

## **C.1 DOE-C-1001 SCOPE OF WORK (APRIL 2012)**

### **Statement of Work (SOW) For The U. S. Department of Energy Oak Ridge Reservation Roads, Grounds, and Maintenance Service Support**

#### 1.0 INTRODUCTION/BACKGROUND

##### 1.1 Introduction

This Statement of Work (SOW) describes the roads, grounds, and maintenance support to be provided by the contractor supporting the Department of Energy's (DOE) Oak Ridge Office (ORO). The principal program office responsible for roads and grounds maintenance for the Oak Ridge Reservation (ORR) is the Facilities Management Team, Information Resources Management Division (IRMD).

##### 1.2 Background

Based in Oak Ridge, Tennessee, DOE ORO is rich in history, dating back to World War II when the organization played a major role in the production of enriched uranium for the Manhattan Project. Since then, ORO has expanded far beyond that first mission and today is responsible for major DOE programs that include science, environmental management, nuclear fuel supply, and national security, as well as providing support to science laboratories and facilities operated by DOE throughout the United States. ORO also provides support to national security activities at the Y-12 National Security Complex managed by the National Nuclear Security Administration (NNSA).

The majority of ORO program activities are performed at facilities located on the 33,725-acre ORR located in Anderson and Roane Counties in East Tennessee. The three major Oak Ridge facilities are the Oak Ridge National Laboratory (ORNL); the NNSA's Y-12 National Security Complex; and the East Tennessee Technology Park (ETTP). Also, Oak Ridge is the home of the American Museum of Science and Energy, and the Oak Ridge Institute for Science and Education (ORISE). Approximately 13,000 contractor employees work at the Oak Ridge facilities, thus providing a major source of economic impact to the state of Tennessee.

ORR roads and grounds maintenance was, until 1995, operated by one major (large business) construction contractor that operated with autonomy similar to that of a management and operations (M&O) contractor among the three major

site contractors. Since 1995, the scope of the contract has included maintaining approximately 100 miles of roads, and several hundred acres of grounds that are not directly under the management of the Contractors at the major ORR sites, ETTP, NNSA's Y-12 Nuclear Weapons Complex and ORNL.

## 2.0 SCOPE

The ORR roads, grounds, maintenance and maintenance support required under this contract are broken into requirements as detailed in Section 4.0.

### 2.1 Location of Performance

Performance under this contract shall take place primarily within the confines of the federal ORR. Some tasks will involve work at all three of the major contractor-operated sites.

### 2.2 Resources

#### 2.2.1 Government Furnished

The government will provide the necessary facilities and equipment for the contractor to perform assigned tasks and meet performance requirements described in the SOW. A current listing of government furnished equipment is located in Section J, Attachment C.

#### 2.2.2 Contractor Furnished

The contractor shall provide the necessary personnel, materials, supplies and services, (except as may be expressly set forth in this contract as provided by the government) and otherwise do all things necessary for, or incidental to, the performance of the work required under this contract.

## 3.0 APPLICABLE DOCUMENTS

DOE O 221.1A	Reporting Fraud, Waste, and Abuse to the Office of the Inspector General
DOE O 231.1B,	Environment, Safety, and Health Reporting
DOE O 414.1D	Quality Assurance
DOE G 440.1-1B	Worker Safety and Health Program for DOE (Including The National Nuclear Security Administration) Federal and Contractor Employees
10 CFR 851	Worker Safety and Health Program
DOE P 450.4A	Integrated Safety Management Policy
DOE P 470.4B	Safeguards and Security Program
DOE O 471.1B	Identification and Protection of Unclassified Controlled Nuclear Information

DOE O 471.6	Information Security DOE N 206.4 Personal Identity Verification
DOE 475.2A	Identifying Classified Information
DOE G 573.1-1	Mail Services Users Manual
DOE O 433.1B	Maintenance Management Program for DOE Nuclear Facilities
DOE O 580.1A	DOE Personal Property Management Program, 3-30-12
23CFR 650 Subpart C	National Bridge Inspection Standards
29 CFR 1926	OSHA requirements for construction activities
29 CFR 1910	OSHA requirements for general industry
41 CFR 101	Federal Property Management Regulations
41 CFR 109	Department of Energy Property Management Regulations
NFPA 1143	Standard for Wildland Fire Management
NFPA 1144	Standard for Protection of Life and Property from Wildfire, 2002 Edition Section 5.1 Roads National Fire Protection Association
Federal Highway Administration	Manual on Uniform Traffic Control Devices
Local Policy	ORO access control and key control accountability policy
EPACT	Energy Policy Act of 1992 (EPACT); EPACT 2005
Executive Orders	Executive Order 13423; and Executive Order 13514
All applicable federal, state, local laws and regulations:	

#### 4.0 REQUIREMENTS/NECESSARY CONDITIONS

##### 4.1 General Necessary Conditions

###### 4.1.1 Security

All Key Personnel and employees delivering fuel in security areas at the NNSA's Y-12 Security Complex must be able to obtain and maintain "L" level clearance, and to a limited extent, a "Q" level clearance.

###### 4.1.2 Safety

The contractor shall establish and maintain a health and safety program in accordance with 10 CFR 851, and DOE Policy 450.4.

#### 4.1.3 Collective Bargaining Agreement

The majority of personnel under this contract are members of a collective bargaining agreement (CBA). The Contractor will become signatory to the CBA in effect.

#### 4.1.4 Inter-Contractor Work

If the Contractor chooses to perform work for other DOE contractors, the contractor must enter into separate contracts for the work. Costs under these separate contracts are not allowable under this contract. Equipment and facilities provided under this contract may not be used for any purposes other than the contract requirements unless specifically authorized by the Contracting Officer's Representative (COR).

In the event the COR approves the use of contract equipment, facilities, and/or storage as provided above, a usage fee will be determined by rates established by the current Equipment Watch Rental Rate Blue Book at the following website:

[http://www.equipmentwatch.com/Marketing/RRBB\\_overview.jsp](http://www.equipmentwatch.com/Marketing/RRBB_overview.jsp)

The Contractor shall credit this usage fee to this contract. The Contractor shall maintain documentation to support the usage fee credit. Rates may be reviewed on an annual basis for adjustment.

#### 4.2 General ORO expectations:

DOE expects safe, quality based, timely, and cost-effective performance of the work required by this contract. The Contractor must be able to communicate issues and identify trends that warrant the attention of the COR and Alternate COR relating to all aspects of the work. Specific expectations by tasks are described in section 4.3. The COR and Alternate COR expect the Contractor to notify DOE when insufficient funding will impact the performance of the tasks listed in section in 4.3. The COR will be the primary point of contact for daily operations.

#### 4.3 Work Requirements

4.3.1 Task: Operate an Equipment Maintenance Shop. The Contractor shall maintain heavy equipment in accordance with manufacturer/industry standard repair manual, or the appropriate Chilton's manual, whichever is more rigorous. In addition, the Contractor shall record all services, repairs, usage, and fuel costs. All employees under this task must be trained, and possess the necessary licenses and/or trade certifications to maintain the equipment. The Contractor shall also properly account and

store all hazardous materials consistent with EPA and OSHA standards.

- 4.3.2 Task: Maintain Self-Service Fuel Dispensing Stations. The Contractor shall maintain self-service fuel stations and ancillary equipment (vacuum stations, wiper fluid buckets, and air stations) and ensure that all systems are working properly. In addition, the Contractor must coordinate bulk fuel purchase with General Services Administration (GSA) and authorized vendors; and invoice Government fleet users. These fuel stations are located at the Y-12 National Security Complex, Federal Office Building, and the Roads and Grounds Maintenance Shop.
- 4.3.3 Task: Operate and Maintain a Fuel Dispensing Vehicle. The Contractor shall operate a fuel dispensing vehicle to support security vehicles located in sensitive areas in the NNSA's Y-12 Nuclear Weapons Complex Site. The Contractor is expected to respond within 10 minutes of the call for fuel. Contractor must establish communication with the protective force contractor/ Y-12 Plant Shift Superintendent. A "Q" clearance is required for the performance of this task.
- 4.3.4 Task: Maintain Oak Ridge Reservation Roadways. The Contractor shall maintain approximately 100 miles of Level I, II, III, IV, V and VI classified roadways and bridges in accordance with Tennessee Highway Department of Safety and local roadway safety rules and regulations. Based on funding, it is the expectation of the COR and Alternate COR that the Contractor shall maintain all roads, and particularly the paved roads, at the highest levels.

Roads:

- Approximately *three miles of Level I roads* are expected to be passable, free of fallen trees and brush
- Approximately *ten miles of Level II and III roads* are expected to be passable, free of fallen trees, and inspected every two years for surface maintenance conditions and adequate drainage
- Approximately *57 miles of Level IV roads* are expected to be maintained at the National Fire Protection Association (NFPA) standard of 20' widths with 13'6" overhead clearance. Monthly inspections are required and shall be documented; **NFPA 1143: Standard for Wildland Fire Management and NFPA 1144: Standard for Reducing Structure Ignition Hazards from Wildland Fire**

- *Approximately 13 miles of Level V paved roads* shall be maintained at TDOT standards, and documented inspections conducted quarterly are required
- *Approximately 17 miles of Level VI paved public roads* are expected to be maintained at the same standard as Level V roads. It is the expectation of the COR and Alternate COR that the Contractor shall maintain all roads, and particularly the paved roads at the highest level.

Bridges:

Bridge ID

- K-1250-4 located on Perimeter Road, concrete span bridge, inspections required every two years, repairs as recommended based on the inspecting firm's findings and based on National Bridge Inspections Standard (NBIS)
- 73-A138-0.11 located on Bear Creek Road, box culvert bridge
- 73-0E398001 located on Bear Creek Road, 3 culvert bridge
- 73-0E399002 located on Bear Creek Road, 4 culvert bridge
- Ish Creek located on New Zion Patrol Road, concrete span bridge
- Old County located on Old County Road, concrete bridge

Bridges stated above, repairs as recommended based on the inspecting firm's findings and based on National Bridge Inspections Standard (NBIS)

- 4.3.5 Task: Snow/Ice Removal of Oak Ridge Reservation Roadways and Paved Parking Lots. The Contractor shall conduct snow and de-icing activities on all Level V and VI roads and parking lots until roadways are passable under posted speed limits and/or wet surface conditions. Snow and/or ice removal activities should begin within one hour of snowfall pending official notification from the Facilities Management Office. Pretreatment or application of salt brine solution to road surfaces and level of effort shall be coordinated with and approved by the COR or Alternate COR.
- 4.3.6 Task: Maintain Roadway, Guardrails, Signage, and Parking Lots. The Contractor shall maintain approximately 5500 linear feet of guardrails. All guardrails and their components shall be serviceable, and replaced as required. Approximately 500 roadway signs shall be serviceable and replaced as required. Unserviceable or missing signage shall be reported to the COR and Alternate COR as soon as practicable. There are approximately 15 parking lots that require periodic surveillance and

maintenance. When construction funds are available, re-surface and re-stripe parking lots as directed by the COR.

- 4.3.7 Task: Maintain Barrier Gates and Locks/Keys Control. The Contractor shall maintain approximately 140 ORR barrier gates with accompanying locks and keys in accordance with ORO access control and key control accountability policy. Barrier gates shall be serviceable and uniform in appearance (yellow with decal markings); in addition, a documented lock/key control program shall be maintained in accordance with ORO local policies.
- 4.3.8 Task: Maintain Reservation-Wide Cemetery Fencing, Headstones, and Gates. The Contractor shall maintain the fencing and gates of the cemeteries located throughout the ORR, and when necessary reposition fallen tombstones to their original up-right position. Cemeteries shall be surveyed monthly to assess the conditions of the fencing, gates, and headstones. In addition, burial support may be required for logistical coordination only
- 4.3.9 Task: Support Annual Public and DOE Events. The Contractor shall provide logistical set-up support approximately two annual retreats at the Wheat and Bethel Valley churches and historical cemeteries. The Wheat and Bethel Valley events are to be fully supported by providing tents, chairs, and portable toilets and potable water for approximately 100 people. The Contractor shall also support other DOE events as necessary. Shuttle support is to be provided to and from the Oak Ridge Federal Building. The Contractor shall perform cleanup of the site following the event as directed by the COR.
- 4.3.10 Task: Support ORO Building Maintenance with Earthwork Construction. The Contractor shall provide equipment and operators, as required to support incidental building maintenance and construction. The contractor shall provide construction expertise and manpower to support ORO missions as directed by the COR and Alternate COR.
- 4.3.11 Task: Construct New and Maintain Existing Fire Grid. At the direction of the COR and Alternate COR, the Contractor shall construct wild land fire grid roads and maintain existing wild land fire grid road networks. The Contractor shall ensure that the fire grid roads meet NFPA requirements including 13'6" overhead clearances from vegetation and 20'- 30' road widths. Any new fire grid roads constructed will be determined by available funding and at the direction of the COR.
- 4.3.12 Task: Construct New Roads and other Earth-work Construction. The Contractor shall construct, modify, repair or remove roads, or perform

other heavy earthwork construction projects upon the direction of the COR and Alternate COR. Paving activities less than 15,840 square feet or 1/4 linear mile will be categorized and performed as maintenance

activities. All activities exceeding these parameters are defined as construction activities and current Davis-Bacon “heavy highway” rates shall be applied.

4.3.13 Task: Provide Worker Training. The Contractor shall provide worker training per DOE requirements/regulations and the collective bargaining agreement training requirements. The following training is required under the contract pending the availability of funding: environmental, occupational safety and health, quality control, technical qualification/certification, and any additional trade requirements.

4.3.14 Task: Declared Emergency and Mutual Aid. As directed by the COR or Alternate COR, the Contractor shall provide support services to authorized agents during a declared emergency.

4.3.15 Task: Grounds Maintenance. The Contractor shall provide services as directed by the Facilities Management Office relating to ground maintenance including tree and brush removal, bush-hogging, drainage, and other related activities.

**Notes & Guidance: This section is intended as general guidance and is only provided to assist the Contractor as it may apply in its approach. The Government is not directing/mandating that these notes and guidance be followed.**

1. A road may contain segments maintained by other DOE prime contractors, which are, therefore, not the responsibility of the Contractor.
2. Typical barrier gates maintenance may require occasional welding and may be considered an acceptable repair option versus complete replacement. Other maintenance activities such as lubrication of hinges and locks have also helped to increase the life of the gates and locks. Gates may be recycled i.e., removed or replaced to other areas of the ORR as directed.
3. Utility line rights-of-way maintenance via bush-hogging is typically done twice annually during the spring and fall (growing seasons); additional bush-hogging may be required if weather promotes excessive growth.
4. Technical construction support (expertise) typically includes project controls, inspection, planning, coordination, safety, health/physics, and industrial hygiene.

Historically, the Contractor has been required to produce or procure as-built drawings in cases where none exists. In addition, the Contractor has also been required to prepare budget estimates and provide engineering plans, drawings, documents, and construction inspection applicable to roadway and earthwork activities, including limited construction.

## 5.0 GLOSSARY

**Level I** – Roads with a width of 8-10 feet. These roads require basic custodial care primarily to maintain a passable thoroughfare (4 wheel drive). Travel is considered non-existent on most Level I roads. Maintenance activities involve maintaining the right-of-way by proper drainage and logging out. Maintenance is reviewed every 3 years.

**Level II** – Roads with a width of 10-12 feet designed for specific use (such as low use power line roads). Maintenance activities are limited to brushing, maintaining proper drainage, and stabilization of road segments. Inspection occurs every two years to determine the required maintenance schedule.

**Level III** – Roads with a width of approximately 15 feet. General use and some power line roads receiving less than 20 vehicles per day. Maintenance activities for these roads include roadway, shoulder, road side, drainage, structure, and traffic service. Annual maintenance is performed on these roads in order to maintain a satisfactory level of service.

**Level IV** – Roads with a width of approximately 20 feet receiving more than 20 vehicles per day. Maintenance activities are similar to Level III. Some activities such as surface blading, ditching, and culvert cleaning are reviewed quarterly on the more traveled roads.

**Level V** – Paved surfaces that are not opened for public use. Maintenance and inspection of surfaces, shoulders, culverts, and ditches are performed quarterly.

**Level VI** – Similar to Level V roads, however, these roads are accessible to the public. Maintenance and inspection of surfaces, shoulders, culverts, and ditches are performed quarterly.

**National Bridge Safety Inspection Standards (NBIS):**

Includes, but is not limited to the following: painting, brush removal, guardrail alignment, pavement repair, and structural and sub-structural repair and/or replacement.

**CO** – Contracting Officer

**COR** – Contracting Officer’s Representative

**Alternate COR** – Alternate Contracting Officer’s Representative

**TDOT** – Tennessee Department of Transportation

## 6.0 DELIVERABLES

The Contractor shall provide deliverables in accordance with the Reporting Requirements Checklist, Section J, Attachment B.