

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE J	PAGE OF PAGES 1 37
2. AMENDMENT/MODIFICATION NO. 0001	3. EFFECTIVE DATE 03-Mar-2004	4. REQUISITION/PURCHASE REQ. NO. W38XDD-3325-5870		5. PROJECT NO.(If applicable)
6. ISSUED BY US ARMY CORPS OF ENG.-NASHVILLE DISTRICT CELRN-CT, ROOM A604 110 NINTH AVE. SOUTH P O BOX 1070 NASHVILLE TN 37202-1070	CODE W912P5	7. ADMINISTERED BY (If other than item 6) CONTRACTING DIVISION (JEC) EMAIL:JAMES.E.CHOATE@USACE.ARMY.MIL (615) 736-7946 NASHVILLE TN 37202		CODE H3P0000
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)			<input checked="" type="checkbox"/> 9A. AMENDMENT OF SOLICITATION NO. W912P5-04-B-0010	
			<input checked="" type="checkbox"/> 9B. DATED (SEE ITEM 11) 13-Feb-2004	
			10A. MOD. OF CONTRACT/ORDER NO.	
			10B. DATED (SEE ITEM 13)	
CODE	FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS				
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended.				
Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA (If required)				
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.				
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).				
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.				
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Reference summary of changes for description of this solicitation amendment.				
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.				
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
			TEL: _____ EMAIL: _____	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 03-Mar-2004

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

The purpose of this solicitation amendment is to change title of SUB CLINS 0001BN thru 0001BZ to read PERMANENT SEEDING. SUB CLIN TEMPORARY SEEDING has been added as a line item to the PROTOTYPICAL Project. SECTION 01525 Safety and Occupational Health Requirements of the Specifications has been added to the Specification package. Section 02112 Clearing, Grubbing, Excavation and Seeding is hereby removed and replaced by the revision attached in the Summary of Changes to correct paragraph 1.4.2.

Replacement bid schedules are incorporated as part of this solicitation amendment.

FAR 52.236-17 Layout of Work, is hereby deleted from the Section 00700.

SECTION 01525**GENERAL REQUIREMENTS****Section Table of Contents**

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SECTION 01525

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

1.1.1 AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z359.1 (1999) Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components

1.1.2 ASME INTERNATIONAL (ASME)

ASME B30.3 (1996) Construction Tower Cranes

ASME B30.5 (2000) Mobile and Locomotive Cranes

ASME B30.8 (2000) Floating Cranes and Floating Derricks

ASME B30.22 (2000) Articulating Boom Cranes

1.1.3 U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910 Occupational Safety and Health Standards for General Industry

29 CFR 1910.94 Ventilation

29 CFR 1910.120 Hazardous Waste Operations and Emergency Response

29 CFR 1910.146 Permit-required Confined Spaces

29 CFR 1915 Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment

29 CFR 1919 Gear Certification

29 CFR 1926 Safety and Health Regulations for Construction

29 CFR 1926.62 Lead in Construction

29 CFR 1926.65 Hazardous Waste Operations and Emergency Response

29 CFR 1926.450 Scaffolds

29 CFR 1926.500 Fall Protection

29 CFR 1926.1101 Asbestos

1.1.4 U. S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2003) Safety and Health Requirements Manual

1.1.5 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 (1998) Portable Fire Extinguishers

NFPA 51B (2003) Fire Prevention During Welding, Cutting, and Other Hot Work

NFPA 70 (2002) National Electrical Code

NFPA 241 (2000) Safeguarding Construction, Alteration, and Demolition Operations

1.2 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP) - GA

Activity Hazard Analysis (AHA) - GA

Crane Critical Lift Plan - GA

Crane Work Plan - FIO

Proof of qualification for Crane Operators; G

SD-06 Test Reports

Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports." - FIO

Accident Reports - FIO

Monthly Exposure Reports - FIO

Regulatory Citations and Violations - FIO

Crane Reports - FIO

SD-07 Certificates

Confined Space Entry Permit - FIO

Certificate of Compliance (Crane) - FIO

Submit one copy of each permit attached to each Daily Quality Control Report.

1.3 DEFINITIONS

This paragraph explains certain terminology which is common to construction of streambank stabilization work on the Tennessee and Cumberland Rivers and which may not be self-explanatory in the subsequent applicable provisions of the Technical Specifications and on the Contract Drawings.

1.3.1 Competent Person for Fall Protection

A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as their application and use with related equipment, and has the authority to take prompt corrective measures to eliminate the hazards of falling.

1.3.2 High Visibility Accident

Any mishap which may generate publicity and/or high visibility.

1.3.3 Low-slope roof

A roof having a slope less than or equal to 4 in 12 (vertical to horizontal).

1.3.4 Medical Treatment

Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even though provided by a physician or registered personnel.

1.3.5 Multi-Employer Work Site (MEWS)

A multi-employer work site, as defined by OSHA, is one in which many employers occupy the same site. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors.

1.3.6 Operating Envelope

The area surrounding any crane. Inside this "envelope" is the crane, the operator, riggers, rigging gear between the hook and the load, the load and the crane's supporting structure (ground, rail, etc.).

1.3.7 Qualified Person for Fall Protection

A person with a recognized degree or professional certificate, extensive knowledge, training and experience in the field of fall protection who is capable of performing design, analysis, and evaluation of fall protection systems and equipment.

1.3.8 Recordable Injuries or Illnesses

Any work-related injury or illness that results in:

- (1) Death, regardless of the time between the injury and death, or the length of the illness;
- (2) Days away from work;
- (3) Restricted work;
- (4) Transfer to another job;
- (5) Medical treatment beyond first aid;
- (6) Loss of consciousness; or
- (7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

1.3.9 Site Safety and Health Officer (SSHO)

The superintendent or other qualified or competent person who is responsible for the on-site safety and health required for the project. The Contractor quality control (QC) person can be the SSHO on this project.

1.3.10 Steep roof

A roof having a slope greater than 4 in 12 (vertical to horizontal).

1.3.11 USACE

"USACE" property and equipment specified in USACE EM 385-1-1 should be interpreted as Government property and equipment.

1.3.12 Wight Handling Equipment (WHE) Accident

A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; and collision, including unplanned contact between the load, crane, and/or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, roll over, etc.).

1.4 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with USACE EM 385-1-1, and the following federal, state, and local laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply.

1.5 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.6 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The SSHO shall meet the following requirements:

A minimum of 5 years safety work on similar projects.

30-hour OSHA construction safety class or equivalent within the last 5 years.

An average of at least 24 hours of formal safety training each year for the past 5 years.

1.6.1.4 Competent Person for Confined Space Entry

Provide a competent person meeting the requirements of EM 385-1-1 who is assigned in writing by the Designated Authority to assess confined spaces and who possesses demonstrated knowledge, skill and ability to:

- a. Identify the structure, location, and designation of confined and permit-required confined spaces where work is done;

- b. Calibrate and use testing equipment including but not limited to, oxygen indicators, combustible gas indicators, carbon monoxide indicators, and carbon dioxide indicators, and to interpret accurately the test results of that equipment;
- c. Perform all required tests and inspections specified in 29 CFR 1910.146 and 29 CFR 1915 Subpart B;
- d. Assess hazardous conditions including atmospheric hazards in confined space and adjacent spaces and specify the necessary protection and precautions to be taken;
- e. Determine ventilation requirements for confined space entries and operations;
- f. Assess hazards associated with hot work in confined and adjacent space and determine fire watch requirements; and,
- g. Maintain records required.

1.6.1.5 Competent Person for the Health Hazard Control and Respiratory Protection Program

Provide a competent person meeting the requirements of EM 385-1-1 who is:

- a. Capable by education, specialized training and/or experience of anticipating, recognizing, and evaluating employee exposure to hazardous chemical, physical and biological agents in accordance with USACE EM 385-1-1, Section 6.
- b. Capable of specifying necessary controls and protective actions to ensure worker health.

1.6.1.6 Crane Operators

Crane operators shall meet the requirements in USACE EM 385-1-1, Section 16 and Appendix G. In addition, for mobile cranes with Original Equipment Manufacturer (OEM) rated capacities of 50,000 pounds or greater, crane operators shall be designated as qualified by a source that qualifies crane operators (i.e., union, a government agency, or and organization that tests and qualifies crane operators). Proof of current qualification shall be provided.

1.6.2 Personnel Duties

1.6.2.1 Site Safety and Health Officer (SSHO)/Superintendent

- a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Safety inspection logs shall be attached to the Contractors' daily quality control report.
- b. Conduct mishap investigations and complete required reports. Maintain the OSHA Form 300 and Daily Production reports for prime and sub-contractors.
- c. Maintain applicable safety reference material on the job site.
- d. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.
- e. Implement and enforce accepted APPS and AHAs.
- f. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.
- g. Ensure sub-contractor compliance with safety and health requirements.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

1.6.3 Meetings

1.6.3.1 Preconstruction Conference

- a. The Contractor will be informed, in writing, of the date of the preconstruction conference. The purpose of the preconstruction conference is for the Contractor and the Contracting Officer's representatives to become acquainted and explain the functions and operating procedures of their respective organizations and to reach mutual understanding relative to the administration of the overall project's Accident Prevention Plan (APP) before the initiation of work.

b. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).

c. The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.

d. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

e. The functions of a Preconstruction conference may take place at the Post-Award Kickoff meeting for Design Build Contracts.

1.6.3.2 Weekly Safety Meetings

Conduct weekly safety meetings at the project site for all employees. The Contracting Officer will be informed of the meeting in advance and be allowed attendance. Minutes showing contract title, signatures of attendees and a list of topics discussed shall be attached to the Contractors' daily quality control report.

1.6.3.3 Work Phase Meetings

The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection. The analysis should be used during daily inspections to ensure the implementation and effectiveness of safety and health controls.

1.7 TRAINING

1.7.1 New Employee Indoctrination

New employees (prime and sub-contractor) will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.7.2 Periodic Training

Provide Safety and Health Training in accordance with USACE EM 385-1-1 and the accepted APP. Ensure all required training has been accomplished for all onsite employees.

1.7.3 Training on Activity Hazard Analysis (AHA)

Prior to beginning a new phase, training will be provided to all affected employees to include a review of the AHA to be implemented.

1.8 ACCIDENT PREVENTION PLAN (APP)

The Contractor shall use a qualified person to prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan". Where a paragraph or subparagraph element is not applicable to the work to be performed indicate "Not Applicable" next to the heading. Specific requirements for some of the APP elements are described below at paragraph 1.8.1. The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. The Contracting Officer reviews and comments on the Contractor's submitted APP and accepts it when it meets the requirements of the contract provisions.

Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any unforeseen hazard become evident during the performance of work, the project superintendent shall inform the Contracting Officer, both verbally and in writing, for resolution as soon as possible. In the interim, all necessary action shall be taken by the Contractor to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment.

Copies of the accepted plan will be maintained at the Contracting Officer's office and at the job site. The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.8.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of USACE EM 385-1-1, the following is required:

1.8.1.1 Names and Qualifications

Names and qualifications (resumes including education, training, experience and certifications) of all site safety and health personnel designated to perform work on this project to include the designated site safety and health officer and other competent and qualified personnel to be used. The duties of each position shall be specified.

1.8.1.2 Qualifications of Competent and of Qualified Persons

As a minimum, competent persons shall be designated and qualifications submitted for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; personal protective equipment and clothing to include selection, use and maintenance.

1.8.1.3 Confined Space Entry Plan

Develop a confined space entry plan in accordance with USACE EM 385-1-1, applicable OSHA standards 29 CFR 1910, 29 CFR 1915, and 29 CFR 1926, and any other federal, state and local regulatory requirements identified in this contract. Identify the qualified person's name and qualifications, training, and experience. Delineate the qualified person's authority to direct work stoppage in the event of hazardous conditions. Include procedure for rescue by contractor personnel and the coordination with emergency responders. (If there is no confined space work, include a statement that no confined space work exists and none will be created.)

1.8.1.4 Health Hazard Control Program

The Contractor shall designate a competent and qualified person to establish and oversee a Health Hazard Control Program in accordance with USACE EM 385-1-1, Section 6. The program shall ensure that employees, on-site Government representatives, and others, are not adversely exposed to chemical, physical and biological agents and that necessary controls and protective actions are instituted to ensure health.

1.8.1.5 Crane Critical Lift Plan

Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane or hoist; lifts of personnel; and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. The plan shall be submitted 15 calendar days prior to on-site work and include the requirements of USACE EM 385-1-1, paragraph 16.c.18. and the following:

- (1) For lifts of personnel, the plan shall demonstrate compliance with the requirements of 29 CFR 1926.550(g).
- (2) For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and trim. The amount of list and trim shall be within the crane manufacturer's requirements.

1.8.1.6 Alcohol and Drug Abuse Plan

- (1) Describe plan for random checks and testing with pre-employment screening in accordance with the DFAR Clause subpart 252.223-7004, "Drug Free Work Force."

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(2) Description of the on-site prevention program

1.8.1.7 Fall Protection and Prevention (FP&P) Plan

The plan shall be site specific and address all fall hazards in the work place and during different phases of construction. It shall address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 1.8 m (6 feet). A qualified person for fall protection shall prepare and sign the plan. The plan shall include fall protection and prevention systems, equipment and methods employed for every phase of work, responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Fall Protection and Prevention Plan shall be for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. The accepted Fall Protection and Prevention Plan shall be kept and maintained at the job site for the duration of the project. The Fall Protection and Prevention Plan shall be included in the Accident Prevention Plan (APP).

1.8.1.8 Training Records and Requirements

List of mandatory training and certifications which are applicable to this project (e.g. explosive actuated tools, confined space entry, fall protection, crane operation, vehicle operator, forklift operators, personal protective equipment); list of requirements for periodic retraining/certification; outline requirements for supervisory and employee safety meetings.

1.8.1.9 Site Safety and Health Plan

The safety and health aspects prepared in accordance with the specifications.

1.8.1.10 Excavation Plan

The safety and health aspects prepared in accordance with this specification.

1.8.1.11 Crane Work Plan

The contractor shall provide a crane work plan to the Contracting Officer for acceptance. The crane work plan shall include the specific model of each crane and a drawing identifying their locations (exact), the dimensions, wheel sizes, number of wheels, wheel spacing, tire pressure(s), number of axles, axle spacing, minimum wheel load to be exerted during operations and maximum outrigger load to be exerted during operations. The Contractor shall allow at least 10 working days for acceptance/non-acceptance of the crane work plan. No crane operations shall begin prior to written acceptance of the crane work plan by the Government.

1.9 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1. Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHA as amendments to the APP. An AHA will be developed by the Contractor for every operation involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform work. The analysis must identify and evaluate hazards and outline the proposed methods and techniques for the safe completion of each phase of work. At a minimum, define activity being performed, sequence of work, specific safety and health hazards anticipated, control measures (to include personal protective equipment) to eliminate or reduce each hazard to acceptable levels, equipment to be used, inspection requirements, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall protection methods used. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include requirements for safeguarding excavations. An activity requiring an AHA shall not proceed until the AHA has been accepted by the Contracting Officer's representative and a meeting has been conducted by the Contractor to discuss its contents with everyone engaged in the activity, including on-site Government representatives. The Contractor shall document meeting attendance at the preparatory, initial, and follow-up phases of quality control inspection. The AHA shall be continuously reviewed and, when appropriate, modified to address changing site conditions or operations. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

Activity hazard analyses shall be updated as necessary to provide an effective response to changing work conditions and activities. The on-site superintendent, site safety and health officer and competent persons used to develop the AHAs, including updates, shall sign and date the AHAs before they are implemented.

1.10 DISPLAY OF SAFETY INFORMATION

Within 1 calendar days after commencement of work, erect a safety bulletin board at the job site. The following information shall be displayed on the safety bulletin board in clear view of the on-site construction personnel, maintained current, and protected against the elements and unauthorized removal:

- a. Map denoting the route to the nearest emergency care facility.
- b. Emergency phone numbers.
- c. Copy of the most up-to-date APP.
- d. Current AHA(s).
- e. OSHA 300A Form.
- f. OSHA Safety and Health Protection-On-The-Job Poster.
- g. Confined space entry permit.
- i. A sign indicating the number of hours worked since last lost workday accident.
- j. Safety and Health Warning Posters.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.13 REPORTS

1.13.1 Accident Reports

- a. For recordable injuries and illnesses, and property damage accidents resulting in at least \$2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the USACE Accident Report Form 3394 and provide the report to the Contracting Officer within 1 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.
- b. For any weight handling equipment accident (including rigging gear accidents) the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the WHE Accident Report (Crane and Rigging Gear) form and provide the report to the Contracting Officer within 30 calendar days of the accident. Crane operations shall not proceed until cause is determined and corrective actions have been

implemented to the satisfaction of the contracting officer. The Contracting Officer will provide a blank copy of the accident report form.

1.13.2 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$2,000, or any weight handling equipment accident. Information shall include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted.

1.13.3 Monthly Exposure Reports

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special forms.

1.13.4 Regulatory Citations and Violations

Contact the Contracting Officer immediately of any OSHA or other regulatory agency inspection or visit, and provide the Contracting Officer with a copy of each citation, report, and contractor response. Correct violations and citations promptly and provide written corrective actions to the Contracting Officer.

1.13.5 Crane Reports

Submit crane inspection reports required in accordance with USACE EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

1.13.6 Certificate of Compliance

The Contractor shall provide a Certificate of Compliance for each crane entering an activity under this contract (see Contracting Officer for a blank certificate). Certificate shall state that the crane and rigging gear meet applicable OSHA regulations (with the Contractor citing which OSHA regulations are applicable, e.g., cranes used in construction, demolition, or maintenance shall comply with 29 CFR 1926 and USACE EM 385-1-1 section 16 and Appendix H. Certify on the Certificate of Compliance that the crane operator(s) is qualified and trained in the operation of the crane to be used. The Contractor shall also certify that all of its crane operators working on the DOD activity have been trained in the proper use of all safety devices (e.g., anti-two block devices). These certifications shall be posted on the crane.

PART 2 PRODUCTS

2.1 CONFINED SPACE SIGNAGE

The Contractor shall provide permanent signs integral to or securely attached to access covers for new permit-required confined spaces. Signs wording: "DANGER--PERMIT-REQUIRED CONFINED SPACE - DO NOT ENTER -" in bold letters a minimum of 25 mm (one inch) in height and constructed to be clearly legible with all paint removed. The signal word "DANGER" shall be red and readable from 1.52 m (5 feet).

2.2 FALL PROTECTION ANCHORAGE

Fall protection anchorage, conforming to ANSI Z359.1, installed under the supervision of a qualified person in fall protection, shall be left in place for continued customer use and so identified by signage stating the capacity of the anchorage (strength and number of persons who may be tied-off to it at any one time).

PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

The Contractor shall comply with USACE EM 385-1-1, NFPA 241, the APP, the AHA, Federal and/or State OSHA regulations, and other related submittals and activity fire and safety regulations. The most stringent standard shall prevail.

3.1.1 Hazardous Material Use

Each hazardous material must receive approval prior to being brought onto the job site or prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material. Any work or storage involving hazardous chemicals or materials must be done in a manner that will not expose Government or Contractor employees to any unsafe or unhealthful conditions. Adequate protective measures must be taken to prevent Government or Contractor employees from being exposed to any hazardous condition that could result from the work or storage. The Prime Contractor shall keep a complete inventory of hazardous materials brought onto the work-site. Approval by the Contracting Officer of protective measures and storage area is required prior to the start of the work.

3.1.2 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials.

3.1.3 Unforeseen Hazardous Material

The design should have identified materials such as PCB, lead paint, and friable and non-friable asbestos. If material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. The Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 PRE-OUTAGE COORDINATION MEETING

Contractors are required to apply for utility outages at least 15 days in advance. As a minimum, the request should include the location of the outage, utilities being affected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved, and prior to beginning work on the utility system requiring shut down, the Contractor shall attend a pre-outage coordination meeting with the Contracting Officer to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.

3.3 FALL HAZARD PROTECTION AND PREVENTION PROGRAM

The Contractor shall establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. The program shall include company policy, identify responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and escape procedures.

3.3.1 Training

The Contractor shall institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, the Contractor shall provide training for each employee who might be exposed to fall hazards. A competent person for fall protection shall provide the training. Training requirements shall be in accordance with USACE EM 385-1-1, section 21.A.16.

3.3.2 Fall Protection Equipment

The Contractor shall enforce use of the fall protection equipment designated for each specific work activity in the Fall Protection and Prevention Plan and/or AHA at all times when an employee is on a surface 1.8 m(6 feet) or more above lower levels. Fall protection systems such as guardrails, personnel fall arrest system, safety nets, etc., are required when working within 1.8m (6 feet) of any leading edge. In addition to the required fall protection systems, safety skiff, personal floatation devices, life rings etc., are required when working above or next to water in accordance with USACE EM 385-1-1, paragraphs 05.I. and 05.J. Personal fall arrest systems are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall arrest systems are required when operating other equipment such as scissor lifts if the work platform is capable of being positioned outside the wheelbase. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, or travel. Fall protection must comply with 29 CFR 1926.500, Subpart M and USACE EM 385-1-1.

3.3.2.1 Personal Fall Arrest Equipment

Personal fall arrest equipment, systems, subsystems, and components shall meet ANSI Z359.1. Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest device. Body belts may only be used as a positioning device system (for uses such as steel reinforcing assembly and in addition to an approved fall arrest system). Harnesses shall have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Only locking snap hooks and carabiners shall be used. Webbing, straps, and ropes shall be made of synthetic fiber. The maximum free fall

distance when using fall arrest equipment shall not exceed 1.8 m (6 feet). The total fall distance and any swinging of the worker (pendulum-like motion) that can occur during a fall shall always be taken into consideration when attaching a person to a fall arrest system.

3.3.3 Fall Protection for Roofing Work

Fall protection controls shall be implemented based on the type of roof being constructed and work being performed. The roof area to be accessed shall be evaluated for its structural integrity including weight-bearing capabilities for the projected loading.

3.3.3.1 Low Sloped Roofs:

- (1) For work within 1.8 m (6 feet) of an edge, on low-slope roofs, personnel shall be protected from falling by use of personal fall arrest systems, guardrails, or safety nets.
- (2) For work greater than 1.8 m (6 feet) from an edge, warning lines shall be erected and installed in accordance with 29 CFR 1926.500 and USACE EM 385-1-1.

3.3.3.2 Steep Roofs:

Work on steep roofs requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also includes residential or housing type construction.

3.3.4 Safety Nets

If safety nets are used as the selected fall protection system on the project, they shall be provided at unguarded work places, leading edge work or when working over water, machinery, dangerous operations or other surfaces where the use of ladders, scaffolds, catch platforms, temporary floors, fall arrest systems or restraint/positioning systems are impractical. Safety nets shall be tested immediately after installation with a drop test of 181.4 kg (400 pounds) dropped from the same elevation a person might fall, and every six months thereafter.

3.3.5 Existing Anchorage

Existing anchorages, to be used for attachment of personal fall arrest equipment, shall be certified (or re-certified) by a qualified person for fall protection in accordance with ANSI Z359.1. Existing horizontal lifeline anchorages shall be certified (or re-certified) by a registered professional engineer with experience in designing horizontal lifeline systems.

3.3.6 Horizontal Lifelines

Horizontal lifelines shall be designed, installed, certified and used under the supervision of a qualified person for fall protection as part of a complete fall arrest system which maintains a safety factor of 2 (29 CFR 1926.500).

3.3.7 Guardrail Systems

Guardrails shall consist of top and mid-rails, post and toe boards. The top edge height of standard railing must be 42 inches plus or minus 3 inches above the walking/working level. When mid-rails are used, they must be installed at a height midway between the top edge of the guardrail system and the walking/working level. Posts shall be placed no more than 8 feet apart (29 CFR 1926.500 and USACE EM 385-1-1).

3.3.8 Rescue and Evacuation Procedures

When personal fall arrest systems are used, the contractor must ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. A Rescue and Evacuation Plan shall be prepared by the contractor and include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. The Rescue and Evacuation Plan shall be included in the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP).

3.4 EQUIPMENT

3.4.1 Material Handling Equipment

- a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.
- b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.
- c. Operators of forklifts or power industrial trucks shall be licensed in accordance with OSHA.

3.4.2 Weight Handling Equipment

- a. Cranes must be equipped with:
 - (1) Load indicating devices (LIDs) and a boom angle or radius indicator,
 - (2) or load moment indicating devices (LMIs).
 - (3) Anti-two block prevention devices.
 - (4) Boom hoist hydraulic relief valve, disconnect, or shutoff (stops hoist when boom reaches a predetermined high angle).
 - (5) Boom length indicator (for telescoping booms).
 - (6) Device to prevent uncontrolled lowering of a telescoping hydraulic boom.
 - (7) Device to prevent uncontrolled retraction of a telescoping hydraulic boom.
 - (8) Wind indicating device.
 - (9) Drum rotation indicator.
 - (10) Barge mounted mobile cranes shall be equipped with a load indicating device, a wind indicating device and a marine type list and trim indicator readable in one-half degree increments.
- b. The Contractor shall notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.
- c. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person (as defined in ASME B30.5). All testing shall be performed in accordance with the manufacturer's recommended procedures.
- d. The Contractor shall comply with ASME B30.5 for mobile and locomotive cranes, ASME B30.22 for articulating boom cranes, ASME B30.3 for construction tower cranes, and ASME B30.8 for floating cranes and floating derricks.
- e. The presence of Government personnel does not relieve the Contractor of an obligation to comply with all applicable safety regulations. The Government will investigate all complaints of unsafe or unhealthful working conditions received in writing from contractor employees, federal civilian employees, or military personnel.

- f. Each load shall be rigged/attached independently to the hook/master-link in such a fashion that the load cannot slide or otherwise become detached. Christmas-tree lifting (multiple rigged materials) is not allowed.
- g. Under no circumstance shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.
- h. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of USACE EM 385-1-1 section 11 and ASME B30.5 or ASME B30.22 as applicable.
- i. Crane suspended personnel work platforms (baskets) shall not be used unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Personnel shall not be lifted with a line hoist or friction crane.
- j. A fire extinguisher having a minimum rating of 10BC and a minimum nominal capacity of 5lb of extinguishing agent shall be available at all operator stations or crane cabs. Portable fire extinguishers shall be inspected, maintained, and recharged as specified in NFPA 10, Standard for Portable Fire Extinguishers.
- k. All employees shall be kept clear of loads about to be lifted and of suspended loads.
- l. A weight handling equipment operator shall not leave his position at the controls while a load is suspended.
- m. The Contractor shall use cribbing when performing lifts on outriggers.
- n. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.
- o. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.
- p. A substantial and durable rating chart containing legible letters and figures shall be provided with each crane and securely mounted onto the crane cab in a location allowing easy reading by the operator while seated in the control station.
- q. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.
- r. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.
- s. The Contractor shall certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

3.4.3 Equipment and Mechanized Equipment

- a. Equipment shall be operated by designated qualified operators. Proof of qualifications shall be kept on the project site for review.
- b. Manufacture specifications or owner's manual for the equipment shall be on-site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or USACE EM 385-1-1. Such additional safety precautions or requirements shall be incorporated into the AHAs.
- c. Equipment and mechanized equipment shall be inspected in accordance with manufacturer's recommendations for safe operation by a competent person prior to being placed into use.

d. Daily checks or tests shall be conducted and documented on equipment and mechanized equipment by designated competent persons.

3.5 EXCAVATIONS

The competent person for excavations performed as a result of contract work shall be on-site when excavation work is being performed, and shall inspect, and document the excavations daily prior to entry by workers. The competent person must evaluate all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly. The competent person shall perform soil classification in accordance with 29 CFR 1926.

3.5.1 Utility Locations

Prior to digging, the appropriate digging permit must be obtained. All underground utilities in the work area must be positively identified by a private utility locating service in addition to any station locating service and coordinated with the station utility department. Any markings made during the utility investigation must be maintained throughout the contract.

3.5.2 Utility Location Verification

The Contractor must physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system. Digging within 0.061 m (2 feet) of a known utility must not be performed by means of mechanical equipment; hand digging shall be used. If construction is parallel to an existing utility the utility shall be exposed by hand digging every 30.5 m (100 feet) if parallel within 1.5 m (5 feet) of the excavation.

3.5.3 Utilities with Concrete Slabs

Utilities located within concrete slabs or pier decks, bridges, and the like are extremely difficult to identify. The location must be coordinated with station utility departments in addition to a private locating service. Outages on system utilities shall be used in circumstances where concrete chipping, saw cutting, or core drilling is required and utilities are unable to be completely identified.

3.5.4 Shoring Systems

Trench and shoring systems must be identified in the accepted safety plan and AHA. Manufacture tabulated data and specifications or registered engineer tabulated data for shoring or benching systems shall be readily available on-site for review. Job-made shoring or shielding shall have the registered professional engineer stamp, specifications, and tabulated data. Extreme care must be used when excavating near direct burial electric underground cables.

3.5.5 Trenching Machinery

Trenching machines with digging chain drives shall be operated only when the spotters/laborers are in plain view of the operator. Operator and spotters/laborers shall be provided training on the hazards of the digging chain drives with emphasis on the distance that needs to be maintained when the digging chain is operating. Documentation of the training shall be kept on file at the project site.

3.6 ELECTRICAL

3.6.1 Conduct of Electrical Work

Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with the Contracting Officer and Station Utilities for identification. The Contracting Officer will not accept an outage request until the Contractor satisfactorily documents that the circuits have been clearly identified. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. When work requires Contractor to work near energized circuits as defined by the NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. In addition, provide electrical arc flash protection for personnel as required. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA.

3.6.2 Portable Extension Cords

Portable extension cords shall be sized in accordance with manufacturer ratings for the tool to be powered and protected from damage. All damaged extension cords shall be immediately removed from service. Portable extension cords shall meet the requirements of NFPA 70.

3.7 WORK IN CONFINED SPACES

The Contractor shall comply with the requirements in Section 06.I of USACE EM 385-1-1 and OSHA 29 CFR 1910.146. Any potential for a hazard in the confined space requires a permit system to be used.

3.7.1 Entry Procedures

Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. (See Section 06.I.05 of USACE EM 385-1-1 for entry procedures.) All hazards pertaining to the space shall be reviewed with each employee during review of the AHA.

3.7.2 Forced Air Ventilation

Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained to ensure exposure to any hazardous atmosphere is kept below its' action level.

3.7.3 Rescue and Retrieval Devices

Ensure the use of rescue and retrieval devices in confined spaces greater than 1.5 m (5 feet) in depth. Conform to Sections 06.I.09, 06.I.10 and 06.I.11 of USACE EM 385-1-1.

3.7.4 Sewer Wet Wells

Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

3.7.5 Training

Include training information for employees who will be involved as entrants and attendants for the work. Conform to Section 06.I.06 of USACE EM 385-1-1.

3.7.6 Daily Entry Permit

Post the permit in a conspicuous place close to the confined space entrance.

3.8 HOUSEKEEPING

3.8.1 Clean-Up

All debris in work areas shall be cleaned up daily or more frequently if necessary. Construction debris may be temporarily located in an approved location, however garbage accumulation must be removed each day.

3.8.2 Falling Object Protection

All areas must be barricaded to safeguard employees. When working overhead, Barricade the area below to prevent entry by unauthorized employees. Construction warning tape and signs shall be posted so they are clearly visible from all possible access points. When employees are working overhead all tools and equipment shall be secured so that they will not fall. When using guardrail as falling object protection, all openings shall be small enough to prevent passage of potential falling objects.

END OF SECTION 01525

SECTION 02112

CLEARING, GRUBBING, EXCAVATION AND SEEDING

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SECTION 02112**CLEARING, GRUBBING, EXCAVATION, AND SEEDING****PART 1 GENERAL****1.1 SCOPE**

The work covered by this section consists of furnishing plant, labor, materials, supplies, and equipment for performing all operations necessary for clearing, grubbing, excavation, seeding and disposal of materials, complete, as specified herein and as shown on the contract documents.

1.2 REFERENCES**1.2.1 Work in Tennessee, Kentucky, Alabama, and Mississippi**

The materials, equipment, and workmanship shall be in accordance with each States' applicable portions for road and bridge construction manuals listed below unless otherwise noted in these specifications. These State manuals are herein referred to as "Standard Specifications," except as otherwise specified. In the Standard Specifications change the words as listed in the State publications to the following. Note, Kentucky changes are noted in parentheses.

State (for Kentucky only: Commonwealth)	to Government
Department (for Kentucky only: Cabinet)	to Corps of Engineers
Commissioner	to Contracting Officer
Engineer	to Contracting Officer

U.S. Department of Transportation,
Federal Highway Administration,
Standard Specifications For Construction
of Roads and Bridges on Federal Highway Projects, FP-96, 1996.
Division 200 – Earthwork; Section 201- Clearing and Grubbing

<http://www.efl.fha.dot.gov/design/design.htm>

Federal Highway Administration
Eastern Federal Lands Highway Division
21400 Ridgetop Circle
Sterling, VA 20166-6511

1-800-892-8776

<p>Tennessee Department of Transportation, Bureau of Highways, <u>Standard Specifications for Road and Bridge Construction, 1995</u>, and supplemental specifications.</p> <p>http://www.tdot.state.tn.us/construction/specbook.htm</p> <p>Tennessee Department of Transportation James K. Polk Building, Suite 700 505 Deaderick Street Nashville, TN 37243-0349</p> <p>(615) 741-2848</p>	<p>Kentucky Transportation Cabinet, Department of Highways, <u>Standard Specifications for Road and Bridge Construction, Edition of 2000</u>, and the Supplemental Specifications to the Standard Specifications for Road and Bridge Construction, 1998</p> <p>http://www.kvtc.state.ky.us/construction/Spec2000/pdffiles.html</p> <p>The Kentucky Transportation Cabinet Division of Construction, Room 408 501 High Street Frankfort, KY 40622</p> <p>(502) 564-4780</p>
<p>Mississippi Department of Transportation, <u>MDOT Standard Specifications for Road & Bridge Construction, 1990, and 1996</u>.</p> <p>http://www.gomdot.com/business/specs.htm</p> <p>Mississippi Department of Transportation Construction Division 73-01 Box 1850 Jackson, MS 39215-1850</p> <p>(601)359-7322)</p>	<p>Alabama Department of Transportation, <u>Standard Specifications for Highway Construction, 2002 Edition</u>.</p> <p>http://www.dot.state.al.us/Bureau/construction/index.htm</p> <p>Alabama Department of Transportation Construction Bureau 1409 Coliseum Blvd. Montgomery, Alabama</p> <p>(334) 242-6208</p>

1.3 SUBMITTALS

Submit the following in accordance with Section 01330 SUBMITTAL PROCEDURES.

1.3.1 Construction and Site Safety Plans

After award of the contract, the Contractor shall, in writing, submit a Construction Plan to the Contracting Officer detailing the activities to take place during construction. The plan shall include activities in the investigation of historical, archaeological, and cultural resources; those operations which will be performed from the floating plant and barges; and compaction requirements of fill materials. After issuance of a task order, this plan may be required to be amended to depict possible operations which will be performed on land; requirements for saving trees at the top of the bank and any other trees which can be salvaged during construction and plans for temporary construction access or construction of working platforms. Since site specific work will be as per the issued Task Orders, the Government will require that a Site Specific Safety Plan be submitted for approval at the time of the Preconstruction meeting for each Task Order. The Contractor shall not begin work until approval of the Construction Plan and Site Specific Safety Plan have been made.

1.4 MEASUREMENT AND PAYMENT

1.4.1 Initial Surveys

No separate payment shall be made for survey work as described in Paragraph 1.8.2 of Contract Technical Specification Section 02275.

1.4.2 Clearing and Grubbing

Measurement shall be by the acre. Payment shall be made at the contract unit price per acre for "Clearing and Grubbing ", which costs will include all operations to clear, grub and dispose of material and for furnishing all supplies, equipment, material and labor necessary to complete the work.

1.4.3 Excavation, Unclassified

Measurement shall be by the number of cubic yards of material acceptably excavated and redistributed or removed from the site as directed in the field or as specified herein, measured in original position, and computed by the average end-area method. This measurement does not include any yardage excavated without authorization beyond the indicated slope lines or the yardage of any material which is to be used for purposes other than those directed. The final cross-sectional area measured for each station or fraction thereof, shall not include water, mud, or muck which cannot be drained. No distinction shall be made between materials which are excavated in the dry or wet. Payment shall be made at the contract unit price per cubic yard for "Unclassified Excavation", which price shall constitute full compensation for all plant, equipment, tools, labor, materials, and supplies necessary to complete the work.

1.4.4 Disposal

No separate payment shall be made for disposal of cleared, grubbed, and excavated materials or any other site debris. All costs associated with disposal shall be considered incidental to the costs of clearing and grubbing and/or excavation.

1.4.5 Seeding

1.4.5.1 Temporary Seeding

Measurement shall be by the unit MSF (1,000 square feet). Payment shall be made at the contract unit price per unit for "Temporary Seeding." All associated costs shall be considered incidental to temporary seeding including mulch.

1.4.5.2 Permanent Seeding

Measurement shall be by the unit MSF (1,000 square feet). Payment shall be made at the contract unit price per unit for "Permanent Seeding." All associated costs shall be considered incidental to permanent seeding including fertilizer, mulch, and water.

1.4.6 Floating Plant

Measurement shall be by the unit "each" for delivery, set-up and removal of the floating plant operation for the duration of a Task Order. Payment shall be made at the contract unit price for:

- "Floating Plant Assembly/ Disassembly - Area 1",
- "Floating Plant Assembly/ Disassembly - Area 2",
- "Floating Plant Assembly/ Disassembly - Area 3", or
- "Floating Plant Assembly/ Disassembly - Area 4."

Payment shall be inclusive of all labor, materials and equipment to perform each separate bid item.

1.4.7 Historical, Archaeological, And Cultural Resources.

Measurement shall be by the hour of performing duties on site by the Archaeological team.

Payment shall be made at the contract unit price per hour for "Archaeologist."

PART 2 PRODUCTS

2.1 SEEDING FOR RESTORATION OF LANDSCAPE

2.1.1 Seed

Any and all seed used shall meet the requirements of the Tennessee Department of Agriculture and no "Below Standard" seed will be accepted. Grass seed furnished shall be packed in new bags or bags that are sound and not mended and shall be labeled in accordance with USDA rules and regulations under the Federal Seed Act in effect on the date of invitation for bids. Seed which has become wet, moldy, or otherwise damaged in transit or in storage will not be acceptable.

2.1.2 Permanent Seeding

The Contractor shall use, at his option, either of the following seed mixtures:

- a. Habitat management Native Grass and Wildflower Mixture 1A, as produced by:
Sharp Brothers Seed Company of Missouri, Inc., or approved equal
396 S.W. Davis St. – Ladue
Clinton, MO 64735-9058
1-800-451-3779 or (660) 885-7551

<u>Seed Mix</u>	<u>Seed Mix Contents</u>	<u>Seeding Dates</u>
Mixture 1A	Big Bluestem, 1.8 lbs PLS Indiangrass, 2.0 lbs PLS Little Bluestem, 1.5 lbs PLS Sideoats Gamma, 0.5 lbs PLS <u>Switchgrass, 0.2 lbs PLS</u> Total 6.0 lbs PLS (Pure Live Seed) plus wildflowers, 0.25 lbs	15 March - 30 May

- b. "Prairie Mix," or approved equal, as packaged by:
Wildlife Nurseries
Oshkosh, Wisconsin

<u>Seed Mix</u>	<u>Seed Mix Contents</u>	<u>Seeding Dates</u>
Prairie Mix	Haskeil Sideoats Alamo Switchgrass Kow Big Bluestem Cheyenne Indiangrass Cimarron Little Bluestem	15 March - 30 May

Sand Lovegrass
 Plains Buffalograss
 Misc. additional wildflowers

Seed shall be uniformly mixed and shipped to the job site in bags fully labeled stating the seed mixture, name and address of the supplier, net weight and contents. All seed shall be a minimum of 95 percent pure with a minimum germination of 65 percent. No seed shall contain more than five percent weed seeds by weight. No seed shall contain more than 18 noxious weed seeds or bulblets per ounce. At the discretion of the Contracting Officer, samples of seed may be taken for compliance with these specifications.

2.1.3 Temporary Seeding

Only rye grain (*secale cereale*) or annual ryegrass (*lolium multiflorum*) seed shall be used for temporary seeding. Seed shall be uniformly mixed and shipped to the job site in bags fully labeled stating the seed species, name and address of the supplier, net weight and contents. All seed shall be a minimum of 95 percent pure with a minimum germination of 65 percent. No seed shall contain more than five percent weed seeds by weight. No seed shall contain more than 18 noxious weed seeds or bulblets per ounce. At the discretion of the Contracting Officer, samples of seed may be taken for compliance with these specifications.

2.2 GRANULAR FERTILIZER

Fertilizer for permanent seeding shall be a commercial grade fertilizer, uniform in composition, granular, free-flowing, and suitable for application with approved equipment. The fertilizer shall be contained in bags fully labeled stating the net weight, brand and grade, guaranteed analysis, and name and address of the manufacturer. Fertilizer shall comply with local, state, and Federal fertilizer laws. Composition percentages by weight shall be as follows:

Nitrogen	10 percent
Available Phosphoric Acid	10 percent
Soluble Potash	10 percent

2.3 SURFACE EROSION CONTROL BLANKET

Surface Erosion Control Blanket shall be a machine produced mat of wood excelsior formed from a web of interlocking wood fibers; covered on one side with either knitted straw blanket-like mat construction; covered with biodegradable plastic mesh; or interwoven biodegradable thread, plastic netting, or twisted kraft paper cord netting.

2.4 VEGETATIVE MULCH

Material for temporary and permanent seed mulching shall be air dried baled straw reasonably free of noxious weeds and seeds or other materials detrimental to plant growth. Straw shall be stalks with an average length of 10-inches and made of rye, oats, wheat, or other approved grain crops. Mulch materials shall be bright in color and shall not be musty, moldy, or in an advanced stage of decomposition.

2.5 WATER

Water shall be fresh and free of injurious amounts of oil, acid, alkali, salts, or other materials harmful to the growth of grass. It shall be subject to the approval of the Contracting Officer prior to use.

PART 3 EXECUTION

3.1 CLEARING AND GRUBBING

All areas on which stone protection is to be constructed shall be cleared of trees, logs, stumps, underbrush, rubbish, structures and other perishable materials. Clearing and grubbing shall be performed from the top of the slope to the riverward limit of the slope protection, within the construction work limits. Trees to remain shall be limited to the survivable trees, as determined by the Contracting Officer, located at the top of the bank whenever possible. Measures to be taken by the Contractor for the protection of trees shall be submitted to the Contracting Officer before the Contractor begins clearing and grubbing operations. Clearing for the Contractor's access, facilities, and project site areas shall be kept to a minimum unless otherwise approved by the Contracting Officer.

3.1.1 Historical, Archaeological, And Cultural Resources

3.1.1.1 Potential and/or Known Historic, Archaeological, and Cultural Resources

The Contractor's work area(s) may include the general location of property listed on the National Register of Historic Places or have the potential to produce historic, cultural or archaeological resources. The historic importance of any known site(s) will be stated in the Task Order as well as the number of hours an archaeologist will be required to be on site during all construction activities. All directions as to the handling of resources discovered during the execution of a Task Order shall be at the Direction of the Contracting Officer.

3.1.1.2 Archaeological Monitoring

The Contractor shall develop, and if so directed, implement a program of archaeological monitoring prior to execution of a Task Order, during clearing and grubbing activities, during project construction excavation activities or as otherwise stated in the Task Order. The Contractor may also have to provide archaeological services if the discovery of items as defined in Section 01354, paragraph 3.2.2 are made during the execution of the Task Order. The Contractor will ensure that monitoring of project construction is conducted by an archaeologist meeting the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738-9) and the standards defined and required by the relevant State Historic Preservation Officer (SHPO) are reflected in a resume of the archeologist being submitted in the construction plan specified in paragraph 1.3.1 of this Section for this contract. Archaeological monitoring will include the recording and reporting of major features or artifact concentrations suspected and/or uncovered in accordance with a monitoring plan. A monitoring plan will be developed and approved in consultation with the Corps of Engineers and the State Historic Preservation Officer (SHPO) prior to initiation of construction. The plan will also define sufficient time and/or construction schedule contingencies, such as moving to an alternative construction area, which will allow for limited stoppage of construction and implementation of appropriate archaeological recording/recovery techniques if and when significant concentrations of potentially important archaeological materials are found.

3.1.2 Clearing and Grubbing Restrictions

The Contractor's clearing and grubbing operation shall be performed as to minimize and control erosion of the bank materials ahead of the geotextile and stone placing operations. Extensive clearing and grubbing far in advance of the stone protection operations will render the riverbank vulnerable to erosion from rainfall, normal runoff, and river level fluctuations. Generally, clearing trees and underbrush by cutting shall be less restricted than if tree roots are removed by grubbing. Stumps and tree roots help prevent erosion until the grubbing operation is performed. The Contractor shall submit for approval a work plan and construction sequence defining the extent of clearing and grubbing in advance of stone placement, and an anticipated rate of progress with the Environmental Protection Plan required in Section 01354, paragraph 1.5. Factors such as rainfall and river stage forecasts will be considered by the Contracting Officer in making approvals. Approval of the plan shall be subject to the Contracting Officer's discretion. Clearing and grubbing operations shall not extend more than 100 yards ahead of nor impede the placement of geotextile and stone protection.

3.2 EXCAVATION

3.2.1 General

The Contractor shall excavate materials in the area to receive stone protection. Excavation shall include the removal of any obstruction in the banks and for shaping the banks to receive stone protection. Whenever possible, shaping shall be done in such a way so as to minimize stone quantities. All loose, unstable, and organic materials shall be removed. Adequate drainage and sedimentation control of the construction area shall be maintained at all times. Excavated materials may be temporarily stockpiled for use as fill. Erosion control measures shall be in accordance with Section 01354, paragraph 1.5. No additional payment shall be made, by the Government, for temporary stockpiling.

3.2.1.1 Initial Surveys

In order to define the original ground conditions, the Contractor shall survey the area to receive stone protection after clearing and grubbing has been completed. This initial survey shall provide the basis by which the Contracting Officer determines and directs the extent of excavation and grading required. The stone protection templates shown in the Contract Documents or in the Task Orders generally define the criteria that shall be used by the Contracting Officer to determine the extent of excavation needed at each section. No excavation shall be performed prior to the Contracting Officer making this determination. Another full survey of the site shall be performed after excavation and grading is complete. The volume of excavated material shall be determined by the average end area method based on these two surveys. These surveys shall be performed and submitted in accordance with the requirements outlined in Paragraph 1.4 of Contract Technical Specification Section 02275.

3.2.2 Classification of Excavation

All excavation shall be classified as unclassified.

3.2.3 Unclassified and Finished Excavation

All disturbed and unstable material shall be excavated as directed by the Contracting Officer. The finished surfaces of excavated areas shall be reasonably smooth and free from irregular surface changes. All disturbed surfaces shall receive track equipment compaction and/or be compacted the same densities of adjacent in-situ materials. The method of compaction shall be submitted for approval in the construction plan required in paragraph 1.3.1 of this Section. The condition of the finished surfaces shall be such to ensure satisfactory placement of stone protection. Excavated materials meeting the requirements of satisfactory backfill specified in Section 02275, paragraph 2.3.2, may be used as fill where necessary, if not required or directed to be removed from the jobsite. All excavation and backfill needed to achieve a desirable surface shall be determined in the field by the Contracting Officer.

3.3 DISPOSAL

Disposal of the cleared, grubbed, and unsuitable organic soil material, or any other materials whether suitable or unsuitable, shall be the responsibility of the Contractor and in accordance with the site-specific environmental requirements of each task order. No material shall be disposed of within the project area, river or lake and the final disposition of materials shall be clearly described in an amendment to the Environmental Protection Plan, required in Section 01354, paragraph 1.5. Cleared and grubbed materials and unsuitable materials from excavations shall be carried offsite. Burning within the project area shall not be permitted, unless otherwise specified in the Task Order. All disposal of materials shall be in compliance with local, State, and Federal regulations. The Contractor shall obtain the approval and acceptance of the Contracting Officer on the disposal location(s) proposed for use.

3.4 SEEDING FOR RESTORATION

Seeding shall be required in the areas disturbed and used for construction access and in the area above and adjacent to the constructed stone protection. It is the intent of these specifications that seeding, fertilizing, and mulching shall constitute continuous construction. As soon as disposal work is completed in an area and there is no danger of damage from continued operations, the area shall be stabilized and protected as specified herein. All areas to be seeded shall be graded to conform to the general contour of the adjacent surfaces immediately prior to seeding operations. Stones larger than 2 inches in diameter, roots, cables, wire, and other debris or material that might

hinder subsequent maintenance shall be removed prior to seeding operations. Refer to paragraph 2.1.2, Permanent Seeding, and 2.1.3, Temporary Seeding, for information on seed mixtures.

3.4.1 Applying Fertilizer

Commercial fertilizer shall be evenly and uniformly distributed over the entire area. The rate of application shall be 400 pounds per acre. The fertilizer shall be worked into the soil to a depth of not less than 4 inches, or may be incorporated into the seeding operation.

3.4.2 Seeding

3.4.2.1 Permanent Seeding

Permanent Seeding shall not be performed between 01 January through 14 March and between 01 June through 31 December. Seeding may be postponed if current conditions indicate that satisfactory results are not likely to be obtained. Other than as stated above, seeding shall immediately follow seedbed preparation. No seeding shall be done in windy weather nor when the ground surface is frozen. Seed shall be sown by approved seeding method (suitable for planting prairie grasses) in a uniform manner at the rate specified. Seed shall be mixed to ensure broadcast at the rate of 20 pounds per acre.

3.4.2.2 Seeding Rate for Permanent Seeding

Permanent seeding rate shall be 20 pounds per acre.

3.4.2.3 Seed Mixtures for Permanent Seeding

Permanent seed mix shall be as set forth in Paragraph 2.1.2 of this section.

3.4.2.4 Temporary Seeding

Temporary seeding may be performed at any time during the year except during the period of 1 December to 1 February. In order to stabilize erodible areas with vegetation through the winter, the seeding must be performed no later than November 30. Any exposed erodible areas not seeded by November 30 must be stabilized with straw mulch and protected with structural practices such as silt fencing, and staked straw bale check dams until such time as the site will be dry enough to permit seeding operations to resume in the Spring (after February 1). Working the soil surface to cover temporary seeding will not be required. The seeding operation may be combined with the fertilizing operation when hydraulic methods are used. Only rye grain or annual ryegrass seed shall be used for temporary seeding. Rye grain (*secale cereale*) shall be sown at the approximate rate of 80 pounds per acre during the period of September 1 to November 30. Annual ryegrass (*lolium multiflorum*) shall be sown at the approximate rate of 40 pounds per acre during the period February 1 through August 31. All areas temporarily seeded, shall receive permanent seeding in accordance with Paragraph 3.4.2.1 prior to project completion.

3.4.2.5 Surface Erosion Control Material Placement

Where indicated or as directed, surface erosion control blanket shall be installed in accordance with manufacturer's instructions. Placement of the material shall be accomplished without damage to installed material or without deviation to finished grade. Surface erosion control blanket shall be anchored in place according to manufacturers recommendations, or as approved by the Contracting Officer.

3.4.2.6 Seeding Protection

All seeding shall be protected with vegetative mulch no later than 48 hours after seeding. The mulch shall be placed uniformly over the entire seeded areas to a depth of two inches or approximately two tons per acre. Mulch shall be spread by blower-type mulch spreader, or other approved method.

3.5 ESTABLISHMENT AND MAINTENANCE

3.5.1 Establishment and Maintenance of Grass Areas

The Contractor shall be responsible for proper care of seeded areas while grass is becoming established. Seeded areas shall be maintained until all work or designated portions thereof have been completed and accepted. Where seeding is done after the acceptance of other work, the grass will be considered established and ready for acceptance when it reaches an average height of 4 inches over all seeded areas and has covered 95% of the seeded areas. After initial establishment, areas of failure shall be reseeded using the original seed mix and fertilized with 400 pounds of 10-20-20 per acre. Mulch material removed by wind or other causes shall be replaced. If any portion of the surface becomes eroded or otherwise damaged, the affected portion shall be repaired to reestablish condition, grade of soil, and treatment prior to the damage. This repair work shall be completed within 5 days after it occurs. Repair work required because of faulty operations or negligence on the part of the Contractor shall be performed without cost to the Government.

3.6 PROTECTION OF EXISTING FACILITIES

The Contractor shall take every precaution necessary to preserve all existing features within the specified Task Order setting and in the areas required for the delivery, stockpiling, staging, and storage. Known existing facilities shall be depicted in the issued contract documents of the Task Order(s). The Contractor shall examine the pre-construction condition of all existing facilities and any subsequent damage to existing facilities caused by the Contractor shall be restored to pre-construction condition at no expense to the Government. There may be a significant number of existing facilities including utilities, overhead lines and poles, buried drainage pipes, culverts, headwalls, overlook areas, recreation facilities, pedestrian walkways, observation areas, etc. within each construction area. These items, if encountered, shall be depicted on the surveys required to be performed as specified in paragraph 3.2.1.1 of this Section. There are no utility relocations or any other relocations anticipated in this contract. If during excavation, a utility is encountered which is not depicted on the contract documents issued in the task order, the Contracting Officer shall be notified immediately and direction shall be provided by the Contracting Officer.

3.7 SLIDES

Should a movement or slide of material occur in any of the areas excavated which, in the opinion of the Contracting Officer, was not caused by the Contractor, the Contracting Officer may order in writing that such material be removed. Additional payment for such work shall be made at the applicable contract unit price for excavation in accordance with the CHANGES clause. Should a movement or slide occur in the areas excavated for permanent work, which, in the opinion of the Contracting Officer, was caused by carelessness on the part of the Contractor, the Contractor shall remove that material as directed by the Contracting Officer at no expense to the Government.

END OF SECTION 02112.

(End of Summary of Changes)

Section 00010 - Solicitation Contract Form

ITEM NO	SUPPLIES/SERVICES	MAX QUANTITY	UNIT	UNIT PRICE	MAX AMOUNT
0001	IDIQ STREAMBANK PROTECTION CONTRACT	10,000,000	Lot	\$1.00	\$10,000,000.00

Indefinite Delivery/Indefinite Quantity Contract for Riverbank Protection. There are 4 separate areas that will be covered under this contract; Area (1) Mouth of the Tennessee and Cumberland River to the Tn-Ky State Border line Area (2) Tennessee River from the Tennessee Northern state line (River Mile 49.3) to Gunter'sville Dam (River Mile 349.00) Area (3) Tennessee River from Gunter'sville (Mile 349.00 up stream to River Mile 652.00; Area (4) The Cumberland River from Northern State Border (River Mile 74.7) to the Kentucky Border (River Mile 389.00). The areas include all navigable waters within the 4 areas. The work consist of clearing and grubbing; excavation; seeding; geotextile placement; riprap stone placement; Quarry run stone, and soil backfill from earth work; Floating Plant; The majority of work shall be preformed from a floating plant on the river, and all debris removal and water quality requirements will be regulated by the applicable State, Federal an Local laws. Contract will be three one year periods for a total of three years. Each period will be established by the anniversary date of award. All associated Delivery Orders will be issued Firm Fixed price based on the unit price of the attached unit price schedule. Work will be in accordance with the Riverbank Protection Specifications dated February 2004 which is hereby incorporated. Areas of performance will be identified by drawing number D-64/1.

0001AA FLOATING PLANT ASSEMBLY AREA 1 PERIOD 1	Each	\$ _____
0001AB FLOATING PLANT ASSEMBLY AREA 2 PERIOD 1	Each	\$ _____
0001AC FLOATING PLANT ASSEMBLY AREA 3 PERIOD 1	Each	\$ _____
0001AD FLOATING PLANT ASSEMBLY AREA 4 PERIOD 1	Each	\$ _____
0001AE FLOATING PLANT ASSEMBLY AREA 1 PERIOD 2	Each	\$ _____
0001AF FLOATING PLANT ASSEMBLY AREA 2 PERIOD 2	Each	\$ _____
0001AG FLOATING PLANT ASSEMBLY AREA 3 PERIOD 2	Each	\$ _____
0001AH FLOATING PLANT ASSEMBLY AREA 4 PERIOD 2	Each	\$ _____
0001AJ FLOATING PLANT ASSEMBLY AREA 1 PERIOD 3	Each	\$ _____

0001AK FLOATING PLANT ASSEMBLY AREA 2 PERIOD 3	Each	\$ _____
0001AL FLOATING PLANT ASSEMBLY AREA 3 PERIOD 3	Each	\$ _____
0001AM FLOATING PLANT ASSEMBLY AREA 4 PERIOD 3	Each	\$ _____
0001AN EXCAVATION AREA 1 PERIOD 1	CY	\$ _____
0001AP EXCAVATION AREA 2 PERIOD 1	CY	\$ _____
0001AQ EXCAVATION AREA 3 PERIOD 1	CY	\$ _____
0001AR EXCAVATION AREA 4 PERIOD 1	CY	\$ _____
0001AS EXCAVATION AREA 1 PERIOD 2	CY	\$ _____
0001AT EXCAVATION AREA 2 PERIOD 2	CY	\$ _____
0001AU EXCAVATION AREA 3 PERIOD 2	CY	\$ _____
0001AV EXCAVATION AREA 4 PERIOD 2	CY	\$ _____
0001AW EXCAVATION AREA1 PERIOD3	CY	\$ _____
0001AX EXCAVATION AREA 2 PERIOD 3	CY	\$ _____
0001AY EXCAVATION AREA 3 PERIOD 3	CY	\$ _____
0001AZ EXCAVATION AREA 4 PERIOD 3	CY	\$ _____
0001BA CLEARING AND GRUBBING AREA 1 PERIOD 1	Acre	\$ _____
0001BB CLEARING AND GRUBBING AREA 2 PERIOD 1	Acre	\$ _____
0001BC CLEARING AND GRUBBING AREA 3 PERIOD 1	Acre	\$ _____
0001BD CLEARING AND GRUBBING AREA 4 PERIOD 1	Acre	\$ _____
0001BE CLEARING AND GRUBBING AREA 1 PERIOD 2	Acre	\$ _____
0001BF CLEARING AND GRUBBING AREA 2 PERIOD 2	Acre	\$ _____
0001BG CLEARING AND GRUBBING AREA 3 PERIOD 2	Acre	\$ _____
0001BH CLEARING AND GRUBBING		

AREA 4 PERIOD 2	Acre	\$ _____
0001BJ CLEARING AND GRUBBING AREA 1 PERIOD 3	Acre	\$ _____
0001BK CLEARING AND GRUBBING AREA 2 PERIOD 3	Acre	\$ _____
0001BL CLEARING AND GRUBBING AREA 3 PERIOD 3	Acre	\$ _____
0001BM CLEARING AND GRUBBING AREA 4 PERIOD 3	Acre	\$ _____
0001BN PERMANENT SEEDING AREA 1 PERIOD 1	MSF	\$ _____
0001BP PERMANENT SEEDING AREA 2 PERIOD 1	MSF	\$ _____
0001BQ PERMANENT SEEDING AREA 3 PERIOD 1	MSF	\$ _____
0001BR PERMANENT SEEDING AREA 4 PERIOD 1	MSF	\$ _____
0001BS PERMANENT SEEDING AREA 1 PERIOD 2	MSF	\$ _____
0001BT PERMANENT SEEDING AREA 2 PERIOD 2	MSF	\$ _____
0001BU PERMANENT SEEDING AREA 3 PERIOD 2	MSF	\$ _____
0001BV PERMANENT SEEDING AREA 4 PERIOD 2	MSF	\$ _____
0001BW PERMANENT SEEDING AREA 1 PERIOD 3	MSF	\$ _____
0001BX PERMANENT SEEDING AREA 2 PERIOD 3	MSF	\$ _____
0001BY PERMANENT SEEDING AREA 3 PERIOD 3	MSF	\$ _____
0001BZ PERMANENT SEEDING AREA 4 PERIOD 3	MSF	\$ _____
0001CA GEOTEXTILE AREA 1 PERIOD 1	SY	\$ _____
0001CB GEOTEXTILE AREA 2 PERIOD 1	SY	\$ _____

0001CC GEOTEXTILE AREA 3 PERIOD 1	SY	\$ _____
0001CD GEOTEXTILE AREA 4 PERIOD 1	SY	\$ _____
0001CE GEOTEXTILE AREA 1 PERIOD 2	SY	\$ _____
0001CF GEOTEXTILE AREA 2 PERIOD 2	SY	\$ _____
0001CG GEOTEXTILE AREA 3 PERIOD 2	SY	\$ _____
0001CH GEOTEXTILE AREA 4 PERIOD 2	SY	\$ _____
0001CJ GEOTEXTILE AREA 1 PERIOD 3	SY	\$ _____
0001CK GEOTEXTILE AREA 2 PERIOD 3	SY	\$ _____
0001CL GEOTEXTILE AREA 3 PERIOD 3	SY	\$ _____
0001CM GEOTEXTILE AREA 4 PERIOD 3	SY	\$ _____
0001CN QUARRY RUN STONE AREA 1 PERIOD 1	Ton	\$ _____
0001CP QUARRY RUN STONE AREA 2 PERIOD 1	Ton	\$ _____
0001CQ QUARRY RUN STONE AREA 3 PERIOD 1	Ton	\$ _____
0001CR QUARRY RUN STONE AREA 4 PERIOD 1	Ton	\$ _____
0001CS QUARRY RUN STONE AREA 1 PERIOD 2	Ton	\$ _____
0001CT QUARRY RUN STONE AREA 2 PERIOD 2	Ton	\$ _____
0001CU QUARRY RUN STONE AREA 3 PERIOD 2	Ton	\$ _____
0001CV QUARRY RUN STONE		

AREA 4 PERIOD 2	Ton	\$ _____
0001CW QUARRY RUN STONE AREA 1 PERIOD 3	Ton	\$ _____
0001CX QUARRY RUN STONE AREA 2 PERIOD 3	Ton	\$ _____
0001CY QUARRY RUN STONE AREA 3 PERIOD 3	Ton	\$ _____
0001CZ QUARRY RUN STONE AREA 4 PERIOD 3	Ton	\$ _____
0001DA MISCELLANEOUS AREA 1 PERIOD 1	Lump Sum	\$ _____ N/A _____
0001DB MISCELLANEOUS AREA 2 PERIOD 1	Lump Sum	\$ _____ N/A _____
0001DC MISCELLANEOUS AREA 3 PERIOD 1	Lump Sum	\$ _____ N/A _____
0001DD MISCELLANEOUS AREA 4 PERIOD 1	Lump Sum	\$ _____ N/A _____
0001DE MISCELLANEOUS AREA 1 PERIOD 2	Lump Sum	\$ _____ N/A _____
0001DF MISCELLANEOUS AREA 2 PERIOD 2	Lump Sum	\$ _____ N/A _____
0001DG MISCELLANEOUS AREA 3 PERIOD 2	Lump Sum	\$ _____ N/A _____
0001DH MISCELLANEOUS AREA 4 PERIOD 2	Lump Sum	\$ _____ N/A _____
0001DJ MISCELLANEOUS AREA 1 PERIOD 3	Lump Sum	\$ _____ N/A _____
0001DK MISCELLANEOUS AREA 2 PERIOD 3	Lump Sum	\$ _____ N/A _____
0001DL MISCELLANEOUS AREA 3 PERIOD 3	Lump Sum	\$ _____ N/A _____
0001DM MISCELLANEOUS AREA 4 PERIOD 3	Lump Sum	\$ _____ N/A _____
0001DN ARCHEOLOGIST AREA 1 PERIOD 1	HRS	\$ _____
0001DP ARCHEOLOGIST AREA 2 PERIOD 1	HRS	\$ _____

0001DQ ARCHEOLOGIST AREA 3 PERIOD 1	HRS	\$ _____
0001DR ARCHEOLOGIST AREA 4 PERIOD 1	HRS	\$ _____
0001DS ARCHEOLOGIST AREA 1 PERIOD 2	HRS	\$ _____
0001DT ARCHEOLOGIST AREA 2 PERIOD 2	HRS	\$ _____
0001DU ARCHEOLOGIST AREA 3 PERIOD 2	HRS	\$ _____
0001DV ARCHEOLOGIST AREA 4 PERIOD 2	HRS	\$ _____
0001DW ARCHEOLOGIST AREA 1 PERIOD 3	HRS	\$ _____
0001DX ARCHEOLOGIST AREA 2 PERIOD 3	HRS	\$ _____
0001DY ARCHEOLOGIST AREA 3 PERIOD 3	HRS	\$ _____
0001DZ ARCHEOLOGIST AREA 4 PERIOD 3	HRS	\$ _____
0001EA TEMPORARY SEEDING AREA 1 PERIOD 1	MSF	\$ _____
0001EB TEMPORARY SEEDING AREA 2 PERIOD 1	MSF	\$ _____
0001EC TEMPORARY SEEDING AREA 3 PERIOD 1	MSF	\$ _____
0001ED TEMPORARY SEEDING AREA 4 PERIOD 1	MSF	\$ _____
0001EE TEMPORARY SEEDING AREA 1 PERIOD 2	MSF	\$ _____
0001EF TEMPORARY SEEDING AREA 2 PERIOD 2	MSF	\$ _____
0001EG TEMPORARY SEEDING AREA 3 PERIOD 2	MSF	\$ _____
0001EH TEMPORARY SEEDING AREA 4 PERIOD 2	MSF	\$ _____

0001EJ TEMPORARY SEEDING AREA 1 PERIOD 3	MSF	\$ _____
0001EK TEMPORARY SEEDING AREA 2 PERIOD 1	MSF	\$ _____
0001EL TEMPORARY SEEDING AREA 3 PERIOD 3	MSF	\$ _____
0001EM TEMPORARY SEEDING AREA 4 PERIOD 3	MSF	\$ _____

Thousand Square Feet – MSF
Square Yard – SY
Hours – HRS

Miscellaneous items are represented by unknown existing site conditions for individual delivery orders. Each miscellaneous condition will be negotiated as needed with individual follow on delivery orders, therefore no unit price will be inserted in bid schedule.

ITEM NO	SUPPLIES/SERVICES	MAX QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Prototypical Project (Reference Section 00100 paragraph (k) for instructions for filling in NET AMOUNT)	1	Lump Sum		
				NET AMT	_____

NOTE:
This CLIN will be used in evaluation of bids only and will be removed prior to award of basic contract.

