LOW ACTIVITY WASTE PRETREATMENT SYSTEM
SITE PREPARATION

Project No. T5L01
CSI Section 01 50 00, Rev. 02

Facilities, Aids and Temporary Controls

Date: August 9, 2017

Prepared for the U.S. Department of Energy
Office of River Protection

Post Office Box 850
Richland, Washington 99352

Contractor for the U.S. Department of Energy
Contract No. DAC27-08RV14800
### APPROVALS:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Sign</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tara G. Reed</td>
<td>Buyers Technical Representative</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Print)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tom Kisenwether</td>
<td>Construction Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Print)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rick Rast</td>
<td>Engineering Design Authority</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Print)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tom Goedjen</td>
<td>Project Construction Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Print)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Print)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Print)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LAWPS Site Preparation
Facilities, Aids and Temporary Controls

TABLE OF CONTENTS

1.0 SUMMARY ........................................................................................................................................ 5
1.1 References ....................................................................................................................................... 5
1.2 General Submittals for Approval ....................................................................................................... 5
2.0 MOBILIZATION OF TEMPORARY CONSTRUCTION FACILITIES & EQUIPMENT ........... 7
  2.1 Mobilization and Maintenance Plans .............................................................................................. 7
3.0 TEMPORARY FIELD OFFICES/FACILITIES ................................................................................. 8
  3.1 Hanford Fire Marshall Permit(s) ...................................................................................................... 8
  3.2 Mobile Office (trailer) Requirements ............................................................................................... 8
  3.3 General Requirements .................................................................................................................. 12
4.0 TEMPORARY UTILITIES .................................................................................................................... 13
  4.1 Facilities Electric Power .................................................................................................................. 13
  4.2 Construction Power ........................................................................................................................ 13
  4.3 Sanitary Facilities ............................................................................................................................ 14
  4.4 Telephone ...................................................................................................................................... 14
  4.5 Water .............................................................................................................................................. 15
5.0 TEMPORARY CONTROLS .................................................................................................................. 15
  5.1 Dust Control ................................................................................................................................... 15
  5.2 Work Zone Delineation and Traffic Controls .................................................................................. 15
6.0 OPERATIONS AND MAINTENANCE (O&M) ................................................................................ 16
  6.1 Equipment Operation and Maintenance .......................................................................................... 16
  6.2 Maintenance of Roads, Sidewalks, and Building Access Points .................................................. 17
  6.3 Maintenance of Construction Facilities .......................................................................................... 18
  6.4 Medical Facilities ............................................................................................................................ 18
  6.5 Pest and Noxious Weed Control .................................................................................................... 19
  6.6 Site Enclosure Fence ...................................................................................................................... 19
  6.7 Project Signs ................................................................................................................................... 19
  6.8 Parking .......................................................................................................................................... 20
  6.9 Staging Areas .................................................................................................................................. 20
7.0 TEMPORARYWAREHOUSE ............................................................................................................... 20
LAWPS Site Preparation
Facilities, Aids and Temporary Controls

7.2 Temporary Warehouse Engineering and Design Submittals ......................................................... 22
Attachment A ........................................................................................................................................ 24
1.0 SUMMARY

This section identifies construction controls for mobilizing equipment, installation of temporary field office and facilities, including temporary utilities and maintaining the work site for the Low Activity Waste Pretreatment System Project (LAWPS)

Hereinafter, the construction SUBCONTRACTOR (includes lower tier subcontractors and suppliers) shall be referred to as “SUBCONTRACTOR” and Washington River Protection Solutions LLC (WRPS) shall be referred to as “BUYER.”

1.1 References

a. 29 CFR 1926, “Occupational Safety and Health Administration”
b. 49 CFR 325-399 Transportation
c. ASCE/SEI 7 10, Minimum Design Loads for Buildings and Other Structures
d. DOE-STD-1066-2012, Fire Protection
e. DOE-STD-1088-95, Fire Protection for Relocatable Structures
f. HNF-36174, DOE Fire Protection Handbook
h. MSC-PRO-FROP-2827, “Facility and Mobile Office Number Management”
i. National Electric Code (NEC), 2014
j. NFPA 70 “National Electrical Code”
m. NFPA 230, “Standard for Fire Protection Storage”
n. Section 01 35 00 “LAWPS Construction Safety & Health”
o. TFC-ENG-STD-06 Design Loads for Tank Farms Facilities
p. WAC 296-150F “Factory-Built Housing and Commercial Structures”

1.2 General Submittals for Approval

1.2.1 Submittals that are listed within this section shall be prepared and processed in accordance with requirements and related Section 01 33 00 "Submittals" and shall include all of the required Quality Assurance documentation in accordance with related Section 01 40 00 “Quality Assurance”

a. Mobilization Plan: SUBCONTRACTOR shall submit a Mobilization Plan prior to initiating mobilization of equipment, materials, tools, facilities, and personnel to the site in accordance with section 2.1 below.
LAWPS Site Preparation
Facilities, Aids and Temporary Controls

b. Construction Site layout Plan: SUBCONTRACTOR shall submit a construction site layout plan prior to initiating mobilization of equipment, materials, tools, facilities, and personnel to the site. Plan shall identify the BUYER, SUBCONTRACTOR, lower-tier subcontractor facilities and support/storage requirements. Plan shall include equipment lay down, storage, fabrication shops, excess material/equipment storage areas, etc. BUYER will provide a preliminary layout plan that the SUBCONTRACTOR can utilize for information. SUBCONTRACTOR responsible for the construction site layout to support construction.

c. Dust Control Plan: SUBCONTRACTOR shall submit Dust Control Plan prior to beginning any earth disturbing activities in accordance with 5.1 below.

d. Traffic Control Plan: SUBCONTRACTOR shall submit a Traffic Control Plan prior to initiating equipment traffic on the Project Site in accordance with 5.5 below.

e. Equipment Maintenance Plan: SUBCONTRACTOR shall submit an Equipment Maintenance Plan prior to mobilizing equipment on the Project Site.

f. Submittal Requirements for Office Facilities shall include but are not limit to:
   1. Vendor drawings and calculations
   2. Wiring diagrams and panel schedule (PE Stamped, include DWG File)
   3. Proposed Materials and Equipment
   4. Final as-built drawings, diagrams, and calculations (including DWG file)
   5. Final material and equipment book (hard copy and electronic file)
   6. Operations and maintenance manuals
   7. Hanford Facility Number Request Form

g. Submittal Requirements for Temporary Warehouse shall include but are not limited to:
   1. 60% Design Package
   2. 100% Design Package (PE Stamped, include DWG File)
   3. Final As-Built Drawings (PE Stamped, include DWG File)
   4. Testing and Inspection Documentation
   5. Operation and Maintenance Manuals
2.0 MOBILIZATION OF TEMPORARY CONSTRUCTION FACILITIES & EQUIPMENT

2.1 Mobilization and Maintenance Plans

2.1.1 Mobilization Plan shall be submitted to the BUYER for approval describing and depicting SUBCONTRACTOR’S proposed locations within the identified boundary of the LAWPS Project Site for delivery and staging of equipment, facilities, tools, materials, personnel, workforce parking, (no on street parking will be allowed) and SUBCONTRACTOR provided, BUYER’s Construction management team (CMT) occupied facilities. Mobilization Plan shall indicate the general arrangement of the facilities, equipment, lay-down/staging yards for materials and supplies, heavy equipment staging and servicing/maintenance areas, and any temporary utilities required.

2.1.2 Mobilization Plan shall describe and depict (layout sketch) SUBCONTRACTOR’S proposed route(s) of access to the Project Site. Mobilization Plan shall address SUBCONTRACTOR’S proposed methods of controlling access (i.e. temporary signage, postings, fencing, barricading, etc.) to the LAWPS Project Site of non-project personnel.

2.1.3 Mobilization Plan shall include a listing of equipment to be mobilized (by phase/schedule). SUBCONTRACTOR shall update the equipment listing when additional equipment is brought on to or removed from the site. SUBCONTRACTOR shall submit certification that equipment delivered to the site is Occupational Safety and Health Administration (OSHA) compliant, uncontaminated, and has been inspected and meets the requirements of the contract documents. Equipment brought on site shall use non-regulated oils and coolants. Equipment shall be in good working condition, have maintenance records, and free of any residual dirt, oil, or grease. BUYER reserves the right to perform inspections, and radiological surveys.

2.1.4 SUBCONTRACTOR shall submit an equipment inspection and preventative maintenance program to BUYER for approval. A checklist shall be included for each piece of equipment that includes, at a minimum, items required by 29 CFR 1926.601 for motor vehicles and 29 CFR 1926.602 for material handling equipment. The checklist shall include or reference criteria for performing daily inspections. The checklist shall also include or reference criteria for determining the acceptability of equipment for use. Checklists are to ensure that safety-related devices (e.g., brakes, warning indicators, gauges) are tested and functioning properly. The submittal shall include a description of the process for revising the checklist to ensure accuracy and adequacy prior to use. SUBSUBCONTRACTOR shall manage vehicle waste including disposal and recycling as appropriate. SUBSUBCONTRACTOR shall use manufacturer-recommended vehicle fluids and provide Material Safety Data
LAWPS Site Preparation
Facilities, Aids and Temporary Controls

Sheets/Safety Data Sheets (MSDS/SDS) in accordance with subcontract requirements.

2.1.5 SUBCONTRACTOR shall be responsible for any stripping, leveling, and other preparatory work as determined necessary by SUBCONTRACTOR to prepare designated delivery, staging, and equipment laydown and maintenance areas.

2.1.6 Security for SUBCONTRACTOR supplied equipment, materials, facilities, and work in progress shall be the responsibility of SUBCONTRACTOR.

3.0 TEMPORARY FIELD OFFICES/FACILITIES

3.1 Hanford Fire Marshall Permit(s)

3.1.1 Hanford Fire Marshall Permit(s) are required for construction/installation of portable structures, including office trailers, outside cargo containers (e.g., Connex boxes, Sea-Land containers and semi-trailers), before bringing the structures on site and use.

3.1.2 Portable structures shall comply with the Hanford site requirements.

3.1.3 A minimum of two labels shall be posted on each cargo container brought on-site by SUBCONTRACTOR:

a. Contact information for Point of Contact (POC) responsible for the container and

b. Indication of compliance with National Fire Protection Association (NFPA), if applicable.

3.1.4 BUYER shall provide the required permit(s) to SUBCONTRACTOR. Notify BUYER 5 work days prior to need for specified permit. SUBCONTRACTOR shall comply with permit requirements.

3.1.5 Any structure, mobile building, connex, or tent installed for 180 days or more shall be considered permanent for design, construction, and operational purposes.

3.2 Mobile Office (trailer) Requirements

3.2.1 Hanford Site Form A-6002-836 “Hanford Facility Number Request” shall be submitted for all mobile offices and trailers and connex boxes prior to delivery to site per MSC-PRO-FPROP-2827, “Facility and Mobile Office Number Management”.

3.2.2 Trailers and portable structures shall comply with DOE-STD 1066-2012, Fire Protection. This DOE standard includes but is not limited to the following general requirements:
3.2.3 Trailers and Portable structures shall be constructed to conform to the International Building Code, IBC 2012 and ASCE 7-10, Risk Category II

3.2.4 Trailers and Portable structures will be classified as a general service, non-nuclear safety related facility.

a. Seismic: SDS = 0.588, SD1 = 0.192, horizontal, seismic design category D

b. Wind: Ultimate Straight Wind Speed (3-sec gust) = 110 mph, Exposure Category C

c. Ashfall: 3.2 psf. Ashfall loads are substituted for snow or roof live loads in IBC/ASCE load combinations. Minimum roof live load accounts for ashfall.

d. Snow: ground snow load = 15 psf

e. Roof loading: minimum roof live load = 20 psf

c. Thermal loads should be considered

d. Floor loads are applied based on intended use and occupancy. The minimum floor live load is 50-psf. Uniform and concentrated loads shall be considered.

3.2.5 Gold Seal insignia from Washington State Department of Labor and Industries (WAC 296-150F). Gold seal shall be attached to the structure.


3.2.7 Portable structures shall meet the requirements of NFPA 101, “Life Safety” code. This generally means having at least two exits and no dead end corridors in excess of 20 ft. or common paths of travel in excess of 75 ft. All interior finish shall be at least Class C or better. Stairs (rise and run) and landings (location and size) must meet the requirements of NFPA 101.

3.2.8 No wood paneling is allowed, interior walls shall be covered with ½ inch thick gypsum (sheetrock) meeting the requirements specified in the codes, standards.

3.2.9 Closed vented skirting must be provided for all portable structures with open under floor areas.

3.2.10 Gutters and downspouts will be furnished and installed over entrances, exits, and walkways.
3.2.11 Portable structures shall not be installed over any underground utilities or under any overhead power lines.

3.2.12 Interior door hardware shall be lever-type handles with blank locksets to be keyed by others.

3.2.13 Exterior metal doors with narrow lite window and metal frame.
   a. Door closures to be Corbin Russwin, Model #DC3210 M54 689 or approved equal.
   b. Paint color to be medium gray (similar to the pewter colored rubber cove base).
   c. Door hardware to be Von Duprin E996L-US26D crash bar assembly or approved equal.
   d. BUYER will install omni-locks on BUYER used facilities

3.2.14 Portable structures shall be separated from other such units by at least 10 ft. These structures shall be separated from permanent buildings and storage areas by at least 60 ft. unless approved by the Hanford Site Fire Marshall.

3.2.15 Portable structures shall be no closer than 50 ft. from a fire hydrant.

3.2.16 Portable Structures provided at remote location shall have fire breaks to prevent exposure from a range fire.

3.2.17 Materials and assemblies requiring testing by an NFPA code or standard shall have acceptable proof that the materials were tested in accordance with that code by an OSHA Nationally Recognized Testing Laboratory, such as:

   a. Testing Certificates and proof that the material is the same as the one tested, or
   b. Listing in an approved guide/directory accompanied with proof that the material is the same as the one tested, or
   c. Letter form a testing agency accompanied with proof that the material is the same as the one tested, or
   d. Testing agency endorsed label (indicating the testing laboratory, rating of material and test method used).

3.2.18 Offices, cubicles, and the conference room(s) shall be provided with telephone and network cables (Cat 5 type) connected to a central panel located in the conference room(s) or closet.
a. Each HLAN location shall consist of one (1) white, single gang cover plate with two (2) jacks.

b. Install one (1) cable for each jack.

c. The jacks shall be white, two each per plate.

d. Each jack shall be labeled in consecutive order: 1, 2, 3, 4, 5, etc.

3.2.19 Offices, hall ways, and conference room(s) layout and size must be as directed by BUYER.

3.2.20 Electrical

a. There shall be no shared neutrals in this installation.

b. Electrical panel shall be located inside the trailer in a utility room
   1. Panel shall be recessed in the wall, flush mount.

c. Furnish and install one (1) spare 2 IN PVC conduit from the bottom of the panel to below the floor that can be accessed from underneath the trailer.
   1. Extend spare conduit 12 IN below vapor barrier and cap for future use.
   2. There shall be no more than eight (8) receptacles on each circuit.
   3. Receptacles and switches shall be Specification Grade 20 amp, 120 volt, white, Decorator style with white covers to match.

d. Furnish and install recessed single receptacles with “in use” weatherproof cover for exterior use as required.

3.2.21 Lighting

a. Lighting (interior and exterior) shall be on its own circuit.

b. Interior light fixtures shall be 24 IN by 48 IN LED troffer light fixtures and switching (or approved equal).
   1. Light fixtures shall be Lithonia cat # 2GTL4 60L LP840 NX (or equal). Maintenance disconnect shall be included.

c. Furnish and install additional wire supports for each light fixture.
   1. Minimum of two (2) supports per fixture installed on opposite corners.
   2. Supports to run from fixture to permanent building structure.
d. Furnish and install two (2) exterior porch lights shall be RAB Lighting #ENTRA12N, 120 volt, bronze finish without photocell (or approved equal).

e. Furnish and install four (4) exterior flood lights shall be RAB Lighting #FXLED105TN, 105W LED, cord and plug, bronze finish, without photocell, with trunnion mount and arm (or approved equal).

f. Furnish and install exterior lighting to be controlled by one (1) 24-volt photocell controlled lighting system consisting of the following:
   1. Photocell shall be Watt Stopper #EM-24D2 or approved equal.
   2. Transformer/relay shall be Watt Stopper #BZ-150 or approved equal.
   3. Photocell shall extend above the roof line and shall be facing north.

3.2.22 Windows

a. Windows shall be 48 IN by 48 IN.

b. Windows shall have a white vinyl frame with double pane glass and low-E coating.

c. Blinds shall be 1” white horizontal, interior mount, aluminum blinds.

3.3 General Requirements

3.3.1 Upon delivery, SUBCONTRACTOR shall make field service connections required to support facilities, (e.g. electrical service, etc.). BUYER reserves the right to inspect the facilities and field service connections at any time. SUBCONTRACTOR shall maintain and promptly correct deficiencies to support facilities throughout the duration of the Project.

3.3.2 Sufficiently anchor or tie down any portable and re-locatable structures, including field offices and storage, to prevent overturning and lateral movement resulting from wind and seismic loading. Enclose or skirt under the floor area with non-combustible material to prevent the accumulation of wind-blown debris. Complete the required anchoring and skirting within 14 days after its arrival at the worksite.

3.3.3 The BUYER reserves the right to inspect and approve the office trailer prior to delivery.

3.3.4 The SUBCONTRACTOR shall follow applicable Washington State Department of Transportation (WSDOT) regulations during transportation.

3.3.5 The SUBCONTRACTOR shall install the trailer in the area(s) designated by BUYER. Installation includes preparing the foundations, installing the trailer tie-downs/anchoring, and the trailer skirting, furnish and connect the trailer to the
LAWPS Site Preparation  
Facilities, Aids and Temporary Controls

electrical power supply and install conduits for telecommunications; and furnishing and installation of entrance/exit stairs.

3.3.6 Membrane tents/structures used to form enclosures shall be a minimum of six (6) mils and meet NFPA 701 testing requirements.

3.3.7 Membrane tents/structures in excess of 200 ft\(^2\) and canopies in excess of 400 ft\(^2\) require a Fire Marshal permit.

3.3.8 Wood shall be fire retardant impregnated or coated with nationally recognized testing laboratory approved fire retardant material.

4.0 TEMPORARY UTILITIES

SUBCONTRACTOR shall provide and maintain (as-build) two controlled set of drawings for temporary utilities.

4.1 Facilities Electric Power

4.1.1 Temporary power will be available and may be utilized by SUBCONTRACTOR for temporary facilities and temporary construction electrical requirements. MSA will provide two 300kVA pole mounted transformers on the south side of the project site. Each transformer will supply a 400A switchboard also provided by MSA. SUBCONTRACTOR shall provide all necessary equipment, materials, and labor required to extend power from the switchboards to the temporary facilities. SUBCONTRACTOR shall install the required equipment and material in compliance with all NFPA 70 National Electric Code requirements, and shall obtain required NEC inspections.

4.1.2 Electrical Distribution Systems shall be designed with heavy duty electrical components.

4.1.3 SUBCONTRACTOR shall remove temporary installations at completion of the Project. SUBCONTRACTOR shall remove the facilities and temporary construction power from the 400A switchboards at the completion of the project. Use of the permanent main transformer by the SUBCONTRACTOR for temporary power shall be approved by BUYER prior to use. SUBCONTRACTOR shall maintain an as-built set of drawings for temporary utilities.

4.2 Construction Power
LAWPS Site Preparation
Facilities, Aids and Temporary Controls

4.2.1 Power for construction is available through the two 400A switchboards and with BUYER approval through the permanent main transformer. If more power is required the SUBCONTRACTOR is to provide generator power sources sufficiently sized to meet the electrical service needs to execute the construction activities.

4.3 Sanitary Facilities

4.3.1 Temporary heated and cooled modern toilet facilities (flush/running water) with separate areas for males and females, and potable water in accordance with applicable OSHA regulations and Washington State Department of Health regulations.

4.3.2 Facilities shall have self-contained holding tanks with appropriate alarms and monitoring as required by Washington State Department of Health and OSHA Health and Safety requirements.

4.3.3 SUBCONTRACTOR shall arrange for pumping and disposal of on-site holding tanks.

4.3.4 SUBCONTRACTOR shall clean, stock, and maintain facilities.

4.3.5 Subcontractor shall provide portable chemical toilets (male and female) as required at remote work locations (> 100’ from central site facilities).

4.4 Telephone

4.4.1 SUBCONTRACTOR shall provide cellular phone(s) for emergencies and required communication with the BUYER. BUYER will provide its own telephone service.
4.5 Water

4.5.1 Drinking water is not available. Provide SUBCONTRACTOR provided facilities and SUBCONTRACTOR and BUYER employees with adequate drinking water that meets Washington State Department of Health and OSHA Health and Safety requirements.

4.5.2 Construction water will be available onsite. SUBCONTRACTOR shall provide necessary equipment, materials, and labor to connect to or extend to existing water connections. Coordination with the Mission Support Alliance (MSA) site water purveyor is required.

4.5.3 An alternate source of construction water is available from the existing fill station located within the 200 East Area of the Hanford Site. The fill station is located on 4th Street near the west exit of the 200 East Area. Fill station use shall be coordinated with CMT and MSA Water Utilities.

5.0 TEMPORARY CONTROLS

5.1 Dust Control

5.1.1 Maintain work areas to prevent hazard or nuisance to others. Accomplish dust control in accordance with the approved Dust Control Plan. Dust Control Plan requirements shall be continuously implemented to keep disturbed area damp or application of approved crusting/control agents. Keep sufficient equipment on worksite to accomplish dust control in accordance with the approved Dust Control Plan as work proceeds and whenever dust nuisance or hazard occurs. No separate or direct payment will be made for dust control and cost shall be considered incidental to and included in the Subcontract pricing.

5.2 Work Zone Delineation and Traffic Controls

5.2.1 SUBCONTRACTOR shall supply materials, equipment, and labor required for the demarcation and maintenance of construction zones/areas. SUBCONTRACTOR shall provide, install, and maintain posting (signs and labels) and any temporary fencing required for the performance of the work.

5.2.2 Traffic corridors shall be distinguished in accordance with the BUYER approved Traffic Control Plan. The Traffic Control Plan shall be developed, submitted, and maintained by SUBCONTRACTOR. The plan shall include, but not be limited to, information regarding SUBCONTRACTOR equipment haul routes, equipment interface with other onsite SUBCONTRACTOR vehicle paths, and signage.
5.2.3 SUBCONTRACTOR shall maintain the Project Site Roads in good condition throughout the duration of the Project. Road maintenance is to include snow removal, road repairs, and signage for safety as deemed necessary by the BUYER.

6.0 OPERATIONS AND MAINTENANCE (O&M)

SUBCONTRACTOR shall maintain on site temporary facilities and equipment.

6.1 Equipment Operation and Maintenance

6.1.1 Equipment brought to the site shall be maintained and operated as intended by the manufacturer; shall be in good working condition; and shall be free of residual dirt, oil, or grease. Cracked or broken glass shall be replaced. No modifications or additions that affect the capacity or safe operation of the equipment shall be made without the manufacturer’s written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly.

6.1.2 Motor vehicles and equipment shall be inspected at the beginning of each shift to ensure that the equipment is in safe operating condition and free of apparent damage that could cause failure while in use. The inspections shall be documented prior to using the equipment. The SUBCONTRACTOR shall maintain an orderly file of equipment maintenance, inspection, and repair records available for BUYER review.

6.1.3 SUBCONTRACTOR shall dispose of equipment maintenance wastes in accordance with applicable Washington State and Federal regulations.

6.1.4 During mobilization and throughout the work, SUBCONTRACTOR shall only provide equipment that is capable of performing the work in accordance with the Subcontract documents. SUBSUBCONTRACTOR shall provide BUYER with an itemized list of facilities, equipment and tools prior to bringing them on-site. SUBCONTRACTOR shall submit certification that equipment delivered to the site is compliant with Occupational Safety and Health Administration (OSHA) requirements, is uncontaminated and has been inspected in accordance with OSHA and manufacturer’s instructions. SUBCONTRACTOR shall not remove facilities, equipment or tools from the work site without radiological release (if required) and written approval of BUYER.

6.1.5 SUBCONTRACTOR shall submit an equipment inspection and preventative maintenance program to SUBCONTRACTOR for approval. A checklist shall be included for each piece of equipment that includes, at a minimum, items required by 29 CFR 1926.601 for motor vehicles and 29 CFR 1926.602 for material handling equipment. The checklist shall include or reference criteria for performing daily
inspections. The checklist shall also include or reference criteria for determining the acceptability of equipment for use. Checklists are to ensure that safety-related devices (e.g., brakes, warning indicators, gauges) are tested and functioning properly. The submittal shall include a description of the process for revising the checklist to ensure accuracy and adequacy prior to use. SUBSUBCONTRACTOR shall manage vehicle waste including disposal and recycling as appropriate. SUBSUBCONTRACTOR shall use manufacturer-recommended vehicle fluids and provide Material Safety Data Sheets (MSDS) in accordance with subcontract requirements.

6.2 Maintenance of Roads, Sidewalks, and Building Access Points

6.2.1 SUBCONTRACTOR shall maintain access control as necessary to prevent unauthorized access to the site. This shall include, as needed, the appropriate use of signage, fencing, traffic cones and barricades, or other materials and items. SUBCONTRACTOR shall maintain access road(s) continuously free of dust during transport operations, for up to two full shifts per day. Maintenance, repair, or improvements of project site roadways, such as maintaining roadways and haul routes uniformly graded for travel and drainage, free of ruts or bumps, and sufficiently watered to prevent generation of dust, shall be the responsibility of SUBCONTRACTOR.

6.2.2 SUBCONTRACTOR shall maintain the facility and work area walkways, roads, stairs, etc. during inclement weather. SUBCONTRACTOR shall be responsible for removal of snow, water, debris, and other deleterious materials on the jobsite access roadways, as well as parking lots and walkways, and SUBCONTRACTOR'S utilities roads until the completion of the Work scope and final acceptance by the BUYER. During the winter months the road ways, walkways, stairs, etc. shall be cleared and salted to prevent slips, trips, and falls. The SUBCONTRACTOR shall designate/provide personnel to begin clearing and salting activities prior to the beginning of the work shift. The clearing and salting activities shall be completed 20 minutes prior to the start of the normal work shift.

6.2.3 SUBCONTRACTOR shall construct and maintain temporary access and haul roads as may be necessary for the proper performance of this Subcontract. SUBCONTRACTOR shall submit a layout of all proposed roads prior to road construction. The layout shall show widths of roads, direction of traffic, curves, grades, and related information in sufficient detail for review by BUYER. Roads constructed shall be subject to BUYER’s approval.

6.2.4 SUBCONTRACTOR maintained roads shall be left in good working condition, including but not limited to, elimination of potholes, uniformly graded for travel and drainage, and shoulders dressed at the completion of the Work prior to final payment.
6.3 Maintenance of Construction Facilities

6.3.1 SUBCONTRACTOR shall maintain construction facilities.

6.3.2 SUBCONTRACTOR shall perform housekeeping for construction facilities as required to keep the site free of miscellaneous litter, trash, and debris.

6.3.3 SUBCONTRACTOR is responsible for housekeeping activities (e.g., water, trash, janitorial) for construction facilities provided by SUBCONTRACTOR.

6.3.4 SUBCONTRACTOR shall conduct routine and daily (in heavy traffic/use areas) cleaning required to keep construction facilities, site grounds, roads, and work site free of trash, litter, food, and tumbleweeds.

6.3.5 SUBCONTRACTOR shall provide supplies, materials, and services for drinking water, toilet facilities, and wash water facilities (table, cups, dispenser, liquid soap and dispenser, towels, trash receptacles, and water) for site workers, BUYER personnel and SUBCONTRACTOR provided facilities.

6.3.6 SUBCONTRACTOR shall provide an adequate supply of trash receptacles/dumpsters at the site and shall be responsible for verification of appropriate material (non-hazardous, non-radioactive) for SUBCONTRACTOR offsite disposal of accumulated trash in accordance with Federal and Washington State regulations.

6.4 Medical Facilities

6.4.1 First Aid: SUBCONTRACTOR shall provide at the site and make available to workers a complete First Aid kit with medical supplies for temporary treatment of minor injuries and equipment necessary to render first aid.

6.4.2 Maintain on site complete information regarding First Aid procedures including, without being limited to, cardio pulmonary resuscitation and poison control treatments. Safety Data Sheets (SDS) for products on site shall be available for inspection and copies shall be sent to the BUYER prior to the products being delivered to the site.

6.4.3 Post at project site, telephone numbers for Hanford Fire Department and Hanford Patrol.

6.4.4 Facilities for first line medical attention are available onsite and are located at the 2719WB building located approximately 5 road miles from the Project Site near the
6.5 **Pest and Noxious Weed Control**

6.5.1 BUYER will engage Mission Support Alliance (MSA) Pest/Vegetation Control Service to minimize attraction and harboring of pests and to perform extermination and control procedures at regular intervals so project site will be free of pests and their residues. Noxious weed control will be provided by the BUYER via MSA also.

6.6 **Site Enclosure Fence**

6.6.1 Before construction operations begin SUBCONTRACTOR shall furnish and install site enclosure fence in a manner that will prevent people from easily entering site, except by entrance gates.

6.7 **Project Signs**

6.7.1 Provide project signs as indicated on drawings and in accordance with specification 10 14 23.13

6.7.2 Provide project signs indicated, unauthorized signs are not permitted

6.7.3 Temporary signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to project site as well as safety hazards.

6.7.4 Provide temporary directional signs for construction personnel and visitors.

6.7.5 Maintain and touch up signs so they are legible.

6.7.6 Signs shall be in accordance with the following standards:

a. 29 CFR 1910, “Occupational Safety and Health Administration, Department of Labor.”
   1. Subpart J, “General Environmental Controls.”

b. 29 CFR 1926, “Safety and Health Regulations.”
   2. 29 CFR 1926.200, “Accident Prevention Signs and Tags.”
LAWPS Site Preparation
Facilities, Aids and Temporary Controls

6.8 Parking

6.8.1 Provide parking areas for construction personnel and visitors. Parking areas shall be well lit.

6.9 Staging Areas

6.9.1 The BUYER will identify areas for staging, and laydown for the SUBCONTRACTOR equipment.

6.9.2 The SUBCONTRACTOR shall establish controls (barriers, flagging, signage, etc.) to assure only designated areas are used and to identify SUBCONTRACTOR’s items and materials.

6.9.3 SUBCONTRACTOR shall establish a controlled material laydown area. The laydown area shall be fenced with locks and meet the applicable quality and security program requirements to control and protect the material and equipment being stored. In addition, SUBCONTRACTOR is responsible for providing adequate and appropriate shelter/facilities in order to support material storage requirements. SUBCONTRACTOR is responsible to provide controls to prevent lost or stolen equipment and materials.

7.0 TEMPORARY WAREHOUSE

7.1 SUBCONTRACTOR shall provide the engineering, procurement and construction of a permanent warehouse that meet the following criteria:

7.1.1 The warehouse shall be a standalone metal structure. Structural steel or pre-engineered metal building (by MBMA member) are acceptable provided the design satisfies IBC 2012 and ASCE 7-10, Risk Category II

7.1.2 The temporary warehouse will be classified as a general service, non-nuclear safety related facility.

   a. Seismic: SDS = 0.588, SD1 = 0.192, horizontal, seismic design category D

   b. Wind: Ultimate Straight Wind Speed (3-sec gust) = 110 mph, Exposure Category C

   c. Ashfall: 3.2 psf. Ashfall loads are substituted for snow or roof live loads in IBC/ASCE load combinations. Minimum roof live load accounts for ashfall.

   d. Snow: ground snow load = 15 psf
LAWPS Site Preparation  
Facilities, Aids and Temporary Controls

e. Roof loading: minimum roof live load = 20 psf

f. Floor live load = 250 psf for slab on grade.

g. Flood loading is Not Applicable

7.1.3 The warehouse shall have the overall dimensions of 80’ feet x 62’ feet x (Attachment A).

7.1.4 High-bay construction provided as part of the building shell and core provisions. Minimum interior height free clearance of 24 feet.

7.1.5 Insulated interior partition walls shall be one layer ½” GWB both sides on metal studs at 16” OC.

7.1.6 Designed in accordance with NFPA 230.

7.1.7 Must be designed to meet local building, fire, and life-safety codes.

7.1.8 The warehouse will have heated (30’ x 62’) and unheated space.

7.1.9 One side of the warehouse shall be isolated and be serviced with heating, ventilation, and air conditioning (HVAC). Insulated exposed duct work with overhead diffusers. The HVAC shall be designed to provide controlled environment for storage of the LAWPS resin.

7.1.10 Include electric lighting system and electric outlets (110 and 240). Lighting to provide required lumen for light industrial storage with 3 way switches at each entrance for each bay. Exterior automatic day/night lighting at each exterior man door. One 240 volt outlet in each bay and wall mounted duplex outlets every 50’ OC.

7.1.11 The entire warehouse shall be insulated.

7.1.12 Include non-slip surface treatments on floors subject to wetting, such as outdoor docks, to eliminate slips and falls to personnel

7.1.13 Include signage (life safety, exit, emergency lighting, etc.).

7.1.14 Incorporate energy efficiency designs (light colored roof, white painted interior metal roof decking, energy efficient fixtures, etc.).

7.1.15 2 each 12’W by 18’H and 2 each 10’ W by 14’H exterior concealed overhead coiling doors with bumper guards and weather seals. Bottom lock powered operation with manual override. One 10’W by 14’H interior concealed overhead
LAWPS Site Preparation
Facilities, Aids and Temporary Controls

coiling powered roll up door with bumper guards and weather seals into the heated space. Roll up doors shall be a minimum of 20 gage galvanized steel.

7.1.16 5 exterior and 3 interior man doors 3’ by 7’. Door frames minimum 14 gauge metal frames, hardware to be latch sets with emergency crash bar on interior.

7.1.17 14’ W by 12’L exterior concrete pad at each roll up door. 4’ by 4’ exterior concrete pad at each exterior man door.

7.1.18 Provide a Radio Fire Alarm Reporter (RFAR) box to be connected to the site fire alarm system.

7.1.19 Foundation design shall utilize LAWPS Geotechnical Report (22-1-03156-070-R3). Minimum foundation depth shall be 30 inches below finished grade.

7.1.20 Concrete and rebar design and construction shall be in accordance with ACI 318-11 and ACI 301-10

7.1.21 Steel design and construction shall be in accordance with AISC 360-10 (and 14th edition Manual) and AISC 341-10, where applicable

7.1.22 Concrete and rebar construction tolerances shall be in accordance with ACI 117-10

7.1.23 Concrete reinforcement shall be ASTM A615, 60-ksi steel

7.1.24 Reinforcement Detailing shall follow ACI SP-66 (includes ACI 315). Shop drawings shall be submitted for approval

7.1.25 Reinforcement Certified Mill Test Reports shall be furnished with ordered material

7.1.26 Mechanical reinforcement couplers should be avoided, where practical. If required, mechanical couplers shall be submitted with accepted test data for approval prior to use in design and construction.

7.2 Temporary Warehouse Engineering and Design Submittals

7.2.1 60% Design Package

a. Preliminary general layout drawings.

b. Preliminary structural calculations.


d. Preliminary specifications (electrical, civil, structural, architectural).
LAWPS Site Preparation
Facilities, Aids and Temporary Controls

e. Preliminary vendor information (doors, windows, roofing, etc.).

f. Preliminary architectural drawings.

g. Preliminary structural drawings.

7.2.2 100% Design Package (issued for construction)

a. General layout drawings.

b. Structural drawings (including shop drawings).

c. Electrical one line diagram and load sizing calculations. Including Radio Fire Alarm Reporter (RFAR) box.

d. Final specifications (electrical, civil, structural, architectural).

e. Vendor information (doors, windows, roofing, etc.).

f. Architectural drawings.

7.2.3 Completion/Closeout Package

a. As-built drawings.

b. Testing and inspection documentation.

c. Vendor Operations and maintenance Manuals.
LAWPS Site Preparation
Facilities, Aids and Temporary Controls

Attachment A
LAWPS Site Preparation
Facilities, Aids and Temporary Controls

TEMPORARY WAREHOUSE