



REGION 4 UTAH ACQUISITION SUPPORT CENTER INSTRUCTIONAL COVER SHEET

ISSUING OFFICE:

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
UTAH ACQUISITION SUPPORT CENTER
2222 WEST 2300 SOUTH
SALT LAKE CITY, UT 84119
FAX (801) 975-3483

SOLICITATION NO. **AG-84N8-S-13-0099**

PROPOSALS ARE SOLICITED FOR: **LOGAN ADMINISTRATIVE SITE GATE INSTALLATION PROJECT,
UINTA-WASATCH-CACHE NATIONAL FOREST**

IMPORTANT – NOTICE TO OFFEROR:

OFFEROR SHALL SUBMIT THE FOLLOWING DOCUMENTS WITH THEIR RESPONSE TO THIS SOLICITATION:

1. SF 1442 (Complete, date, and sign)
2. Schedule of Items, Section B
3. Section K (Pages 19-22)
4. Appendix's #1, #2 and #3.
5. Attachments #1 & #2
6. Representations and Certifications website at <https://www.sam.gov>

IT IS REQUIRED YOU WRITE THE SOLICITATION NUMBER ON THE OUTSIDE OF YOUR ENVELOPE. FAXED RESPONSES WILL BE ACCEPTED AT 801.975.3483.

Return to: Utah Acquisition Support Center
ATTN: Orlando Gomez
2222 West 2300 South
Salt Lake City, UT 84119
Solicitation No. AG-84N8-S-13-0099

**IT IS REQUIRED THAT ALL CONTRACTOR'S BE REGISTERED IN THE SYSTEM FOR AWARD MANAGEMENT (SAM) DATABASE PRIOR TO AWARD UNDER THIS SOLICITATION. PLEASE REFER TO THE FOLLOWING WEBSITE LINK FOR ADDITIONAL INFORMATION:
[HTTPS://WWW.ACQUISITION.GOV/](https://www.acquisition.gov/)**

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. AG-84N8-S-13-0099	2. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 07/10/13	PAGE OF PAGES 1 of 36
	IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.			

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. 641753	6. PROJECT NO.
7. ISSUED BY Utah Acquisition Support Center 2222 West 2300 South Salt Lake City, UT 84119	CODE	8. ADDRESS OFFER TO Utah Acquisition Support Center ATTN: Orlando Gomez 2222 West 2300 South Salt Lake City, UT 84119
9. FOR INFORMATION CALL: →	A. NAME Orlando Gomez	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) 801.975.3493

SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder."

Logan R.D. Administrative Gate Installation Project – Uinta-Wasatch-Cache N.F.

Section C – Description/Specifications/Statement of Work
 Section J – Attachments

FAR 36.204 Disclosure of the magnitude of construction projects.
 This project is estimated to be in the following price range: Less than \$25,000

Quotes due July 24, 2013 at 4:30 p.m. Local Time. Offers may be mailed/delivered to the address in Box 8 or faxed to 801.975.3483, ATTN: Orlando Gomez.

11. The Contractor shall begin performance within <u>10</u> calendar days and complete it within <u>30</u> calendar days after receiving <input checked="" type="checkbox"/> award, <input type="checkbox"/> notice to proceed. This performance period is <input checked="" type="checkbox"/> mandatory, <input type="checkbox"/> negotiable. (See 15.)	
12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	12B. CALENDAR DAYS

13. ADDITIONAL SOLICITATION REQUIREMENTS:
- A. Sealed offers in original and 0 copies to perform the work required are due at the place specified in Item 8 by *June 27, 2013* local time/MDT. If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.
 - B. An offer guarantee is, is not required.
 - C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.
 - D. Offers providing less than calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

OFFER (Must be fully completed by offeror)

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)	15. TELEPHONE NO. (Include area code)
CODE	16. REMITTANCE ADDRESS (Include only if different than Item 14)
FACILITY CODE	

17. The offeror agrees to perform the work at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government within ___ calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirement stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.

AMOUNTS →

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18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each

AMENDMENT NO.							
DATE							

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)	20B. SIGNATURE	20C. OFFER DATE
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AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA
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24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) →	ITEM	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 10 U.S.C. 2304(c)() <input type="checkbox"/> 41 U.S.C. 253(c)()
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26. ADMINISTERED BY	CODE	84N8	27. PAYMENT WILL BE MADE BY
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CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return ___ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration slated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this	<input type="checkbox"/> 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
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30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)	31A. NAME OF CONTRACTING OFFICER (Type or print)
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30B. SIGNATURE	30C. DATE	31B. UNITED STATES OF AMERICA	31C. AWARD DATE
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SECTION B - Supplies or Services and Prices/Costs Schedule of Items

B.1 Schedule of Items:

Schedule B – SCHEDULE OF ITEMS						
LOGAN ADMIN SITE ENTRY GATE						
ITEM NUMBER	DESCRIPTION	METHOD OF MEAS.	UNIT	QUANTITY	PRICE	TOTAL
323113-1	HIGH SECURITY CHAIN LINK FENCE	AQ	LF	40		
323113-2	HIGH SECURITY CHAIN LINK HORIZONTAL SLIDE GATE 20' OOPENING INCLUDING ALL OPERATORS	AQ	EACH	1		
TOTAL BASE BID						
OPTIONAL BID ITEM						
323113-3	HIGH SECURITY CHAIN LINK HORIZONTAL SLIDE GATE 20' OPENING INCLUDING ALL OPERATORS	AQ	EACH	1		
TOTAL OF BASE AND OPTIONAL BID ITEM						

B.2 Project Location

The project is located at the Logan Ranger District in Logan, Utah.
 The address of the office is: 1500 East HWY 89, Logan, UT 84321-4973

B.3 Inspection of Worksite

The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

B.4 Pre-Bid Site Visit

A pre-bid site visit is available upon request. Please contact Ryan Stone, Assistant Forest Engineer , at 801.999.2138 to schedule a site visit.

B.5 State Date and Contract Time

The anticipated start date will be with 7 calendar days of contractor's receipt of Notice to Proceed. The contract will need to be completed in 30 calendar days after project start date.

B.6 FAR 36.204 Disclosure of the magnitude of construction projects.
 This project is estimated to be in the following price range: Less than \$25,000

Business Name:	Offerors Name:	Tax ID Number:
Date:	Offerors Title:	DUNs Number:

SECTION C - Description/Specifications/Statement of Work

General Specifications

Logan Administrative Site Gate Installation Project

C.1 Scope of Contract

- A. This Project consists of installing a chain link fence and horizontal slide gate at the Logan Administrative site.
- B. Optional Bid Item-Vertical Pivot Lift Gate. Contractor may submit an optional bid to install a Vertical Pivot Lift Gate instead of the Horizontal slide gate.

C.2 Project Location

- A. The project is located at 690 West 200 South, Logan, UT. The facility is on the Logan Ranger District of the Uinta-Wasatch-Cache National Forest.

C.3 Site Information and Limitations

- A. Access to the site must be maintained at all times.
- B. Site must be secured overnight and at times when construction is not active.
- C. Water for construction purposes is available at the site
- D. Concrete waste is not available at the site.

C.4 Traffic Control and Construction Signing

- A. No work that endangers, interferes, or conflicts with traffic or access to work sites shall be performed until a plan for satisfactory warning and handling of traffic has been submitted by the contractor and approved by the COR. Construction signing for traffic control shall conform to the Manual of Uniform Traffic Control Devices (MUTCD). All traffic control signs shall be placed in areas adequate for a truck pulling a fifth wheel trailer to be turned around. Contractor shall not be paid directly for this item, rather it will be considered incidental to other items of work listed in the Schedule of Items.

C.5 Work Camps, Staging and Storage Areas

- A. Areas for staging operations and storage of materials shall be approved by the C.O.

C.6 Inspection of Worksite

- A. The contractor acknowledges they have taken the necessary steps to ascertain the nature and location of work, and have investigated and satisfied themselves as to the general and local conditions that can affect the work or its cost. Any failure of the contractor to take the actions described and acknowledged in this paragraph will not

relieve the Contractor from the responsibility of estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expenses to the government.

C.7 Start Date

A. July 29, 2013

C.8 Contract Time

A. 30 Calendar Days

C.9 Specifications

A. The following specifications are attached. Some sections in the schedule of items refer to other sections not listed and are subsidiary to, or are included in payment for other pay items in this contract. These items are considered incidental and no additional compensation will be made.

Section 011250 - Measurement And Payment

Section 013300 - Submittal Procedures

Section 014100 - Quality Control

Section 024100 - Waste Material Disposal

Section 024102 - Removal, Disposal & Salvage Of Existing Structures And Obstructions

Section 033000 - Cast-In-Place Concrete

Section 033020 - Concrete From Packaged Dry Mix For Minor Structures

Section 323113.53 - High-Security Chain Link Fences And Gates

Section D – Packaging and Marking

(For this Solicitation, there are NO clauses in this solicitation)

Section E - Inspection and Acceptance

E.1 FAR 52.252-2 Clauses Incorporated by Reference (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: www.arnet.gov/far/.

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

52.246-12 Inspection of Construction (AUG 1996)

E.2 Inspection and Acceptance

Periodic field inspections will be made by the Contracting Officer's Representative (COR) or the COR's designated Inspector. Work not completed to contract standards shall be rejected and reworked without additional compensation to the Contractor.

Section F - Deliveries or Performance

F.1 FAR 52.252-2 Clauses Incorporated by Reference (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: www.arnet.gov/far/.

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

52.242-14 Suspension of Work (APR 1984)

F.2 FAR 52.211-10 Commencement, Prosecution, and Completion of Work (APR 1984) Alternate I (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the date the Contractor receives the Notice to Proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use Twenty (20) calendar days after the date the contractor received the Notice to Proceed. The time stated for completion shall include final cleanup of the premises.

AGAR 452.236-75 Maximum Workweek – Construction Schedule (NOV 1996)

Within 10 calendar days after receipt of a written request from the Contracting Officer, the Contractor must submit the following information in writing for approval:

- (a) A schedule as required by FAR clause 52.236-15, Schedules for Construction Contracts, and
- (b) The hours (including the daily starting and stopping times) and days of the week the Contractor proposed to carry out the work.

The maximum workweek that will be approved is to be negotiated if needed.

G-1. CONTRACTING OFFICE

The Utah Acquisition Support Center of the United States Forest Service, Department of Agriculture is responsible for this solicitation, award and administration of the contract. All written correspondence shall reference the contract number and/or solicitation number.

Communications shall be directed to:
Orlando Gomez, C.O., USDA-FS
Utah Acquisition Support Center
2222 West 2300 South, 2nd Floor
Salt Lake City, UT 84119

G-2. CONTRACTING OFFICER'S REPRESENTATIVE

An awarded contract will have a Contracting Officer's Representative (COR) designated. Such designations will be made by appointment letter.

G-3. SUBCONTRACTS

Before entering into a subcontract covering any part of the work called for, the Contractor shall inform the Contracting Officer and submit information required by the Contracting Officer.

G-4. INVOICES

The vendor will provide an invoice for each transaction. Each invoice will contain the following information:

1. Name of Contractor
2. Contractor Address
3. Contractor Phone Number
4. Contract Number
5. Date of Delivery or Receipt
6. Itemized List of Supplies or Services Furnished
7. Quantity, Unit Price, and Applicable Discounts
8. Signature of Person Receiving Supplies or Services

An invoice shall be submitted after each transaction stating their total dollar value, supported by receipt copies. The information will be the responsibility of the contractor. Failure to provide this information will result in delayed payment.

Section H - Special Contract Requirements

H-1. PHYSICAL DATA (FAR 52.236-4)(APR 1984)

N/A

H-2 FIRE PRECAUTIONS

This plan outlines the channels of responsibility for fire prevention and suppression activities and sets up an attack procedure in the event of fire within the Project Area. The Project Area is defined as that area which is in and adjacent to the project rights-of-way and work areas and all roads used in connection with the work.

I. RESPONSIBILITIES

A. Contractor

Fire Suppression

1. It is understood and agreed that the Contractor will do all in his power to prevent and suppress fires on or adjacent to the Project Area, as stipulated in the contract.

2. Is responsible for and will direct all fires activities on the project until relieved by a Forest Officer and will insure that prevention and suppression action are in accordance with contract requirements, including this fire plan. He will delegate the next higher in authority on the job to be responsible for the above activities when he is not on the project.

3. In line with this agreement, men will be supplied from the Contractor's crew to fight fires on the project area up to the total number of men employed by the Contractor as they are needed by the Fire Boss. The Forest Service will make every effort to avoid calling on the Contractor for action on fires outside the Contract project area except in emergencies and will call out all needed available help to control fires in the general area.

4. The Contractor issues that this Fire Plan will be complied with by him and his employees for the duration of the contract.

B. Forest Service District Ranger

1. Is responsible for all fire activities on the Ranger District on which the contract project is located. He or his representative will discuss the fire plan with the Contractor and will discuss with him the equipment and manpower action to be taken when a fire occurs. He will notify the Contractor through the Contracting Officer's Representative (COR) to take correction measures when fire requirements are not complied with.

II. CONTRACTOR'S RESPONSIBILITY WHEN A FIRE OCCURS WITHIN THE CONTRACT PROJECT AREA

A. He will immediately send the entire contract crew with tools and equipment to the fire and take initial-attack suppression action.

B. Immediately notify the nearest Forest Service Fire Control Officer or other Forest Service employee of fire location and action taken

C. Designate a person to act as dispatcher who will handle messages and initiate action upon request until relieved.

III. CONTRACTOR FURNISHED MANPOWER, TOOLS, AND EQUIPMENT REQUIRED ON ALL CONTRACTS (PROJECTS) DURING FIRE SEASON

A. The Contractor shall furnish to the COR a list of manpower and equipment used on the contract on forms furnished by the Forest Service. Changes in Contractor's personnel shall be reflected in amendment to the list.

Fire Prevention

Smoking. Will be prohibited in the woods during the fire season, May 10 through October 20, except in areas agreed upon by the Contractor and Contracting Officer's Representative. No smoking is permitted while walking or working in the woods.

Refueling Chainsaw/Soil Auger. Refueling will be confined to a six-foot diameter cleared to mineral earth. Chainsaws/soil auger sparks arrester shall be U.S. Forest Service approved, and will be cleaned daily. A size "0" or larger round-pointed shovel with a minimum of a 38-1/2" handle and a fire extinguisher shall be within 10 feet of actual point of chainsaw/soil auger operation.

Burning, Blasting, or Welding. Permit will be required and will contain special stipulations pertinent to the particular job.

Spark Arresters. All internal combustion power equipment used by the Contractor on the project shall be equipped with an approved spark arrester as set forth in the publication of the USDA Forest Service, entitled "Standard 5100-1a for Spark Arresters for Internal Combustion Engines" as amended under date of July 1970, and be listed in the most recent "Spark Arrester Guide" as having been approved as meeting above standard. They shall be cleaned regularly and maintained in satisfactory working condition. The following are exempt from the requirements of the rule:

- (a) Turbo-charged internal combustion engines in which 100 percent of the exhaust gasses pass through a turbo-charged;
- (b) Engines of passenger carrying vehicles and light trucks equipped with a muffler with baffles that are kept in good repair (glass packs are not an approved muffler for wildland work);
- (c) Water pumping equipment used in firefighting.

Spark arresters must comply with all State and Federal fire requirements.

Lunch and Warming Fires. Cooking and warming fires will not normally be permitted and then only by written permit by the COR which contain stipulations regulating use of such fires.

Hand Tools. The Contractor shall furnish one size "0" shovel (38-1/2" handle minimum) or larger, one axe, or pulaski with 26" handle or larger, and one 5 BC or larger rated pressurized fire extinguisher for each truck, each personal vehicle, each tractor, and each grader. For each welder he shall furnish one size "0" shovel and one backpump pump. For each gasoline power tools (power saw, soil auger, etc.), one shovel (38-1/2" handle minimum) and one 8-ounce or larger BC rated chemical-pressurized fire extinguisher.

Contractor shall also furnish any other equipment called for elsewhere in the contract. The shovel and fire extinguisher will be located within 10 feet of the operating chainsaw/power auger.

Storage and Parking Areas. Equipment service area, parking area, and gas and oil drum storage areas will be cleared of all flammable material for a radius of at least fifty feet. These areas must be approved in writing by the Contracting Officer's Representative in advance of use. Small stationary engine sites shall be cleared of flammable material for a radius of at least fifteen feet from such engine.

Fire Tool Box. A red fire tool box will be required to be on each work site while work is being performed. This fire tool box will contain sufficient tools to equip all persons engaged in Contractor's operation. Fire tools shall be used only for suppressing wildfires. Tools shall be stored in fireboxes provided by the Contractor and readily available to employees. Each tool box shall be marked, "Tools for Fire Only." The COR will inspect the fire tool box and then seal the box.

H-3 Storage of fuel and other toxicants within Riparian Conservation Areas (RCA – within 300 feet of live stream)

Storage of fuel and other toxicants within Riparian Conservation Areas (RCA – within 300 feet of live streams) is prohibited. Refueling of equipment may be done within the RCA only at locations approved by the CO. Centrifugal pumps used for removing water from structure excavation shall sit in a secondary spill container with sufficient capacity to contain the quantity of fuel in the

pump fuel tank. A Spill Prevention & Containment Plan is required and shall be submitted to the CO for approval prior to beginning construction. A sample plan form is available and can be obtained at the Pre-Work Meeting. A spill containment kit shall be available on site that is to accommodate potential spills from the equipment used during construction.

Section I - Contract Clauses

52.202-1 Definitions. (JAN 2012)

52.203-5 Covenant Against Contingent Fees. (APR 1984)

52.204-7 Central Contractor Registration. (DEC 2012)

52.211-10 Commencement, Prosecution, and Completion of Work. (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 7 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 30 calendar days after the date the contractor receives the notice to proceed. The time stated for completion shall include final cleanup of the premises.
(End of clause)

52.211-18 Variation in Estimated Quantity. (APR 1984)

52.219-18 Notification of Competition Limited to Eligible 8(a) Concerns

52.219-6 Notice of Total Small Business Set-Aside. (NOV 2011)

52.222-3 Convict Labor. (JUN 2003)

52.222-5 Davis-Bacon Act--Secondary Site of the Work. (JUL 2005)

(a)(1) The offeror shall notify the Government if the offeror intends to perform work at any secondary site of the work, as defined in paragraph (a)(1)(ii) of the FAR clause at 52.222-6, Davis-Bacon Act, of this solicitation.

(2) If the offeror is unsure if a planned work site satisfies the criteria for a secondary site of the work, the offeror shall request a determination from the Contracting Officer.

(b)(1) If the wage determination provided by the Government for work at the primary site of the work is not applicable to the secondary site of the work, the offeror shall request a wage determination from the Contracting Officer.

(2) The due date for receipt of offers will not be extended as a result of an offeror's request for a wage determination for a secondary site of the work.

(End of provision)

52.222-6 Davis-Bacon Act. (JUL 2005)

52.222-7 Withholding of Funds. (FEB 1988)

52.222-8 Payrolls and Basic Records. (JUN 2010)

52.222-9 Apprentices and Trainees. (JUL 2005)

52.222-10 Compliance with Copeland Act Requirements. (FEB 1988)

52.222-11 Subcontracts (Labor Standards). (JUL 2005)

52.222-12 Contract Termination - Debarment. (FEB 1988)

52.222-13 Compliance with Davis-Bacon and Related Act Regulations. (FEB 1988)

- 52.222-14 Disputes Concerning Labor Standards. (FEB 1988)
- 52.222-15 Certification of Eligibility. (FEB 1988)
- 52.222-21 Prohibition of Segregated Facilities. (FEB 1999)
- 52.222-26 Equal Opportunity. (MAR 2007)
- 52.222-50 Combating Trafficking in Persons. (FEB 2009)
- 52.223-5 Pollution Prevention and Right-to-Know Information. (MAY 2011)
- 52.223-6 Drug-Free Workplace. (MAY 2001)
- 52.223-18 Encouraging Contractor Policies to Ban Text Messaging While Driving. (AUG 2011)
- 52.225-13 Restrictions on Certain Foreign Purchases. (JUN 2008)
- 52.232-5 Payments under Fixed-Price Construction Contracts. (SEP 2002)
- 52.232-27 Prompt Payment For Construction Contracts. (OCT 2008)
- 52.232-33 Payment by Electronic Funds Transfer - Central Contractor Registration. (OCT 2003)
- 52.232-99 Providing Accelerated Payment to Small Business Subcontractors (DEVIATION 2012-00014) (August 2012)
- 52.233-1 Disputes. (JUL 2002)
- 52.233-3 Protest after Award. (AUG 1996)
- 52.233-4 Applicable Law for Breach of Contract Claim. (OCT 2004)
- 52.236-2 Differing Site Conditions. (APR 1984)
- 52.236-3 Site Investigation and Conditions Affecting the Work. (APR 1984)
- 52.236-5 Material and Workmanship. (APR 1984)
- 52.236-7 Permits and Responsibilities. (NOV 1991)
- 52.236-8 Other Contracts. (APR 1984)
- 52.236-9 Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements. (APR 1984)
- 52.236-10 Operations and Storage Areas. (APR 1984)
- 52.236-11 Use and Possession Prior to Completion. (APR 1984)
- 52.236-12 Cleaning Up. (APR 1984)
- 52.236-14 Availability and Use of Utility Services. (APR 1984)
- 52.236-15 Schedules for Construction Contracts. (APR 1984)
- 52.236-26 Preconstruction Conference. (FEB 1995)

52.243-4 Changes. (JUN 2007)

52.244-6 Subcontracts for Commercial Items. (DEC 2010)

(a) Definitions. As used in this clause--

"Commercial item" has the meaning contained in Federal Acquisition Regulation 2.101, Definitions.

"Subcontract" includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or non-developmental items as components of items to be supplied under this contract.

(c)(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (APR 2010) (Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)), if the subcontract exceeds \$5,000,000 and has a performance period of more than 120 days. In altering this clause to identify the appropriate parties, all disclosures of violation of the civil False Claims Act or of Federal criminal law shall be directed to the agency Office of the Inspector General, with a copy to the Contracting Officer.

(ii) 52.203-15, Whistleblower Protections Under the American Recovery and Reinvestment Act of 2009 (JUN 2010) (Section 1553 of Pub. L. 111-5), if the subcontract is funded under the Recovery Act.

(iii) 52.219-8, Utilization of Small Business Concerns (DEC 2010) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$650,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(iv) 52.222-26, Equal Opportunity (MAR 2007) (E.O. 11246).

(v) 52.222-35, Equal Opportunity for Veterans (SEP 2010) (38 U.S.C. 4212(a)).

(vi) 52.222-36, Affirmative Action for Workers with Disabilities (OCT 2010) (29 U.S.C. 793).

(vii) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496), if flow down is required in accordance with paragraph (f) of FAR clause 52.222-40.

(viii) 52.222-50, Combating Trafficking in Persons (FEB 2009) (22 U.S.C. 7104(g)).

(ix) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. App. 1241 and 10 U.S.C. 2631), if flow down is required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

52.246-21 Warranty of Construction. (MAR 1994)

52.249-1 Termination for Convenience of the Government (Fixed-Price) (Short Form). (APR 1984)

52.249-10 Default (Fixed-Price Construction). (APR 1984)

452.236-71 Prohibition Against the Use of Lead-Based Paint. (NOV 1996)

452.236-72 Use of Premises. (NOV 1996)

452.236-73 Archaeological or Historic Sites. (FEB 1988)

452.236-74 Control of Erosion, Sedimentation, and Pollution. (NOV 1996)

Section J - List of Documents, Exhibits, and Other Attachments

Appendix #1	Wage Determination No UT130061	5 Pages
Appendix #2	AGAR Advisory 104A	1 Page
Appendix #3	Experience and Equipment Questionnaire	1 Page
Attachment #01	Specifications	42 Pages
Attachment #02	Cover Sheet & List of Drawings	2 Pages

SECTION K - Representations, Certifications, and Other Statements of Offerors

52.204-8 -- Annual Representations and Certifications. (May 2012)

(a)

- (1) The North American Industry classification System (NAICS) code for this acquisition is 238990.
- (2) The small business size standard is 14.0.
- (3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b)

- (1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (d) of this provision applies.
- (2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certification in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

(i) Paragraph (d) applies.

(ii) Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c)

- (1) The following representations or certifications in ORCA are applicable to this solicitation as indicated:
 - (i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—
 - (A) The acquisition is to be made under the simplified acquisition procedures in Part 13;
 - (B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or
 - (C) The solicitation is for utility services for which rates are set by law or regulation.
 - (ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$150,000.
 - (iii) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the clause at 52.204-7, Central Contractor Registration.
 - (iv) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—
 - (A) Are not set aside for small business concerns;

(B) Exceed the simplified acquisition threshold; and

(C) Are for contracts that will be performed in the United States or its outlying areas.

(v) 52.209-2, Prohibition on Contracting with Inverted Domestic Corporations—Representation. This provision applies to solicitations using funds appropriated in fiscal years 2008, 2009, 2010, or 2012.

(vi) 52.209-5; Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(vii) 52.214-14, Place of Performance--Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.

(viii) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.

(ix) 52.219-1, Small Business Program Representations (Basic & Alternate I). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.

(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.

(x) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.

(xi) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.

(xii) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.

(xiii) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial items.

(xiv) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

(xv) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA-designated items.

(xvi) 52.225-2, Buy American Act Certificate. This provision applies to solicitations containing the clause at 52.225-1.

(xvii) 52.225-4, Buy American Act--Free Trade Agreements--Israeli Trade Act Certificate. (Basic, Alternates I, II, and III.) This provision applies to solicitations containing the clause at 52.225-3.

(A) If the acquisition value is less than \$25,000, the basic provision applies.

(B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.

(C) If the acquisition value is \$50,000 or more but is less than \$77,494, the provision with its Alternate II applies.

(D) If the acquisition value is \$77,494 or more but is less than \$100,000, the provision with its Alternate III applies.

(xviii) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.

(xix) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan--Certification. This provision applies to all solicitations.

(xx) 52.225-25, Prohibition on Contracting with Entities Engaging in Sanctioned Activities Relating to Iran--Representation and Certification. This provision applies to all solicitations.

(xxi) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to—

(A) Solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions; and

(B) For DoD, NASA, and Coast Guard acquisitions, solicitations that contain the clause at 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns.

(2) The following certifications are applicable as indicated by the Contracting Officer:

[Contracting Officer check as appropriate.]

___ (i) 52.219-22, Small Disadvantaged Business Status.

___ (A) Basic.

___ (B) Alternate I.

___ (ii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.

___ (iii) 52.222-48, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment Certification.

___ (iv) 52.222-52 Exemption from Application of the Service Contract Act to Contracts for Certain Services--Certification.

___ (v) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Alternate I only).

___ (vi) 52.227-6, Royalty Information.

___ (A) Basic.

___ (B) Alternate I.

___ (vii) 52.227-15, Representation of Limited Rights Data and Restricted Computer Software.

(d) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website accessed through <https://www.acquisition.gov>. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.

(End of Provision)

452.219-70 Size Standard and NAICS Code Information. (SEP 2001)

The North American Industrial Classification System Code(s) and business size standard(s) describing the products and/or services to be acquired under this solicitation are listed below:

- Contract line item(s): All Line Items
- NAICS Code 238990
 - Size Standard \$14.0m

(End of provision)

SECTION L - Instructions, Conditions, and Notices to Offerors or Respondents

52.204-6 Data Universal Numbering System Number (Dec 2012)

52.215-1 Instructions to Offerors - Competitive Acquisition. (JAN 2004)

52.216-1 Type of Contract. (APR 1984)

The Government contemplates award of a Firm fixed-price contract resulting from this solicitation.

(End of provision)

52.222-23 Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity for Construction. (FEB 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade

5.1%

Goals for Female Participation for Each Trade

6.9%

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the *Federal Register* in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the -

- (1) Name, address, and telephone number of the subcontractor;
- (2) Employer's identification number of the subcontractor;
- (3) Estimated dollar amount of the subcontract;

- (4) Estimated starting and completion dates of the subcontract; and

- (5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is Utah, Daggett, Manila.

(End of provision)

52.223-2 AFFIRMATIVE PROCUREMENT OF BIOBASED PRODUCTS UNDER SERVICE AND CONSTRUCTION CONTRACTS (JUL 2012)

(a) In the performance of this contract, the contractor shall make maximum use of biobased products that are United States Department of Agriculture (USDA)-designated items unless—

(1) The product cannot be acquired—

- (i) Competitively within a time frame providing for compliance with the contract performance schedule;
- (ii) Meeting contract performance requirements; or
- (iii) At a reasonable price.

(2) The product is to be used in an application covered by a USDA categorical exemption (see 7 CFR 3201.3(e)). For example, all USDA-designated items are exempt from the preferred procurement requirement for the following:

- (i) Spacecraft system and launch support equipment.
- (ii) Military equipment, *i.e.*, a product or system designed or procured for combat or combat-related missions.

(b) Information about this requirement and these products is available at <http://www.biopreferred.gov>.

(c) In the performance of this contract, the Contractor shall—

(1) Report to the environmental point of contact identified in paragraph (d) of this clause, with a copy to the Contracting Officer, on the product types and dollar value of any USDA-designated biobased products purchased by the Contractor during the previous Government fiscal year, between October 1 and September 30;

(2) Submit this report no later than—

- (i) October 31 of each year during contract performance; and
- (ii) At the end of contract performance; and

(3) Contact the environmental point of contact to obtain the preferred submittal format, if that format is not specified in this contract.

(d) The environmental point of contact for this contract is: Please contact the applicable POC-

Distribution of Reports POC: Technical Issues/BioPreferred Website Reporting Tool POC:

Cele Aguirre-Bravo
Agency (FS) POC/
BioPreferred Program
1621 North Kent Street
Arlington, VA 22209
Tele: 703-605-5144
Fax: 703-605-5100

Ron Buckhalt
USDA Program Manager/
BioPreferred Program
361 Reporters Bldg.
300 7th St. SW
Washington, DC 20024
Tele: 202.205.4008

<http://www.biopreferred.gov/FARReporting/FARReporting.xhtml>

52.225-10 Notice of Buy American Act Requirement - Construction Materials. (FEB 2009)

(a) Definitions. "Commercially available off-the-shelf (COTS) item," "construction material," "domestic construction material," and "foreign construction material," as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act--Construction Materials" (Federal Acquisition Regulation (FAR) clause 52.225-9).

(b) *Requests for determinations of inapplicability.* An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) *Evaluation of offers.* (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction material, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) *Alternate offers.* (1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror also may submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at FAR 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at FAR 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested -

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

52.233-2 Service of Protest. (SEP 2006)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from: Utah Acquisition Support Center, ATTN: Orlando Gomez, 2222 W 2300 S, Salt Lake City, UT 84119.

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

52.236-27 Site Visit (Construction). (FEB 1995) - Alternate I (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) An organized site visit has not been scheduled. Contact Ryan Stone, 801-999-2138, to inspect site.

(End of provision)

52.252-1 Solicitation Provisions Incorporated by Reference. (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

www.arnet.gov/far/

www.usda.gov/procurement/policy/agar.html

(End of provision)

452.204-70 Inquiries. (FEB 1988)

452.209 – 71 (Alternate 1) Assurance Regarding Felony Conviction or Tax Delinquent Status For Corporate Applicants

(a) This award is subject to the provisions contained in section 433 and 434 of the Consolidated Appropriations Act, 2012 (P.L. No. 112-74), Division E, as amended and/or subsequently enacted, regarding corporate felony convictions and corporate federal tax delinquencies. Accordingly, by accepting this award the contractor acknowledges that it –

(1) does not have a tax delinquency, meaning that it is not subject to any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, and

(2) has not been convicted (or had an officer or agent acting on its behalf convicted) of a felony criminal violation under any Federal or State law within 24 months preceding the award, unless a suspending and debarring official of the United States Department of Agriculture has considered suspension or debarment of the awardee, or such officer or agent, based on these convictions and/or tax delinquencies and determined that suspension or debarment is not necessary to protect the interests of the Government.

(b) If the awardee fails to comply with these provisions, the Forest Service may terminate this contract for default and may recover any funds the awardee has received in violation of sections 433 or 434, as amended and/or subsequently enacted.

(End of Clause)

L.1 INSTRUCTIONS FOR THE PREPARATION OF PROPOSAL

Technical Proposal Instructions. The proposal shall be evaluated in accordance with the evaluation criteria listed in Section M. To assist in the evaluation of proposals, an offeror shall submit the following information:

Technical Capability Narrative

- Description of technical capability offered and experience performing similar projects
- Technical approach summarizing contractor's strategy to accomplish the work

Past Performance List and Narratives

To assist in the evaluation, submit a Past Performance List of recent or current projects similar to this project and shall provide a brief narrative.

Cost or Pricing Instructions. Pricing must be submitted separate from the Technical Proposal. Offerors shall fill out the Schedule of Items in Section B.

SECTION M--EVALUATION FACTORS FOR AWARD

A contract will be awarded to the lowest-priced technically acceptable offeror. Proposals will be evaluated for acceptability but will not be ranked using the non-cost/price factors. In order to be eligible for award, offerors must receive a rating of "acceptable" in every non-price factor. In the interest of economy and efficiency, the Government will start by evaluating the technical proposal of the lowest-priced offeror and will award to that offeror if the technical proposal is rated "technically acceptable". If the lowest offeror receives a rating of "unacceptable" in any of the non-cost factors, the Government will then move on to evaluating the technical proposal of the next lowest offeror and so on until a proposal is rated "technically acceptable". Therefore, the technical proposals of the non-low price offerors may or may not be evaluated.

The following factors will be used to determine technical acceptability:

Factor #1: Technical

Technical Capability and Approach

In order to receive a rating of "acceptable" this proposal must, at a minimum, demonstrate adequate technical capability and provide a satisfactory technical approach to accomplish the work.

Factor #2: Past Performance

Recency and relevancy of present/past performance in relation to this effort.

In order to receive a rating of "acceptable", offeror must, at a minimum provide past experience on similar type projects. The past experience should indicate successes of the contractor in completing similar type work projects.

NOTE: In accordance with FAR 15.305 (a)(2)(iv), in the case of an offeror without a record of relevant past performance or for whom information on past performance is not available or so sparse that no meaningful past performance rating can be reasonably assigned, the offeror shall be determined to have unknown past performance. In the context of acceptability/unacceptability, "unknown" will be considered "acceptable."

PRICE: Award will be made to the lowest priced offeror that is evaluated as "acceptable" for all non-price factors.

Appendix #1 - Wage Determination

General Decision Number: UT130061 03/15/2013 UT61
 Superseded General Decision Number: UT20120061
 State: Utah
 Construction Type: Highway
 County: Cache County in Utah.

Modification Number	Publication Date		
0	01/04/2013		
1	03/15/2013		
ELEC0354-010	06/01/2011		
		Rates	Fringes
ELECTRICIAN			
(Traffic Signal			
Installation Only).....\$ 27.84			
			4.3%+\$8.88

* ENGI0003-070 07/01/2012

	Rates	Fringes
OPERATOR: Power Equipment		
(1) Mechanic.....	\$ 27.55	15.05
(3) Backhoe Loader		
Combination.....	\$ 25.37	15.05
(4) Asphalt Paver, Oil		
Distributor.....	\$ 24.37	15.05
(5) Horizontal Directional		
Drill, Trencher.....	\$ 23.37	15.05
Crane Oiler-5.....	\$ 22.59	15.05
Crane Piledriver.....	\$ 27.49	12.40
Crane (Under 35 tons)-3...	\$ 25.70	15.05
Crane (35 to 100 tons)-2...	\$ 26.99	15.05
Crane (Over 100 tons)-1....	\$ 28.33	15.05

IRON0027-015 06/30/2012

	Rates	Fringes
IRONWORKER, STRUCTURAL		
(Excluding Fence Erection).....	\$ 26.18	15.60

IRON0847-001 01/01/2010

	Rates	Fringes
IRONWORKER, REINFORCING.....	\$ 26.61	11.60

LABO0295-029 07/01/2008

	Rates	Fringes
LABORER		
(1)Traffic Control, sets		
cones and barrels.....	\$ 17.66	5.40
(4)Asphalt Shoveler.....	\$ 18.16	5.40

* SUUT2008-074 09/10/2008

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 15.75	2.80
CEMENT MASON/CONCRETE FINISHER...\$	14.40	2.41
ELECTRICIAN, Excludes		
Installation of Traffic		

Signals.....	\$ 21.00	0.00
LABORER: Common or General.....	\$ 11.30	2.73
LABORER: Flagger.....	\$ 9.03	1.75
LABORER: Grade Checker.....	\$ 12.30	3.55
LABORER: Landscape.....	\$ 10.04	2.53
LABORER: Mason Tender -		
Cement/Concrete.....	\$ 13.17	3.47
LABORER: Pipelayer.....	\$ 11.86	3.54
LABORER: Fence Erector.....	\$ 12.47	2.84
LABORER: Power Tool Operator: (Chain/Concrete Saw, Dirt Compactor (Hand Held), Hand Held Drill and Jackhammer Only).....	\$ 13.84	3.13
OPERATOR: Asphalt Roller.....	\$ 17.21	6.65
OPERATOR: Asphalt/Concrete Laydown.....	\$ 17.05	4.92
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 20.04	7.27
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 12.36	3.31
OPERATOR: Broom/Sweeper.....	\$ 18.63	5.82
OPERATOR: Bulldozer.....	\$ 17.56	7.08
OPERATOR: Concrete Finishing Machine.....	\$ 18.76	6.55
OPERATOR: Concrete Pump, Truck Mounted.....	\$ 19.18	4.23
OPERATOR: Grader/Blade.....	\$ 17.96	6.94
OPERATOR: Loader (Front End)....	\$ 17.15	7.08
OPERATOR: Rock Chip Spreader....	\$ 16.29	7.08
OPERATOR: Roller (Dirt and Grade Compaction).....	\$ 14.13	5.37
OPERATOR: Rotomill.....	\$ 20.68	6.84
OPERATOR: Scraper.....	\$ 17.36	6.49
OPERATOR: Screed.....	\$ 15.70	4.62
OPERATOR: Tractor.....	\$ 17.95	7.33
PAINTER (Parking Lot and Highway Striping Only).....	\$ 14.05	1.62

TEAM0222-023 07/01/2012

	Rates	Fringes
TRUCK DRIVER (Dump Truck, Bottom-end or side)		
Less than 8 cu. yds.....	\$ 18.61	10.93
8 cu. yds. to less than 14 cu. yds.....	\$ 18.76	10.93
14 cu. yds. to less than 35 cu. yds.....	\$ 18.91	10.93
35 cu. yds. to less than 55 cu. yds.....	\$ 19.11	10.93
55 cu. yds. to less than 75 cu. yds.....	\$ 19.31	10.93
75 cu. yds. to less than 95 cu. yds.....	\$ 19.51	10.93
95 cu. yds. to less than 105 cu. yds.....	\$ 19.71	10.93
105 cu. yds. to less than		

130 cu. yds.....	\$ 19.83	10.93
TRUCK DRIVER (Lowboy/Tractor Haul).....	\$ 21.68	10.93
TRUCK DRIVER (Oil Distribution).....	\$ 19.31	10.93
TRUCK DRIVER (Pickup).....	\$ 18.44	10.93
TRUCK DRIVER (Sweeper).....	\$ 18.76	10.93
TRUCK DRIVER (Water, Fuel & Oil Tank)		
less than 1,200 gal.....	\$ 18.49	10.93
1,200 gal. to less than 2,500 gal.....	\$ 18.61	10.93
2,500 gal. to less than 4,000 gal.....	\$ 18.76	10.93
4,000 gal. to less than 6,000 gal.....	\$ 19.06	10.93
6,000 gal. to less than 10,000 gal.....	\$ 19.31	10.93
10,000 gal. to less than 15,000 gal.....	\$ 19.56	10.93
15,000 gal. to less than 20,000 gal.....	\$ 19.81	10.93
20,000 gal. to less than 25,000 gal.....	\$ 20.16	10.93
25,000 gal. and over.....	\$ 20.31	10.93

 WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====
 Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters, PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the

rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.
3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====
END OF GENERAL DECISION

Appendix #2 – AGAR Advisory

AGAR Advisory 104 A

AGAR 452.209-70 Representation by Corporations Regarding an Unpaid Delinquent Tax Liability or a Felony Conviction (Deviation 2012-01) (FEB 2012)

(Contractor is required to fill out this form and return with any quote submitted for this solicitation)

Alternate 1 (Feb 2012). The Contracting Officer shall use this alternate for all **Forest Service** solicitations above the micro-purchase threshold:

(a.) Awards made under this solicitation are subject to the provisions contained in section 433 and 434 in the Consolidated Appropriations Act, 2012 (P.L. No. 112-74), Division E, as amended and/or subsequently enacted, regarding corporate felony convictions and corporate federal tax delinquencies. To comply with these provisions, all offerors must complete paragraph (1) of this representation, and all corporate offerors also must complete paragraphs (2) and (3) of this representation.

(b) The Offeror represents that –

(1) The Offeror is [], is not [] (*check one*) an entity that has filed articles of incorporation in one of the fifty states, the District of Columbia, or the various territories of the United States including American Samoa, Federated States of Micronesia, Guam, Midway Islands, Northern Mariana Islands, Puerto Rico, Republic of Palau, Republic of the Marshall Islands, U.S. Virgin Islands. (Note that this includes both for-profit and non-profit organizations.)

If the Offeror checked “is” above, the Offeror must complete paragraphs (2) and (3) of the representation. If Offeror checked “is not” above, Offeror may leave the remainder of the representation blank.

(2) (i) The Offeror has [], has not [] (*check one*) been convicted of a felony criminal violation under Federal or State law in the 24 months preceding the date of offer.

(ii) Offeror has [], has not [] (*check one*) had any officer or agent of Offeror convicted of a felony criminal violation for actions taken on behalf of Offeror under Federal law in the 24 months preceding the date of offer.

(3) The Offeror does [], does not [] (*check one*) have any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

Name of Company: _____

Name of Company Representative: _____

Signature of Representative: _____

Date: _____

Appendix #3 – Experience and Equipment Questionnaire

EXPERIENCE & EQUIPMENT QUESTIONNAIRE

1. Contractor Name, Address, & Telephone Number

EXPERIENCE

3. How many years does your business have in the line of work contemplated by this solicitation?

4. How many years experience in contracting has your business had as a:
 (a) Prime Contractor _____ (b) Sub-contractor _____
 Is this time concurrent? [] YES [] NO

5a. List Below Fence/Gate Construction projects your business has completed within the last three (3) years:

Contract Amount	Type of Project	Date Completed	Name, Address & Telephone Number of Owner/Person to Contact for Information

5b. List below the Projects that are incomplete:

Contract No.	Dollar Amount of Award	Name, Address & Phone No. of Agency Involved	Percent Completed	Dated Completed

6a. Have you ever Failed to Complete any work awarded to you? [] YES [] NO

6b. Has work ever been completed by performance bond? [] YES [] NO

6c. If "yes" to either item 6a or 6b specify location(s), reason(s) why and COR: (Attach separate sheet of paper)

EQUIPMENT

7. Number of employees available for this project:

a. Minimum No. of employees _____ & Maximum No. of employees _____

b. Are Employees regularly on your payroll? [] YES [] NO

8. Specify Equipment available for this project:

9. Estimated Rate of Progress (such as 2.0 acres/man/day):

Minimum Progress Rate: _____ & Maximum Progress Rate: _____

10. List Experience of Employees intended to be used on this project:

Individual Name	Present Position	Years of Exp.	Magnitude & Type of Work

11. Did the offeror examine the area(s) for which this quote has been submitted? [] YES [] NO

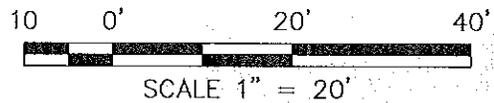
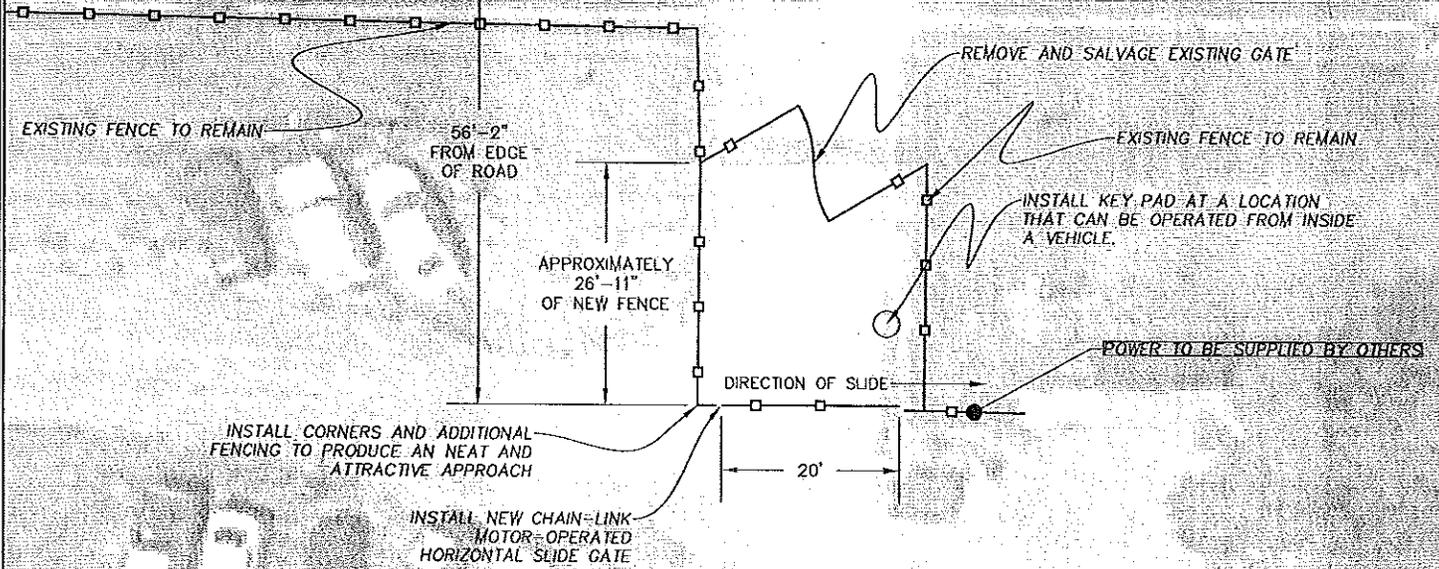
Certification: I certify that all of the statements made by me are complete and correct to the best of my knowledge. That any persons named as references area authorized to furnish the Forest Service with information needed to verify my capability to perform this project.

Signature _____

Date _____

Attachment #7

200 SOUTH



STRAWBERRY BAY COURTESY DOCK AND WAVE ATTENUATOR PROJECT

LAYOUT, WAVE ATTENUATOR AND DOCK

DESIGN	BY: R. STONE
	CHECK:
DRAWING	BY: R. STONE
	CHECK:
APPROVED:	DIRECTOR, DENVER
	DATE



U. S. Department of Agriculture
FOREST SERVICE
 Intermountain Region 4 Engineering
 UTAH-WAATCH-CACHE NATIONAL FOREST

SHEET
1 9 1

Attachment #2

USDA FOREST SERVICE, R-4
LOGAN ADMIN SITE ENTRY GATE

SECTION 011250 - MEASUREMENT AND PAYMENT

PART 2 - GENERAL

2.1 SUMMARY

- A. Measurement and payment for contract work will be made only for and under those pay items included in the Schedule of Items. All other work, labor, materials, equipment, and incidentals necessary to successfully complete the project will be considered as included in the payment for items shown. This section defines the method of measurements and basis of payment for work items listed in the Schedule of Items.
- B. When more than one class, size, type, thickness, etc. is specified in the Schedule of Items for any pay item, suffixes will be added to the item number to differentiate between the pay items.

2.2 DETERMINATION OF QUANTITIES

- A. The following measurements and calculations shall be used to determine contract quantities for payment.
 - 1. For individual construction items, longitudinal and lateral measurements for area computations shall be made horizontally or corrected to horizontal measurement unless otherwise specified. Measurements for geotextiles, netting and erosion control blankets shall be along slope lines.
 - 2. For excavation or embankment volumes, the average end area method shall be used to compute volumes. However, if in the judgment of the Contracting Officer (CO), the average end area method is impractical, measurement shall be made by volume in hauling vehicles or by other three-dimensional methods.
 - 3. For Structures, they shall be measured according to neat lines shown on the drawings or as altered by the CO, in writing, to fit field conditions.
 - 4. For items that are measured by the linear foot, such as pipe culverts, fencing, guardrail, piping, utilities, and underdrains, measurements shall be made parallel to the base or foundation upon which the structures are placed.
 - 5. For aggregates weighed for payment, the tonnage shall not be adjusted for moisture content, unless otherwise provided for.
 - 6. For standard manufactured items (such as fence, wire, plates, rolled shapes, pipe conduits) identified by gauge, weight, section dimensions, and so forth, such identifications shall be considered the nominal weights or dimensions. Unless controlled by tolerances in cited specifications, manufacturer's tolerances shall be accepted.
- B. Earthwork Tolerances - Adjustments of horizontal or vertical alignment, within the tolerances specified in this contract, or shifts of balance points up to 100 feet shall be

made by the contractor as necessary to produce the designed sections and to balance earthwork. Such adjustments shall not be considered as "Changes."

2.3 UNITS OF MEASUREMENT

A. Payment shall be by units defined and determined according to U.S. Standard measure and by the following:

1. Acre: Make longitudinal and transverse measurements for area computations horizontally.
2. 50lb Bag: Measurement will be for the actual number of 50lb bags of standard bentonite grout.
3. 94lb Bag: Measurement will be for the actual number of 94lb bags of standard cement or grout.
4. Cubic Yard (CY): A measurement computed by one of the following methods:
 - a. Excavation, Embankment, or Borrow. The measurement computed by the average end area method from measurements made longitudinally along a centerline or reference line.
 - b. Material in Place or Stockpile. The measurement computed using the dimensions of the in-place material.
 - c. Material in the Delivery Vehicle. The measurement computed using measurements of material in the hauling vehicles at the point of delivery. Vehicles shall be loaded to at least their water level capacity. Leveling of the loads may be required when vehicles arrive at the delivery point.
5. Each (EA): One complete unit, which may consist of one or more parts.
6. Gallons (GAL): The quantity shall be measured by any of the following methods:
 - a. Measured volume in container.
 - b. Metered volume by approved metering system.
 - c. Commercially package volume.
7. Hour (HR): Measurement will be for the actual number of hours (or fraction thereof) ordered by the Contracting Officer and performed by the contractor.
8. Linear Foot (LF): Measurement of work along its length from point-to-point; parallel to the base or foundation. Do not measure overlaps.
9. Lump Sum (LS): One complete unit.
10. Mile: Measured horizontally along the centerline of each roadway, approach, or ramp.
11. Pound (LB): For sacked or packaged material, measurement will be the net weight as packed by the manufacturer.
12. Square Foot (SF): Measured on a plane parallel to the surface being measured.
13. Square Yard (SY): Measured on a plane parallel to the surface being measured.
14. Ton: Measured as a short ton consisting of 2,000 pounds.

2.4 METHOD OF MEASUREMENT

- A. One of the following methods of measurement for determining final payment is designated on the Schedule of Items for each pay item:
1. ACTUAL QUANTITIES (AQ) - These quantities are determined from actual measurements of completed work.
 2. DESIGNED QUANTITIES (DQ) - These quantities denote the final number or units to be paid for under the terms of the contract. They are based upon the original design data available prior to advertising the project. Original design data include the preliminary survey information, design assumptions, calculations, drawings, and the presentation in the contract. Changes in the number of units shown in the Schedule of Items may be authorized under any of the following conditions:
 - a. As a result of changes in the work authorized by the CO.
 - b. As a result of the CO determining that errors exist in the original design that cause a pay item quantity to change by 15 percent or more.
 - c. As a result of the Contractor submitting to the CO a written request showing evidence of errors in the original design that cause a pay item quantity to change by 15 percent or more. The evidence must be verifiable and consist of calculations, drawings, or other data that show how the designed quantity is believed to be in error.
 3. LUMP SUM QUANTITIES (LSQ) - These quantities denote one complete unit of work as required by or described in the contract, including necessary materials, equipment, and labor to complete the job. They shall not be measured.
 4. STAKED QUANTITIES (SQ) - These quantities are determined from staked measurements prior to construction.
 5. VEHICLE QUANTITIES (VQ) - These quantities are measured or weighed in hauling vehicles.

PART 3 - PRODUCTS (NOT APPLICABLE)

PART 4 - EXECUTION (NOT APPLICABLE)

END OF SECTION 011250

June 2013

USDA FOREST SERVICE, R-4
LOGAN ADMIN SITE ENTRY GATE
SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals. See Table 013300-1 for a summary of required submittals.
- B. See other specification section within this package for additional requirements on submittal.

1.2 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. The Contracting Officer (CO) reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Processing Time: Allow enough time for submittal review, including time for re-submittals, as follows. Time for review shall commence on CO's receipt of submittal.
 - 1. Initial Review: Allow 14 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. CO will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 3. Allow 14 days for processing each re-submittal.
 - 4. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- C. Identification: Place a permanent label or title block on each submittal for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space on label or beside title block to record Contractor's review and approval markings and action taken by CO.
 - 3. Include the following information on label for processing and recording action taken:

- a. Project name.
 - b. Date.
 - c. Name and address of Contractor.
 - d. Name of manufacturer.
 - e. Unique identifier, including revision number.
 - f. Number and title of appropriate Specification Section.
 - g. Drawing number and detail references, as appropriate.
 - h. If more than one item is shown on submittal sheet, identify item.
- D. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
 - E. Additional Copies: Unless additional copies are required for final submittal, and unless CO observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
 - F. Use for Construction: Use only final submittals with mark indicating action taken by CO in connection with construction.

1.3 MEASUREMENT AND PAYMENT

- A. No separate measurement and/or payment will be made for this section. Payment shall be included with work shown in the schedule of items.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS – (Submittals requiring CO approval)

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
 - 1. Number of Copies: Submit three copies of each submittal, unless otherwise indicated. CO will return two copies. Mark up and retain one returned copy as a Project Record Document.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Manufacturer's catalog cuts.
 - e. Wiring diagrams showing factory-installed wiring.
 - f. Compliance with recognized trade association standards.

- D. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment.
- E. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer.

PART 3 - EXECUTION

3.1 GENERAL

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to CO.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
- C. CO will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- D. Submittals not required by the Contract Documents will not be reviewed and may be discarded.
- E. Substitutions – Whenever materials, products, and equipment are listed by name or brand in the specifications and/or on the drawings, it is used as a measure of quality, utility, or standard. If the Contractor prefers to use any other brand or manufacturer of same quality, appearance and utility to that specified, he shall request substitution as provided below, not less than 30 days before the planned installation of the item. The Contracting Officer will approve or disapprove the request for substitution.
- F. Requests for substitutions will only be considered if contractor submits the following:
 - 1. Complete technical data including drawings, complete performance specifications, test data, samples and performance tests of the article proposed for substitution. Submit additional information if required by Contracting Officer. All items in the above information shall be circled, tagged, or marked in some way to indicate all deviations or differences which the proposed item differs from the originally specified item.
 - 2. Similar data as above for item originally specified. All items shall be marked to identify where/how the proposed substitution will differ.
 - 3. A statement by the Contractor that the proposed substitution is in full compliance with the contract documents, applicable codes, and laws.
 - 4. The Contractor shall be responsible for any effect upon related work in the project for any substitution and shall pay any additional costs generated by any substitutions.

3.2 SUBMITTAL SCHEDULE – Submittals shall be made as required by and called for in the drawings and specifications. The following table is a summary of the required submittals for the project - the table is to assist the Contractor and may not be all inclusive – additional submittals may be required by specific specifications:

TABLE 013000-1

Spec. Section	Section Title	Subsection	Required Submittal
014100	Quality Control	1.3 A	Contractor quality control plan
014100	Quality Control	1.3 B	Permits, Licenses, and Certificates
033000	Cast-in-Place Concrete	1.3A	Product Data
033000	Cast-in-Place Concrete	1.3B	Design Mix
033000	Cast-in-Place Concrete	1.3D	Quality Control Test Reports
323113	High-Security Chain Link Fences and Gates	1.4 A	Product Certificates
323113	High-Security Chain Link Fences and Gates	1.4 B	Product Test Reports
323113	High-Security Chain Link Fences and Gates	1.4 C	Field quality-control reports
323113	High-Security Chain Link Fences and Gates	1.4 D	As-Built Drawings
323113	High-Security Chain Link Fences and Gates	1.5 A	Operation and Maintenance Data

END OF SECTION 013300
MAY 2010

USDA FOREST SERVICE, R-4
LOGAN ADMIN SITE ENTRY GATE
SECTION 014100 - QUALITY CONTROL

PART 1 - GENERAL

1.1 This work shall consist of providing quality control in conformance with the inspection, testing, and product certification requirements of this contract to ensure compliance with the drawings and specifications. The Contractor shall provide all personnel, equipment, tests, and reports necessary to meet the requirements of the contract.

1.2 QUALITY CONTROL

- A. The Contractor shall provide and maintain a quality control system that will ensure all services, supplies, and construction work required under this contract conforms to the contract requirements. The Contractor shall perform, or cause to be performed, the sampling, inspection, and testing required to substantiate that all services, supplies, and construction conform to the contract requirements.

1.3 SUBMITTALS

- A. Contractor Quality Control Plan
- B. Permits, Licenses, and Certificates
- C. Test and Inspection Reports

1.4 MEASUREMENT AND PAYMENT

- A. No separate payment will be made for the work included under this section; rather payment shall be considered to be included in the items of work listed in the Schedule of Items.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 QUALITY CONTROL SYSTEM

- A. General: Perform required testing, inspections, sampling, and similar services per direction specified in the contract drawings and specifications and in accordance with established industry standards.

3.2 CONTRACTOR QUALITY CONTROL PLAN

- A. At the time of the preconstruction conference, the Contractor shall submit for approval a written Contractor Quality Control Plan.

1. If the plan requires any revisions or corrections, the Contractor shall resubmit the plan within 10 days.
2. The Government reserves the right to require changes in the plan during the contract period as necessary.
3. No change in the approved plan may be made without written concurrence by the Contracting Officer.
4. At a minimum, the plan shall include the following:
 - a. A list of personnel responsible for quality control and assigned duties. Include each person's qualifications.
 - b. A copy of a letter of direction to the Contractor's Quality Control Supervisor outlining assigned duties.
 - c. Names, qualifications, and descriptions of laboratories to perform sampling and testing, and samples of proposed report forms.
 - d. Methods of performing, documenting, and enforcing quality control of all work.
 - e. Methods of monitoring and controlling environmental pollution and contamination as required by all applicable regulations and laws.

3.3 TEST AND INSPECTION REPORTS

- A. Submit three copies of complete test results no later than three calendar days after the test was performed.
- B. Submit failing test results and proposed remedial actions within four hours of noted deficiency.
- C. Testing and Inspection Reports shall include the following:
 1. Date of issue.
 2. Project title and number.
 3. Name, address, and telephone number of testing agency.
 4. Dates and locations of samples, tests, or inspections.
 5. Names of individuals performing tests and inspections.
 6. Reference Specification Section(s).
 7. Complete test or inspection data.
 8. Test and inspection results and an interpretation of test results.
 9. Ambient conditions at time sample was taken, tested, or inspected.
 10. Comments or professional opinion on whether tested or inspected work complies with the Contract Document requirements.
 11. Name and signature of laboratory inspector.
 12. Recommendations on retesting and reinspecting.

3.4 PERMITS, LICENSES, AND CERTIFICATES

- A. For Contracting Officer's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations relevant to the on performance of the work.

3.5 AS-BUILT DRAWINGS

- A. The Contractor shall maintain a set of the contract drawings depicting as-built conditions. These drawings shall be maintained in a current condition and shall be available for review. All variations from the original contract drawings shall be indicated in red on the drawings. Upon completion of the contract work, as-built drawings shall be submitted to the Contracting Officer.

3.6 SAMPLING, TESTING, AND CERTIFICATION REQUIREMENTS

- A. Sampling, testing, and Certification requirements and frequency for specific items shall be as specified in the drawings and specification. The following table is a summary of the required sampling, testing, and certification for the project - the table is to assist the Contractor, but may not be all inclusive – additional submittals may be required by specific specification section:

B.

TABLE 014100-1			
Item	Subsection	Certification or Test Required	Frequency
221300	3.6A	Leak Test	Prior to Backfill
221300	3.7B	Leakage Test	Until Passing
221310	3.3K	HDPE Pipe - Bent Strap Test	Once Daily
221310	3.5B	Pressure and Leakage Test	See Spec.
312000	3.14C	Compaction Test – at Pipe Zone	One test – at each road crossing
312000	3.13D	Compaction Test – above Pipe Zone	One test every other lift – at each road crossing
312000	3.13I	Tracer Wire Conductivity Test	Until Passing
312000	3.17A	Compaction Test – Backfill/Fills	One per Tank, Utility Building or Utility Box
312000	3.19D	Compaction Test – Exterior Concrete Slabs	1 per slab
312000	3.19D	Compaction Test – Backfill/Fills and Subgrade under Buildings and Driveways	One test every 150 sq. yd. area per lift and at Subgrade
312000	3.19D	Compaction Test – Backfill/Fills Foundation Walls	One test for each 100 feet of wall length
321204	3.4A	Compaction Tests – Road Base and Surface Course	One test for every 300 sq. yd. of aggregate
321204	3.4A	Compaction Tests – Aggregate Base for Concrete Slabs	One test for each family unit or group area

END OF SECTION 014100

MAY 2010

USDA FOREST SERVICE, R-4
LOGAN ADMIN SITE ENTRY GATE

SECTION 024100 - WASTE MATERIAL DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the loading, handling, hauling, and placing of excess excavation material, unsuitable excavation material, clearing and grubbing debris, and construction and demolition debris.

1.2 MEASUREMENT AND PAYMENT

- A. There will be no separate measurement or payment for work in this Section. Waste material disposal is considered incidental to other items of work shown in the Schedule of Items.

PART 2 - PRODUCTS – NOT APPLICABLE

PART 3 - EXECUTION

3.1 WASTE MATERIAL NOT HAULED TO A LANDFILL

- A. Excess material resulting from the excavation and backfill operation shall be dispersed at the site to recontour the site as directed by the Contracting Officer.

3.2 WASTE MATERIAL TO BE HAULED TO A LANDFILL

- A. All stumps, slash and other clearing and grubbing debris, demolition materials, garbage, and other refuse generated shall be removed from the project site and legally disposed of off Government property in an approved landfill.
- B. The contractor is responsible for all costs and permits associated with landfill disposal.
- C. The Government is not responsible for waste material upon its departure from the project site.

END OF SECTION 024100

MAY 2010

USDA FOREST SERVICE, R-4
LOGAN ADMIN SITE ENTRY GATE

SECTION 024102 - REMOVAL, DISPOSAL & SALVAGE OF EXISTING STRUCTURES
AND OBSTRUCTIONS

PART 1 - GENERAL

1.1 SUMMARY

- A. Includes removal disposal, and backfilling of existing structures, utilities, and improvements to the extent shown on the drawings.
- B. This Section includes demolition and removal of the following:
 - 1. Indicated fenceline.
- C. Removal and Disposal – Items designated for removal and salvage/reuse:
 - 1. Existing Gate
 - 2. Any item that the Contracting Officer deems as reusable.
- D. Related Sections Include the Following:
 - 1. Section 024100 “Waste Material Disposal.”

1.2 MEASUREMENT AND PAYMENT

- A. There will be no separate measurement or payment for work in this Section. Waste material disposal is considered incidental to other items of work shown in the Schedule of Items.

1.3 PROJECT CONDITIONS

- A. Utility Service: Maintain existing utilities in service and protect them against damage during selective demolition operations.

PART 2 - PRODUCTS

2.1 SELECT BACKFILL

- A. Select backfill shall be native or imported soil, sand, or granular soil free of stones larger than 6 inches in greatest dimension.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to CO.

3.2 UTILITY SERVICES

- A. Existing Utilities: Maintain services indicated to remain and protect them against damage during selective demolition operations.
- B. Do not interrupt existing utilities serving occupied or operating facilities unless authorized in writing by CO and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to CO and to authorities having jurisdiction.
 - 1. Provide at least 72 hours notice to CO if shutdown of service is required during changeover.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from CO and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

3.4 SELECTIVE DEMOLITION

- A. The Contractor may use any means he may elect to remove the structure or items shown on the drawings to be removed, as long as he provides for the safety of the public and preservation of the surrounding site and structures.
- B. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations.
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction.
 - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.

- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by CO, items may be removed to a suitable, protected storage location during selective demolition [and cleaned] and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL

- A. Disposal of debris shall comply with Section 024100 "Waste Material Disposal."

3.6 STRIPPING, BACKFILL & SETTLEMENT

- A. Topsoil stripping and storage, if required, shall comply with the applicable specification.
- B. All of a substructure shall be demolished to a minimum depth of 1 foot below the present ground level. All wood, concrete, and metal materials to be removed shall be broken into sufficiently small pieces to enable handling and disposal. All other structures shall be backfilled and the surrounding ground restored to as near normal conditions as practicable in accordance with these specifications.
- C. Backfill for removed items may be excess material from other excavation or borrow from an approved source.
 - 1. Backfill shall be brought up in 12-inch compacted layers.
 - 2. Compaction shall be by mechanical tampers, with at least three passes over the entire surface.
 - 3. Maximum size of rock in backfill shall be 8 inches.
 - 4. Backfill shall be compacted and rounded 6 inches above the natural ground.
 - 5. If the backfill is not in an existing roadway or parking area, and at least 20 feet away from any proposed structure, the backfill shall be as specified above, except backfill shall be graded to blend with the natural ground and each layer compacted to **85 percent** of the optimum dry density determined by AASHTO T-99, Method C.
 - 6. In areas where backfill is in graveled or paved surface roadways, or within 20 feet of a proposed structure, the backfill shall be as specified above, except it shall be terminated at the grade shown on the drawings and each layer compacted to **95 percent** of the optimum dry density determined by AASHTO T-99, Method C. Completion of backfill shall be in accordance with the applicable surfacing specifications.
 - 7. When topsoil replacement is required, backfill and compaction shall be as specified above, except the backfill shall terminate 6 inches below the natural ground. Placement of topsoil, when required, shall comply with the applicable specification.
- D. Excessive settlement or other evidence of improper backfill shall be corrected by reopening the excavation to the depth required for proper refilling and compaction.

3.7 FINISHING AND CLEANUP

- A. After the area has been backfilled, the disturbed area shall be finish graded to present a natural appearance and cleaned up by removing all debris and materials left from the removal of items in this Section.

END OF SECTION 024102

MAY 2010

USDA FOREST SERVICE, R-4
LOGAN ADMIN SITE ENTRY GATE
SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies cast-in place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.

1.2 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume; subject to compliance with requirements.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture. Indicate amounts of mixing water to be withheld for later addition at Project site.
- C. Steel Reinforcement Shop Drawings when project design requires special consideration.
- D. Field quality-control test reports.

1.4 MEASUREMENT AND PAYMENT

- A. There will be no separate measurement or payment for work in this section. Payment will be included at the contract unit price for items shown on the Schedule of Items.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
 - 1. Plywood, metal, or other approved panel materials.
 - 2. Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1, and as follows:
 - a. Structural 1, B-B or better; mill oiled and edge sealed.
 - b. B-B (Concrete Form), Class 1 or better; mill oiled and edge sealed.

- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.
- C. Forms for Cylindrical Columns, Pedestals, and Supports: Metal, glass-fiber-reinforced plastic, paper, or fiber tubes that will produce surfaces with gradual or abrupt irregularities not exceeding specified formwork surface class. Provide units with sufficient wall thickness to resist plastic concrete loads without detrimental deformation.
- D. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.
- E. Form Ties: Factory-fabricated, removable or snap-off metal or glass-fiber-reinforced plastic form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
 - 1. Furnish units that will leave no corrodible metal closer than 1 inch to the plane of exposed concrete surface.
 - 2. Furnish ties with integral water-barrier plates to walls indicated to receive dampproofing or waterproofing.

2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.
- B. Plain-Steel Wire: ASTM A 82, as drawn.
- C. Deformed-Steel Wire: ASTM A 496.

2.3 REINFORCEMENT ACCESSORIES

- A. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60, plain-steel bars, cut bars true to length with ends square and free of burrs.
- B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:
 - 1. For concrete surfaces exposed to view where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.

2.4 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
 - 1. Portland Cement: ASTM C 150, Type II.

- B. Normal-Weight Aggregates: ASTM C 33, graded, from a single source.
 - 1. Maximum Coarse-Aggregate Size: 1 inch nominal.
 - 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- C. Water: ASTM C 94/C 94M and potable.
- D. Fly ash, ground iron blast-furnace slag, or silica fume may partially replace cement in any mix as follows:
 - 1. Fly Ash:
 - a. Class F – Not more than 20 percent of the minimum mass of portland cement may be replaced with class F fly ash.
 - b. Class C – Not more than 25 percent of the minimum mass of portland cement may be replaced with class C fly ash.
 - 2. Ground Iron Blast-Furnace Slag: Not more than 25 percent of the minimum mass of portland cement may be replaced with ground iron blast-furnace slag.
 - 3. Silica Fume (microsilica): Not more than 10 percent of the minimum mass of portland cement may be replaced with silica fume.
 - 4. Additionally, fly ash, slag, and silica fume will constitute no more than 50 percent of the total replacement weight.

2.5 ADMIXTURES

- A. Air-Entraining Admixture: ASTM C 260.
- B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
 - 1. Retarding Admixture: ASTM C 494/C 494M, Type B.
- C. Synthetic Fiber: Monofilament or fibrillated polypropylene fibers engineered and designed for use in concrete pavement, complying with ASTM C 1116, Type III, 1/2 to 1-1/2 inches long.
- D. Color Pigment: ASTM C 979, synthetic mineral-oxide pigments or colored water-reducing admixtures; color stable, nonfading, and resistant to lime and other alkalis.
 - 1. Color: As selected by Contracting Officer from manufacturer's full range.
 - 2. Color Pigment shall not exceed 6% by weight of the cement.

2.6 VAPOR RETARDERS

- A. Plastic Vapor Retarder: ASTM E 1745, Class C, or polyethylene sheet, ASTM D 4397, not less than 10 mils thick. Include manufacturer's recommended adhesive or pressure-sensitive joint tape.

2.7 CURING MATERIALS

- A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
- B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- C. Water: Potable.

2.8 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork.
- B. Semirigid Joint Filler: Two-component, semirigid, 100 percent solids, epoxy resin with a Type A shore durometer hardness of 80 per ASTM D 2240.
- C. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.
- D. Epoxy Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade to suit requirements, and as follows:
 - 1. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

2.9 REPAIR MATERIALS

- A. Repair Underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch and that can be feathered at edges to match adjacent floor elevations.
 - 1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
 - 2. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
 - 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by underlayment manufacturer.
 - 4. Compressive Strength: Not less than 4100 psi at 28 days when tested according to ASTM C 109/C 109M.
- B. Repair Overlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch and that can be feathered at edges to match adjacent floor elevations.
 - 1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
 - 2. Primer: Product of topping manufacturer recommended for substrate, conditions, and application.

3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by topping manufacturer.
4. Compressive Strength: Not less than 5000 psi at 28 days when tested according to ASTM C 109/C 109M.

2.10 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
 1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.
- B. Limit water-soluble, chloride-ion content in hardened concrete to 0.06 percent by weight of cement.
- C. Admixtures: Use admixtures according to manufacturer's written instructions.

2.11 CONCRETE MIXTURES FOR BUILDING ELEMENTS

- A. Footings: Proportion normal-weight concrete mixture as follows:
 1. Minimum Compressive Strength: 3500 psi at 28 days.
 2. Maximum Water-Cementitious Materials Ratio: 0.50.
 3. Slump Limit: 3-5 inch (75-125 mm), plus or minus 1 inch.
 4. Air Content: 4 percent, plus or minus 1 percent at point of delivery for 1-inch nominal maximum aggregate size.
- B. Foundation Walls: Proportion normal-weight concrete mixture as follows:
 1. Minimum Compressive Strength: 3500 psi at 28 days.
 2. Maximum Water-Cementitious Materials Ratio: 0.50.
 3. Slump Limit: 4 inches, plus or minus 1 inch.
 4. Air Content: 5 percent, plus or minus 1 percent at point of delivery for 1-inch nominal maximum aggregate size.
- C. Slabs-on-Grade: Proportion normal-weight concrete mixture as follows:
 1. Minimum Compressive Strength: 3500 psi at 28 days.
 2. Minimum Cementitious Materials Content: 540 lb/cu. yd.
 3. Slump Limit: 4 inches, plus or minus 1 inch.
 4. Air Content: 5 percent, plus or minus 1 percent at point of delivery for 1-inch nominal maximum aggregate size.
 5. Air Content: Do not allow air content of troweled finished floors to exceed 3 percent.
 6. Synthetic Fiber: Uniformly disperse in concrete mixture at manufacturer's recommended rate, but not less than 1.0 lb/cu. yd.

2.12 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.13 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M and ASTM C 1116, and furnish batch ticket information.
 - 1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Limit concrete surface irregularities, designated by ACI 347R as abrupt or gradual, as follows:
 - 1. Class A, 1/8 inch for smooth-formed finished surfaces.
 - 2. Class B, 1/4 inch for rough-formed finished surfaces.
- D. Construct forms tight enough to prevent loss of concrete mortar.
- E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
 - 1. Install keyways, reglets, recesses, and the like, for easy removal.
 - 2. Do not use rust-stained steel form-facing material.
- F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.
- G. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.
- H. Chamfer or round exterior corners and edges of permanently exposed concrete.
- I. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.

- J. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- K. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- L. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC's "Code of Standard Practice for Steel Buildings and Bridges."

3.3 REMOVING AND REUSING FORMS

- A. General: Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F for 48 hours after placing concrete, if concrete is hard enough to not be damaged by form-removal operations and curing and protection operations are maintained.
 - 1. Leave formwork for beam soffits, joists, slabs, and other structural elements that supports weight of concrete in place until concrete has achieved at least 70 percent of its 28-day design compressive strength.
 - 2. Remove forms only if shores have been arranged to permit removal of forms without loosening or disturbing shores.
- B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-release agent.
- C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by Contracting Officer.

3.4 VAPOR RETARDERS

- A. Plastic Vapor Retarders: Place, protect, and repair vapor retarders according to ASTM E 1643 and manufacturer's written instructions.
 - 1. Lap joints 6 inches and seal with manufacturer's recommended tape.

3.5 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.
 - 1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that would reduce bond to concrete.
- C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.
- D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

3.6 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by the Contracting Officer.
 - 1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of strip placements of floors and slabs.
 - 2. Space vertical joints in walls as indicated. Locate joints beside piers integral with walls, near corners, and in concealed locations where possible.
 - 3. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:
 - 1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
 - 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks. **No Sawed Joints are allowed on concrete exposed to freezing.**
- D. Expansion Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
 - 1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.

2. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.

3.7 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.
- B. Do not add water to concrete during delivery, at Project site, or during placement unless approved by the Contracting Officer.
- C. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
 1. Deposit concrete in horizontal layers of depth to not exceed formwork design pressures and in a manner to avoid inclined construction joints.
 2. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
 3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.
- D. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
 1. Consolidate concrete during placement operations so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
 2. Maintain reinforcement in position on chairs during concrete placement.
 3. Screed slab surfaces with a straightedge and strike off to correct elevations.
 4. Slope surfaces uniformly to drains where required.
 5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.
- E. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 1. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.

3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.

F. Hot-Weather Placement: Comply with ACI 301 and as follows:

1. Maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

3.8 FINISHING FORMED SURFACES

- A. As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
- B. Rubbed Finish: Apply the following to smooth-formed finished as-cast concrete where indicated:
 1. Grout-Cleaned Finish: Wet concrete surfaces and apply grout of a consistency of thick paint to coat surfaces and fill small holes. Mix one part portland cement to one and one-half parts fine sand with a 1:1 mixture of bonding admixture and water. Add white portland cement in amounts determined by trial patches so color of dry grout will match adjacent surfaces. Scrub grout into voids and remove excess grout. When grout whitens, rub surface with clean burlap and keep surface damp by fog spray for at least 36 hours.
- C. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.9 FINISHING FLOORS AND SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraighening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraighening until surface is left with a uniform, smooth, granular texture.
 1. Apply float finish to surfaces to receive trowel finish and to be covered with fluid-applied or sheet waterproofing.

- C. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
1. Apply a trowel finish to surfaces to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane.
 2. Finish and measure surface so gap at any point between concrete surface and an unlevelled, freestanding, 10-foot long straightedge resting on 2 high spots and placed anywhere on the surface does not exceed 1/8 inch.
- D. Trowel and Fine-Broom Finish: Apply a first trowel finish to surfaces indicated. While concrete is still plastic, slightly scarify surface with a fine broom.
1. Comply with flatness and levelness tolerances for trowel finished floor surfaces.
- E. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, and ramps, and elsewhere as indicated.
1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Contracting Officer before application.

3.10 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for the remainder of the curing period.
- D. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces.
- E. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.

- b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
- a. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive floor coverings.
 - b. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive penetrating liquid floor treatments.
 - c. Cure concrete surfaces to receive floor coverings with either a moisture-retaining cover or a curing compound that the manufacturer certifies will not interfere with bonding of floor covering used on Project..
3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
- a. After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer unless manufacturer certifies curing compound will not interfere with bonding of floor covering used on Project.

3.11 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Contracting Officer. Remove and replace concrete that cannot be repaired and patched to Contracting Officer's approval.
- B. Patching Mortar: Mix dry-pack patching mortar, consisting of one part portland cement to two and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.
- C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
 - 1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2 inch in any dimension in solid concrete, but not less than 1 inch in depth. Make edges of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes and voids with bonding agent. Fill and compact with patching mortar before bonding agent has dried. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.

2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement so that, when dry, patching mortar will match surrounding color. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
 3. Repair defects on concealed formed surfaces that affect concrete's durability and structural performance as determined by Contracting Officer.
- D. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
 2. After concrete has cured at least 14 days, correct high areas by grinding.
 3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.
 4. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.
 5. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
 6. Repair defective areas, except random cracks and single holes 1 inch or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least a 3/4-inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mixture as original concrete except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
 7. Repair random cracks and single holes 1 inch or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.
- E. Perform structural repairs of concrete, subject to Contracting Officer's approval, using epoxy adhesive and patching mortar.

- F. Repair materials and installation not specified above may be used, subject to Contracting Officer's approval.

3.12 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Contractor will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
 - 1. Testing Frequency: Obtain one composite sample set for each truck of concrete (or portion thereof) delivered to the project. A composite sample set consists of three compressive test cylinders, one slump test, one air entrainment test, and one temperature test.
 - 2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample. Perform additional tests when concrete consistency appears to change or water is added.
 - 3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample.
 - 4. Concrete Temperature: ASTM C 1064/C 1064M; one test for each composite sample.
 - 5. Compression Test Specimens: ASTM C 31/C 31M. Cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
 - a. Compressive-Strength Tests: ASTM C 39/C 39M; test one of three laboratory-cured specimens at 7 days and one specimen at 28 days. If either previous tests fail, test third specimen at 28 days.
 - b. Strength of each batch delivered will be satisfactory if 28-day compressive-strength tests equals or exceeds specified compressive strength.
- C. Test results shall be reported in writing to Contracting Officer and Contractor within 48 hours of testing. Reports shall contain project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- D. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
- E. Correct deficiencies in the work that test reports and inspections indicate does not comply with the Contract Documents.

END OF SECTION 033000
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SECTION 033020 - CONCRETE FROM PACKAGED DRY MIX FOR MINOR
STRUCTURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes constructing small concrete structures such as post anchors and concrete collars.

1.2 MEASUREMENT AND PAYMENT

- A. There will be no separate measurement or payment for work in this Section. Concrete from packaged dry mix is considered incidental to other items of work shown in the Schedule of Items.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Concrete Dry Mix:

1. Design: ASTM C 387, made using dry pre-portioned, blended and bagged mix.
2. Average 28-day Compressive Strength: 4000 psi
3. Product: Sakrete Concrete Mix, as manufactured by US Mix Products Company, or an approved equal.

- B. All reinforcement bars shall be deformed billet steel conforming to the requirement of ASTM A615, Grade 60.

- C. Water: Clean and free from alkali and other deleterious materials.

PART 3 - EXECUTION

3.1 CONCRETE INSTALLATION

A. Mixing:

1. Mix dry concrete and water thoroughly according to the manufacturer.
2. Mixing Equipment: Mechanical mixer or wheel barrow.
3. Place concrete while fresh; any concrete in which initial set has begun shall be wasted.

- B. Placing: Place the fresh concrete in the forms and work as necessary to remove the air pockets.

- C. Finishing: Apply medium trowel finish to exposed concrete surfaces.
- D. Protection From Cold: Keep the air temperature surrounding the fresh concrete above 40°F for a period of five days after the concrete is placed.
- E. Curing: If determined necessary by the Contracting Officer, cover exposed surfaces with plastic sheeting after the concrete has taken its initial set.

END OF SECTION 033020
MAY 2010

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SECTION 323113.53 - HIGH-SECURITY CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes high-security chain-link fences and motor-operated, horizontal slide gates.

1.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design chain-link fences and gates, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Structural Performance: Chain-link fences and gate framework shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to **ASCE/SEI 7**:
1. Minimum Post Size: Determine according to ASTM F 1043 for framework up to 12 feet high, and post spacing not to exceed 10 feet for Material **Group IA, ASTM F 1043, Schedule 40 steel pipe**.
 2. Minimum Post Size and Maximum Spacing: Provide line posts of size and in spacing indicated, but not less than sizes and spacings determined according to **ASTM F 1916, including Appendix** based on mesh size and pattern specified and the following:
 - a. Wind Loads: **90 mph, 3 second gust**.
 - b. Exposure Category: **C**.
 - c. Fence Height: **6 feet**.
 - d. Material Group: **IA, ASTM F 1043, Schedule 40 steel pipe**.
 3. Fabric Tension: Provide fences in which fabric deflections do not exceed those indicated in Table X1.1 of ASTM F 1916 when tested by applying a 30-lbf force at midpoint between rails and horizontally between posts for every eighth lower panel along the fence line.
 4. Fence Post Rigidity: Provide fences in which post deflections do not exceed 3/4 inch when tested according to ASTM F 1916 by applying a 50-lbf force at midheight of every eighth post along the fence line.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated
- B. Shop Drawings: Include plans, elevations, sections, details, **wiring diagrams**, and attachments to other work. Show accessories, hardware, gate operation, and operational clearances.
- C. Samples: For each polymer-coated component and accessory.
- D. Delegated-Design Submittal: For chain-link fences and gate framework indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of chain-link fence, **operator**, and gate, from manufacturer.
- B. Product Test Reports: For framing strength according to ASTM F 1043.
- C. Field quality-control reports.
- D. Warranty: Sample of special warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

1.6 QUALITY ASSURANCE

- A. Testing Agency Qualifications: For testing fence grounding. Member company of NETA or an NRTL.
 - 1. Testing Agency's Field Supervisor: Currently certified by NETA to supervise on-site testing.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which **manufacturer** agrees to repair or replace components of high-security chain-link fences and gates that fail in materials or workmanship within specified warranty period.
1. Failures include, but are not limited to, the following:
 - a. Deflection of fence fabric beyond design limits.
 - b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - c. Faulty operation of gate operators and controls.
 2. Warranty Period: **Five** years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CHAIN-LINK FENCE FABRIC

- A. Chain-Link Fence Fabric: Provide fabric in **one-piece** heights measured between top and bottom of outer edge of selvage. Comply with CLFMI Product Manual and with requirements indicated below:
1. Fabric Height: **6 feet**.
 - a. Steel Wire Fabric: Wire with a diameter of **0.148 inch**.
 - 1) Mesh Size: **1¼ inches**.
 2. Zinc-Coated Fabric: ASTM A 392, Type II, **Class 2**, **2.0 oz./sq. ft.** with zinc coating applied **after** weaving.
 3. Selvage: Knuckled at both selvages.

2.2 SECURITY FENCE FRAMING

- A. Posts and Rails: Comply with ASTM F 1043 for framing, including rails, braces, and line; terminal; and corner posts.
1. Fence Height: **72 inches**.
 2. **Light Industrial Strength**: Material **Group IA**, round steel pipe, **Schedule 40**.
 - a. Line Post: **2.000 inches**.
 - b. End, Corner, and Pull Post: **2.375 inches in diameter**.
 3. Rail Members: **Intermediate, top, and brace** rails complying with ASTM F 1043 for Light Industrial.

4. Metallic Coating for Steel Framing:

- a. Type A, zinc coating.

2.3 TENSION WIRE

- A. Metallic-Coated Steel Wire: 0.177-inch- diameter, marcelled tension wire complying with ASTM A 817 and ASTM A 824, with the following metallic coating:

1. Type II, zinc coated with minimum coating weight matching chain-link fabric coating weight.

2.4 HORIZONTAL-SLIDE GATES

- A. General: Comply with ASTM F 1184 for gate posts and **single** sliding gate types. **Provide automated vehicular gates that comply with ASTM F 2200.**

1. Classification: Type I Overhead Slide.
2. Classification: Type II Cantilever Slide, **Class 1 with external** roller assemblies.

- B. Pipe and Tubing:

1. Zinc-Coated Steel: **Manufacturer's standard protective coating and finish.**
2. Aluminum: Comply with ASTM B 429/B 429M; **manufacturer's standard finish.**
3. Gate Post Size and Weight: Not less than required by **ASTM F 1184.**
4. Gate Frames and Bracing: **Round tubular steel, Square tubular steel, Square tubular aluminum, or Round tubular aluminum.**

- C. Frame Corner Construction: **Welded or assembled with corner fittings** and 3/8-inch-diameter, adjustable truss rods for panels 5 feet or wider.

2.5 FITTINGS

- A. General: Comply with ASTM F 626.

- B. Tie Wires, Clips, and Fasteners: Comply with ASTM F 626 and ASTM F 1916.

- C. Power-Driven Fabric Fasteners: Comply with ASTM F 1916.

- D. Finish:

1. Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. (366 g/sq. m) of zinc.

- a. Polymer coating over metallic coating.

2. Aluminum: Mill finish.

2.6 GATE OPERATORS

- A. General: Provide factory-assembled automatic operating system designed for gate size, type, weight, and operation frequency. Provide operation control system with characteristics suitable for Project conditions, with remote-control stations, safety devices, and weatherproof enclosures; coordinate electrical requirements with building electrical system.
 1. Provide operator designed so motor may be removed without disturbing limit-switch adjustment and without affecting auxiliary emergency operator.
 2. Provide operator with **UL approval**.
 3. Provide electronic components with built-in troubleshooting diagnostic feature.
 4. Provide unit designed and wired for both right-hand/left-hand opening, permitting universal installation.
- B. Comply with NFPA 70.
- C. UL Standard: Manufacturer and label gate operators to comply with UL 325.
- D. Motor Characteristics: Sufficient to start, accelerate, and operate connected loads at designated speeds, within installed environment, with indicated operating sequence, and without exceeding nameplate rating or considering service factor. Comply with NEMA MG 1 and the following:
 1. Voltage: **NEMA standard voltage selected to operate on nominal circuit voltage to which motor is connected.**
 2. Horsepower: **as recommended by manufacturer.**
 3. Enclosure: **Manufacturer's standard.**
 4. Duty: Continuous duty at ambient temperature of 105 deg F (40 deg C) and at altitude of 4500 feet (1005 m) above sea level.
 5. Service Factor: 1.15 for open dripproof motors; 1.0 for totally enclosed motors.
 6. Phase: **One.**
- E. Hydraulic Slide Gate Operators: **Pedestal post** mounted and as follows:
 1. Duty: **Light.**
 2. Gate Speed: Minimum 45 feet per minute.
 3. Maximum Gate Weight: **800 lb.**
 4. Frequency of Use: **25 cycles per hour.**
- F. Remote Controls: **Digital keypad entry unit and Vehicle loop detector or Vehicle presence detector.**

2.7 GROUT AND ANCHORING CEMENT

- A. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by manufacturer, for exterior applications.
- B. Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended in writing by manufacturer for exterior applications.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, and other conditions affecting performance of the Work.
 - 1. Do not begin installation before final grading is completed unless otherwise permitted by Contracting Officer.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet (152 m) or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.
- D. Install chain-link fencing to comply with ASTM F 567 and more stringent requirements specified.
- E. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.
- F. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.
 - 1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting.
 - 2. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.
 - a. Exposed Concrete: Extend 2 inches (51 mm) above grade; shape and smooth to shed water.

- b. Posts Set into Concrete in Sleeves: Use steel pipe sleeves preset and anchored into concrete for installing posts. After posts have been inserted into sleeves, fill annular space between post and sleeve with **nonshrink, nonmetallic grout**, mixed and placed to comply with anchoring material manufacturer's written instructions, and finished sloped to drain water away from post.
 - c. Posts Set into Voids in Concrete: Form or core drill holes not less than 5 inches (127 mm) deep and 3/4 inch (19 mm) larger than OD of post. Clean holes of loose material, insert posts, and fill annular space between post and concrete with **nonshrink, nonmetallic grout**, mixed and placed to comply with anchoring material manufacturer's written instructions, and finished sloped to drain water away from post.
- G. Terminal Posts: Locate and install terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of 15 degrees or more, at any abrupt change in grade, and at intervals not greater than 500 feet (152 m). For runs exceeding 500 feet (152 m), space pull posts an equal distance between corner or end posts.
- H. Line Posts: Space line posts uniformly at **96 inches o.c.**
- I. Barbed Wire Arms: Bolt or rivet to top of post. Angle single arms away from approach side of fence.
- J. Tension Wire: Install according to ASTM F 567 and ASTM F 1916, maintaining plumb position and alignment of fencing. Provide horizontal tension wire at the following locations:
- 1. Extended along **bottom** of fence fabric.
- K. Chain-Link Fabric: Apply fabric on the approach side of fence, inside of enclosing framework.
- L. Power-Driven Fasteners: Fasten 0.192- or 0.148-inch (4.87- or 3.76-mm) wire fabric with 2- or 1-inch (51- or 25.4-mm) mesh size.
- 1. Fasten fabric to line posts 12 inches (305 mm) o.c. and to braces 24 inches (610 mm) o.c.
- M. Fasteners: Install nuts for tension bands and carriage bolts on the side of fence opposite the fabric side. **Peen ends of bolts or score threads to prevent removal of nuts.**
- N. Gates: Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

- O. Gate Operators: Install gate operators according to manufacturer's written instructions, aligned and true to fence line and grade.
- P. Adjustment: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range.
 - 1. Adjust operators, controls, safety devices, and limit switches

3.2 FIELD QUALITY CONTROL

- A. Fabric Testing: Test fabric tension according to ASTM F 1916.
- B. Fence Post Rigidity Testing: Test line posts for rigidity according to ASTM F 1916.

END OF SECTION 323113.53