **not** including these new Bid Sheets **will be rejected as non-responsive**.

The following change is made to the Project Special Provisions:

1. DESCRIPTION OF WORK page - The paragraph under PROJECT INFORMATION beginning "Kevin Bracy..." is replaced with the following:

Dave Davies, Project Manager, David Evans and Associates, Inc., 530 Center St. NE, Suite 605, Salem, OR 97301; Phone 503-480-1320, FAX 503-361-8655.

2. Section 00291 Contaminated Soil - This Section is added after Section 00290. See attachment for full text.
3. Section 00292 Contaminated Groundwater - This Section is added after Section 00291. See attachment for full text.
4. Subsection 00593.00 Scope - This subsection is replaced with the following subsection:

00593.00 Scope – Add the following to the end of this section:

Powder coat all exposed surfaces of Contractor supplied metallic surfaces such as cabinets, support structures, brackets, enclosures for sites as noted on plans
Miscellaneous hardware such as nuts, bolts, and washers may be painted as described in Section 00594 where approved by the Engineer.

These changes will be included in the Contract for this Project. It is understood that your Bid will be submitted accordingly.

Make copies of the new Bid Sheets to replace the Special Provisions Bid Schedule Sheets.

dajs:

Attachments: New Bid Sheets
New Special Provisions Sections

BID SCHEDULE

CONTRACT ID: 14119

PROJECT: 2008 ITS URBAN AND RURAL CORRIDOR
SEC.

PROJECT KEY: 13700

ADDENDUM NUMBER: 1

| ITEM NO | ITEM DESCRIPTION | QUANTITY AND UNITS | UNIT PRICE (IN FIGURES) | BID AMOUNT (IN FIGURES) |
|---------|------------------|--------------------|----------------------------|----------------------------|
|---------|------------------|--------------------|----------------------------|----------------------------|

SECTION 0001 TEMPORARY FEATURES AND APPURTENANCES

| | | | | |
|------|---|------|----------|--|
| 0010 | 0210-0100000A MOBILIZATION | LS | ALL | |
| 0020 | 0225-0100000A TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC | LS | ALL | |
| 0030 | 0225-0102000J TEMPORARY SIGNS | SQFT | 335.00 | |
| 0040 | 0225-0104000E TEMPORARY BARRICADES, TYPE II | EACH | 6.00 | |
| 0050 | 0225-0105000E TEMPORARY BARRICADES, TYPE III | EACH | 2.00 | |
| 0060 | 0225-0138000E TEMPORARY IMPACT ATTENUATOR, TRUCK MOUNTED | EACH | 1.00 | |
| 0070 | 0225-0145000E TEMPORARY PLASTIC DRUMS | EACH | 26.00 | |
| 0080 | 0225-0162000E SEQUENTIAL ARROW SIGNS | EACH | 2.00 | |
| 0090 | 0225-0168000T FLAGGERS | HOUR | 325.00 | |
| 0100 | 0280-0100000A EROSION CONTROL | LS | ALL | |
| 0110 | 0280-0114000E INLET PROTECTION, TYPE 3 | EACH | 7.00 | |
| 0120 | 0280-0115000F SEDIMENT BARRIER, TYPE 3 | FOOT | 5,900.00 | |

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|---------|---|--------------------|----------------------------|----------------------------|
| 0130 | 0280-9Z90000E BIO-FILTER BAGS | EACH 41.00 | | |
| 0140 | 0290-0100000A POLLUTION CONTROL PLAN | LS ALL | | |

SECTION 0002 ROADWORK

| | | | | |
|------|---|-------------|--|--|
| 0150 | 0305-0100000A CONSTRUCTION SURVEY WORK | LS ALL | | |
| 0160 | 0310-0119000F ASPHALT PAVEMENT SAW CUTTING | FOOT 400.00 | | |

SECTION 0003 BASES

| | | | | |
|------|---------------------------------|------------|--|--|
| 0170 | 0641-0102000M AGGREGATE BASE | TON 365.00 | | |
|------|---------------------------------|------------|--|--|

SECTION 0004 WEARING SURFACES

| | | | | |
|------|---|-----------|--|--|
| 0180 | 0744-0302000M LEVEL 3, 1/2 INCH DENSE MHMAC MIXTURE | TON 53.00 | | |
|------|---|-----------|--|--|

SECTION 0005 PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES

| | | | | |
|------|--|-------------|--|--|
| 0190 | 0810-0104000F GUARDRAIL, TYPE 2A | FOOT 300.00 | | |
| 0200 | 0810-0119000E GUARDRAIL ANCHORS, TYPE 1 | EACH 1.00 | | |
| 0210 | 0810-0123000E GUARDRAIL END PIECES, TYPE C | EACH 1.00 | | |

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|---------|---|--------------------|----------------------------|----------------------------|
| 0220 | 0810-0129000E GUARDRAIL TERMINALS, NON-FLARED | EACH | 1.00 | |

SECTION 0006 PERM TRAFF CONTROL & ILLUM SYSTEMS - VMS SUPPORTS

| | | | | |
|------|---|----|-----|--|
| 0230 | 0930-0103000A SITE 13: TYPE 1 VMS ON BUTTERFLY STRUCTURE | LS | ALL | |
| 0240 | 0930-0103000A SITE 20: TYPE 2 VMS ON BUTTERFLY STRUCTURE | LS | ALL | |
| 0250 | 0930-0103000A SITE 7: TYPE 1 VMS ON BUTTERFLY STRUCTURE | LS | ALL | |
| 0260 | 0930-0104000A SITE 18: TYPE 2 VMS ON MONOTUBE CANTILEVER STRUCTURE | LS | ALL | |
| 0270 | 0930-0104000A SITE 21: TYPE 2 VMS ON MONOTUBE CANTILEVER STRUCTURE | LS | ALL | |
| 0280 | 0930-0104000A SITE 23: TYPE 4 VMS ON MONOTUBE CANTILEVER STRUCTURE | LS | ALL | |
| 0290 | 0930-0104000A SITE 24; TYPE 4 VMS ON MONOTUBE CANTILEVER STRUCTURE | LS | ALL | |

SECTION 0007 PERM TRAFF CONTROL & ILLUM SYSTEMS - SUPPORT DRILLED SHAFTS

| | | | | |
|------|---|------|-------|------|
| 0300 | 0963-0102000F SITE 13: 48 INCH DIAMETER TYPE 1 VMS SUPPORT DRILLED SHAFT | FOOT | 22.00 | |
| 0310 | 0000-0100000A DELETED BID ITEM | LS | ALL | 0.00 |

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| ITEM NO | ITEM DESCRIPTION | QUANTITY AND UNITS | UNIT PRICE (IN FIGURES) | BID AMOUNT (IN FIGURES) |
|---------|---|--------------------|-------------------------|-------------------------|
| 0320 | 0963-0102000F SITE 20: 48 INCH DIAMETER TYPE 2 VMS SUPPORT DRILLED SHAFT | 16.00 FOOT | | |
| 0330 | 0963-0102000F SITE 21: 48 INCH DIAMETER TYPE 2 VMS SUPPORT DRILLED SHAFT | 16.00 FOOT | | |
| 0340 | 0963-0102000F SITE 23: 42 INCH DIAMETER TYPE 4 VMS SUPPORT DRILLED SHAFT | 14.00 FOOT | | |
| 0350 | 0963-0102000F SITE 24: 42 INCH DIAMETER TYPE 4 VMS SUPPORT DRILLED SHAFT | 14.00 FOOT | | |
| 0360 | 0963-0102000F SITE 7: 48 INCH DIAMETER TYPE 1 VMS SUPPORT DRILLED SHAFT | 22.00 FOOT | | |

SECTION 0008 PERM TRAFF CONTROL & ILLUM SYSTEMS-CAMERA POLES & FOUNDATION

| | | | | |
|------|--|-----------|--|--|
| 0370 | 0965-0100000A CCTV CAMERA POLES AND FOUNDATIONS SITE 1, COMPLETE | ALL LS | | |
| 0380 | 0965-0100000A CCTV CAMERA POLES AND FOUNDATIONS SITE 2, COMPLETE | ALL LS | | |
| 0390 | 0965-0100000A CCTV CAMERA POLES AND FOUNDATIONS SITE 5, COMPLETE | ALL LS | | |
| 0400 | 0965-0100000A CCTV CAMERA POLES AND FOUNDATIONS SITE 7B, COMPLETE | ALL LS | | |

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ADDENDUM NUMBER: 1

| ITEM NO | ITEM DESCRIPTION | QUANTITY AND UNITS | UNIT PRICE (IN FIGURES) | BID AMOUNT (IN FIGURES) |
|---------|--|--------------------|----------------------------|----------------------------|
| 0410 | 0965-0100000A CCTV CAMERA POLES AND FOUNDATIONS SITE 7C, COMPLETE | LS | ALL | |
| 0420 | 0965-0100000A CCTV CAMERA POLES AND FOUNDATIONS SITE 8, COMPLETE | LS | ALL | |
| 0430 | 0965-0100000A CCTV CAMERA POLES AND FOUNDATIONS SITE 9, COMPLETE | LS | ALL | |

SECTION 0009 PERM TRAFF CONTROL & ILLUM SYSTEMS - CCTV INSTALLATION

| | | | | |
|------|--|----|-----|--|
| 0440 | 0990-9Z90000A CCTV INSTALLATION SITE 1, COMPLETE | LS | ALL | |
| 0450 | 0990-9Z90000A CCTV INSTALLATION SITE 2, COMPLETE | LS | ALL | |
| 0460 | 0990-9Z90000A CCTV INSTALLATION SITE 5, COMPLETE | LS | ALL | |
| 0470 | 0990-9Z90000A CCTV INSTALLATION SITE 6, COMPLETE | LS | ALL | |
| 0480 | 0990-9Z90000A CCTV INSTALLATION SITE 7B, COMPLETE | LS | ALL | |
| 0490 | 0990-9Z90000A CCTV INSTALLATION SITE 7C, COMPLETE | LS | ALL | |
| 0500 | 0990-9Z90000A CCTV INSTALLATION SITE 8, COMPLETE | LS | ALL | |
| 0510 | 0990-9Z90000A CCTV INSTALLATION SITE 9, COMPLETE | LS | ALL | |

SECTION 0010 PERM TRAFF CONTROL & ILLUM SYSTEMS - VMS INSTALLATION

BID SCHEDULE

CONTRACT ID: 14119

PROJECT: 2008 ITS URBAN AND RURAL CORRIDOR
SEC.

PROJECT KEY: 13700

ADDENDUM NUMBER: 1

| ITEM NO | ITEM DESCRIPTION | QUANTITY AND UNITS | UNIT PRICE (IN FIGURES) | BID AMOUNT (IN FIGURES) |
|---------|--|--------------------|----------------------------|----------------------------|
| 0520 | 0990-9Z90000A VMS INSTALLATION SITE 13, COMPLETE | LS | ALL | |
| 0530 | 0990-9Z90000A VMS INSTALLATION SITE 18, COMPLETE | LS | ALL | |
| 0540 | 0990-9Z90000A VMS INSTALLATION SITE 20, COMPLETE | LS | ALL | |
| 0550 | 0990-9Z90000A VMS INSTALLATION SITE 21, COMPLETE | LS | ALL | |
| 0560 | 0990-9Z90000A VMS INSTALLATION SITE 23, COMPLETE | LS | ALL | |
| 0570 | 0990-9Z90000A VMS INSTALLATION SITE 24, COMPLETE | LS | ALL | |
| 0580 | 0990-9Z90000A VMS INSTALLATION SITE 7, COMPLETE | LS | ALL | |

SECTION 0011 RIGHT-OF-WAY DEVELOPMENT AND CONTROL

| | | | | |
|------|--|------|--------|--|
| 0590 | 1030-0109000R PERMANENT SEEDING, MIX NO. 1 | ACRE | 0.28 | |
| 0600 | 1030-0110000R PERMANENT SEEDING, MIX NO. 2 | ACRE | 0.39 | |
| 0610 | 1030-0111000R PERMANENT SEEDING, MIX NO. 3 | ACRE | 1.43 | |
| 0620 | 1040-0101000K COMPOST BLANKET | CUYD | 564.00 | |
| 0630 | 1040-0190000K BARK MULCH | CUYD | 11.00 | |

SECTION 0012 ADDED BID ITEMS

BID SCHEDULE

CONTRACT ID: 14119

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PROJECT KEY: 13700

ADDENDUM NUMBER: 1

| ITEM NO | ITEM DESCRIPTION | QUANTITY AND UNITS | UNIT PRICE (IN FIGURES) | BID AMOUNT (IN FIGURES) |
|---------|--|--------------------|----------------------------|----------------------------|
| 0640 | 0280-9Z90000M CONTAMINATED SOIL DISPOSAL | TON | 330.00 | |
| 0650 | 0290-9Z90000A EQUIPMENT DECONTAMINATION | LS | ALL | |
| 0660 | 0290-9Z90000A HASP/CMDP | LS | ALL | |
| 0670 | 0290-9Z90000A GROUNDWATER COLLECTION EQUIPMENT | LS | ALL | |
| 0680 | 0290-9Z90000P GROUNDWATER TREATMENT AND DISPOSAL | GAL | 6,800.00 | |
| 0690 | 0920-0100000A SITE 18: VMS SUPPORT EXCAVATED FOUNDATIONS | LS | ALL | |
| | TOTAL BID | | | |

SECTION 00291 - CONTAMINATED SOIL

Section 00291, which is not a Standard Specification, is included in this Project by Special Provision.

Description

00291.00 Scope - This work includes preparation of specific work plans and the excavation, handling, and disposal of contaminated soil. Work shall include, but is not limited to the following:

- Develop a Health and Safety Plan (**HASP**) and Contaminated Media Disposal Plan (**CMDP**)
- Record Keeping
- Excavation Monitoring
- Material Excavation, Handling, and Disposal

00291.01 General – Contaminated soil and/or groundwater may be present at several ITS sites where VMS, CCTV, or RWI installations are proposed. Potential contaminants include petroleum hydrocarbons and related compounds.

00291.02 Definitions:

Contaminated Media - Soil, water, sludge, free product, underground storage tanks (USTs), buried abandoned utility lines containing residual or free product, solid waste, treated wood waste, chemical containers, or other solid, liquid, or gas substances with contamination levels exceeding background levels.

Contaminated Soil - Non-hazardous, petroleum- or metals-contaminated soil where contamination levels exceed background levels. The background concentration for organic hazardous substances is zero. The background concentrations for inorganic substances; i.e., metals, will be determined in consultation with DEQ.

RCRA Hazardous Waste - All waste material, including excavation soils, which requires management, handling, transport, treatment, storage or disposal according to the requirements of the Federal Resource, Conservation and Recovery Act (RCRA) and associated regulations (42 U.S.C. 6901 et seq. and 40 CFR Parts 260 and 261 et seq.).

Oregon State-Only Hazardous Waste - As defined in OAR 340-101-033.

Solid Waste Disposal or Treatment Facility - A solid waste landfill or other facility permitted by federal, state, and local agencies to receive and dispose of or treat contaminated media.

00291.04 Submittals - Provide the following informational submittals and documentation prior to commencing any work involving the handling of contaminated soil or groundwater. Work shall not begin until these submittals have been reviewed and approved by the Engineer.

- The proposed HASP for the project, meeting the terms and conditions of this Section, 30 days prior to the start of construction.
- The proposed CMDP for the project, meeting the terms and conditions of this Section, 30 days prior to the start of construction.
- Names and qualifications of the Certified Industrial Hygienist (CIH) and Contractor's Safety Representative(s).
- Worker training certifications and related records.
- Security and training logs and worker compliance agreements.

During work in contaminated areas, provide copies of daily reports, emergency and accident reports, and landfill waste disposal receipts within 24 hours of occurrence.

Provide a closeout CMDP report within 30 days following the end of construction.

00291.10 Health and Safety Plan (HASP) - Prepare a project HASP to protect workers, the public and the environment while constructing the project in areas with known or discovered contaminated media. The HASP shall be developed and implemented in association with the Contractor's normal construction safety program and certified by a CIH in good standing.

Submit the HASP to the Engineer 30 days prior to construction. Submission does not relieve the Contractor of its safety responsibilities nor does it impose responsibility or legal liability upon ODOT for safety.

Distribute the HASP to all on-site workers and employees. Workers and employees are required to read the HASP, sign a compliance agreement, and abide by all of its provisions. Display the HASP and make it available at the site at all times.

Revise the HASP as needed whenever new information about contaminated media or other potential site hazards is obtained. The Contractor's CIH or Safety Representative, as appropriate, shall certify any changes, deletions, or additions to the HASP. Submit all proposed changes, deletions or additions to the HASP to the Engineer prior to implementation.

The HASP shall conform to the requirements of 29 CFR 1926.65 and all applicable federal, state, and local statutes, rules, regulations and ordinances. The HASP may be more stringent than, but shall be in accordance with the OSHA Guidance Manual for Hazardous Waste Site Activities.

The HASP shall include the following items:

- Names and qualifications of:
 - Certified Industrial Hygienist (CIH)
 - Contractor's Safety Representative(s)
- Site description and location.
- Site control measures as identified on a site map.
- Pre-entry briefings to be held prior to initiation of work in areas with known contamination at the construction site, and at such other times as necessary to ensure that workers are apprised of HASP provisions and that such plan is adequate and being followed.

- Chemical hazard analysis to identify and establish appropriate procedures for addressing suspected conditions or activities that may pose routine occupational hazards or immediate danger. The HASP shall describe the risks associated with each task and the actions to be taken to mitigate existing hazards.
- Hazmat zones including exclusion, contamination reduction, and support zone(s). Describe the procedures for informing all persons at the site about hazmat zone requirements. The plan shall set forth the specific criteria and thresholds for designation of hazmat zones.
- Levels of personal protection to be employed during work, setting forth specific criteria and thresholds for choices of protective clothing, equipment, and respirators based upon the types and concentrations of contaminants and exposure pathways that may be encountered.
- A program for the determination of personal exposure monitoring requirements including air monitoring in the work area(s) as needed. List and describe equipment to be used.
- Procedures for decontamination of personnel, materials, and equipment.
- Procedures for working in confined spaces in accordance with all applicable federal, state and local statutes, rules, regulations and ordinances.
- Description of the equipment and procedures used to prevent releases of hazardous substances to the soil and water from construction equipment and materials. Description of equipment and procedures to be used to immediately clean up any such releases.
- Procedures and coordination of storage, handling and disposal of any contaminated media or contaminated debris in accordance with all applicable federal, state, and local statutes, rules, regulations and ordinances.
- An Emergency Response Plan for safe and effective response to emergencies which establishes emergency procedures including, but not limited to, escape routes, signals for evacuation workers, emergency communications, procedures for communication with personnel, and response to fire and explosions. Describe emergency equipment available on-site.
- Definition of appropriate levels of training and training procedures to promote a safe working environment in accordance with the HASP.
- A medical surveillance program for eligible employees consistent with 29 CFR 1926.65(f).

In addition to contaminated soil, the Contractor may encounter other types of regulated waste including contaminated groundwater. Procedures for handling and disposal of contaminated groundwater are discussed in Section 00292. The HASP shall address safe and proper handling of groundwater as well as contaminated soil.

00291.15 Contaminated Media Disposal Plan (CMDP) - Create a CMDP which includes the estimated quantity of soil to be disposed of offsite, the solid waste disposal or treatment facility where contaminated media will be disposed of, and offsite haul routes used to transport contaminated media to the facility. The CMDP shall include documentation of solid waste disposal or treatment facility waste acceptance. This documentation shall also include all completed forms, applications, and analytical data submitted to the disposal or treatment facility. Revise the CMDP as needed whenever new information about contaminated media or other potential site hazards is obtained. All proposed changes, deletions or additions to the CMDP shall be submitted to the Engineer prior to implementation.

Labor

00291.20 General - Submit certificates demonstrating individual personnel have been properly trained to handle the excavation and disposal of contaminated media. Training shall include, but not be limited to, the 40-hour Hazardous Waste Operations and Emergency Response Training Program and associated 8-hour annual refresher in accordance with 29 CFR 1910.120 and 1910.134. All personnel who come in contact with, or operate equipment that handles contaminated media shall have said training.

00291.21 Certified Industrial Hygienist (CIH) - Submit certificates demonstrating the CIH meets the requirements stated below for oversight of all work relating to hazardous substances or contaminated media:

(a) Qualifications for CIH:

- Certified by the American Board of Industrial Hygiene (ABIH) as being in good standing.
- Have a minimum of three years experience in hazardous substance or hazardous waste site remediation or related work.
- Have completed all required OSHA training in accordance with 29 CFR 1910.120, including 40-hour and 8-hour supervisory training updated annually and completion of 3 days on-site training by a fully qualified instructor.
- Have knowledge of federal, state and local occupational health and safety regulations.

(b) Responsibilities:

- Certifying the Contractor's HASP, any task-specific HASPs, and all additions and/or modifications thereto unless the Engineer and the Contractor agree that such additions or modifications may be made by the Contractor's Safety Representative.
- Be accessible to the Contractor's Safety Representative and assist in the identification and evaluation of potential hazards, develop appropriate procedures for addressing known or suspected conditions or activities that may pose routine occupational hazards or immediate danger to the life or health of any person.

(c) Authority:

- Suspend field activities if the health and safety of any person is endangered.
- Suspend subcontractor(s) or individual(s) from field activities due to infractions of the HASP.

00291.22 Safety Representative - Submit certificates demonstrating the Safety Representative meets the requirements stated below for all work relating to hazardous substances or contaminated media:

(a) Qualifications of Safety Representative:

- Have completed all required OSHA Training in accordance with 29 CFR 1910.120, including completion of 40-hour and 8-hour supervisory training updated annually and completion of three days on-site training by a fully qualified instructor.
- Have a minimum of three years experience in hazardous substance or hazardous waste site remediation or related work.
- Currently certified in first aid and cardiopulmonary resuscitation (CPR).
- Have knowledge of federal, state, and local occupational health and safety regulations.
- Be familiar with and follow all pollution control requirements during implementation of the HASP.

(b) Responsibilities:

- Be on-site and present during work in hazmat zones, in areas where contaminated soil or groundwater is encountered, and during the handling, transportation, or disposal of contaminated media and all work related to the presence or potential for unknown hazardous substances.
- Develop, implement, enforce, modify and monitor the HASP requirements.
- Conduct the pre-construction training and other periodic training of all on-site personnel with regard to contents of the HASP and other safety requirements to be observed during construction.
- Perform all air monitoring if required by the HASP.

(c) Authority:

- Suspend field activities if the health and safety of any person is endangered.
- Suspend subcontractor(s) or individual(s) from field activities due to infractions of the HASP.

Construction

00291.40 Record Keeping - Maintain the following records on an on-going basis. Provide copies to the Engineer upon request or as identified herein.

(a) Daily Reports – Develop a daily report to document all monitoring and management of contaminated media. Prepare reports on the same day in which any contaminated media management activity occurs and submit to the Engineer by 9:00 a.m. the next business day. Report(s) shall include, as applicable, the following:

- Location and depth where contaminated media was excavated.
- Estimated in-place volumes (cubic meters) of contaminated soil excavated.
- The locations of any temporary contaminated media stockpiles and the volume of contaminated media placed in, or removed from, the stockpiles.
- The location, depth, and nature of any potential unanticipated contaminated media encountered or observed and the response taken by the Contractor.
- All labor, equipment, and material usage associated with the excavation, handling and disposal of contaminated media.

(b) Contaminated Media Bills of Lading and Weigh Slips - Use a bill of lading for each offsite shipment of contaminated media. Bill of lading shall include date and time of shipment, name of hauling company, name of truck driver, disposal site, location from which contaminated media was excavated, waste profile permit number from disposal or treatment facility, and a brief description of contaminated media (i.e., soil, water, debris). The Agency will confirm that each bill of lading has correct waste profile permit before offsite shipment is allowed to leave job site. Provide a copy of bill of lading and associated weigh slip from offsite disposal facility showing weight/volume of contaminated media received, to the Engineer within 24 hours of shipment.

(c) Hazardous Waste Manifests - If RCRA or Oregon State Only hazardous waste is encountered, follow these manifest documentation procedures:

- Prepare waste manifest forms (EPA Form 8700-22) for each shipment of hazardous waste from site. Manifest shall describe contents of each truck carrying materials to hazardous waste facility, including as applicable, appropriate unit of measure of waste materials.
- The Transporter shall sign and date the hazardous waste manifest indicating the Transporter receipt and acceptance of the waste material. Contractor shall sign the manifest as the generator and retain. The remaining copies of the manifest shall be given to the Transporter and shall be carried with the waste shipment to the treatment or disposal facility. Provide the Engineer with copies of all fully-signed manifests.
- The Engineer will provide a hazardous waste generator identification number for use on the manifest while the Contractor shall provide a hazardous waste transporter's identification number and telephone number.
- Should any waste manifest not be returned within 35 days of shipment, initiate follow-up efforts to determine what happened to shipment, document this effort in writing with an Exception Report as required by 40 CFR 262.42 and provide a copy. Within 48 hours, provide a copy of the completed waste manifest for each waste shipment indicating it has been received at the Solid Waste Disposal or Treatment Facility.

00291.41 Excavation Monitoring - Monitor all excavations required for the possible presence of contaminated media using procedures described in this Section. Monitoring shall be performed by Contractor's Safety Representative or person with equivalent training.

(a) Observe for visual, olfactory, or textural indications of contamination during all excavation activities. These indications may include, but are not limited to: petroleum, oil, fuel, or gasoline odor, other unusual odors, mottled or gray appearance, unusual color, sheen, staining, debris, or other non-native material. Record observations in daily reports.

(b) Perform headspace measurement on a representative soil sample for every 100 m³ of excavated soil. Perform headspace measurements in accordance with procedures described in 00291.41(e). Record results in daily reports.

(c) If observations described in 00291.41(a) or (b) suggest the presence of contaminated media immediately notify the Engineer.

(d) If a volatile organic compound headspace concentration greater than 10 parts per million (ppm) is measured in a sample immediately notify the Engineer.

(e) Perform headspace measurements using a Photoionization Detector (PID) with at least a 10.2 electron-volt (eV) probe. Perform headspace measurements as follows:

- Place soil in a clean jar or Ziploc™-type plastic bag.
- Shake briefly and then allow headspace in jar or bag to remain undisturbed for 5 to 10 minutes.
- Insert PID probe into jar or bag to measure presence of volatile organic compounds.
- Record sample identification, time, and headspace concentration value in daily report.
- Calibrate PID at beginning of each sampling day. After calibration measure background level away from any probable organic vapor sources, such as a vehicle exhaust pipe.
- An Organic Vapor Monitor (OVM) may be used in place of a PID.

(f) Notify Engineer within 2 hours if groundwater is encountered within excavated areas.

00291.42 Identified Contaminated Areas: Approximate locations of sites located within or adjacent to the project corridor where contaminated soil has been identified are listed in Table 1 below. Information on these sites can be obtained from the Engineer and in the Level 1 Hazardous Materials Assessment prepared by GeoDesign (draft dated July 31, 2009).

Table 1: Sites with Potential Contaminated Soil as reported in the Level 1 Hazardous Materials Assessment (GeoDesign, 2009)

| Site Name | Location or Address | Potential Contaminants |
|-------------------|---|---------------------------------|
| ITS Location # 1 | Approximately 900 feet SE of Se Firwood Road, east of Sandy, OR | Gasoline, Diesel, and Oil |
| ITS Location # 6 | SE of intersection of US 26 and the west end of the Government Camp Loop, Government Camp, OR | Gasoline, Diesel, and Oil |
| ITS Location # 8 | South of US 26 and 180 feet west of FSR 530, Government Camp, OR | Gasoline, Diesel, and Oil |
| ITS Location # 13 | 64250 SE Highway 26, Sandy, OR | Gasoline, Diesel, and Oil |
| ITS Location # 18 | Northeast of NW Yeon Ave. and approx. 115 feet SE of NW Brewer St., Portland, OR | Gasoline, Diesel, and Oil |
| ITS Location # 21 | North of OR 224, approx. 85 feet east of SE 98 th Ave., Clackamas, OR | Gasoline, Diesel, Oil, and VOCs |
| ITS Location # 23 | SE of OR 99E and approx. 50 feet NE of 15 th St., Oregon City, OR | Gasoline, Diesel, Oil, and PCBs |

00291.43 Exclusion Zone and Decontamination - Before beginning excavation of contaminated media, establish an exclusion zone around the excavation. Establish entrance/exit locations to exclusion zone and describe them in the CMDP and HASP.

Equipment may move freely within the exclusion zone. Decontamination between specific excavation areas shall consist of brooming away loose soil and removal of significant quantities of adhered soil with hand tools. Decontamination is not required for movement of equipment within the exclusion zone.

If practicable, locate truck loading areas at boundary of exclusion zone.

Trucks shall be broom-cleaned before leaving loading area.

Personnel exiting exclusion zone shall decontaminate according to decontamination procedures specified in the HASP.

00291.44 Excavation and Handling - Be responsible for obtaining landfill disposal permits for any contaminated soil generated during excavation activities. If additional analyses are required for landfill disposal permits, contractor will collect soil samples for laboratory analysis and furnish test results within seven days.

For excavations of contaminated soil, excavate and handle that material according to the following requirements and procedures described in the CMDP:

- Notify the Engineer no less than 24 hours prior to beginning excavation of contaminated soil.
- Secure area, including control of surface runoff, to minimize entry or collection of water in excavations. Initiate applicable provisions of HASP to restrict and protect all persons from exposure to contaminated soil. Modify HASP as necessary, to address new contaminants, hazards, and other contaminated media concerns discovered during construction. Submit all modifications to HASP no less than 24 hours prior to working in area affected by modifications.
- Excavate contaminated areas in a manner that prevents commingling of contaminated and uncontaminated soil. Minimize movement of excavation equipment over or through contaminated soil to prevent movement of contaminated soil into uncontaminated areas.
- Unless otherwise allowed, load contaminated soil directly into trucks and transport directly to disposal site.
- Excavate contaminated soil such that soils from different contaminated areas are not commingled.
- Maintain excavation equipment in good working order. Prevent spillage of oil, fuel, or hazardous substances from equipment. Promptly repair oil leaks from equipment and clean up any contaminated media.
- Load contaminated soil within exclusion zone.
- Load contaminated soil into trucks or approved containers in a manner that prevents spilling or tracking of contaminated soil into non-contaminated areas. Do not store contaminated soil in drums.
- Remove loose material falling onto trucks during loading before trucks leave loading area. Broom trucks clean before they leave the loading area. Any

contaminated soil collected in loading areas shall either be placed into trucks or back onto originating stockpile.

- If loading area is unpaved, notify Engineer when loading activities are completed so surface soil samples from area can be obtained to confirm that contaminated soil is not present. If loading area is paved, clean any loose soil from pavement by sweeping at conclusion of each day's loading activities.
- Cover all trucks before they leave the loading area.
- Before entering public right of way, clean all vehicles leaving an exclusion zone with contaminated soil using method specified in the HASP.
- Establish specific truck haul routes before beginning offsite contaminated soil transport to reduce risk of releases of contaminated soil and impact on local traffic. Establish onsite truck routes to minimize or prevent movement of trucks over contaminated soil.
- Ensure that loaded truck weights are within acceptable limits.
- Personnel exiting an exclusion zone shall decontaminate according to the decontamination procedures specified in the HASP.
- Comply with all applicable federal, state, and local laws, codes, and ordinances that govern or regulate contaminated substance transportation.
- Ensure that all drivers of vehicles transporting contaminated substances have in their possession during transport all applicable Oregon State and local vehicle insurance requirements, valid driver's license, and vehicle registration and license. Contractor is responsible for informing all drivers of transport vehicles about:
 - Nature of material transported in form of a written manifest.
 - Required routes to and from offsite disposal facility.
 - Applicable road regulations and requirements.
- Do not spill or track contaminated substances offsite at any time.
- Trucks shall be substance-compatible, licensed, insured, and permitted pursuant to federal, state, and local statutes, rules, regulations and ordinances for transportation of contaminated substances offsite.
- Provide copies of approved disposal/acceptance permit and/or disposal manifests (disposal/treatment facility requires driver to have copies of permit and/or disposal manifests).

00291.45 Discovery of Unanticipated Contaminated Media - Comply with the following in response to unanticipated and unknown contaminated media:

- Notify the Engineer within two hours of discovery. The Engineer will make a determination whether unanticipated and unknown contaminated media has been encountered. While making this determination:
 - The Engineer shall collect and analyze test samples for laboratory analysis.
 - Test samples will be analyzed by Engineer's selected laboratory. Engineer will request 24 hour turnaround for laboratory analyses whenever possible. The results of all analyses will be provided to the Contractor within seven (7) days.

- During testing, cease excavation and/or dewatering activities at the location of the test sample, and maintain and secure construction site until determination is made.
- If excavated, store suspected contaminated media temporarily in drop boxes in a pre-approved secure and covered location(s). Protect from cross contamination with non-contaminated media (including rainwater) until analyses have been completed. Incorporate storage locations into traffic control plans.
- Do not move, haul or dispose of any unknown media until analyses have been completed and material has been identified.

Update HASP, CMDP, and Spill Prevention and Cleanup Plan as necessary, to address new contaminants, hazards, and other contaminated media concerns associated with unanticipated and unknown contamination. When necessary, the Engineer shall provide sampling and analysis results to assist in updating the HASP, CMDP and other safety and hazmat documents. All document modifications shall be reviewed by the Engineer.

00291.46 Discovery of Active or Abandoned Underground Utilities or Tanks – Report any discovery of abandoned buried pipelines, utility conduits, or underground tanks to the Engineer within two hours. Manage and properly dispose of associated contaminated media according to these specifications. If an underground tank is encountered, provide a scope of work and cost estimate for permanent decommissioning to the Engineer. Do not proceed with tank decommissioning without Engineer approval. Tank decommissioning shall be performed by licensed personnel in accordance with DEQ regulations.

Measurement

00291.80 Measurement - The quantities of work performed under this Section will be measured according to the following:

- (a) **Lump Sum Basis** – No measurement of quantities will be made for lump sum items.
- (b) **Weight Basis** - Contaminated soil disposal will be measured by the ton at the disposal facility.

Payment

00291.90 Payment — Accepted quantities of work will be paid as follows:

| Pay Item | Unit of Measurement |
|--------------------------------|----------------------------|
| (a) Equipment Decontamination | Lump Sum |
| (b) HASP/CMDP | Lump Sum |
| (c) Contaminated Soil Disposal | Ton |

Payment for Item (a) will be payment in full for all labor, equipment, materials, and incidentals required to properly clean all equipment used to excavate, load, and dispose of contaminated material. No payment will be made until a written report is submitted detailing the decontamination performed on the equipment.

Payment for Item (b) will be payment in full for all work involved in developing, printing, revising, and distributing the HASP/CMDP work plans. The amount paid for the HASP/CMDP Work Plans will be made as follows:

| | |
|---|-----|
| When the HASP is approved | 25% |
| When the CMDP is approved | 25% |
| When final reports and all documentation have been received at completion of Project | 50% |

Payment for Item (c) will be payment in full for all labor, equipment, materials, and incidentals required to excavate, load, and dispose of contaminated soil, including truck liners (if needed). Quantity will be measured by disposal records at the disposal facility. Payment also includes all required notifications, daily reports, submittals, permits and disposal fees.

SECTION 00292 - CONTAMINATED GROUNDWATER

Section 00292, which is not a Standard Specification, is included in this Project by Special Provision.

Description

00292.00 Scope - The work required under this Special Provision consists of collection, testing, treatment, and disposal of groundwater wherever excavation dewatering may be required at the ITS sites described in Table 1 below. All water removed from the excavations at the ITS sites referenced below must be handled as potentially contaminated until otherwise demonstrated by analytical tests.

Table 1: Sites with Potential Contaminated Groundwater as reported in the Level 1 Hazardous Materials Assessment (GeoDesign, 2009)

| Site Name | Location or Address | Potential Contaminants |
|-------------------|---|---------------------------------|
| ITS Location # 1 | Approximately 900 feet SE of Se Firwood Road, east of Sandy, OR | Gasoline, Diesel, and Oil |
| ITS Location # 6 | SE of intersection of US 26 and the west end of the Government Camp Loop, Government Camp, OR | Gasoline, Diesel, and Oil |
| ITS Location # 8 | South of US 26 and 180 feet west of FSR 530, Government Camp, OR | Gasoline, Diesel, and Oil |
| ITS Location # 13 | 64250 SE Highway 26, Sandy, OR | Gasoline, Diesel, and Oil |
| ITS Location # 18 | Northeast of NW Yeon Ave. and approx. 115 feet SE of NW Brewer St., Portland, OR | Gasoline, Diesel, and Oil |
| ITS Location # 21 | North of OR 224, approx. 85 feet east of SE 98 th Ave., Clackamas, OR | Gasoline, Diesel, Oil, and VOCs |
| ITS Location # 23 | SE of OR 99E and approx. 50 feet NE of 15 th St., Oregon City, OR | Gasoline, Diesel, Oil, and PCBs |

00292.10 Health and Safety Plan – The health and safety plan shall include a hazard analysis for contaminated groundwater in accordance with 00291.10.

Labor

00292.30 Personnel Qualifications - Workers who may come into contact with contaminated groundwater shall have received training in accordance with 29 CFR 1910.120 and 00291.10.

A laboratory certified under the Oregon Environmental Laboratory Accreditation Program (ORELAP) or the Drinking Water Laboratory Certification Program shall conduct all groundwater sample analyses unless an Oregon DEQ-accepted field method is available.

Construction

00292.40 Collection, Testing, Treatment, and Disposal of Contaminated Groundwater - In addition to the requirements of 00290.20, collect, test, treat, and dispose of all contaminated groundwater when necessary for construction as follows:

- If groundwater will be discharged into a storm sewer or other surface water body, register for a general NPDES permit from DEQ. Complete and sign the NPDES permit application as the applicant and pay all applicable permit and disposal fees due to DEQ.
- If groundwater will be discharged into the sanitary sewer system, obtain permission from the City of Clatskanie. Complete and sign the permit application and pay all applicable permit and disposal fees due to the city.
- If groundwater is to be transported off-site to a treatment and disposal facility, ensure the accepting facility has analytical results prior to disposal and acceptance, and pay all applicable fees due to the receiving facility.
- If temporary on-site storage of contaminated groundwater is allowed, store in totally enclosed water-tight containers. Clearly label each container with contents and dates of accumulation. Dispose of temporarily stored contaminated groundwater within 30 days.
- Complete groundwater sampling and testing required for disposal, including collection and testing of discharge samples. Submit all samples to a qualified laboratory for analysis.

00292.41 Submittals - The following permits, information, and reports are required:

- Thirty days prior to start of construction, submit the required HASP.
- Discharge permit applications, upon submittal to the regulating agency.
- Submit copies of the completed and approved discharge permit applications at least five days prior to disposal of groundwater.
- Five days prior to start of treatment and disposal of contaminated groundwater, submit completed and approved discharge permit.
- If groundwater treatment is required to meet the discharge limitations of the disposal permit, obtain approval from the Engineer. Five days prior to treatment and disposal of contaminated groundwater, provide design of a groundwater treatment system, stamped by a professional engineer licensed to practice in Oregon.
- Five days prior to disposal provide notice of intended off-site disposal, including contact information for the receiving facility.
- Provide copies of disposal receipts within five days of off-site disposal of contaminated groundwater and/or treatment system wastes.
- Provide copies of all laboratory reports to ODOT before payment is made.

Measurement

00292.80 Measurement – Work performed under this Section will be measured according to the following:

a) Groundwater Collection Equipment - There will be no separate measurement for mobilizing/demobilizing and providing equipment to pump, collect and temporarily store groundwater.

(b) Groundwater Treatment and Disposal - Quantities for groundwater treatment and groundwater disposal will be determined by any of the following measurements:

- Mass or volume or both
- In tanks or tank trucks of predetermined capacity
- By approved meters

Measurement will be gallon of groundwater actually stored, treated, tested, and disposed of in the proper manner as specified or directed.

Payment

00292.90 Payment – The accepted quantities of work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

| Pay Item | Unit of Measurement |
|---|---------------------|
| (a) Groundwater Collection Equipment..... | Lump Sum |
| (b) Groundwater Treatment and Disposal..... | Gallon |

Item (a) includes providing equipment for collection, storage, and handling of any ground water that must be removed from dewatered excavations.

Item (b) includes collecting, storing, testing, treating and disposing of contaminated groundwater. Payment also includes all required notifications, submittals, groundwater testing, and permit and disposal fees.

Payment will be payment if full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

Payment for amounts beyond the quantity shown in the Schedule of Items will be made at the Contract unit price if the Engineer determines that the Contract unit price does not exceed the value of the work as determined on the basis of rates given in Section 00197. If the Engineer determines the Contract unit price exceeds the value of the work, payment for the additional work will be made according to Section 00196.