

# ARIZONA DEPARTMENT OF TRANSPORTATION



## ADVERTISEMENT FOR BIDS SPECIAL PROVISIONS BIDDERS DOCUMENTS

SUBMITTED BY:

\_\_\_\_\_  
(Company or Firm Name)

\_\_\_\_\_  
(Mailing Address)

\_\_\_\_\_  
(City)

\_\_\_\_\_  
(State)

\_\_\_\_\_  
(Zip Code)

\_\_\_\_\_  
(Street Address - If Different From Above)

\_\_\_\_\_  
(City)

\_\_\_\_\_  
(State)

\_\_\_\_\_  
(Zip Code)

Arizona Commercial License No. \_\_\_\_\_

License Classifications(s) \_\_\_\_\_

TRACS/Proj. No.:

0000 MA PEO T032101C PEO-0(229)T  
CITY OF PEORIA  
(STADIUM TRAIL PHASE II; 75TH AVE TO SKUNK CREEK)

Contracts and Specifications Group  
205 S. 17<sup>TH</sup> Ave., 2<sup>nd</sup> Floor, M/D 121F  
Phoenix, Arizona 85007-3217

**ARIZONA DEPARTMENT OF TRANSPORTATION**

**ADVERTISEMENT FOR BIDS**

BID OPENING: FRIDAY, AUGUST 23, 2024, AT 11:00 A.M. (M.S.T.)

TRACS NO	0000 MA PEO T0321 01C
PROJECT NO	PEO-0-(229)T
TERMINI	CITY OF PEORIA
LOCATION	STADIUM TRAIL PHASE II; 75TH AVENUE TO SKUNK CREEK

ROUTE NO.	MILEPOST	DISTRICT	ITEM NO.
0000	N/A	CENTRAL	101700

The amount programmed for this contract is \$4,182,000. The location and description of the proposed work are as follows:

The proposed project is located in Maricopa County within the City of Peoria between 75th Avenue and Skunk Creek. The work consists of constructing a concrete trail with decomposed granite shoulder, pedestrian bridge, reconstruction of maintenance access road, and other related work.

The time allowed for the completion of the work included in this contract will be 280 Working days.

The Arizona Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to §§ 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, Disadvantaged Business Enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

The minimum contract-specified goal for participation by Disadvantaged Business Enterprises in the work, as a percentage of the total amount bid, shall be 7.69.

Contract documents, and other project documents, if applicable, are available as electronic files, at no charge, from the Department's website through the ADOT Contracts and Specifications Group (<https://azdot.gov/business/contracts-and-specifications/current-advertisements>).

Documents will be available within one week following the advertisement for bids.

To submit a valid bid, the bidder must (1) have prequalification from the Department as necessary for the project, and (2) be included on the project Plansholder List as a Prime.

The Application for Contractor Prequalification may be obtained from the Contracts and Specifications website.

This project requires electronic bidding. If a request for approval to bid as a Prime Contractor is received less than 48 hours prior to bid opening, the Department cannot guarantee the request will be acted on.

This contract is subject to the provisions of Arizona Revised Statutes Section 42-5075 -- Prime contracting classification; exemptions; definitions.

No award will be made to any contractor who is not a duly licensed contractor in accordance with Arizona Revised Statutes 32-1101 through 32-1170.03.

All labor employed on this project shall be paid in accordance with the minimum wage rates shown in the General Wage Decision. These rates have been determined in accordance with the requirements of the law and issued by the Secretary of Labor for this project. The wage scale is on file in Contracts and Specifications Section and copies may be obtained at all reasonable times.

Persons that require a reasonable accommodation based on language or disability should contact ADOT's Contracts and Specifications Office by phone (602) 712-7221. Requests should be made as early as possible to ensure the State has an opportunity to address the accommodation.

*Las personas que requieran asistencia (dentro de lo razonable) ya sea por el idioma o discapacidad deben ponerse en contacto con ADOT (602) 712-7221.*

A proposal guaranty in the form of either a certified or a cashier's check made payable to the State Treasurer of Arizona for not less than 10 percent of the amount of the bid or in the form of a surety (bid) bond for 10 percent of the amount of the bid shall accompany the proposal.

Surety (bid) bonds will be accepted only on the form provided by the Department and only from corporate sureties authorized to do business in Arizona.

Bids will be received until the hour indicated and then publicly opened and read. No bids will be received after the time specified.

Prior to the bid opening date, any questions pertaining to the plans, specifications, and bid schedule for this project shall be submitted to the Department in a written format through the Bid Express (Bidx) website at <https://www.bidx.com/az/lettings>. Questions can be submitted through the Questions and Answers link located within the corresponding letting date and project proposal number links. The Department will post answers exclusively to the Bidx website. Questions will not be answered verbally. The Department may not answer all questions, and any decision on whether a question is answered will be within the sole discretion of the Department. Any questions received less than three working days prior to the bid opening date may not be answered.

Kirstin Huston, P.E.  
Group Manager  
Contracts & Specifications

PROJECT ADVERTISED ON: MAY 30, 2024

## **SPECIAL PROVISIONS**

FOR

ARIZONA PROJECT

**0000 MA PEO T0321 01C**

**PEO-0-(229)T**

CITY OF PEORIA

Stadium Trail Phase II; 75<sup>th</sup> Avenue to Skunk Creek

### **MULTI-USE PATH**

#### **PROPOSED WORK:**

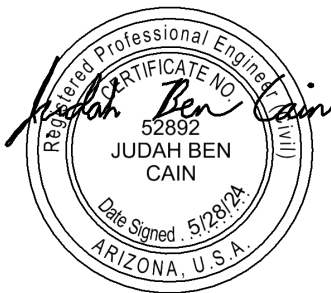
The proposed project is located in Maricopa County within the City of Peoria between 75<sup>th</sup> Avenue and Skunk Creek. The work consists of constructing a concrete trail with decomposed granite shoulder, pedestrian bridge, reconstruction of maintenance access road, and other related work.

## PROFESSIONAL ENGINEER SEALS:

These Special Provisions represent the combined efforts of the following organizations:

- (1) Jacobs Engineering Group Inc.
- (2) J2 Engineering and Environmental Design, LLC.
- (3) Ethos Engineering, LLC.

A representative of each organization has affixed their seal below, which attests that portions of these Special Provisions were prepared under their direction.



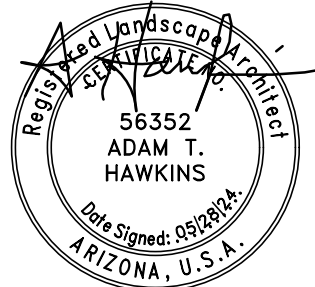
Jacobs  
(Roadway)



Jacobs  
(Structures)



Jacobs  
(Traffic Control, Signing, Pavement Marking)



J2 Design  
(SWPPP)



Ethos Engineering  
(Geotechnical, Paving)

**(SPC00FA, 10/19/23)**

**SPECIFICATIONS:**

**The work embraced herein shall be performed in accordance with the requirements of the following separate documents:**

Arizona Department of Transportation, Standard Specifications for Road and Bridge Construction, Edition of 2021,

Arizona Department of Transportation, Roadway Engineering Group, Construction Standard Drawings, listed in the project plans, and available on the Department's website,

Arizona Department of Transportation, Traffic Group, Manual of Approved Signs, available on the Department's website,

Arizona Department of Transportation, Traffic Group, Traffic Control Design Guidelines, 2019 Edition, available on the Department's website,

Manual on Uniform Traffic Control Devices for Streets and Highways, 2009 edition and Arizona Supplement to the 2009 edition, dated January, 2012,

**The Proposal Pamphlet which includes the following documents:**

These Special Provisions,

Appendix A- Western Burrowing Owl Awareness,

Required Contract Provisions Federal-Aid Construction Contracts (Form FHWA 1273 Revised October 23, 2023),

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246), July 1, 1978, Revised November 3, 1980 and Revised April 15, 1981,

Title VI / Non-Discrimination Assurances,  
Appendix A  
Appendix E,

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246), July 1, 1978, Revised November 3, 1980 and Revised April 15, 1981,

Equal Employment Opportunity Compliance Reports, Federal-Aid Projects, February 1, 1977, Revised July 1, 1978, Revised November 3, 1980, Revised April 15, 1981, Revised September 7, 1983, Revised October 15, 1998, Revised January 1, 2005, Revised August 1, 2005, and Revised March 1, 2015,

Wage Determination Decision,

Bidding Schedule,

Proposal,

Surety (Bid) Bond, 12-1303,

Certification With Regard to the Performance of Previous Contracts or Subcontracts  
Subject to the Equal Opportunity Clause and the Filing of Required Reports, Federal  
Aid Projects, April, 1969, Rev. July, 2003,

Certification With Respect to the Receipt of Addenda,

Participation in Boycott of Israel Certification Form,

Forced Labor of Ethnic Uyghurs Ban Certification Form, Rev. November 2022.

Disadvantaged Business Enterprise (DBE) Assurance,

#### **BID SUBMISSION:**

**In submitting a bid, the bidder shall completely execute the following documents:**

Proposal,

Bidding Schedule,

Surety (Bid) Bond, 12-1303,

Certification With Regard to the Performance of Previous Contracts or Subcontracts  
Subject to the Equal Opportunity Clause and the Filing of Required Reports, Federal  
Aid Projects, April, 1969, Rev. July, 2003,

Certification With Respect to the Receipt of Addenda,

Participation in Boycott of Israel Certification Form, and

Forced Labor of Ethnic Uyghurs Ban Certification Form, Rev. November 2022.

Disadvantaged Business Enterprise (DBE) Assurance,

#### **PROPOSAL GUARANTY:**

Each bidder is advised to satisfy itself as to the character and the amount of the proposal guaranty required in the Advertisement for Bids.

## **CONTRACT DOCUMENTS:**

The bidder to whom an award is made will be required to execute a Performance Bond and a Payment Bond, each in 100 percent of the amount of the bid, an Insurance Certificate and the Contract Agreement.

A copy of these documents is not included in the Proposal Pamphlet; however, each bidder shall satisfy itself as to the requirements of each document.

The documents, approved by the Department of Transportation, Highways Division, are identified as follows:

Statutory Performance Bond, 12-1301, September, 1992

Statutory Payment Bond, 12-1302, September, 1992

Contract Agreement, 12-0912, August, 2000

Certificate of Insurance, 12-0100, June, 1998

A copy of each document may be obtained by making a request to Contracts & Specifications.

## **MATERIAL AND SITE INFORMATION:**

Projects requiring materials, excavation, or site investigation may have additional information available concerning the material investigations of the project site and adjacent projects. This information, when available and applicable, may be examined in the Office of the Bridge Group-Geotechnical Services, located at 205 S. 17<sup>th</sup> Avenue, Phoenix, AZ 85007-3212. The contractor may contact Bridge Group at (602) 712-7481 to schedule an appointment to examine the information. This information will not be attached to the contract documents.



**(EPRISE, 12/21/23)**

## **DISADVANTAGED BUSINESS ENTERPRISES:**

### **1.0 Policy:**

The Arizona Department of Transportation (hereinafter the Department) has established a Disadvantaged Business Enterprise (DBE) program in accordance with the regulations of the U.S. Department of Transportation (USDOT), 49 CFR Part 26. The Department has received Federal financial assistance from the U.S. Department of Transportation and as a condition of receiving this assistance, the Department has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of the Department to ensure that DBEs, as defined in Part 26, have an equal opportunity to receive and participate in USDOT-assisted contracts. It is also the policy of the Department:

1. To ensure nondiscrimination in the award and administration of USDOT-assisted contracts;
2. To create a level playing field on which DBEs can compete fairly for USDOT-assisted contracts;
3. To ensure that the DBE program is narrowly tailored in accordance with applicable law;
4. To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are counted as DBEs;
5. To help remove barriers to the participation of DBEs in USDOT-assisted contracts;
6. To assist in the development of firms that can compete successfully in the market place outside the DBE program and;
7. To promote the use of DBEs in all types of federally-assisted contracts and procurement activities.

It is also the policy of the Department to facilitate and encourage participation of Small Business Concerns (SBCs), as defined herein in USDOT-assisted contracts. The Department encourages contractors to take reasonable steps to eliminate obstacles to SBCs' participation and to utilize SBCs in performing contracts.

### **2.0 Assurances of Non-Discrimination:**

The contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the state deems appropriate, which may include, but not limited to:

- (1) Withholding monthly progress payments;

- (2) Assessing sanctions; and/or
- (3) Disqualifying the contractor from future bidding as non-responsible.

The contractor, subrecipient, or subcontractor shall ensure that all subcontract agreements contain this non-discrimination assurance.

### 3.0 Definitions:

- (A) **Commercially Useful Function (CUF):** Commercially Useful Function is defined fully in 49 CFR 26.55 which definition is incorporated herein by reference.
- (B) **Committed DBE:** A DBE that was identified by the contractor, typically on a DBE Affidavit, to meet an assigned DBE goal as a condition of contract award and performance, and includes any substitute DBE that has subsequently been committed work to meet the assigned contract goal.
- (C) **Disadvantaged Business Enterprise (DBE):** a for-profit small business concern which meets both of the following requirements:
  - (1) Is at least 51 percent owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51 percent of the stock is owned by one or more such individuals; and,
  - (2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.
- (D) **Joint Check:** a two-party check between a subcontractor, DBE and/or non-DBE, a prime contractor and the regular dealer of material supplies.
- (E) **Joint Venture:** an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.
- (F) **NAICS Code:** The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the US business economy.
- (G) **Non-DBE:** any firm that is not a DBE.
- (H) **Race Conscious:** a measure or program is one that is focused specifically on assisting only DBEs, including women-owned DBEs.

**(I) Race Neutral:** a measure or program is one that is, or can be, used to assist all small businesses. For the purposes of this part, race neutral includes gender-neutrality.

**(J) Small Business Concern:** a business that meets all of the following conditions:

- (1) Operates as a for-profit business;
- (2) Operates a place of business primarily within the U.S., or makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials, or labor;
- (3) Is independently owned and operated;
- (4) Is not dominant in its field on a national basis; and
- (5) Does not have annual gross receipts that exceed the Small Business Administration size standards average annual income criteria for its primary North American Industry Classification System (NAICS) code.

**(K) Socially and Economically Disadvantaged Individuals:** any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is:

- (1) Any individual who is found to be a socially and economically disadvantaged individual on a case-by-case basis.
- (2) Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:
  - (i) "Black Americans," which includes persons having origins in any of the Black racial groups of Africa;
  - (ii) "Hispanic Americans," which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
  - (iii) "Native Americans," which includes persons who are enrolled members of a federally or State recognized Indian tribe, Alaskan Natives or Native Hawaiians;
  - (iv) "Asian-Pacific Americans," which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Republic of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia, or Hong Kong;
  - (v) "Subcontinent Asian Americans," which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
  - (vi) Women;

- (vii) Any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration (SBA), at such time as the SBA designation becomes effective.

#### **4.0 Working with DBEs:**

The Department works with DBEs and assists them in their efforts to participate in the highway construction program. All bidders should contact the Department's Business Engagement and Compliance Office (BECO) by phone, through email, or at the address shown below, for assistance in their efforts to use DBEs in the highway construction program of the Department. BECO contact information is as follows:

Arizona Department of Transportation  
Business Engagement and Compliance Office  
1801 W. Jefferson Street, Ste. 101, Mail Drop 154A  
Phoenix, AZ 85007  
Phone (602) 712-7761  
Email: [contractorcompliance@azdot.gov](mailto:contractorcompliance@azdot.gov)  
Website: [www.azdot.gov/business/business-engagement-and-compliance](http://www.azdot.gov/business/business-engagement-and-compliance)

#### **4.01 Mentor-Protégé Program:**

The Department has established a Mentor-Protégé program as an initiative to encourage and develop disadvantaged businesses in the highway construction industry. The program encourages prime contractors to provide certain types of assistance to certified DBE subcontractors. ADOT encourages contractors and certified DBE subcontractors to engage in a Mentor-Protégé agreement under certain conditions. Such an agreement must be mutually beneficial to both parties and to ADOT in fulfilling the requirements of 49 CFR Part 23. For guidance regarding this program, refer to the Mentor-Protégé Program Guidelines available on the BECO website.

The Mentor-Protégé program is intended to increase legitimate DBE activities. The program does not diminish the DBE rules or regulations, and participants may not circumvent these rules.

#### **5.0 Applicability:**

The Department has established an overall annual goal for DBE participation on Federal-aid contracts. The Department intends for the goal to be met with a combination of race conscious and race neutral efforts. Race conscious participation occurs where the contractor uses a percentage of DBEs, as defined herein, to meet the contract-specified goal. Race neutral efforts are those that are, or can be, used to assist all small businesses or increase opportunities for all small businesses. The regulation, 49 CFR 26, describes race neutral participation as when a DBE wins a prime contract through customary competitive procurement procedures or is awarded a subcontract on a prime contract that does not carry a DBE contract goal.

The contractor shall meet the goal specified herein with DBEs, or establish that it was unable to meet the goal despite making good faith efforts to do so. Prime contractors are encouraged to obtain DBE participation above and beyond any goals that may be set for this project.

The DBE provisions are applicable to all bidders including DBE bidders.

## **6.0 Certification and Registration:**

### **6.01 DBE Certification:**

Certification as a DBE shall be predicated on:

- (1) The completion and execution of an application for certification as a "Disadvantaged Business Enterprise".
- (2) The submission of documents pertaining to the firm(s) as stated in the application(s), including but not limited to a statement of social disadvantage and a personal financial statement.
- (3) The submission of any additional information which the Department or the applicable Arizona Unified Certification (UCP) agency may require to determine the firm's eligibility to participate in the DBE program.
- (4) The information obtained during the on-site visits to the offices of the firm and to active job-sites.

Applications for certification may be filed online with the Department or the applicable Arizona Unified Certification agency at any time through the Arizona Unified Transportation Registration and Certification System (AZ UTRACS) website at <http://utracs.azdot.gov/Home/>.

DBE firms and firms seeking DBE certification shall cooperate fully with requests for information relevant to the certification process. Failure or refusal to provide such information is a ground for denial or removal of certification.

ADOT is a member of the AZ Unified Certification Program (AZUCP). Only DBE firms that are certified by the AZUCP are eligible for credit on ADOT projects. A list of DBE firms certified by AZUCP is available on the internet at <http://utracs.azdot.gov/Home/>. The list will indicate contact information and specialty for each DBE firm, and may be sorted in a variety of ways. However, ADOT does not guarantee the accuracy and/or completeness of this information, nor does ADOT represent that any licenses or registrations are appropriate for the work to be done.

The Department's certification of a DBE is not a representation of qualifications and/or abilities; only that the firm has met the criteria for DBE certification as outlined in 49 CFR Part 26. The contractor bears all risks of ensuring that DBE firms selected by the contractor are able to perform the work.

## **6.02 SBC Registration:**

To comply with 49 CFR Part 26.39, ADOT's DBE Program incorporates contracting requirements to facilitate participation by Small Business Concerns (SBCs) in federally assisted contracts. SBCs are for-profit businesses authorized to do business in Arizona that meet the Small Business Administration (SBA) size standards for average annual revenue criteria for its primary North American Industry Classification System (NAICS) code.

While the SBC component of the DBE program does not require utilization goals on projects, ADOT encourages contractors to utilize small businesses that are registered in AZ UTRACS on their contracts, in addition to DBEs meeting the certification requirement. The contractor may use the AZ UTRACS website to search for certified DBEs and registered SBCs that can be used on the contract. However, SBCs that are not DBEs will not be counted toward the DBE contract goal.

SBCs can register online at the AZ UTRACS website. The Department's registration of SBCs is not a representation of qualifications and/or abilities. The contractor bears all risks of ensuring that SBC firms selected by the contractor are able to perform the work.

## **7.0 DBE Financial Institutions:**

The Department thoroughly investigates the full extent of services offered by financial institutions owned and controlled by socially and economically disadvantaged individuals in its service area and makes reasonable efforts to use these institutions. The Department encourages prime contractors to use such institutions on USDOT assisted contracts. However, use of DBE financial institutions will not be counted toward the DBE contract goal.

The Department encourages prime contractors to research the Federal Reserve Board website at [www.federalreserve.gov](http://www.federalreserve.gov) to identify minority-owned banks in Arizona derived from the Consolidated Reports of Condition and Income filed quarterly by banks (FFIEC 031 and 041) and from other information on the Board's National Information Center database.

## **8.0 Time is of the Essence:**

TIME IS OF THE ESSENCE IN RESPECT TO THE DBE PROVISIONS.

## **9.0 Computation of Time:**

In computing any period of time described in this DBE special provision, such as calendar days, the day from which the period begins to run is not counted, and when the last day of the period is a Saturday, Sunday, or Federal or State holiday, the period extends to the next day that is not a Saturday, Sunday, or Federal or State holiday. In circumstances where the Department's offices are closed for all or part of the last day, the period extends to the next day on which the Department's offices are open.

## **10.0 Contractor and Subcontractor Requirements:**

## **10.01 General:**

The contractor shall establish a DBE program that will ensure nondiscrimination in the award and administration of contracts and subcontracts.

Agreements between the bidder and a DBE in which the DBE promises not to provide subcontracting quotations to other bidders are prohibited.

## **10.02 DBE Liaison:**

The contractor shall designate a DBE Liaison responsible for the administration of the contractor's DBE program. The name of the designated DBE Liaison shall be included in the DBE Intended Participation Affidavit Summary.

## **11.0 Bidders/Proposers List and AZ UTRACS Registration Requirement:**

Under Title 49 CFR of the Code of Federal Regulations, Part 26.11, DOTs are required to collect certain information from all contractors and subcontractors who seek to work on federally-assisted contracts in order to set overall and contract DBE goals. ADOT collects this information through a Bidders/Proposers List when firms register their companies on the Arizona Unified Transportation Registration and Certification System (AZ UTRACS) web portal at <http://utracs.azdot.gov/Home/> a centralized database for companies that seek to do business with ADOT. This information will be maintained as confidential to the extent allowed by federal and state law.

Prime contractors and all subcontractors, including DBEs, must be registered in AZ UTRACS. Bidders may verify that their firm and each subcontractors is registered using the AZ UTRACS website.

Bidders may obtain additional information at the AZ UTRACS website or by contacting BECO.

Bidders shall create the Bidders/Proposers List in the AZ UTRACS by selecting all subcontractors, service providers, manufacturers and suppliers that expressed interest or submitted bids, proposals or quotes for this contract. The Bidders/Proposers List form must be complete and must include the names for all subcontractors, service providers, manufacturers and suppliers regardless of the bidders' intentions to use those firms on the project.

All bidders must complete the Bidders/Proposers List online at AZ UTRACS whether they are the apparent low bidder or not. A confirmation email will be generated by the system. The bidders shall submit to BECO a copy of the email confirmation no later than 4:00 p.m. on the fifth calendar day following the bid opening. Faxed copies are acceptable.

FAILURE TO SUBMIT THE REQUIRED BIDDERS/PROPOSERS LIST CONFIRMATION EMAIL TO BECO BY THE STATED TIME AND IN THE MANNER HEREIN SPECIFIED SHALL BE CAUSE FOR THE BIDDER BEING DEEMED INELIGIBLE FOR AWARD OF THE CONTRACT.

## **12.0 DBE Goal:**

The minimum goal for participation by DBEs on this project is as follows:

7.69 Percent

The percentage of DBE participation shall be based on the total bid.

## **13.0 Submission with Bids:**

All bidders are required to certify in their bid proposal on the "Disadvantaged Business Enterprise Goal Assurance" certificate either:

- (1) The bidder has met the established DBE goal and arrangements with certified DBEs have been made prior to the submission of the bid, or
- (2) The bidder has been unable to meet the established DBE goal prior to the submission of the bid and has made good faith efforts to do so.

For the purpose of this section, 'arrangements' means, at a minimum, agreement between the bidder and the certified DBE, either written or oral, on unit prices and scope of work.

This certificate may not be revised or corrected after submission of the bid. If the bidder certifies that it has met the goal, the bidder cannot change its position after submission of the bid and submit documentation of a good faith effort. If the bidder certifies that it has been unable to meet the goal and has made a good faith effort, the bidder cannot change its position after submission of the bid and claim to have met or be able to meet the established goal.

Bids submitted with altered, incomplete or unsigned certificates will be considered non-responsive. Bids submitted with certifications on forms other than those furnished by the Department will be considered non-responsive.

## **14.0 Bidder Meeting DBE Goal:**

### **14.01 General:**

To be considered responsible and eligible for award of a contract, a bidder who has indicated in its bid that it met the DBE goal must submit the information described in this Subsection no later than five calendar days after bid opening.

If the bid of the apparent low bidder is rejected for any reason, the next low bidder may become the apparent low bidder only if it had submitted the information described in this Subsection or Subsection 15.01, as appropriate, no later than five calendar days after bid opening.



In order to be awarded this contract, a bidder must establish either (1) that it has met the DBE participation goal of the contract or (2) that it has made adequate good faith efforts (GFE) to meet the DBE goal. This requirement is in addition to all other pre-award requirements.

If the apparent low bidder indicates in the bid that it has met the DBE goal, the bidder shall submit a DBE Intended Participation Affidavit for each individual DBE it intends to use to meet the project DBE goal if the contract is awarded to their firm, and the Intended Participation Affidavit Summary as follows:

- (1) The DBE Intended Participation Affidavit for each individual DBE, and the Intended Participation Affidavit Summary must be received by BECO no later than 4:00 P.M. on the fifth calendar day following the bid opening. Copies of these forms are available from BECO at the address, phone number or website listed in DBE Subsection 4.0. The affidavits and Summary shall indicate that the bidder has met the DBE goal if this was indicated on the submittal with the bid.
- (2) The Intended Participation Affidavit Summary and the DBE Intended Participation Affidavit for each individual DBE must be accurate and complete in every detail and must be signed by an officer of the contractor(s). Percentages and dollar amounts must be accurate. Percentages shall be listed to two decimal places. The DBE Intended Participation Affidavit Summary must be submitted listing all the DBEs intended to be used and the creditable amounts.
- (3) A separate DBE Intended Participation Affidavit must be submitted for each DBE used to meet the goal of the project. The bidder shall indicate each DBE's name, a description of the work the DBE will perform, bid item number, proposed subcontract amount, and the NAICS code applicable to the kind of work the firm would perform on the contract. A list of certified DBEs with their respective NAICS codes can be located on the DBE Directory at AZ UTRACS website. All partial items must be explained. If not, the DBE will be considered to be responsible for the entire item. The intended DBE must complete and sign the form to confirm its participation in the contract.
- (4) The affidavits and summary may be submitted electronically through email to BECO.
- (5) A bidder must determine DBE credit in accordance with DBE Subsection 18 (Crediting DBE Participation Toward Meeting Goals). The affidavit will be reviewed, and approved or rejected by BECO.
- (6) Only those DBE firms certified by the Arizona Unified Certification Program (AZUCP) as of the deadline for bid submittal will be considered for DBE credit. It shall be the bidder's responsibility to ascertain the certification status of designated DBEs.
- (7) All DBE commitment amounts must be finalized between the DBE subcontractor and the bidder prior to the deadline for affidavit submittal. Bidders shall not inflate DBE awards in order to meet contract goals.

- (8) The bidder bears the risk of late submission or late delivery by the postal service or a delivery service. Affidavits and Summary received by BECO after 4:00 P.M. on the fifth calendar day following the bid opening will not be accepted.
- (9) Reduction of DBE commitments after affidavit submittal and prior to execution of the contract without good cause will result in the bid being rejected or the Department rescinding any award. Scheduling conflicts are not necessarily evidence of good cause as this should have been considered during pre-bid negotiations. The contractor is responsible for ensuring the DBE is available to meet the requirements of the contract.

#### **14.02 Failure to Comply:**

If the apparent low bidder fails to submit the required information by the stated time and in the manner herein specified, or if the submitted information reveals a failure to meet the requirements of the specifications, the apparent low bidder shall be ineligible to receive award of the contract and the bid will be rejected. The proposal guarantee (bid bond) shall be forfeited if no submission is made or if the State Engineer finds the submission was made in bad faith.

#### **15.0 Documented Good Faith Effort:**

##### **15.01 General:**

To be considered responsible and eligible for award of a contract a bidder who has indicated in its bid that it was unable to meet the DBE goal but made good faith efforts must submit the information described in this Subsection no later than five calendar days after bid opening.

If the bid of the apparent low bidder is rejected for any reason, the next low bidder may become the apparent low bidder only if it had submitted the information described in this Subsection or Subsection 14.01, as appropriate, no later than five calendar days after bid opening.

If the apparent low bidder has stated in its bid proposal that it has been unable to meet the DBE goal, that bidder must demonstrate, through detailed and comprehensive documentation, that good faith efforts have been made to solicit, assist, and use DBE firms to meet the DBE goal prior to the bid. If the bidder certifies that it has been unable to meet the goal and has made a good faith effort, the bidder cannot change its position after submission of the bid and claim to have met the established goal.

Failure to demonstrate good faith efforts to the satisfaction of ADOT will result in the rejection of the bid. In the event that the low bid is rejected, the Department will consider award of the contract to the next responsible and responsive bidder. To be considered responsive, the bidder must have submitted the information described in either Subsection 14 or 15 of this DBE special provision, no later than five calendar days after bid opening.

The bidder's good faith effort documentation must be submitted to and received by the Department's BECO by 4:00 P.M. on the fifth calendar day after the bids are opened. Good faith effort documentation may be submitted electronically through email to BECO. Good faith effort documentation submitted after the time specified will not be accepted.

The bidder bears the risk of late submission or late delivery by the postal service or a delivery service.

The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract. A generalized assertion that the contractor received multiple quotes is not sufficient unless copies of those quotes are provided.

Bidders are encouraged to review Appendix A of 49 CFR Part 26.

Useful information related to encouraging DBE participation and documented good faith efforts can be found in the Department's "Good Faith Effort Guide" and other documents made available on the internet at BECO's website. The information provided in the "Good Faith Effort Guide" does not replace the specifications; bidders must comply with the requirements of this specification.

In order to be awarded a contract on the basis of good faith efforts, a bidder must show that it took all necessary and reasonable steps to achieve the DBE goal which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful. The Department will consider the quality, quantity, and intensity of the different kinds of efforts the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to make if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE goal. Mere pro forma efforts are not sufficient good faith efforts to meet the DBE contract requirements.

The bidder shall, as a minimum, seek DBEs in the same geographic area in which it generally seeks subcontractors for a given project. If the bidder cannot meet the goals using DBEs from this geographic area, the bidder, as part of its effort to meet the goals, shall expand its search to a reasonably wider geographic area.

The following is a list of types of efforts a bidder must address when submitting good faith effort documentation:

- (1) Contacting the Department's BECO prior to the submission of bids, either by email, or by telephone, to inform BECO of the firm's difficulty in meeting the DBE goals on a given project, and requesting assistance. The bidder must document its contact with BECO, and indicate the type of contact, the date and time of the contact, the name of the person(s) contacted, and any details related to the communication. The contact must be made in sufficient time before bid submission to allow BECO to provide effective assistance. The bidder will not be considered to have made good faith efforts if the bidder failed to contact BECO.

- (2) Conducting market research to identify small business contractors and suppliers, and soliciting, through all reasonable and available means the interest of all certified DBEs who have the capability to perform the work of the contract. This may include attendance at pre-bid meetings and business matchmaking meetings and events, advertising and/or providing written notices, posting of "Notices of Sources Sought" and/or "Requests for Proposals" at reasonable locations, including the contractor's website, written notices or emails to all DBEs listed in the Department's directory of transportation firms that specialize in areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project. The bidder should solicit this interest as early in the acquisition process as practicable to allow DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should determine with certainty if the DBEs are interested by taking appropriate steps to follow-up initial solicitations.
- (3) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible time frames for performance and delivery schedules in a manner that encourages and facilitates DBE participation.
- (4) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist DBEs in responding to solicitations.
- (5) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to the DBE subcontractors and suppliers, and to select those portions of work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided from the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform work.

Mailings to DBEs requesting bids are not alone sufficient to constitute good faith effort.

A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. However, prime contractors are not required to accept higher quotes from DBEs if the price difference is excessive or

unreasonable. Documentation, such as copies of all other bids or quotes, must be submitted.

- (6) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations or associations and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal.
- (7) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- (8) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (9) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. The contractor must submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract. A generalized assertion that the contractor has received multiple quotes is not sufficient unless copies of those quotes are provided. The Department may contact rejected DBEs as part of its investigation. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

In determining whether a bidder has made good faith efforts, the Department will review the documented efforts of the contractor and will review the performance take into account the ability of other bidders in meeting the contract to meet the DBE goal.

A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

The Department will evaluate the submittal to determine whether in fact good faith efforts have been demonstrated consistent with the specifications and the Federal regulations, 49 CFR 26, Appendix A.

## **15.02 Failure to Comply:**

If the apparent low bidder fails to submit the required information by the stated time and in the manner herein specified, or if the submitted information reveals a failure to meet the requirements of the specifications, the apparent low bidder shall be ineligible to receive award of the contract and the bid will be rejected. The proposal guarantee (bid bond) shall be forfeited if no submission is made or if the State Transportation Board finds the submission was made in bad faith.

### **15.03 Appeal and Protest of Good Faith Effort Determination:**

Any interested party may appeal the determination of the Business Engagement and Compliance Office to the State Engineer. That appeal must be in writing and personally delivered or sent by certified mail, return receipt requested, to the State Engineer. The protest must be received by the State Engineer no later than seven calendar days after the decision of BECO. Copies of the protest shall be sent by the protestant to every bidder, at the same time the protest is submitted to the State Engineer. Any bidder whose bid is rejected for failure to meet the goal or make GFE will be given the opportunity to meet in person with the State Engineer, at the bidder's written request included in the protest, to discuss the issue of whether it met the goal or made adequate good faith efforts to do so.

Any interested party may submit a response to the appeal no later than seven calendar days after the appeal. Responses from interested parties must also be in writing and personally delivered or sent by certified mail, return receipt requested, to the State Engineer. Any interested party submitting such response shall also provide a copy of its response to every bidder, at the same time the protest is submitted to the State Engineer. The State Engineer shall promptly consider any appeals under this subsection and notify all bidders in writing of the State Engineer's findings and decision.

Any interested party may protest the State Engineer's decision to the Transportation Board, pursuant to the requirements of Subsection 103.10 of the Standard Specifications. In accordance with 49 CFR 26.53(d)(5), the result of the Board's Decision is not subject to administrative appeal to the USDOT.

### **16.0 Rejection of Low Bid:**

If, for any reason, the bid of the apparent low bidder is rejected, a new apparent low bidder will be identified. The Department will notify the new apparent low bidder.

A bidder may become the apparent low bidder only if it had submitted the information described in Subsection 14.01 or 15.01, as appropriate, no later than five calendar days after bid opening.

### **17.0 Payment Reporting:**

The contractor shall report on a monthly basis indicating the amounts paid to all subcontractors, of all tiers, working on the project. Reporting shall be in accordance with Subsection 109.06(B)(5) of the specifications.

### **18.0 Crediting DBE Participation Toward Meeting Goals:**

#### **18.01 General Requirements:**

To count toward meeting a goal, the DBE firm must be certified as of the deadline for submission of bids in each NAICS code applicable to the kind of work the firm will perform on

the contract. NAICS for each DBE can be found on the AZ UTRACS under the Firm Directory. General descriptions of all NAICS codes can be found at [www.naics.com](http://www.naics.com).

Credit towards the contractor's DBE goal is given only after the DBE has been paid for the work performed.

The entire amount of a contract that is performed by the DBE's own forces, including the cost of supplies and materials purchased by the DBE for the work on the contract and equipment leased by the DBE will be credited toward DBE participation. Supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate will not be credited toward DBE participation. Work included in a force account item cannot be listed on the DBE Intended Participation Affidavit.

The contractor bears the responsibility to determine whether the DBE possesses the proper contractor's license(s) to perform the work and, if DBE credit is requested, that the DBE subcontractor is certified for the requested type of work.

If a DBE cannot complete its work due to failure to obtain or maintain its licensing, the contractor bears the responsibility to notify the Engineer and BECO immediately after the contractor becomes aware of the situation, and request approval to replace the DBE with another DBE. The contractor shall follow the DBE termination/substitution requirements described in Subsection 24.0 of these DBE provisions.

The Department's certification is not a representation of a DBE's qualifications and/or abilities. The contractor bears all risks that the DBE may not be able to perform its work for any reason.

A DBE may participate as a prime contractor, subcontractor, joint venture partner with either a prime contractor or a subcontractor, or as a vendor of materials or supplies. A DBE joint venture partner shall be responsible for a clearly defined portion of the work to be performed, in addition to meeting the requirements for ownership and control.

The dollar amount of work to be accomplished by DBEs, including partial amount of a lump sum or other similar item, shall be on the basis of subcontract, purchase order, hourly rate, rate per ton, etc., as agreed to between parties.

With the exception of bond premiums, all work must be attributed to specific bid items. Where work applies to several items, the DBE contracting arrangement must specify unit price and amount attributable to each bid item. DBE credit for any individual item of work performed by the DBE shall be the lesser of the amount to be paid to the DBE or the prime contractor's bid price. If the amount bid by the DBE on any item exceeds the prime contractor's bid amount, the prime contractor may not obtain credit by attributing the excess to other items.

Where more than one DBE is engaged to perform parts of an item (for example, supply and installation), the total amount payable to the DBEs will not be considered in excess of the prime contractor's bid amount for that item.

Bond premiums may be stated separately, so long as the arrangement between the prime contractor and the DBE provides for separate payment not to exceed the price charged by the bonding company.

DBE credit may be obtained only for specific work done for the project, supply of equipment specifically for physical work on the project, or supply of materials to be incorporated in the work. DBE credit will not be allowed for costs such as overhead items, capital expenditures (for example, purchase of equipment), and office items.

If a DBE performs part of an item (for example, installation of materials purchased by a Non-DBE), the DBE credit shall not exceed the lesser of (1) the DBE's contract or (2) the prime contractor's bid for the item, less a reasonable deduction for the portion performed by the Non-DBE.

When a DBE performs as a partner in a joint venture, only that portion of the total dollar value of the contract which is clearly and distinctly performed by the DBE's own forces can be credited toward the DBE goal.

The contractor may credit second-tier subcontracts issued to DBEs by non-DBE subcontractors. Any second-tier subcontract to a DBE used to meet the goal must meet the requirements of a first-tier DBE subcontract.

A prime contractor may credit the entire amount of that portion of a construction contract that is performed by the DBE's own forces. The cost of supplies and materials obtained by the DBE for the work of the contract can be included so long as that cost is reasonable. Leased equipment may also be included. No credit is permitted for supplies purchased or equipment leased from the prime contractor or its affiliate(s).

When a DBE subcontracts a part of the work of its contract to another firm, the value of the subcontract may be credited towards the DBE goal only if the DBE's subcontractor is itself a DBE and performs the work with its own forces. Work that a DBE subcontracts to a non-DBE firm does not count toward a DBE goal.

A prime contractor may credit the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a USDOT-assisted contract, provided the fees are reasonable and not excessive as compared with fees customarily allowed for similar services.

## **18.02 DBE Prime Contractor:**

When a certified DBE firm bids on a contract that contains a DBE goal, the DBE firm is responsible for meeting the DBE goal on the contract or making good faith efforts to meet the goal, just like any other bidder. In most cases, a DBE bidder on a contract will meet the DBE goal by virtue of the work it performs on the contract with its own forces. However, all the work that is performed by the DBE bidder or any other DBE subcontractors and DBE suppliers will count toward the DBE goal. The DBE bidder shall list itself along with any DBE subcontractors and suppliers, on the DBE Intended Participation Affidavit and Summary in order to receive credit toward the DBE goal.



### **18.03 Effect of Loss of DBE Eligibility:**

If a DBE is deemed ineligible (decertified) or suspended by the Department in accordance with 49 CFR 26.87 and 26.88, the DBE may not be considered to meet a contract goal on a new contract, but may be considered to meet the contract goal under a subcontract that was executed before the DBE suspension or decertification is effective.

When a committed DBE firm or a DBE prime contractor loses its DBE eligibility and a subcontract or contract has not been executed before a decertification notice is issued to the DBE firm by its certifying agency, the ineligible firm does not count toward the contract goal. The contractor must meet the contract goal with an eligible DBE firm or firms or demonstrate good faith effort. When a subcontract is executed with the DBE firm before the Department notified the firm of its ineligibility, the contractor may continue to use the firm on the contract and may continue to receive credit toward the DBE goal for the firm's work.

### **18.04 Notifying the Contractor of DBE Certification Status:**

Each DBE contract of any tier shall require any DBE subcontractor or supplier that is either decertified or certified during the term of the contract to immediately notify the contractor and all parties to the DBE contract in writing, with the date of decertification or certification. The contractor shall require that this provision be incorporated in any contract of any tier in which a DBE is a participant.

### **18.05 Police Officers:**

DBE credit will not be permitted for procuring DPS officers. For projects on which officers from other agencies are supplied, DBE credit will be given only for the broker fees charged, and will not include amounts paid to the officers. The broker fees must be reasonable.

### **18.06 Commercially Useful Function:**

A prime contractor can credit expenditures to a DBE subcontractor toward DBE goals only if the DBE performs a Commercially Useful Function (CUF).

A DBE performs a CUF when it is responsible for execution of the work of a contract and carries out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself that it uses on the project. To determine whether a DBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

A DBE will not be considered to perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a

DBE is such an extra participant, the Department will examine similar transactions, particularly those in which DBEs do not participate.

If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or if the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the Department will presume that the DBE is not performing a commercially useful function.

When a DBE is presumed not to be performing a commercially useful function as provided above, the DBE may present evidence to rebut this presumption. The Department will determine if the firm is performing a CUF given the type of work involved and normal industry practices.

The Department will notify the contractor, in writing, if it determines that the contractor's DBE subcontractor is not performing a CUF. The contractor will be notified within seven calendar days of the Department's decision.

Decisions on CUF may be appealed to the State Engineer. The appeal must be in writing and personally delivered or sent by certified mail, return receipt requested, to the State Engineer. The appeal must be received by the State Engineer no later than seven calendar days after the decision of BECO. BECO's decision remains in effect unless and until the State Engineer reverses or modifies BECO's decision. The State Engineer will promptly consider any appeals under this subsection and notify the contractor of the State Engineer's findings and decisions. Decisions on CUF matters are not administratively appealable to USDOT.

The Department will conduct project site visits on the contract to confirm that DBEs are performing a CUF. The contractor shall cooperate during the site visits and the Department's staff will make every effort not to disrupt work on the project.

#### **18.07      Trucking:**

The Department will use the following factors in determining whether a DBE trucking company is performing a commercially useful function. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals.

The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract on every day that credit is to be given for trucking.

The contractor will receive credit for the total value of transportation services provided by the DBE using trucks it owns, insures and operates, and using drivers it employs.

The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services.

The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks with drivers from a non-DBE is entitled to credit for the total value of the transportation services provided by non-DBE leased trucks with drivers not to exceed the value of transportation services on the contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks with drivers receives credit only for the fee or commission paid to the DBE as a result of the lease agreement.

Example: DBE Firm X uses two of its own trucks on a contract. It leases two trucks from DBE Firm Y and six trucks from non-DBE firm Z. DBE credit would be awarded for the total value of transportation services provided by Firm X and Firm Y, and may also be awarded for the total value of transportation services provided by four of the six trucks provided by Firm Z. In all, full credit would be allowed for the participation of eight trucks. DBE credit could be awarded only for the fees or commissions pertaining to the remaining trucks Firm X receives as a result of the lease with Firm Z.

The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.

Example: DBE Firm X uses two of its own trucks on a contract. It leases three additional trucks from non-DBE Firm Z. Firm X uses its own employees to drive the trucks leased from Firm Z. DBE credit would be awarded for the total value of the transportation services provided by all five trucks.

For purposes of this section, a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE. Credit will be allowed only for those lease costs related to the time each truck is devoted to the project.

DBE credit for supplying paving grade asphalt and other asphalt products will only be permitted for standard industry hauling costs, and only if the DBE is owner or lessee of the equipment and trucks. Leases for trucks must be long term (extending for a fixed time period and not related to time for contract performance) and must include all attendant responsibilities such as insurance, titling, hazardous waste requirements, and payment of drivers.

## **18.08 Materials and Supplies:**

The Department will credit expenditures with DBEs for material and supplies towards the DBE goal as follows. If the materials or supplies are obtained from a DBE manufacturer, 100 percent of the cost of the materials or supplies is credited. A manufacturer is defined as a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract, and of the general character described by the specifications.

If the materials or supplies are purchased from a DBE regular dealer, 60 percent of the cost of the materials or supplies is credited. A DBE regular dealer is defined as a firm that owns, operates, or maintains a store or warehouse or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A firm may be a DBE regular dealer in such bulk items as petroleum products, steel, cement, stone or asphalt without owning, operating, or maintaining a place of business, as provided above, if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement, and not on an ad-hoc or contract-by-contract basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this paragraph and the paragraph above.

With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, the Department will credit the entire amount of the fees or commissions charged by the DBE for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward DBE goals, provided the fees are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services. The cost of the materials and supplies themselves may not be counted toward the DBE goal.

The Department will credit expenditures with DBEs for material and supplies (e.g. whether a firm is acting as a regular dealer or a transaction expeditor) towards the DBE goal on a contract-by-contract basis. The fact that a DBE firm qualifies under a classification (manufacturer, regular dealer or supplier) for one contract does not mean it will qualify for the same classification on another contract. The bidder shall be responsible for verifying whether a DBE qualifies as a DBE manufacturer, regular dealer or supplier. The bidder may contact BECO for assistance in this determination.

## **19.0 Effect of Contract Changes:**

If for any reason it becomes apparent that the DBE goal will not be met then the contractor shall: (1) immediately notify the Engineer and BECO of the potential or actual decrease in DBE compensation, and (2) make good faith efforts to obtain DBE participation to meet or exceed the project DBE goal. BECO will approve or deny the contractor's good faith efforts. Good faith efforts required under the provisions of this section may vary, depending on the time available, the nature of the change, who initiated the change, and other factors as determined by BECO.

The contractor is not required to take work committed to another subcontractor and assign it to a DBE subcontractor in order to meet the committed DBE percentage.

If the resulting change increases the scope or quantity of work being done by a DBE subcontractor, the DBE shall be given the opportunity to complete the additional work and receive additional compensation beyond their original subcontract amount.

## **20.0 DBE Participation Above the Goal (Race Neutral Participation):**

Additional DBE participation above the DBE participation required to meet the contract DBE goal is an important aspect of the Department's DBE program. The contractor is strongly encouraged to use additional DBEs above the DBE goal requirement in the contract to assist the Department in meeting its overall DBE goal and help the Department to meet the maximum feasible portion of its DBE goals through race neutral participation as outlined in 49 CFR Part 26.

There are fewer administrative requirements on the part of the contractor when using race neutral DBEs (DBEs not listed on the DBE Intended Participation Affidavit Summary). For example, if a DBE is not listed on the DBE Intended Participation Affidavit Summary, the DBE does not have to submit an Affidavit, and the subcontract approval process follows the same process of any other subcontract. The contractor does not have to replace the race neutral DBE with another DBE subcontractor if the race neutral DBE fails to perform. Therefore these DBEs are treated as any other subcontractor on the project.

## **21.0 Required Provisions for DBE Subcontracts:**

All subcontracts of any tier, all supply contracts, and any other contracts in which a DBE is a party shall include, as a physical attachment, DBE Subcontract Compliance Assurances available on BECO's website.

Contractors executing agreements with subcontractors, DBE or non-DBE, that materially modify federal regulation and state statutes such as, prompt payment and retention requirements, through subcontract terms and conditions will be found in breach of contract which may result in termination of the contract, or any other such remedy as the Engineer deems appropriate as outlined in DBE Subsection 2.0.

The Department reserves the right to conduct random reviews of DBE and non-DBE subcontract documentation to ensure compliance with federal requirements.

The contractor shall ensure that all subcontracts or agreements with DBEs to supply labor or materials require that the subcontract and all lower tier subcontracts be performed in accordance with 49 CFR Part 26.

## **22.0 Contract Performance:**

Contract items of work designated by the contractor to be awarded to DBEs shall be performed by the designated DBE or a Department-approved DBE substitute. DBE contract work items shall not be performed by the contractor, or a non-DBE subcontractor without prior approval by BECO. The DBE must perform a commercially useful function; that is, the DBE must manage, perform, and supervise a distinct element of work.

The contractor is required to use DBEs identified to meet the contract goal, so the prime contractor is responsible for ensuring that the DBEs are available to meet scheduling, work and other requirements on the contract.

The Department will visit the contract worksite to conduct reviews to ensure compliance with DBE requirements. The reviews may include, among other activities, interview of DBEs and their employees and the contractor and its employees. The contractor shall cooperate in the review and make its employees available. The contractor shall inform the Engineer in advance when each DBE will be working on the project to help facilitate reviews.

The Department reserves the right to inspect all records of the contractor and all records of the DBEs and non-DBE subcontractors concerning this contract. The contractor must make all documents related to all contracts available to ADOT upon request in accordance with Subsection 107.18.

In accordance with Subsection 108.01 of the specifications, the contractor shall provide to the Engineer, at the pre-construction conference, copies of all completed and signed subcontracts, purchase orders, invoices, etc., with all committed DBEs. These documents shall include the AZ UTRACS Registration number for the subcontractor or materials supplier.

Use of every DBE listed on the DBE Intended Participation Affidavit Summary is a condition of this contract. The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed on the Intended Participation Affidavit Summary unless the contractor obtains the Department's written consent. The contractor shall not be entitled to any payment for work or material that is not performed or supplied by the listed DBE, unless the Department has consented in writing.

## **23.0 Joint Checks:**

### **23.01 Requirements:**

A DBE subcontractor and a material supplier (or equipment supplier) may request permission for the use of joint checks for payments from the prime contractor to the DBE subcontractor and the supplier. Joint checks may be issued only if all the conditions in this subsection are met.

1. The DBE subcontractor must be independent from the prime contractor and the supplier, and must perform a commercially useful function. The DBE subcontractor must be responsible for negotiating the price of the material, determining quality and quantity, ordering the materials, installing (where applicable), and paying for the material. The DBE subcontractor may not be utilized as an extra participant in a transaction, contract, or project in order to obtain the appearance of DBE participation.
2. The use of joint checks will be allowed only if the prime contractor, DBE subcontractor, and material supplier establish that the use of joint checks in similar transactions is a commonly recognized business practice in the industry, particularly with respect to similar transactions in which DBE's do not participate.
3. A material or supply contract may not bear an excessive ratio relative to the DBE subcontractor's normal capacity.

4. There may not be any exclusive arrangement between one prime and one DBE in the use of joint checks that may bring into question whether the DBE is independent of the prime contractor.
5. Any arrangement for joint checks must be in writing, and for a specific term (for example, one year, or a specified number of months) that does not exceed a reasonable time to establish a suitable credit line with the supplier.
6. The prime contractor may act solely as the payer of the joint check, and may not have responsibility for establishing the terms of the agreement between the DBE subcontractor and the supplier.
7. The DBE must be responsible for receiving the check from the prime contractor and delivering the check to the supplier.
8. The prime contractor cannot require the DBE subcontractor to use a specific supplier, and the prime contractor may not participate in the negotiation of unit prices between the DBE subcontractor and the supplier.

## **23.02 Procedure and Compliance:**

1. The Business Engagement and Compliance Office must approve the agreement for the use of joint checks in writing before any joint checks are issued. The prime contractor shall submit a DBE joint check request form, available from the BECO website, along with the joint check agreement, to BECO through email within seven calendar days from the time the subcontract is executed.
2. After obtaining authorization for the use of joint checks, the prime contractor, the DBE, and the supplier must retain documentation to allow for efficient monitoring of the agreement.
3. Copies of canceled checks must be submitted, with the payment information for the period in which the joint check was issued, electronically through email to BECO, and made available for review at the time of the onsite CUF review. The prime contractor, DBE, and supplier each have an independent duty to report to the Department in the case of any change from the approved joint check arrangement.
4. Any failure to comply will be considered by the Department to be a material breach of this contract and will subject the prime contractor, DBE, and supplier to contract remedies and, in the case of serious violations, a potential for termination of the contract, reduction or loss of prequalification, debarment, or other remedies which may prevent future participation by the offending party.

## **24.0 DBE Termination/Substitution:**

### **24.01 General Requirements:**

The contractor shall make all reasonable efforts to avoid terminating or substituting a DBE listed on the DBE Intended Participation Affidavit Summary. At a minimum, the contractor shall negotiate in good faith, give timely notices and/or extend deadlines to the extent that it will not jeopardize the contract with the Department. Reasonable methods to resolve

performance disputes must be applied and documentation provided to the Department before attempting to substitute or terminate a DBE.

#### **24.02 Contractor Notice of Termination/Substitution:**

All terminations, substitutions, and reductions in scope of work to be performed by DBEs listed on the DBE Intended Participation Affidavit Summary must be approved in writing by BECO. The contractor shall contact the Department within 24 hours from the first sign of any reason for potential DBE termination/substitution.

The contractor shall not terminate a DBE subcontractor listed on the DBE Intended Participation Affidavit or complete the work contracted to the DBE with its own forces or with a non-DBE firm without the Department's written consent. Before submitting a formal request to the Department for DBE termination/substitution, the contractor shall give written notice to the DBE subcontractor with a copy to BECO of its intent to terminate or substitute the DBE identifying the reason for the action. The notice shall include the deadline for the DBE to submit a written response advising the contractor and BECO of its position, which shall be a minimum of five calendar days after the notice is given. The Department will consider both the contractor's request and the DBE firm's response before approving the contractor's termination and substitution request.

#### **24.03 Contractor Request for Termination/Substitution:**

The contractor shall formally request the termination or substitution of a DBE listed on the DBE Intended Participation Affidavit Summary by submitting the DBE Termination/Substitution Request form, available from the BECO website, and supporting documentation to BECO. The submission shall include the following information:

- 1) The date the contractor determined the DBE to be unwilling, unable, or ineligible to perform.
- 2) A brief statement of facts describing the situation and citing specific actions or inaction by the DBE firm giving rise to contractor's assertion that the DBE firm is unwilling, unable, or ineligible to perform.
- 3) A brief statement of the good faith efforts undertaken by the contractor to enable the DBE firm to perform.
- 4) The total dollar amount currently paid for work performed by the DBE firm.
- 5) The total dollar amount remaining to be paid to the DBE firm for work completed, but for which the DBE firm has not received payment, and over which the contractor and the DBE firm have no dispute.
- 6) The projected date that the contractor requires a substitution or replacement DBE to commence work, if consent is granted to the request.
- 7) The DBE's response to the notice of intent to terminate. If there is no response from the DBE within the time allowed in the notice of intent to terminate, the contractor shall state that no response was received.

Any requests for substitutions or terminations of DBEs shall be made on the forms provided online by BECO.



Written consent for terminating the performance of any DBE listed on the DBE Intended Participation Affidavit Summary will be granted only where the contractor can demonstrate good cause showing that the DBE is unable, unwilling, or ineligible to perform. Such written consent to terminate any DBE shall concurrently constitute written consent to substitute or replace the terminated DBE. Termination or substitution of a DBE listed on the DBE Intended Participation Affidavit Summary will not be allowed based solely on a contractor's ability to negotiate a more advantageous contract with another subcontractor. The Department will consider both the contractor's request and DBE's response and explanation before approving the contractor's termination and substitution request.

#### **24.04 Good Cause:**

The Department will make the determination of good cause by providing written consent to the contractor after evaluating the contractor's good cause to terminate or substitute a DBE firm. Good cause for this purpose includes the following in relation to the listed DBE subcontractor:

1. Fails or refuses to execute a written contract.
2. Fails or refuses to perform the work of its subcontract in a way consistent with normal industry practice standards. However, good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor.
3. Fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond/insurance requirements.
4. Becomes bankrupt, insolvent, or exhibits credit unworthiness.
5. Is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to federal or state law.
6. Is not a responsible contractor.
7. Voluntarily withdraws from the project and provides written notice of its withdrawal to the Department.
8. Is ineligible under a specific NAICS code to receive DBE credit for the type of work required.
9. A DBE owner dies or becomes disabled with the result that the firm is unable to complete its work on the contract.
10. Other documented good cause that the Department determines compels the termination or substitution of the DBE subcontractor.

#### **24.05 DBE Termination/Substitution Good Faith Effort:**

If the Department approves the termination of a DBE, the contractor shall make good faith efforts to find another DBE subcontractor to substitute for the original DBE. The good faith efforts as identified in DBE Subsection 15.0 shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal. If a replacement DBE is not identified for the original DBE's work, the good faith efforts shall be documented and provided to the Department within seven calendar days from the date the Department approves the termination. The Department will review when the termination was made, the

nature of the efforts to replace the terminated DBE, and other factors as determined by BECO.

A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find the replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

The termination of a DBE firm shall not relieve the contractor of its obligations under this Special Provision, and the unpaid portion of the terminated DBE firm's subcontract will not be counted toward the DBE goal.

If the Department has eliminated items of work subcontracted to a committed DBE, the prime contractor shall still make good faith efforts to replace the DBE with another DBE to the extent necessary to meet the goal. The Department will review the quality, thoroughness, and intensity of those efforts and give consideration to when the change was made, the nature of the change, and other factors as determined by BECO.

When a DBE substitution is necessary, the contractor shall submit an amended DBE Intended Participation Affidavit and Intended Participation Affidavit Summary to BECO for approval with the substitute DBE's name, description of work, NAICS code, AZ UTRACS registration number, and dollar value of work to the Engineer and the Department's BECO. Approval from BECO must be obtained prior to the substituted DBE beginning work.

#### **24.06 Sanctions:**

Failure by the contractor to carry out the requirements of the Department's DBE Termination/Substitution specifications is a material breach of contract and will result in such remedies as the Department deems appropriate, which will include, but are not limited to the assessment of sanctions. The Department will deduct from monies due or becoming due to the contractor, the dollar amount of the wrongfully substituted/replaced DBE subcontract plus 25 percent of the amount remaining to be paid to the DBE. These sanctions shall be in addition to all other retention or liquidated damages provided for elsewhere in the contract.

In determining whether the sanctions will be assessed, the extent of the sanctions, or additional remedies assessed, the State Construction and Materials Engineer will consider whether there have been other violations on this or other contracts, whether the failure by the contractor to carry out the requirements of the Department's DBE Termination/Substitution was due to circumstances beyond the contractor's control, and other circumstances.

#### **25.0 Certification of Final DBE Payments:**

The contractor's achievement of the goal is measured by actual payments made to the DBEs. The contractor shall submit the "Certification of Final DBE Payments form for each

DBE firm working on the contract. This form shall be signed by the contractor and the relevant DBE, and submitted to the Engineer no later than 30 days after the DBE receives final payment.

ADOT will use this certification and other information available to determine applicable DBE credit allowed to date by the contractor and the extent to which the DBE firms were fully paid for that work. By the act of filing the forms, the contractor acknowledges that the information is supplied in order to justify the payment of state and federal funds to the contractor.

The contractor will not be released from the obligations of the contract until the "Certification of Final DBE Payments" forms are received and deemed acceptable by the Engineer and BECO.

## **26.0 Sanctions for Not Meeting Contract DBE Goal:**

If the Department determines that the contractor has, without justification, not met the established DBE goal the Department will, at its discretion, deduct up to two times the amount of the unattained portion of established DBE goal from monies due or becoming due the contractor as sanctions, based on the circumstances of the noncompliance.

In determining whether the sanctions will be assessed and the amount of the sanctions, the State Construction and Materials Engineer will consider whether there have been other violations on this or other contracts, whether the failure was due to circumstances beyond the control of the contractor, whether the contractor has made good faith efforts to meet the goal, and other appropriate circumstances. The contractor may, within 15 calendar days of receipt of the decision of the State Construction and Materials Engineer, escalate the decision to the State Engineer. If the contractor does not escalate the decision of the State Construction and Materials Engineer, in writing, within 15 calendar days of receipt of the decision, the contractor will be deemed to have accepted the decision and there will be no further remedy for the contractor. If the contractor escalates the decision to the State Engineer, and the contractor does not agree with the State Engineer's decision, the contractor may initiate litigation, arbitration or mediation pursuant to Subsection 105.21(D) and (E) of the Standard Specifications.

In addition to any other sanctions, willful failure of the contractor, DBE or other subcontractor to comply with this contract or with the Federal DBE regulations may result in disqualification from further contracting, subcontracting, or other participation in the Department's projects.

## **27.0 False, Fraudulent, or Dishonest Conduct:**

In addition to any other remedies or actions, the Department will bring to the attention of the US Department of Transportation any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take steps such as referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General for possible initiation of suspension and debarment proceedings against the offending parties or application of "Program Fraud and Civil Penalties" rules provided in 49 CFR Part 31.

**(TITLEVI, 08/19/21)**

**STANDARD TITLE VI SPECIFIC ASSURANCES:**

The Arizona Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, Disadvantaged Business Enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

**(CARGO, 03/19/20)**

**CARGO PREFERENCE ACT:**

**Description:**

The Federal Highway Administration (FHWA) in partnership with the Federal Maritime Administration has mandated the implementation of 46 CFR 381 making the requirements of the Cargo Preference Act (CPA) applicable to the Federal Aid Highway Program.

The requirements apply to items transported by ocean vessel.

The requirements of 46 CFR 381 apply to materials or equipment acquired for a specific federal-aid highway project. In general, the requirements are not applicable to goods or materials that come from inventories independent of FHWA-funded contracts.

Information related to the CPA is presented in "Cargo Preference Requirements – Questions and Answers" available from the FHWA at <https://www.fhwa.dot.gov/construction/cqit/cargo/qa.cfm>.

**Contract Requirements:**

The contractor shall comply with the requirements of the Cargo Preference Act 46 CFR 381.7(a)-(b). By executing a construction contract for this project, the contractor agrees:

- (A) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
- (B) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo

described in the paragraph above to both the Engineer and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

- (C) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

## **GENERAL REQUIREMENTS:**

### **Use of Prohibited Products:**

The contractor shall not commit any of the following actions:

- (1) Deliver, install, or include any prohibited product under this contract
- (2) Propose to deliver, install, or include any prohibited product under this contract
- (3) Enter into a new contract to procure or obtain any prohibited product.

For the purpose of this Section, "Prohibited Product" is defined as any telecommunication or video surveillance equipment, systems, or services produced by:

- (1) Huawei Technologies Company
- (2) ZTE Corporation
- (3) Hytera Communications Corporation
- (4) Hangzhou Hikivision Digital Technology Company
- (5) Dahua Technology Company
- (6) Any subsidiary or affiliate of the entities mentioned in this Section

The contractor shall identify the known subsidiaries and affiliates of the aforementioned from the following Website:

[https://umd.service-now.com/itsupport?id=kb\\_article\\_view&sysparm\\_article=KB0014132&sys\\_kb\\_id=28015b70d9e0e3849382f1a51d96193f](https://umd.service-now.com/itsupport?id=kb_article_view&sysparm_article=KB0014132&sys_kb_id=28015b70d9e0e3849382f1a51d96193f)

### **BLM Material Sources:**

If the contractor elects to pursue the use of material sources on BLM land under Title 30 Code of Federal Regulations, it is at the contractor's sole risk, and the Department bears no responsibility for any delays or costs associated with the request to use material sources on BLM Land.

The Department will not request or pursue any "free-use permit" under Title 23 Code of Federal Regulations or any other arrangement with BLM on this project.

No extension in contract time or compensation will be granted for any attempt by the contractor to utilize BLM land.

### **Local Agencies Standards:**

The plans and these Special Provisions reference certain Standard Details promulgated by a local agency or agencies. Any local agency's Standard Specifications referenced on the standard details shall not be used unless they are so designated by these Special Provisions.

All Portland cement concrete and aggregate base shall conform to ADOT Standard Specifications. Whenever reference is made to structural concrete and aggregate base in the local agency's specifications, the reference shall be construed to mean Class S concrete and Class 2 aggregate base, respectively.

When not included in the project documents, copies of the latest Standard Specifications and Details for each local agency will be available on the local agency's website.

### **Existing Storm Drains and Culverts:**

The contractor shall be responsible for keeping all existing storm drains and culverts open, clean and operational during the construction period. No measurement or direct payment will be made for this maintenance, the cost being considered as included in the price of other contract items.

### **Verification of Existing Features:**

The location and dimensions of existing roadway features shown on the plans are based on record drawing plans, aerial photographs, and field surveys. It shall be the contractor's responsibility to field-verify information given on the plans wherever that information affects the new work. Significant differences between the measured and plan information shall be submitted to the Engineer prior to proceeding with the work. Minor adjustments to elements, to the extent they are required to match existing construction and do not affect the disposition of other project features, will not require review or approval by the Engineer.

### **Erosion /Sediment Control and Stormwater Quality:**

The contractor shall give attention to the impact of the construction operations upon natural landscape and shall take care to maintain natural surroundings undamaged at no additional cost to the Department. The contractor shall minimize soil disturbance by implementing Low Impact Development (LID) methods to control erosion as close as possible to the source of disturbance.

The contractor shall also use all means necessary to significantly reduce impacts by staging/stockpiling and carrying out project activities in such a way as to minimize the potential for erosion and discharge of pollutants from the project site.

In addition to what is shown in the plans and/or details, the contractor shall apply perimeter/containment control Best Management Practices (BMPs) or temporary stormwater quality Control Measures (CMs) on the down-slope perimeter of construction disturbed areas, unpaved on-site staging/storage, and unpaved on-site stockpiling at no

additional cost to the Department. To prevent sediment from bypassing the perimeter control BMP/CM end, the end of the BMP/CM shall be turned up the slopes for a minimum of three feet to form an “L” shape. No portion of the BMPs/CMs shall be installed within six feet from the edge of the pavement. BMPs/CMs shall not be placed over any driveways or access roads that intersect with the roadway mainline. Unless otherwise called out in the plans/details and approved by the Engineer, such BMPs/CMs shall not be placed on the flow path of inlets and outlets of drainage facilities. All BMPs/CMs shall be installed in accordance with the manufacturer’s instructions. Moreover, perimeter/containment control BMPs/CMs shall be applied outside and above adjacent wetlands, as well as water courses. The contractor shall adjust the field layout of erosion control and sediment prevention elements according to the actual limits of soil/ground disturbance as approved by the Engineer. The contractor shall also observe ADOT traffic safety standards when installing perimeter/containment control BMPs/CMs within the traffic clear zone/recovery area.

With the approval of the Engineer, the contractor may choose to replace straw/excelsior Wattles/Logs with equivalent or enhanced BMP/CM products of compost Logs/Wattles, bio-socks, filter socks, compost socks, or compost tubes covering reinforced geotextile fabric as the outer layer at no additional cost to the Department. Such replacement may be applicable to protect sensitive biological resources (native species and/or habitats) within the 36inimumt limit or its vicinity.

The color of BMP/CM products of compost Logs/Wattles, bio-socks, filter socks, compost socks, or compost tubes shall be harmonized with the natural surrounding existing ground cover as approved by the Engineer in accordance with the ADOT construction Professional Landscape Architect’s (PLA’s) evaluation. Black color exterior surface layer of such compost BMP/CM products shall be prohibited. For paved or rocky surface, the compost perimeter/containment control and stormwater quality protection BMPs/CMs shall have enough weight so that no staking shall be required for flat construction zones, and gentle slopes of less than five percent (5%). The equivalent compost BMP/CM products stated above shall demonstrate the same or better stormwater pollutants loading/filtering capacities as well as qualities in comparison with straw/excelsior Wattles/Logs. All fabric materials of compost perimeter/containment control and stormwater quality protection BMPs/CMs shall be biodegradable. No separate measurement or direct payment will be made for the replacement of the straw/excelsior Wattles/Logs with compost BMP/CM products; the cost being considered is included in the price of the respective contract item of Wattles/Logs.

Compost material used for perimeter/containment control and stormwater quality protection BMPs/CMs shall not discharge harmful pollutants/nutrients that impair stormwater quality. The Engineer shall randomly sample/exam a minimum of three compost-filled BMPs/CMs by opening the outer fabric layer. Non-compost materials such as: animal manures/wastes, city biosolids, rocks, tree barks, unspecified wood chips, construction debris, soil clumps, and/or other unspecified inert material shall NOT be allowed within the compost BMP/CM products.

Wattles/logs, silt fences, bio-socks, filter socks, compost socks, or compost tubes shall be deemed as temporary stormwater quality CMs/BMPs. The non-biodegradable and/or non-

photodegradable components of such temporary CMs/BMPs shall be removed when the project site has achieved stabilization as approved by the Engineer.

The contractor is responsible to maintain the functional longevity and good working condition of all temporary stormwater quality protection CMs/BMPs during the entire contract time. No separate measurement or direct payment will be made for the maintenance and/or replacement of such temporary CMs/BMPs to assure manufacturer-specified functionality; the cost being considered is included in the price of the respective contract items.

All Rock Mulch and Rock Riprap used for erosion/sediment control shall be placed and shaped as shown on the CMs/BMPs' plans/details. Rock Mulch/Riprap materials shall be fractured/crushed rocks in angular shape and as defined in the Section 810 / 913 of Standard Specifications. Unless otherwise called out in the plans/details/estimates or as directed by the Engineer, natural river-run materials, especially the rounded natural river rocks/cobblestones and pebbles are not acceptable. The color of Rock Mulch and Rock Riprap shall be harmonized with the natural surrounding rock/inert artificial existing ground cover material as approved by the Engineer in accordance with the ADOT construction PLA's evaluation.

During construction, the contractor shall minimize vehicular travel or equipment operation on the unpaved soil areas to maximum extent practicable (MEP). The contractor shall develop and implement procedures to avoid earth disturbance, soil compaction, and damage to vegetative cover from vehicular travel or equipment operation during inclement weather or unsuitable soil conditions. The contractor shall stabilize all construction disturbed soil areas at no additional cost to the Department. Furthermore, the contractor shall minimize off-site sedimentation including minor miscellaneous dirt, dust, rock fragments or construction debris by eliminating the tracking of such contaminants from construction sites.

No grout, concrete or wash water shall be disposed of within the project limits or its vicinity. The contractor shall install concrete washout CM/BMP as needed and under the direction of the Engineer at no additional cost to the Department. This CM/BMP shall include proper disposal of all excess grout, concrete, and wash water.

The contractor shall not use unpaved areas within the project limits for staging or stockpiling without first installing erosion control and sediment prevention CMs/BMPs and as directed and approved by the Engineer. Staging and stockpiling on the unpaved areas shall be avoided to MEP.

### **Environmental Mitigation Measures:**

The project mitigation measures are not subject to change without written approval from ADOT Environmental Planning. The contractor shall follow all the requirements of the permits specified herein and comply with the project specifications.

- No activities shall occur within Waters of the United States until the appropriate Clean Water Act Section 404 Permit and 401 Water Quality Certification have been obtained/issued.



- No construction activities shall occur until the appropriate Section 408 Permission is granted by the U.S. Army Corps of Engineers.
- If vegetation clearing will occur during the migratory bird breeding season (March 1-August 31), the contractor shall avoid any active bird nests. If the active nests cannot be avoided, the contractor shall notify the Engineer to evaluate the situation. During the non-breeding season (September 1 – February 28) vegetation removal is not subject to restriction.
- The contractor shall develop a Noxious and Invasive Plant Species Treatment and Control Plan in accordance with the requirements in the contract documents. Plants to be controlled shall include those listed in the state and federal noxious weed and the state invasive species lists in accordance with state and federal laws and executive orders. The plan and associated treatments shall include all areas within the project right-of-way and easements as shown on the project plans. The treatment and control plan shall be submitted to the Engineer for the Arizona Department of Transportation Construction Professional Landscape Architect for review and approval prior to implementation by the contractor.
- To prevent the introduction of invasive species seeds, all earthmoving and hauling equipment shall be washed prior to entering the construction site and the contractor shall inspect all construction equipment and remove all attached debris, including plant parts, soil and mud, prior to the equipment entering the construction site.
- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction and hauling equipment and remove all debris, including plant parts, soil and mud, prior to leaving the construction site.
- Prior to construction, all personnel who will be on-site, including, but not limited to, contractors, contractors' employees, supervisors, inspectors, and subcontractors shall review the attached Arizona Department of Transportation Environmental Planning "Western Burrowing Owl Awareness" flyer.
- If any burrowing owls or active burrows are identified the contractor shall notify the Engineer immediately. No construction activities shall take place within 100 feet of any active burrow.
- If the Engineer in cooperation with the Environmental Planning Biologist determines that burrowing owls cannot be avoided, the contractor shall employ a qualified biologist holding a permit from the US Fish & Wildlife Service to relocate burrowing owls from the project area, as appropriate.
- The contractor shall not cause injury or death to swallows, including eggs and nestlings. If work will occur that will directly impact nesting swallows from February 1 to August 31 of any calendar year, the contractor shall adhere to the following:

- The contractor shall completely remove all existing swallow nests within 100 feet of work areas after August 31 but prior to February 1 to prevent swallows from reusing those nests.
- The contractor shall implement exclusionary measures to prevent swallows from building new nests within areas directly impacted by construction activities. Exclusionary measures shall be implemented in all areas where swallows are likely to nest, and may include (a) continually removing nesting materials during early nest construction when eggs or nestlings are not present or (b) installing deterrent spike strips, and/or (d) installing polytetrafluoroethylene (Teflon) sheeting.
- The contractor shall not disturb any active swallow nests (completed or partially completed nests that contain eggs or nestlings). If any active nest is discovered within 100 feet of construction activities, work shall stop and the Arizona Department of Transportation Environmental Planning biologist shall be contacted (928-304-0487) to evaluate the potential for disturbance of nests.
- The contractor shall monitor and maintain the effectiveness of exclusionary measures daily. Spike strips shall be maintained such that they remain in place. Teflon sheeting shall be reapplied as often as necessary to remain effective.
- If swallow exclusion measures fail, the contractor shall:
  - Inform the Engineer as soon as swallow nest building occurs and determine whether the area can be avoided until nests are no longer active;
  - Hire a qualified biologist to survey bird nests within 100 feet of construction areas and provide a report to the Environmental Planning biologist (928-304-0487) with the number of affected nests for each species of bird. The resume for the selected biologist shall be approved by the Engineer in coordination with the ADOT Biologist prior to conducting the survey
  - Determine whether to wait for the nestlings to fledge or apply for a US Fish and Wildlife Service Migratory Bird Treaty Act Special Purpose permit from the USFWS Regional office in Albuquerque, New Mexico.

### **Flood Control District of Maricopa County Notes:**

Part of the project is located the Flood Control District of Maricopa County (FCDMC). The contractor shall follow all FCDMC requirements:

1. All Construction within Flood Control District (District) rights-of-way jurisdiction shall conform to the latest District Standards and Specifications as published on the district's web site.

2. Contractor must obtain necessary District Permit prior to commencement of construction within District right-of-way and maintain a copy of the permit on the project site at all times. No additional time will be added to the project for any delays in getting the approval for the permit.
3. Notify the District's Permits Inspector at 602-525-7913 or if working at a District Dam call 602-506-4722 at least 48 hrs prior to any work being performed in the district's rights-of-way.
4. Contractor performing excavation operations is responsible for locating and protecting all underground utilities.
5. Any damage to District's structures, equipment, materials, vegetation, and/or property shall be replaced and/or repaired in-kind to the satisfaction of the district. At the expense of the contractor.
6. In the event the terms and conditions in the district's permit are not consistent with the district-approved plans, the district's permit will have priority.
7. In order to close the district's permit and release bonds, the work on the project site will have to be complete as determined by the district's inspector, certified as-built plans along with required quality assurance tests will have to be provided and accepted by the District, and all easements required by the project recorded.

#### **FCDMC Permits:**

The contractor shall reference FCDMC permit number 2022P126 when obtaining the FCDMC permit. There will be no time adjustment to obtain the permit. This item is incidental to the project.

#### **Erosion/Sediment Control Beyond the Project Limits:**

The contractor shall apply erosion/sediment and water quality protection CMs/BMPs as required by the commercial material source owner and environmental permit standard at no additional cost to the Department.

The contractor shall apply erosion/sediment and water quality protection CMs/BMPs for off-project-site staging, material storage, maintenance yard, disposal spots, and stockpiling areas as required by the facility owner and environmental permit standard at no additional cost to the Department.

If the contractor elects to obtain off-project sites for staging, stockpiling, material storage, maintenance yard, or waste disposal, the contractor shall meet the requirements for erosion/stormwater quality control within the written agreements with facility/land owner, as well as environmental permits for such operations.

(101DEFN, 04/21/22)

## **SECTION 101 DEFINITIONS AND TERMS:**

### **101.02 Definitions:**

**Acceptance:** of the Standard Specifications is hereby deleted:

**Characteristic:** of the Standard Specifications is revised to read:

A measurable or an observable property of a material, product, or item of construction.

**City, County, Township, or Town:** of the Standard Specifications is hereby deleted:

**Contract Bonds (Performance Bond and Payment Bond):** the title and text of the Standard Specifications is revised to read:

#### **Contract Bonds:**

Surety Bonds that include Performance Bond and Payment Bond.

**Highway, Street, or Road:** of the Standard Specifications is revised to read:

A general term denoting a public way for purposes of travel, vehicular, pedestrian or by other means, including the entire area within the right-of-way.

**Roadbed:** of the Standard Specifications is revised to read:

The graded portion of a highway, prepared as a foundation for the pavement structure and shoulders.

**Roadside Development:** of the Standard Specifications is revised to read:

Activities which provide for the preservation of landscape materials and features; the rehabilitation and protection against erosion of all areas disturbed by construction through seeding, sodding, mulching and the placing of other ground covers; or such planting and other improvements as may increase the effectiveness and enhance the appearance of the highway.

**State:** of the Standard Specifications is revised to read:

The State of Arizona, acting through its authorized representatives.

**(102NOBID, 09/19/12)**

**SECTION 102 BIDDING REQUIREMENTS AND CONDITIONS:**

**102.03 Suspension from Bidding:** of the Standard Specifications is modified to add:

The signature of the bid proposal by a bidder constitutes the bidder's certification, under penalty of perjury under the laws of the United States, that the bidder, or any person associated therewith in the capacity of owner, partner, director, officer, principal investor, project director, manager, auditor, or any position involving the administration of federal funds, has not been, or is not currently, under suspension, debarment, voluntary exclusion or been determined ineligible by any federal agency within the past three years. Signature of the bid proposal also certifies, under penalty of perjury under the laws of the United States, that the bidder does not have a proposed debarment pending. In addition, signature of the bid proposal certifies that the bidder has not been indicted, convicted, or had a civil judgment rendered against (it) by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

Any exceptions to the above paragraph shall be noted and fully described on a separate sheet and attached to the bid proposal.

**(102LOBY, 01/21/21)**

**SECTION 102 BIDDING REQUIREMENTS AND CONDITIONS:**

**102.09 Non-Collusion Certification:** of the Standard Specifications is modified to add:

**(104) Lobbying:**

The bidder certifies, by signing and submitting this bid or proposal, to the best of its knowledge and belief, that:

**(104)** No Federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into any 42inimum42ivee agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract grant, loan, or cooperative agreement.

**(2)** If any funds other than Federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an

officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. Copies of Form-LLL, "Disclosure Form to Report Lobbying", are available at ADOT contracts and Specifications Group, 205 South 17<sup>th</sup> Avenue, Room 121F, Phoenix, AZ 85007.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The bidder also agrees, by submitting the bid or proposal, that it shall require that the language of this certification be included in all subcontracts and lower tier subcontracts which exceed \$100,000 and that all such subcontractors and lower tier subcontractors shall certify and disclose accordingly.

The Department will keep the prime contractors' certifications on file as part of their original bid proposals. Each prime contractor shall keep individual certifications from all subcontractors and lower tier subcontractors on file. Certifications shall be retained for three years following completion and acceptance of any given project.

Disclosure forms for the prime contractor shall be submitted to the Engineer at the pre-construction conference. Disclosure forms for subcontractors and lower tier subcontractors shall be submitted to the Engineer by the prime contractor along with the submittal of each subcontract or lower tier subcontract, as required under Subsection 108.01, when said subcontracts exceed \$100,000.00. During the performance of the contract the prime contractor and any affected subcontractors shall file revised disclosure forms at the end of each calendar year quarter in which events occur that materially affect the accuracy of any previously filed disclosure form. Disclosure forms will be submitted by the Engineer to the Federal Highway Administration for further processing.

**(103AWARD, 09/17/20)**

## **SECTION 103 - AWARD AND EXECUTION OF CONTRACT:**

### **103.04 Award of Contract:** of the Standard Specifications is modified to add:

The Department will make the award to the lowest responsible bidder who has the proper licenses.

When a contract is funded, either wholly or in part, by federal funds, an award of contract may be made contingent upon the successful bidder obtaining an appropriate license in accordance with the requirements of Subsection 102.16 of the specifications. The license must be obtained within 60 calendar days following opening of bid proposals. No adjustment in proposed bid prices or damages for delay will be allowed as a result of any delay caused by the lack of an appropriate license.

Failure to acquire the necessary licensing within the specified period of time shall result in either award to the next lowest responsible bidder, or re-advertisement of the contract, as may be in the best interests of the Department.

## **SECTION 104 SCOPE OF WORK:**

### **104.04 Maintenance of Traffic:** of the Standard Specifications is modified to add:

The contractor shall prepare and submit a Traffic Control Plan to the Engineer for review and approval at the Preconstruction Conference. The traffic control plan shall be in accordance with Part VI of the 2009 Edition Manual on Uniform Traffic Control Devices (MUTCD), and ADOT Traffic Control Design Guidelines, 2012 (Publication No. 31-088), Peoria Engineering Standards Manual and City of Peoria Traffic Control Standards, the Typical Application Figures contained therein and the Special Provisions and contract documents. A traffic control permit will be required from the city for any work within Right-of-Way. The Typical Application Figures are intended to be used by the contractor as an aid in developing specific plans for each work activity. Any changes or revisions to the traffic control requirements in the traffic control plans and Specifications must be approved in advance by the Engineer.

The traffic control plan shall be prepared in accordance with the Standard Specifications and the requirements contained herein. The contractor shall develop and submit for the Engineer's review and approval, a final traffic control plan for each work activity on this project. Activities that impact traffic shall not begin until the traffic plan has been approved by the Engineer.

The contractor shall notify the Engineer at least 10 days in advance of any planned temporary closures for planned lane closures; the contractor shall remove traffic control devices at the end of the work days to reopen any lane closures. The contractor shall also submit traffic control plans, and revisions thereto, to the Engineer in advance to provide at least ten working days for review by the Engineer. The contractor shall develop Emergency Vehicle Access Plan (EVAP) as described in subsection 107.08 (B) of the Standard

Specifications and an Emergency Evacuation Plan (EEP), which shall be submitted to the Engineer at the preconstruction conference. The EVAP and EEP may be submitted as separate documents or as part of the project safety plan, at the contractor's discretion.

The Emergency Vehicle Access Plan (EVAP) shall, at a minimum, detail measures to be implemented during construction to ensure that emergency vehicles have access, at all times and for all phases of construction, within and through the construction site and to all abutting turnouts and/or access roads until the project is substantially complete. The EVAP shall delineate or describe the manner in which access is available, including traffic control devices or alternate emergency vehicle access routes. The contractor shall communicate the EVAP, and any updates to the plan, to the Engineer for dissemination to local law enforcement and emergency responders. The contractor shall further ensure that all personnel, and those of any subcontractors employed by the contractor, are familiar with the plan and their responsibilities for its use.

The Emergency Evacuation Plan (EEP) shall, at a minimum, detail measures to be implemented in the event that evacuation becomes necessary due to natural or other disaster in the area. Such measures shall include contingencies for placing the project in a traversable condition (including bridge decks) for all vehicles; contractor, ADOT, and emergency services 24-hour contact information; types and locations of equipment that would be available to support an emergency evacuation; and protocols to alert all contractor and subcontractor employees of the need to evacuate.

#### **Traffic and Trail Related Work Restrictions:**

Lane closures along 75<sup>th</sup> Avenue and Paradise Lane shall not be allowed.

Stadium Trail can be closed between 77<sup>th</sup> Avenue and Paradise Lane as shown on the project plans for the duration of the project.

#### **Special Events/Holiday Restrictions:**

There will be a moratorium for construction lane closures from November 18<sup>th</sup> through the weekend following January 1<sup>st</sup>.

Special events shall be defined as activities or dates which can draw in a sizable number of community members and whose attendance/enjoyment may be negatively impacted because of ongoing transportation construction projects.

No closures or traffic restrictions will be allowed during the following special events unless otherwise approved by the Engineer:

During Spring Training (February 15 to March 24)

Holidays and special events are from 12:00 PM of the last working day prior to the holiday or special event until 5:00 AM of the first working day following the holiday or special event.



When the holiday or special event falls on a Tuesday, the Monday before the holiday or special event is considered part of the holiday. When the holiday or special event falls on a Thursday, the Friday following the holiday or special event is considered part of the holiday. Friday, July 3<sup>rd</sup> shall be considered part of the Independence Day holiday.

State recognized holidays include the following:

- Labor Day – Monday, September 2, 2024
- Columbus Day – Monday, October 14, 2024
- Veterans Day – Monday, November 11, 2024
- Thanksgiving Day – Thursday, November 28, 2024
- Christmas Day – Wednesday, December 25, 2024
- New Year's Day – Wednesday, January 1, 2025
- Civil Rights Day – Monday, January 20, 2025
- President's Day – Monday, February 17, 2025
- Memorial Day – Monday, May 26, 2025
- Independence Day – Friday, July 4, 2025
- Labor Day – Monday, September 1, 2025

#### **Safe Work Place:**

At all times, the contractor shall conduct construction activities in such a way as to safeguard pedestrians and preserve vehicular access within and adjacent to the project limits. All holes, cavities and trenches left open overnight shall be covered in a manner satisfactory to the Engineer, and surrounded by Type II barricades with Type A flashing warning lights, connected by warning tape, rope, or fencing as directed by the Engineer. No direct measurement or payment will be made for the coverings or warning devices associated with protecting holes, cavities, or trenches, the cost being considered as included in the price of contract bid items.

**(104APA, 02/26/99)**

#### **SECTION 104 SCOPE OF WORK:**

**104.04 Maintenance of Traffic:** of the Standard Specifications is modified to add:

In order to eliminate the possibility of causing or exacerbating air quality violations resulting from construction activities, any traffic control plans which include temporary traffic detours involving local adjacent streets or alternate routes must be approved by the Engineer.

**104.08 Prevention of Air and Noise Pollution:** of the Standard Specifications is modified to add:

In the event that the Governor declares an air pollution emergency, pursuant to ARS § 49-465.B., which restricts work schedules for all employees of the state and its political

subdivisions, the Engineer will direct the contractor suspend all work activities until further notice. The contractor shall discontinue all current work activities as soon as possible, but not later than four hours after notification by the Engineer. The contractor will be compensated for labor costs incurred through the end of the work shift in which the notification occurs. No payment adjustments will be made for equipment or overhead costs resulting from the suspension of work. An extension of the time allowable under the contract will be granted in accordance with Subsection 108.08 of these specifications. In the event that any local air quality authority declares an air pollution advisory, the cooperation of the contractor is requested in complying with the actions recommended by the local authority to the maximum extent possible.

**(104DUST, 11/01/95)**

## **SECTION 104 SCOPE OF WORK:**

**104.08 Prevention of Air and Noise Pollution:** of the Standard Specifications is modified to add:

For work performed within Maricopa County, the contractor will be required to prepare a comprehensive fugitive dust control plan, in accordance with the guidelines established in Rule 310 of Maricopa County Regulation III, Control of Air Contaminants. The contractor may contact Maricopa County, Division of Air Pollution Control, to purchase a copy of the guidelines. The contractor shall complete and submit the control plan with the permit application, and obtain approval prior to construction or any other activities which may produce dust pollutants.

Some of the measures which the contractor may use to control or minimize fugitive dust include: increased use of water or chemical dust suppressants, cease work temporarily during high winds, reducing vehicle speeds and number of trips, maintaining freeboard of three inches or more in hauling, and covering or stabilizing stockpiles. The contractor shall be required to cover haul trucks with tarps or other suitable enclosures.

No separate payment will be made for preparation and implementation of the fugitive dust control plan, the costs being considered as included in the price of contract items.

**(104MTBRN, 06/04/96)**

## **SECTION 104 SCOPE OF WORK:**

**104.08 Prevention of Air and Noise Pollution:** the first paragraph of the Standard Specifications is modified to add:

Burning of trash, debris, plant material, wood, or any other waste materials will not be allowed. The contractor shall dispose of such materials in accordance with the requirements of Subsection 107.11.

**(104SWDEQ, 02/10/20)**

**SECTION 104 SCOPE OF WORK:**

**104.09 Prevention of Stormwater Pollution:** of the Standard Specifications is revised to read:

**(A) General:**

The contractor shall follow the requirements of Section 402 of the Clean Water Act (CWA), 33 USC 1251 and other water quality regulations. The CWA regulates discharge of pollutants into the waters of the United States and provides quality standards for surface waters. Section 402 of the CWA provides stormwater pollution prevention regulations. ADEQ's Aquifer Protection Permit (APP) Program regulates temporary concrete washout facilities. The APP Type 1 Permit (APP 1.12) applies only when projects disturb one or more acres and are covered under the Arizona Department of Environmental Quality Construction General Permit.

The contractor shall minimize ground disturbance to the natural surroundings. No ground disturbing activities shall occur until all applicable permits have been obtained. The applicable permit requirements must always be met.

The contractor shall provide adequate information to the contractor's personnel, including employees of any subcontractors, to ensure that all personnel understand requirements of the applicable permits that are relevant to their job functions.

**(B) Clean Water Act, Section 402, Arizona Pollutant Discharge Elimination System (AZPDES):**

**(1) General Requirements:**

The contractor shall be responsible for preparing and processing all documents and implementing the requirements of the Arizona Pollutant Discharge Elimination System (AZPDES) "General Permit for Discharge from Construction Activities to the Waters of the United States," for pollution prevention issued by the Arizona Department of Environmental Quality (ADEQ). That document is hereinafter referred to as the Construction General Permit (CGP) and is available on ADEQ's website.

The work shall include providing, installing, and maintaining, temporary and permanent pollution prevention control measures and removing and disposing of temporary pollution prevention control measures. Control Measures, as hereinafter referenced, shall be deemed to include pollution prevention control as described in the CGP. Control Measures may be temporary or permanent.

The contractor's schedule shall allow sufficient time for the following submittal, review, and approval times:

<b>Table 104-1 Submittal, Review, and Approval Timeframes</b>	
Contractor submittal of Erosion Control Coordinator (ECC) qualifications	By the pre-construction conference
Department review and approval of ECC qualifications	within seven calendar days of receipt
Department review and approval of subsequent submittals (if required)	within seven calendar days of receipt
Contractor submittal of SWPPP to Engineer	By the pre-construction conference
Department review and approval of subsequent submittals (if required)	within seven calendar days of receipt
Engineer/contractor joint review of SWPPP	within 10 calendar days after contractor submittal of SWPPP with ADOT approval of the ECC
Approved Notice of Intent (NOI) submittal and review times	as described in the CGP

No increase in contract time will be granted for the contractor's failure to provide acceptable submittals within the specified timeframes.

## **(2) Stormwater Pollution Prevention Plan (SWPPP):**

The SWPPP shall include all information and permit requirements specified in the CGP, and shall also be consistent with applicable state or local programs.

Unless otherwise approved by the Engineer and documented in the SWPPP, the contractor shall not expose a surface area of greater than 750,000 square feet to erosion through clearing and grubbing, or excavation and filling operations within the project limits until temporary or permanent Control Measures for that portion of the project have been installed and accepted by the Engineer.

The contractor shall indicate each 750,000 square-foot sub-area in the SWPPP, along with proposed Control Measures for each sub-area. The SWPPP shall also include the sequence of construction for each sub-area, and installation of the required temporary or permanent Control Measures.

The contractor shall give installation of permanent Control Measures priority over reliance on temporary measures. Permanent Control Measures and drainage structures shall be installed as soon as possible in the construction sequencing of the project, preferably concurrent with construction of the related sub-area or drainage device.

The project plans may include erosion/sediment control plans and details along with a Control Measure Index Sheet (CMIS) to assist the contractor in preparing the SWPPP. The contractor and the contractor's ECC, or other qualified designee, as described in Subsection 104.09(B)(3), shall review the contract documents, and prepare the SWPPP for review by the Engineer. The contractor shall use the Department's SWPPP Template to prepare the SWPPP. The template is available on the Department's Water Resources website.

The SWPPP shall specify the mechanism whereby revisions may be proposed by the contractor or the Engineer throughout the project and incorporated into the plan, including the review and approval procedure. The Engineer and contractor shall jointly approve and sign each revision to the SWPPP before implementation. Any revisions made by the contractor to amend the approved SWPPP will require two to seven calendar days for review.

The contractor shall prepare the SWPPP for the Engineer's review including all information specified herein. The contractor shall submit the SWPPP to the Engineer at the preconstruction conference.

Within 10 calendar days of the SWPPP submittal, the Engineer and contractor will jointly review the contractor's SWPPP. The contractor shall include any additional revisions directed by the Engineer. The SWPPP shall meet the terms and conditions of the CGP and be compatible with construction sequencing and maintenance of traffic plans.

When agreement has been reached, the Engineer and contractor's ECC will sign the SWPPP. The Engineer's signature will constitute approval of the SWPPP. Upon approval of the SWPPP, the contractor and the Engineer shall each file a Notice of Intent (NOI) as specified in Subsection 104.09(B)(6). The Engineer will provide a copy of the Department's NOI to the contractor to be included in the SWPPP.

The SWPPP shall be maintained in accordance with the CGP. A current copy shall be maintained at a location approved by the Engineer and amended as necessary from the time the contractor files its NOI until the NOT is submitted. The SWPPP shall be available for inspection by entities identified in the CGP, and for use by the Engineer.

No condition of the CGP or the SWPPP shall release the contractor from any responsibilities or requirements under other environmental statutes or regulations.

In accordance with the CGP, the Engineer and the contractor shall confirm the frequency of inspections appropriate for the project. The contractor shall identify the frequency in the SWPPP. The contractor shall inform the Engineer when each inspection will be performed a minimum of 72 hours in advance so the Engineer can jointly perform the inspection if desired.

The contractor shall monitor rainfall on the site with a commercially manufactured rain gauge accurate to within 0.10 inches of rain. Rainfall records shall be maintained in the SWPPP.

### **(3) Erosion Control Coordinator (ECC):**

The contractor shall designate an erosion control coordinator (ECC) to be responsible for approval and implementation of the SWPPP, as well as all other applicable requirements of the CGP. The contractor's ECC shall have the qualifications described in Subsection 104.09(B)(4).

The contractor shall not assume that the person proposed as ECC will be accepted by the Department merely because the experience and education requirements listed herein have been met.

After approval, the contractor shall designate the ECC as a duly authorized representative of the contractor in accordance with, and as defined in, the CGP. Documentation of the delegation of a duly authorized representative shall be included as part of the SWPPP.

The ECC shall be capable of identifying existing and predictable effects of the contractor's operations, and shall have complete authority to direct the contractor's personnel and equipment to implement the requirements described herein, including prompt placement of corrective measures to minimize or eliminate pollution and damage to downstream watercourses. Corrective measures shall be completed in the timeframe required by the CGP and included in the SWPPP as required by the CGP.

The ECC shall at all times be aware of the contractor's work activities, schedule, and effect of the work on the environment. Should the ECC not be present at the project site on a full-time basis, the contractor shall establish procedures to ensure that its ECC is promptly notified of any damage or displacement of the required erosion control measures, whether from construction, vandalism, or other causes.

The contractor bears all risks and liabilities for the failure of its ECC to properly implement the requirements of the CGP.

Failure of the contractor to properly maintain the Control Measures required in the approved SWPPP may be cause for the Engineer to reject the ECC and issue a stop work order, as specified in Subsection 104.09(B)(7).

#### **(4) ECC Certification Requirements:**

The ECC shall have successfully completed the mandatory two-day (16 hour) "Erosion Control Coordinator" training class (hereinafter referred to as the training class) provided by the Associated General Contractors (Arizona Chapter), phone (602) 252-3926. No other training can be substituted.

The training class certification is valid for three years. Within 60 days of the end of the three year period, in order to maintain the training class certification, the ECC shall successfully complete either a six-hour "Erosion Control Coordinator Refresher" class (hereinafter referred to as the refresher class), also provided by the Associated General Contractors (Arizona Chapter), or the two-day training class specified above. The refresher class will be required every three years thereafter, prior to the expiration date listed on the previous certificate. Should more than three years (and 60 day grace period) elapse from completion of either the training class or refresher class, the contractor's ECC will be required to successfully complete the two-day training class in order to again be eligible for consideration.

In addition, the contractor's ECC shall have documented experience equal to a minimum of one year from either of the following two categories:

- (a) Experience in the implementation of SWPPPs. The ECC's experience shall demonstrate full-time responsibility for directly supervising construction personnel in the installation, inspection, and maintenance of pollution prevention measures.
- (b) Experience in stabilization of disturbed areas in environments similar to those on the project.

The contractor's documentation shall provide details indicating the types of relevant experience and shall provide the number of months of each type of experience to be considered for approval.

The contractor's documentation shall also indicate that the proposed ECC has completed the training class or refresher class. To be considered for approval, the contractor's documentation shall include a copy of the proposed ECC's certification.

**(5) Acceptance of ECC and SWPPP:**

The contractor shall submit documentation indicating the qualifications of the ECC to the Engineer for approval no later than the pre-construction conference. The Engineer will review the proposed candidate's information within seven calendar days. The contractor may begin development of the SWPPP prior to approval of the ECC. However no clearing, grubbing, earthwork, or other work elements that may be subject to the requirements of the CGP shall be started until the ECC has been approved, the SWPPP finalized and implemented, the NOI completed and filed, and the CGP authorization received by the contractor and the Engineer. If sampling is required, the SWPPP and SAP shall also be reviewed and approved by ADEQ prior to ground disturbance by the contractor.

**(6) Notice of Intent:**

After the project SWPPP has been approved by the Engineer, the Engineer and the contractor will each complete separate Notice of Intent (NOI) forms for the project. The contractor shall submit the NOI to ADEQ as required by the CGP.

Unless notified otherwise by ADEQ, the contractor will be authorized to begin implementation of the approved SWPPP seven calendar days after acknowledgement of receipt of both NOIs by ADEQ or whenever an authorization certificate is issued by ADEQ, whichever occurs first.

**(7) Non-Compliance:**

The Engineer may reject the contractor's ECC if, in the opinion of the Engineer, the conditions of the CGP or the SWPPP are not being fulfilled. Rejection of the contractor's ECC shall be for failure to complete any of the following:

- (a) Should the Engineer determine that the SWPPP is not being properly implemented; the contractor will be notified in writing of such deficiencies. The contractor's ECC shall fully implement, to the

satisfaction of the Engineer, the requirements of the approved SWPPP within three working days.

- (b) Should any corrective measures required in the CGP not be completed within the time periods specified therein, the Engineer will notify the contractor in writing. The contractor's ECC shall complete all required corrective measures within two calendar days of such notification, except that direct inflows of sediment into a watercourse shall be corrected within 24 hours.
- (c) Should the Engineer determine that routine maintenance of the project's Control Measures is not being adequately performed; the contractor will be notified in writing. Within three working days, the contractor's ECC shall demonstrate, to the satisfaction of the Engineer that such steps have been taken to correct the problem.

In the event of the ECC's failure to comply with the CGP or any of the above requirements, the Engineer will direct the contractor to stop all affected work and propose a new ECC as soon as possible. However, all Control Measures specified in the SWPPP shall be maintained at all times. No additional work on construction items affected by the SWPPP will be allowed until a new ECC has been approved by the Engineer. The contractor will not be allowed compensation or an extension of contract time for any delays to the work because of the failure of the contractor's ECC to properly fulfill the requirements of the SWPPP.

#### **(8) Notice of Termination:**

Upon written approval of the Engineer, the contractor shall complete and submit a Notice of Termination (NOT) to the Engineer for approval. After approval by the Engineer, the contractor shall submit the NOT to ADEQ.

The NOT shall be submitted as described in the CGP.

A copy of the SWPPP and the NOT shall be provided to the Engineer within seven days of the contractor receiving acknowledgement from ADEQ. The copies may be either electronic or hard copies.

#### **(C) Aquifer Protection Requirements (Concrete Washout Facilities):**

If the contractor's work requires the use of temporary concrete washout facilities, the contractor shall comply with the requirements of ADEQ's APP Type 1 Permit (APP 1.12). APP 1.12 covers wastewater to an impoundment from washing concrete from trucks, pumps, and ancillary equipment. The contractor shall address concrete washout activities in the project SWPPP.



**(D) Measurement and Payment:**

Measurement and payment for work specified in the SWPPP will be made in accordance with the requirements of Section 810. Control Measures specified in the contract which are to be accomplished under any of the other various contract items will be paid for as specified under those items.

If a force account pay item for Control Measures is included in the bidding schedule, the contractor may be reimbursed for such additional Control Measures proposed by the contractor but not included with the plans or specifications. Such additional Control Measures must be approved in writing by the Engineer before use. Items for Control Measures approved by the Engineer will be paid in accordance with Subsection 109.04(D). No measurement or payment will be made for such additional items not approved by the Engineer.

No measurement or payment will be made to the contractor for time spent in preparing, reviewing, and revising the SWPPP, the SAP, or providing other required documentation, the cost being considered as included in the price of contract items. No measurement or payment will be made for inspections, training of personnel, the contractor's erosion control coordinator, the contractor's pollution prevention practices and requirements, or maintenance of the Control Measures during a suspension of work, the costs being considered as included in contract items.

No measurement or payment will be made, except as specified below for external laboratory testing, for labor, equipment, and materials required in the SAP, the cost being considered to be included in contract items.

If an item is included on the bidding schedule for Construction Monitoring (Laboratory Testing), the contractor will be reimbursed for those samples tested, as required in the approved SAP, by an accredited laboratory approved by the Arizona Department of Health Services. The contractor will be reimbursed for the invoice amount of each required test, plus an additional markup of ten percent of the invoice amount. No measurement or payment will be made for in-field testing and related equipment, the cost being considered to be included in contract items.

No measurement or payment will be made for temporary concrete washout facilities, the cost being considered to be included in contract items.

Unless otherwise specified, no measurement or payment will be made for maintenance of temporary and permanent Control Measures, the cost being considered as included in contract items.

**104.10 Contractor's Responsibility for Work:** of the Standard Specifications is revised to read:

The contractor shall implement the requirements of the CGP for pollution prevention due to stormwater runoff during construction, as specified above in Subsection 104.09, Prevention of Stormwater Pollution.

Until final written acceptance of the project by the Engineer, the contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof by the action of the elements, or from any other cause, whether arising from the execution or from the nonexecution of the work. The contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance. No reimbursement shall be made for work necessary due to the contractor's failure to comply with the requirements of the SWPPP.

Except as specifically provided under Subsection 104.04, in case of suspension of work from any cause whatever, the contractor shall be responsible for the project and shall take such precautions as may be necessary to prevent damage to the project and provide for normal drainage. The contractor shall maintain Control Measures in working order during any stoppage of work. Based on the nature of the work stoppage, the contractor and the Engineer shall determine the maintenance requirements. The contractor shall comply with the CGP including inspection of the project.

**(104STORM, 11/01/95)**

**SECTION 104 SCOPE OF WORK:**

**104.11 Damage by Storm, Flood or Earthquake:** Item (D), Idled Equipment and Remobilization, of the Standard Specifications is hereby deleted.

**104.11 Damage by Storm, Flood or Earthquake:** Items (E) and (F) of the Standard Specifications are revised to read:

**(D) Payment for Repair Work:**

The State will pay the cost of the repair work as determined in Subsection 109.04.

**(E) Termination of Contract:**

If the Department elects to terminate the contract, the termination and the determination of the total compensation payable to the contractor shall be governed by the provisions of Subsection 108.11, Termination of Contract for Convenience of the Department.

**(104ENVIR, 06/17/21)**

**SECTION 104 SCOPE OF WORK:**

**104.12 Environmental Analysis:** the fifth and sixth paragraphs of the Standard Specifications are revised to read:

If the contractor elects to do an environmental analysis and use any site, source, or access for the reasons listed above, they choose to do so at their own risk. It is the contractor's responsibility to exercise due diligence when selecting these sites and areas. The

contractor shall bear all costs associated with the use of proposed sites, sources, and accesses.

The contractor shall promptly advise the Engineer that it is preparing the environmental analysis and shall submit to the Engineer for review and consultation. The Department will review the submittal and send it to the appropriate agencies and/or jurisdictions for consultation or return it to the contractor for revision. The contractor shall allow a minimum of 60 calendar days after submittal, or subsequent resubmittals, to the Department for the Department to review the environmental analysis and to consult with the appropriate jurisdictions and/or agencies. At the end of the review period, the Engineer will notify the contractor whether or not the environmental analysis is acceptable.

If the approval of the environmental analysis causes a delay to a controlling activity of the project due to the Department's actions in the aforementioned review process, the contractor may seek, and the Engineer may grant, an extension of time in accordance with the terms of Subsection 108.08 of the specifications. The time extension shall not exceed 30 working days for a working-day contract, or 45 calendar days for a calendar-day project. The time extension will not be considered unless the contractor can show evidence of the delay resulting due to the Department's actions in the review process. A time extension request will not be considered or granted for any other reason. No time extension will be granted for a fixed completion date contract.

**104.12 Environmental Analysis:** the items (G) and (O) of the seventh paragraph of the Standard Specifications is revised to read:

- (G) The archaeological survey of the proposed source prepared by a person who meets the Secretary of the Interior's Professional Qualification Standards (48 FR 44716) and possesses a current permit for archaeological survey issued by the Arizona State Museum (ASM). The survey shall be prepared in a State Historic Preservation Office (SHPO) standardized format. The survey shall identify all historic properties within the area of potential effect (APE), as defined by the National Historic Preservation Act (36 CFR 800.4). This includes the materials source, processing area, and the haul road. Additionally, the survey report shall identify the effects of the proposed source on any historic properties within the APE, and recommend measures to avoid, minimize, or mitigate those effects. The survey report shall be prepared by the contractor in accordance with SHPO and ASM formatting style for the Historic Preservation Specialist's initial review. After the initial review, the Department will consult with the landowner, SHPO, and Tribes for a minimum of 35 days for the final approval of the survey report.
- (O) A description of the impact on federally or state protected or other agency-specific special status wildlife and plants and their habitat, as defined in ADOT's consultant biological procedures on the Department's website. Compliance with the Arizona Native Plant Law shall be coordinated through the Arizona Commission of Agriculture and Horticulture.

**104.12 Environmental Analysis:** the eighth paragraph of the Standard Specifications is revised to read:

Guidance and forms for preparing the environmental analysis are available on the Department's website through the Environmental Planning Group, or by calling Environmental Planning Group at 602-712-7767.

**(106DMAT, 02/15/11)**

**SECTION 106 CONTROL OF MATERIALS:**

**106.15 Blank:** of the Standard Specifications is revised to read:

**106.15 Domestic Materials and Products:**

Steel and iron materials and products used on all projects shall comply with the current "Buy America" requirements of 23 CFR 635.410.

All manufacturing processes to produce steel and iron products used on this project shall occur in the United States. Raw materials used in manufacturing the steel and iron products may be foreign or domestic. Steel or iron not meeting these requirements may be used in products on this project provided that the invoiced cost to the contractor for such steel products incorporated into the work does not exceed either 0.1 percent of the total (final) contract cost or \$2,500 whichever is greater.

Any process which involves the application of a coating to iron or steel shall occur in the United States. These processes include epoxy coating, galvanizing, painting, or any other coating which protects or enhances the value of covered material.

The requirements specified herein shall only apply to steel and iron products permanently incorporated into the project. "Buy America" provisions do not apply to temporary steel items, such as sheet piling, temporary bridges, steel scaffolding and falsework, or to materials which remain in place at the contractor's convenience.

The contractor shall furnish the Engineer with Certificates of Compliance, conforming to the requirements of Subsection 106.05, which state that steel or iron products incorporated in the project meet the requirements specified. Certificates of Compliance shall also certify that all manufacturing processes to produce steel or iron products, and any application of a coating to iron or steel, occurred in the United States.

Convict-produced materials may not be used unless the materials were produced prior to July 1, 1991 at a prison facility specifically producing convict-made materials for Federal-aid construction projects.

**(106CMATLS, 12/21/23)**

**SECTION 106 CONTROL OF MATERIALS:** of the Standard Specifications is modified to add:

**106.17 Construction Materials:**

A construction material, when used on a federal-aid construction project shall comply with the requirements of Build America, Buy America (BABA) Act specified in Title IX, Subtitle A, Part 1, Sections 70901 and 70911-70918 (Pub. L. No. 117-58 §§ 70901; §§ 70911-70918) of the Infrastructure Investment and Job Act (IIJA).

A “construction material” that is permanently incorporated on the project shall include an article, material, or supply that is or consists primarily of the following:

1. Non-ferrous metals;
2. Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
3. Glass (including optic glass);
4. Fiber optic cable (including drop cable);
5. Optical fiber;
6. Lumber;
7. Engineered wood; or
8. Drywall.

Items manufactured through a combination of either two or more materials listed above, or at least one of the materials listed above and a material not listed shall be considered as a manufactured product, rather than as a construction material.

Build America, Buy America provisions specified for manufactured products in Section 70912(6)(B) of the IIJA, do not apply to federal-aid construction projects per FHWA's existing statutory requirement applicable to manufactured products. A “manufactured product” is considered to be an item that undergoes one or more manufacturing processes before the item can be used on a federal-aid construction project.

Construction materials shall not include cement and cementitious materials; bituminous materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

All construction materials shall be produced in the United States. This means, all manufacturing processes to produce the construction materials shall occur in the United States. All manufacturing processes for construction materials shall mean the final manufacturing process and the immediately preceding manufacturing stage for the construction material.

The contractor shall furnish the Engineer with Certificates of Compliance, conforming to the requirements of Subsection 106.05 of the specifications, which shall state that the construction materials incorporated in the project meet the requirements specified herein.

Certificates of Compliance shall also certify that all manufacturing processes to produce construction materials occurred in the United States.

If the total cost of construction materials incorporated in the project is no more than 5% of the original contract amount or \$1,000,000, whichever is lesser, the requirements specified herein will not apply for such construction materials.

Convict-produced materials are prohibited in accordance with the requirements of 23 CFR 635.417.

**(107LPAINS, 08/02/19)**

**SECTION 107 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC:**

**107.14 Insurance:** of the Standard Specifications is modified to add:

The City of Peoria shall be named as an additional insured on the certificate of insurance.

**SECTION 107 LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC:**

**107.02 Permit, Licenses, and Taxes:** of the Standard Specifications is modified to add:

The contractor shall contact the City of Peoria for City permits, requirements, and fees. The City contact is Craig Bolze, 602-935-6119.

**(107UTIL, 02/15/24)**

**SECTION 107 LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC:**

**107.15 Contractor's Responsibility for Utility Property and Services:** of the Standard Specifications is modified to add:

Copies of existing ADOT permits, subject to availability, may be obtained from the ADOT Area Permit Supervisor as listed below:

**CENTRAL DISTRICT**

(602) 712-7522	2140 W. Hilton Avenue
(602) 712-6954	Phoenix, AZ 85009

**CITY OF PEORIA**

(623) 773-5251	9875 N. 85 <sup>th</sup> Avenue
Peoria, AZ 85345	

Also, copies of existing utility permits within the city right of Way, subject to availability, may be obtained from the City of Peoria Engineering Department as listed below:

**City of Peoria – Engineering Department  
9875 N 85th Ave, Peoria, AZ 85345  
623-773-7210**

The following utility companies have facilities in the area but are not anticipated to be in conflict:

**Arizona Public Service  
Bobby Garza  
2121 W Cheryl Drive  
Phoenix, Arizona  
602-361-6840**

APS has overhead facilities within the project limits but are not anticipated to be in conflict.

**Century Link/Lumen  
Jason Jensen  
5025 N Black Canyon Hwy  
Phoenix, Arizona  
801-735-2464**

Century Link/Lumen has underground facilities within the project limits but are not anticipated to be in conflict.

**City of Peoria Utilities  
George Herrera  
9875 N 85th Avenue  
Peoria, Arizona 85345  
623-773-5251**

City of Peoria Utilities has underground facilities within the project limits but are not anticipated to be in conflict.

**Salt River Project – Electrical  
Kaye Bockmann  
P.O. Box 52025  
Phoenix, AZ 85072-2025  
602-236-3129**

Salt River Project has overhead facilities within the project limits but are not anticipated to be in conflict.

## Service Connection:

**The following agency has an existing electrical panel within the project limits. No new service will be required.**

The City of Peoria has existing electrical panel within the project limits. The Contractor shall connect new electrical circuit to existing electrical service panel listed below as part of this project and in accordance with the specifications on the plans and these special provisions. The Contractor shall notify and provide the City of Peoria two weeks' notice before commencing work. This work will be paid for as part of the bid item number 9240051 Miscellaneous Work (Establish Electrical Connection).

Electrical work (underdeck lighting) for this project will be permitted through the building permit process and can be accessed at the following website.

Website: <https://www.peoriaaz.gov/business/development-services/plan-review-and-permits>

## Existing Electrical Service for New Trail Lighting

Facility	Station	Offset	Mitigation
Existing Panel	22+82.1	395' RT	Extend Existing Circuit

There is no railroad within ½ mile of the project limits.

**107.15(F) Sewage Discharge Damage Assessments:** of the Standard Specifications is revised to read:

The Department will assess sanctions in accordance with the Table 107.15-1 below for each 24-hour period, or portion thereof, for each unplanned breakage that occurs in an active sanitary sewer line as a result of the contractor's operation. The rate of these sanctions is based on the type and quantity of effluent discharged as determined by the Engineer.

These sanctions do not relieve the contractor from any of its responsibilities under the contract, including any liquidated damages that may be assessed under Subsection 108.09 of the specifications for late completion of the project.

The sanctions specified in this subsection will be independent of any penalties imposed by others.

The contractor acknowledges that Regulatory agencies may assess or impose civil or criminal penalties on the contractor resulting from sewer discharges.

The Department will not be responsible for any civil or criminal penalties, fines, damages, or other charges imposed on the contractor by any regulatory agency or court for sewage discharges that are a result, directly or indirectly, of the contractor's work performed under this contract.



<b>TABLE 107.15-1 SANCTIONS (EACH 24-HOUR PERIOD, OR PORTION THEREOF)</b>		
<b>Volume of Discharge</b>	<b>Raw Sewage or Industrial Wastewater</b>	<b>Treated Effluent</b>
Less than 10,000 gallons	\$5,000	\$1,000
10,000 to 99,999 gallons	\$10,000	\$2,000
100,000 to 1 million gallons	\$25,000	\$3,000
Greater than 1 million gallons	\$40,000	\$5,000

These sanctions will be assessed for each 24-hour period, or portion thereof, until the contractor has completed all of the following tasks:

- Stopped the discharge;
- Repaired the damaged pipe;
- Restored normal service; and
- Fully cleaned and disinfected the site to the satisfaction of the Engineer.

Upon completion of tasks (1), (2), and (3) above, and prior to completion of Task (4), the sanctions for the current 24-hour period will be at the rate shown in Table 107.15-1. However, for each subsequent 24-hour period, the assessment will be 1/2 of the rate shown in Table 107.15-1.

The sanctions will continue at the reduced rate until the site has been fully cleaned and disinfected to the satisfaction of the Engineer.

As an example, the amounts assessed each 24-hour period for an unplanned discharge of 20,000 gallons of raw sewage, in which the contractor completes tasks (1), (2), and (3) within the second 24-hour period but does not complete full cleanup until the third 24-hour period, will be as follows:

First 24-hour period:	\$10,000
Second 24-hour period:	\$10,000
Third 24-hour period:	\$5,000

For this example, the total sanction will be \$25,000 (\$10,000 + \$10,000 + \$5,000).

(108SUBLT, 10/20/22)

**SECTION 108 PROSECUTION AND PROGRESS:**

**108.01 Subletting of Contract:** the thirteenth paragraph of the Standard Specifications is revised to read:

If a subcontractor, of any tier, begins work on the contract prior to the contractor submitting the required documentation and receiving consent from the Engineer, the Department will retain \$1,000 from monies due or becoming due the contractor. The money retained will be for each subcontractor, of any tier, that starts work without the consent of the Engineer. These sanctions will be in addition to all other retention or liquidated damages provided for elsewhere in the contract.

(108PRCN, 08/19/21)

**SECTION 108 PROSECUTION AND PROGRESS:**

**108.03 Preconstruction Conference:** the second paragraph of the Standard Specifications is revised to read:

At the preconstruction conference the contractor shall submit a progress schedule showing the order in which the contractor proposes to carry out the work, the dates on which the contractor and its subcontractors will start the work, including procurement of materials, equipment, etc.; the ordering of articles of special manufacture; the furnishing of drawings, plans and other data required under Subsection 105.03 of the specifications for the review and approval of the Engineer; the inspection of structural steel fabrication; and the contemplated dates for the completion. The schedule shall be in a critical path method format. No schedule activity shall be shorter than one day or longer than 20 days. The schedule must show interrelationships among the activities, and the controlling items of work throughout the project shall be identified. If requested by the Engineer, the contractor shall furnish information needed to justify activity time durations. Such information shall include estimated manpower, equipment, unit quantities, and production rates. The schedule shall illustrate the completion of the work not later than the contract completion date.

**108.04 Prosecution and Progress:** the third paragraph of the Standard Specifications is revised to read:

At a mutually convenient location and time, the contractor shall meet weekly with the Engineer to discuss construction activities; however, a meeting may be waived if mutually agreed to, due to weather conditions, work progress, or for other reasons. At the meetings, the contractor shall provide the Engineer with a detailed, written schedule of construction activities and phases of work for the current week, forthcoming three week period as well as the construction activities which were performed during the previous week. This schedule shall detail the anticipated start dates and anticipated completion dates of work activities. The weekly schedule should reflect, at a minimum, all activities from the most recently

updated project schedule. For work which was completed during the previous week, this schedule shall detail the actual start and completion dates of work activities as well as indicate the status of major ongoing activities. Upon the second occurrence of the contractor failing to provide an accurate schedule as describe herein and after written notification by the Engineer of the first occurrence, the Department will deduct \$500 from the contractor's progress payment per each occurrence thereafter. Minutes of the weekly meetings will be kept by the Engineer and a copy given to the contractor for review and acceptance.

(108TIME, 10/15/20)

## SECTION 108 PROSECUTION AND PROGRESS:

**108.08 Determination and Extension of Contract Time:** the first paragraph of the Standard Specifications is revised to read:

The time allowed for the completion of the work included in the contract will be 280 working days, and will be known as the "Contract Time."

(108RSLD, 08/17/23)

## SECTION 108 PROSECUTION AND PROGRESS:

**108.09 Failure to Complete the Work on Time:** the Schedule of Liquidated Damages table of the Standard Specifications is revised to read:

SCHEDULE OF LIQUIDATED DAMAGES			
Original Contract Amount		Liquidated Damages Per Day	
From More Than:	To and Including:	Calendar Day or Fixed Date:	Working Day:
\$ 0	\$ 500,000	\$ 450	\$ 750
500,000	1,000,000	1,000	1,800
1,000,000	2,000,000	1,600	2,100
2,000,000	5,000,000	2,200	2,400
5,000,000	10,000,000	3,200	7,100
10,000,000	30,000,000	8,000	9,600
30,000,000	60,000,000	14,600	16,900
60,000,000	90,000,000	19,900	27,860
90,000,000	-----	26,800	37,520

**(108SCHLVL1, 08/19/21)**

**SECTION 108 PROSECUTION AND PROGRESS:** of the Standard Specifications is modified to add:

**108.12 Schedules:**

**(A) Definitions:**

**Activity:**

A discrete, identifiable task or event that contributes to completing the project and can be used to schedule and monitor the work.

**Activity ID:**

A unique alphanumeric identification code permanently assigned to an activity.

**Baseline Schedule:**

A Critical Path Method (CPM) schedule illustrating the contractor's committed plan to complete the work within the contract time and used to compare the progress of the work.

**Constraint:**

A limitation placed on a scheduled activity that affects the start or end date of an activity.

**Critical Path:**

The longest continuous chain of activities which establishes the minimum overall project duration.

**Critical Path Method (CPM):**

A network-based planning technique that uses activity durations and relationships to calculate a schedule for the project.

**Data Date:**

The date from which a schedule is calculated, where all activities occurring earlier than the data date are complete and all activities occurring on or after the data date are planned.

**Duration:**

The estimated time required to complete an activity as recorded on the Project Schedule.

**Float Suppression/Sequestering:**

The process of utilizing zero free float techniques that allows an activity to start as late as possible by using all available free float of that activity, by the utilization of overly generous activity durations, or by using overly restrictive calendar non-working periods.

**Free Float:**

The amount of time an activity may be delayed without delaying the early start date of its successors.

**Longest Path:**

The longest continuous path of activities through a project, which controls project early completion.

**Look-Ahead Schedule:**

A computer-generated schedule that shows the previous week's work and the work planned for the current and next three weeks.

**Milestone:**

An activity, with no duration, that is typically used to represent the beginning, end, interim stages and significant events of the project, or contractually required dates.

**Monthly Progress Schedule:**

A monthly update to the approved baseline schedule.

**Narrative:**

A written report explaining the Project Schedule in detail.

**Predecessor:**

An activity that affects the start or finish date of another activity with a logically tied relationship.

**Preliminary Schedule:**

A CPM schedule that shows the Baseline Schedule for the first 60 calendar days of contract time and, the work breakdown structure and milestones for the entire contract.

**Project Schedule:**

A logic-based critical path for all work leading up to and including substantial completion or final acceptance that is used for tracking the performance of the work. The term "Project Schedule" will refer to one or more of the following:

- (a) Baseline Schedule,
- (b) Monthly Schedule, or
- (c) Recovery Schedule.

**Record Schedule:**

A CPM schedule that shows the actual start and finish date of each activity, durations, and all changes.

**Recovery Schedule:**

A CPM schedule that shows the activity changes to recover the time lost due to incompletion of the work within the contract time as specified in the Monthly Progress Schedule.

**Scheduler:**

An individual, who creates, maintains and revises the Project Schedule using applicable software.

**Successor:**

An activity whose start or finish date is affected by the logically tied relationship with another activity.

**Time Impact Analysis (TIA):**

A forward-looking, prospective schedule analysis developed to demonstrate the impact of a change to the current schedule on its longest path.

**Total Float (Float):**

The cumulative duration of time an activity may be delayed without delaying the contract time or a contractual milestone.

**Work Breakdown Structure (WBS):**

A framework for organizing and ordering the work activities into hierarchical groups.

**(B) General:**

The contractor shall prepare, furnish, and use the Project Schedule to plan, monitor, and report the progress of the work. The schedule shall demonstrate a detailed plan to complete the work in accordance with the contract time and be used in communication to coordinate activities among all affected parties.

The contractor shall provide a Scheduler to create and maintain all schedules, updates, Narratives, reports, and TIA related to this project. The Scheduler shall be proficient in CPM schedule development, analysis of resources applicable to the required detail of the Project Schedule, and shall be able to perform the required tasks using the specified software.

The Scheduler shall be present at all schedule meetings, in person or via teleconference, and made available for discussion or meetings when requested by the Engineer. The contractor project management personnel, subcontractors, and suppliers shall actively communicate with the Scheduler to develop and maintain accurate updates of progress and schedule revisions throughout the duration of the contract.

The Department's review and comment on a schedule for compliance with this specification does not do the following:

- (1) Imply or constitute approval of particular construction methods or relieve the contractor of its responsibility to provide sufficient materials, equipment, and labor to complete the project in accordance with the contract;
- (2) Attest to the validity of assumptions, activities, relationships, sequences, resource allocations, or other aspects of the schedule;
- (3) Imply the contractor is entitled to a Supplemental Agreement extending the contract time or adjusting the contract price;
- (4) Relieve the contractor from compliance with the requirements of the contract or result in the approval of a deviation, exception to or other variation from the contract. Failure to include an element of work required by the contract in the schedule does not release or relieve the contractor from responsibility to perform such work.

In preparing, developing and updating the Project Schedule the contractor shall not utilize:

- (1) Float suppression techniques in the schedule, including interim dates imposed by the contractor other than project milestone(s);
- (2) The inclusion of activities or constraints in a path or chain leading to a project milestone which are unrelated to the work as specified in the contract;
- (3) Activity durations or sequences determined by the Department to be unreasonable in whole or in part.

The contractor shall not use preferential sequencing, whereby activities that could be performed concurrently and are established in the Project Schedule as sequential simply to consume float. The contractor shall not indicate artificial activity durations by inflating activities in the schedule to consume float and influence the Critical Path. Sequestering of float is cause for rejection of the contractor's schedule submittal. If float sequestering is identified, the contractor shall revise the schedule appropriately.

Total Float is a commodity available to both the Department and the contractor for sequential use until depleted and not for the exclusive use or financial benefit of either party. A schedule showing an early completion date shall show the time between the scheduled completion date(s) and the required contract completion deadline(s) as Total Float.

The Department will not be liable to the contractor for delays by any party when the contractor completes the work prior to expiration of contract time.

If a delay in performing the work is caused by the Department, the contractor shall immediately notify the Department in writing that a revision to the contract is necessary in accordance with Subsection 104.02 and Subsection 104.03 of the specifications. The contractor shall include a description of the cause of delay, the projected amount of Total Float to be used, and the revised Monthly Progress Schedule showing the use of the Total Float in the Monthly Progress submittal. The contractor shall work cooperatively with the Department, other contractors, and third parties to identify and implement, to the maximum extent possible, no-cost measures to recover all schedule delays, regardless of the cause of the delays.

The contractor shall coordinate with the Department, local governmental entities, utility companies, railroad companies, and any third party entities when developing and maintaining the Project Schedule. The contractor shall coordinate its planning and scheduling efforts as required to address conflicts and comments received from adjacent projects and other entities.

**(C) BLANK:**

**(D) Baseline Schedule:**

The contractor shall submit a Baseline Schedule before or at the Preconstruction Conference for the Engineer's review and approval.

The Baseline Schedule shall be in the following format:

- i. Project ID: The schedule project ID shall match the filename format in Subsection 108.12(K) of the specifications. The project name shall be the route number followed by the project description.
- ii. Activity ID: Each activity shall be assigned a unique identification number. Activity ID numbers shall not be changed or reassigned for the duration of the contract. Within each group of the WBS, activity ID's shall be



numbered sequentially in increments of 10 in the order of their start date or by finish date of a finish milestone. Milestone activities shall begin with "M". Use 10 characters or less.

- iii. Activity Name: Each activity shall be defined with a unique name that contains the description of work. Each name shall at a minimum consist of a verb or work function (i.e. remove, excavate, form, install), an object (i.e. curb, pipe, footing) and a location (i.e. street, station, bridge number). For example, "Install Barrier Dtl C – S1 120+25 Lt". The activity quantity may be included after location.

The contractor shall create an activity name using the following:

- a) Use 50 characters or less;
- b) Use "S1, S2, ..." for stage naming if applicable;
- c) Do not use all capital letters;
- d) Keep names readable, but use abbreviations as needed. Do not use periods when abbreviating. All abbreviations shall be consistent; and
- e) Location is not required if object name is specific, such as "CMP #201".

The contractor shall provide a list of abbreviations and acronyms. The work related to each activity shall be limited to one stage, one area, one traffic control phase, and one responsible party of the contract.

- iv. Activity Code: Activities shall be assigned with project activity codes that will be used to classify, categorize and organize activities for reporting. Only use project level activity codes and not global or enterprise codes. At a minimum, all activities shall have an activity code for responsible party, stages, and phases. Additional activity codes shall be added if requested by the Department.
- v. Milestones: The contractor shall separately identify each project milestone, conforming to the scheduling requirements set forth in the contract.
- vi. Constraints: The contractor shall not use date constraints to logically begin or complete a project activity unless specific calendar dates are shown in the contract. Specific contract dates may only be applied as a constraint to a milestone activity and input as either a "Start on or After" or "Finish on or Before" date. No other constraint types shall be allowed.
- vii. Duration: Activity duration shall not exceed 20 calendar days unless approved by the Engineer. Activity durations shall be at least one calendar day. Durations shall represent the anticipated productivity rates that factor in all limitations to the productivity. Long lead activities such as procurement and Level of Effort activities may exceed 20 calendar days.

- viii. Relationships: All activities shall have at least one predecessor and one successor except for the project start and project end milestones. Negative lags or negative floats shall not be allowed. Predecessors and successors shall not be linked to the same activity with different relationship types. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a Finish-to-Start or Finish-to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag or overlap.
- ix. If applicable, the schedule shall include but not be limited to all activities below:
1. Mobilization/Demobilization;
  2. Right of Way Acquisition;
  3. Submittal development;
  4. Submittal review and acceptance;
  5. Submittal and approval of material samples and mix designs;
  6. Submittal and approval of shop drawings;
  7. Long lead items, material and equipment procurement;
  8. Procurement of permits;
  9. Environmental commitments and mitigation activities;
  10. Equipment and plant setup;
  11. Fabrication of special items;
  12. Erection and removal of falsework and shoring;
  13. Utility and railroad relocations;
  14. Cure times for concrete;
  15. Cure times for pavement before striping;
  16. Landscape and seeding establishment periods;
  17. Test periods;
  18. Major traffic stage changes;

- 19. Substantial completion;
  - 20. Punchlist completion; and
  - 21. Final cleanup;
- x. The schedule shall be in detail to allow day-to-day monitoring and review of the contractor's operations. It shall show the order and interdependence of activities and the sequence of work.
  - xi. The contractor shall detail the Critical Path activities and logic ties in the schedule to show the work sequencing. The contractor shall use the CPM software to determine the controlling activities in the critical path. The critical activities shall be prominently distinguished on all reports by the use of color or pattern.
  - xii. The contractor shall provide the number of activities to assure adequate project planning and allow for monitoring and evaluation of work progress.
  - xiii. The contractor shall provide activities as necessary to depict third-party work related to the contract. Third-party work activities may include but is not limited to railroads, utilities, real estate, and government agencies.
  - xiv. Seasonal, winter shutdown, traffic, special event, environmental, or other contract restrictions shall be considered and included in the schedule for all work. These restrictions shall be addressed with project calendars and shown as non-work days for each major work type. Global calendars shall not be used. Examples of major work types are earthwork, concrete paving, structures, asphalt, drainage, landscaping, etc. The contractor shall include project calendar for curing time if applicable.
  - xv. The duration for each activity shall include the anticipated production rate and the time for anticipated weather stoppages. The contractor shall not reserve random non-work days in a project calendar to account for weather stoppages.
  - xvi. The schedule shall have a Data Date of the start date shown in the Notice of Award letter.
  - xvii. When processing the schedule in the software, the contractor shall use the following options:
    - 1. When scheduling progressed activities use Retained Logic;
    - 2. Calculate start-to-start lag from Early Start;
    - 3. Define critical activities as Longest Path;

4. Compute Total Float as  $\text{Finish Float} = \text{Late Finish} - \text{Early Finish}$ ; and
5. Calendar for scheduling relationship lag as predecessor activity calendar.

xviii. The bar chart schedule plot shall be accompanied by a schedule report of the network with a tabulation of the following data for each activity:

1. Activity ID;
2. Activity name;
3. Original duration;
4. Early start date;
5. Early finish date;
6. Late start date;
7. Late finish date;
8. Predecessors;
9. Successors;
10. Free float;
11. Total float;
12. Primary constraint date;
13. Calendar; and
14. Responsibility for activity - e.g., prime contractor, subcontractor, supplier, etc.

**(E) BLANK:**

**(F) BLANK:**

**(G) Recovery Schedule:**

If the Project Schedule indicates a late completion of the work by 28 or more calendar days, the contractor shall prepare a Recovery Schedule which demonstrates how the contractor intends to reschedule the activities to regain compliance with the contract.

Within ten working days of receipt of the Engineer's written direction, the contractor shall submit the Recovery Schedule to the Engineer. The contractor shall not be required to prepare a Recovery Schedule if the contractor requests and demonstrates, in writing, entitlement to extension of a completion deadline due to a Department caused delay, and the Engineer concurs that a Recovery Schedule is not required at that time. If the Engineer disputes the contractor's entitlement to a completion deadline adjustment, the contractor shall, within five working days, submit a Recovery Schedule that does not include a completion deadline adjustment.

Within five working days after a rejection by the Engineer of the Recovery Schedule, the contractor shall resubmit a revised Recovery Schedule incorporating the Department's comments. When the Engineer accepts the contractor's Recovery Schedule, the contractor shall, within five working days after the Engineer's acceptance, incorporate such schedule in the Project Schedule, deliver the same to the Department, and proceed in accordance with the approved Recovery Schedule.

All acceleration costs required to bring the contract work back into compliance with project milestones and the contract time due to a contractor caused delay shall be borne solely by the contractor. Whenever a Recovery Schedule is required, the contractor shall provide the following information:

- i. Transmittal letter;
- ii. Bar chart schedule plot;
- iii. Electronic copy of the file used for the proposed Recovery Schedule; and
- iv. Narrative describing all proposed changes to the Project Schedule in detail, with justification for the changes, including the following:
  1. Changes to activity original durations;
  2. Changes to activity relationships and schedule logic;
  3. Cause of schedule slippage and actions taken to recover schedule within the shortest reasonable time (e.g., hiring of additional labor, use of additional construction equipment, and expediting of deliveries);
  4. Float consumption;
  5. Identification of activities that have been added, deleted, or modified; and
  6. Changes to the Project Schedule's Critical Path.

**(H) Revisions to Contract:**

If the contractor receives a request for extra work from the Department or submits a contract change request in accordance with Subsection 104.02 of the specifications asserting that an event, situation, or change affects a Critical Path of the Project Schedule, the contractor shall prepare and submit a TIA showing the cumulative effect of the change on the completion or fixed milestone date along with a written report describing the time impact in a form satisfactory to the Department complying to Subsection 104.03 of the specifications.

Each TIA shall include a fragmentary network (fragnet) demonstrating the following information:

- i. How the contractor proposes to incorporate a time extension provided for in a Supplemental Agreement;
- ii. The impact to the Project Schedule;
- iii. The sequence of new and/or existing activity revisions that are proposed to be added to the Project Schedule that is in effect when the change or delay is encountered;
- iv. The proposed method for incorporating the delay and its impact to the Project Schedule; and
- v. The computation of two finish dates. The first finish date shall be computed without consideration of impacts by the proposed revision. The second finish date shall be computed with consideration of impacts by the proposed revision.

If a proposed change in planned work results in altering the Critical Path or extending the schedule completion date, the contractor shall submit a Revised Schedule and a TIA within 15 calendar days of the proposed change.

**(I) Record Schedule:**

The contractor shall prepare a Record Schedule that includes actual start and actual finish dates for all activities. The Record Schedule, once approved, serves as the final update of the Project Schedule. The contractor shall include a written certification with the Record Schedule submittal signed by the Project Manager of the contractor in accordance with the following:

“To the best of my knowledge, the enclosed final update of the project Schedule reflects the actual start and completion dates of the activities for the project contained herein.”

The contractor shall submit the Record Schedule to the Engineer for review. Final acceptance will not be issued until the Record Schedule has been approved.

**(J) Schedule Meetings and Three Week Look Ahead Schedule:**

**a. Baseline Schedule Presentation Meeting:**

At a time agreeable to the Engineer, the contractor shall conduct a Baseline Schedule presentation meeting within seven calendar days after submitting the proposed Baseline Schedule. The purpose of this meeting is for the contractor to present and explain the contractor's schedule and construction phasing plan. At a minimum, the following is to be covered at the joint review of the schedule:

- (a) WBS;
- (b) Sequence of work - step through the schedule activity by activity;
- (c) Construction phasing including traffic control phasing and changes;
- (d) Resources to include number of construction personnel and production rates used; and
- (e) Critical Path review.

**b. Weekly Project Meeting and Look-Ahead Schedule:**

At the weekly project meetings, the contractor shall provide the Engineer with a detailed, Look-Ahead Schedule. The Look-Ahead Schedule is a computer generated bar chart schedule plot that shows the previous week's work and the work planned for the current and next three weeks. The contractor shall base the Look-Ahead Schedule on the Project Schedule and provide a greater breakdown of the Project Schedule activities for the purpose of materials inspection and testing. The Look-Ahead Schedule shall clearly note and explain all departures from the Project Schedule. The contractor shall reference the Project Schedule activity ID numbers, WBS, and define subsequent specific daily operations for all work activities scheduled to be performed during the four-week period. The contractor shall identify work being performed by Disadvantaged Business Enterprise (DBE) firms as separate activities. At least one day before the weekly construction activity meetings, the contractor shall submit weekly Look-Ahead Schedules to the Engineer.

**(K) Submittals:**

Two 11 x 17 inch hard copies and one pdf copy of each schedule in color listed herein shall be provided to the Engineer. The contractor shall furnish to the Engineer for project use an electronic copy of the schedule. The electronic copy shall be Primavera P6 .xml file format prepared in Primavera software.

The filename of schedules shall be submitted in the following format:

<b>SCHEDULE FILENAME FORMAT</b>	
Preliminary Schedule	TTTTT-YYMM-PSVV
Baseline Schedule	TTTTT-YYMM-BSVV
Monthly Progress Schedule #1	TTTTT-YYMM-MPS01VV

Monthly Progress Schedule #2	TTTTT-YYMM-MPS02VV
Recovery Schedule	TTTTT-YYMM-RCYSVV
TIA Schedule	TTTTT-YYMM-TIASVV
Record Schedule	TTTTT-YYMM-RCDSVV
3 Week Lookahead Schedule	TTTTT-YYMM-LASVV
Schedule Narrative	TTTTT-YYMM-NARVV
Note:  (1) TTTTT: First 5 digits of project TRACS number.  (2) YYMM: Current 2 digit year and month.  (3) VV: 2 digit version number (01, 02, etc.).	

All bar chart schedule plots shall be in color and have a size and scale acceptable to the Engineer. Include a title block and a legend on each page. The plot layout shall include a schedule activity table with corresponding bar chart. The activity table shall be grouped by the WBS and include the activity ID, activity name, duration, start date, finish date, and total float. All activities in the bar chart shall be plotted on their start and finish dates. Show relationship lines and data date line. The bar chart shall be time-scaled in two-line format with a date interval set to year/month and type set to calendar.

The contractor shall provide two 8.5 x 11 inch hard copies of the narrative and monthly report with an electronic pdf copy.

The contractor shall provide a schedule log file generated by the software in a .txt file format with all schedule submittals. The log file shall have the same filename as the schedule file. The contractor shall review the log file prior to submittal to verify that the electronic schedule is in compliance with this specification.

**(L) Software:**

The automated system software shall be Primavera P6.

**(109RRBB, 04/18/24)**

**SECTION 109 MEASUREMENT AND PAYMENT:**

**109.04(D)(3) Equipment:** the first paragraph of the Standard Specifications is revised to read:

Equipment which the Engineer considers necessary for the performance of work will be eligible for payment at the established rates only during the hours that it is operated except as otherwise allowed elsewhere in these specifications. Equipment hours will be recorded to the nearest one-half hour. For the use of equipment owned by the contractor and approved by the Engineer, the contractor will be paid the rental rates, as modified herein, outlined in the Rental Rate Blue Book® (RRBB) for Construction Equipment which is updated by



EquipmentWatch™, a division of Fusable, 3200 Rice Mine Road NE, Tuscaloosa, Alabama 35406, phone (888) 307-1713. All rate determinations will be based on the RRBB quarterly rate revisions that are applicable at the time equipment is being used.

(109RET, 10/20/22)

## **SECTION 109 MEASUREMENT AND PAYMENT:**

**109.06(B)(3) Partial Payment:** of the Standard Specifications is modified to add:

Notwithstanding any provision of Arizona Revised Statutes Section 28-6924, the parties may not agree otherwise.

**109.06(B)(4) Final Payment:** of the Standard Specifications is modified to add:

Notwithstanding any provision of Arizona Revised Statutes Section 28-6924, the parties may not agree otherwise.

**109.06 Partial Payments and Retention:** of the Standard Specifications is modified to add:

### **(C) Payroll Submittals:**

The contractor shall submit payrolls electronically through the internet to the Department's web-based certified payroll tracking system. This requirement shall also apply to every lower-tier subcontractor that is required to provide certified payroll reports.

If, by the 15th of the month, the contractor has not submitted its payrolls for all work performed during the preceding month, the Engineer will provide a written notification of the discrepancies to the contractor. For each payroll document that the contractor fails to submit within 10 days after the written notification, the Department will retain \$2,500.00 from the progress payment for the current month. The contractor shall submit each complete and correct payroll within 90 days of the date of notification. If the payroll is complete and correct within the 90-day time frame, the Department will release the \$2,500.00 on the next monthly estimate. For each payroll that is not acceptable until after the 90-day time frame, the Department will only release \$2,000.00 of the \$2,500.00 retained. The Department will retain \$500.00 as sanctions. Such \$500.00 retentions will not relieve the contractor of its responsibility to provide each required payroll, complete and correct, as specified above. These sanctions shall be in addition to all other retention or liquidated damages provided for elsewhere in the contract.

**(109SUBPAY, 10/20/22)**

**SECTION 109 MEASUREMENT AND PAYMENT:**

**109.06(B)(5) Payment Reporting and Sanctions:** the eighth paragraph of the Standard Specifications is revised to read:

For each month that the contractor fails to submit timely and complete payment information the Department will retain \$5,000 as sanctions from the monies due to the contractor. After 90 consecutive days of non-reporting, the sanctions will increase to \$10,000 for each subsequent month which the contractor fails to report until the information is provided. These sanctions will be in addition to all other retention or liquidated damages provided for elsewhere in the contract.

**109.06(B)(8) Non-compliance:** of the Standard Specifications is revised to read:

Failure to make prompt partial payment, or prompt final payment including any retention, within the time frames established above, will result in remedies, as the Department deems appropriate, which may include but are not limited to:

- (a) Sanctions. These sanctions will be in addition to all other retention or liquidated damages provided for elsewhere in the contract:
  - (i) The Department will withhold two times the dollar amount not paid to each subcontractor;
  - (ii) If full payment is made within 30 days of the Department's payment to the contractor, the amount withheld by the Department will be released; and
  - (iii) If full payment is made after 30 days of the Department's payment to the contractor, the Department will release 75 percent of the funds withheld. The Department will retain the remaining 25 percent of the monies withheld as sanctions.
- (b) Additional Remedies. If the contractor fails to make prompt payment for three consecutive months, or any four months over the course of one project, or if the contractor fails to make prompt payment on two or more projects within 24 months, the Department may, in addition, invoke the following remedies:
  - (i) Withhold monthly progress payments until the issue is resolved and full payment has been made to all subcontractors, subject to the sanctions described in paragraph (a) above;
  - (ii) Terminate the contract for default in accordance with Subsection 108.10 of the specifications; and/or
  - (iii) Disqualify the contractor from future bidding, temporarily or permanently, depending on the number and severity of violations.

In determining whether the sanctions will be assessed, the extent of the sanctions, or additional remedies assessed, the State Construction Engineer will consider whether there have been other violations on this or other contracts, whether the failure to make prompt payment was due to circumstances beyond the contractor's control, and other circumstances. The contractor may, within 15 calendar days of receipt of the decision of the State Construction Engineer, escalate the decision to the State Engineer. If the contractor does not escalate the decision of the State Construction Engineer, in writing to the State Engineer, within 15 calendar days of receipt of the decision, the contractor will be deemed to have accepted the decision and there will be no further remedy for the contractor. If the contractor escalates the decision to the State Engineer, and the contractor does not agree with the State Engineer's decision, the contractor may initiate litigation, arbitration or mediation pursuant to Subsection 105.21(D) and (E) of the specifications.

**(109FUEL, 02/10/12)**

**SECTION 109 MEASUREMENT AND PAYMENT:** of the Standard Specifications is modified to add:

**109.12 Fuel Cost Adjustment:**

**(A) General:**

The Department will adjust monthly progress payments up or down as appropriate for cost fluctuations in diesel fuel as determined in accordance with these special provisions.

A fuel cost adjustment will be made when fluctuations in the price of diesel fuel, in excess of 15 percent, occur throughout this contract. The Department will not provide such adjustments for fluctuations in the price of diesel fuel of 15 percent or less.

No adjustments will be made for fluctuations in the price of fuels other than diesel.

**(B) Measurement:**

The base index price of fuel will be determined by the Department from the selling prices of diesel fuel published by OPIS (Oil Price Information Service). The base index price to be used will be the price for Diesel fuel No. 2, Ultra Low Sulfur, PAD 5, City of Phoenix Rack. The reported average value for the Phoenix area will be used.

The base index price for each month will be the arithmetic average of the selling price for diesel fuel, as specified above, shown in the last four reports received prior to the last Wednesday of the month.

This price will be effective as of the last Wednesday of each month, and will be posted on the Department's website, at <http://www.azdot.gov/Highways/cns/bitmat.asp>, on or shortly after the last Wednesday of the month.

This price may also be obtained from Contracts and Specifications Services at (602) 712-7221.

This price will be deemed to be the "initial cost" (IC) for diesel fuel on projects for which bids are opened during the following month.

The current index price for diesel fuel in subsequent months will be the base index price, determined as specified above, for the current month. For example; an adjustment for diesel fuel used in May, if applicable, will be based on the "current price" (CP) for May as posted on the last Wednesday of May. The amount of adjustment per gallon will be the net difference between the "initial cost," adjusted by 15 percent, and the current index price. The monthly adjustment will be determined by the Engineer and included in the payment estimate as a fuel adjustment. For fluctuations in excess of 15 percent, fuel cost adjustments will only be made for current price index increases greater than 1.15 times the "initial cost" or for decreases less than 0.85 times the "initial cost." No calculation will be made for fluctuations in the current index price of 15 percent or less when compared to the "initial cost."

The number of gallons of diesel fuel used per month will be considered to equal 1.5 percent of the dollar amount of work reported by the contractor for each month. Such dollar amount will not include incentives earned by the contractor for pavement smoothness, thickness, or strength for Portland cement concrete pavements; for pavement smoothness or quality lots for asphaltic concrete pavements; for any other revenue derived from quality incentives; or for revenue accrued in the previous month for bituminous material cost fluctuations or diesel fuel price adjustments.

A monthly adjustment, if applicable, will be made on this quantity, as shown below:

$$S = \frac{0.015(Q)}{IC} \times (CP - AC)$$

Where; S = Monetary amount of the adjustment (plus or minus) in dollars  
Q = Dollar amount of work completed for the month  
CP = Current index price in dollars per gallon  
AC = Adjusted "initial cost" (1.15 or 0.85 times IC) in dollars per gallon  
IC = "Initial cost" as determined above, dollars per gallon

If adjustments are made in the contract quantities, the contractor shall accept any fuel adjustment as full compensation for increases or decreases in the price of fuel regardless of the amounts of overrun or underrun.

The value calculated above (plus or minus) will be adjusted to include sales tax and other taxes as applicable.

No additional compensation will be made for any additional charges, costs, expenses, etc., which the contractor may have incurred since the time of bidding and which may be the result of any fluctuation in the base index price of diesel fuel.

No adjustments will be made for work performed after Substantial Completion, as defined in Subsection 105.19, has been achieved.

**(C) Payment:**

Price adjustments will be shown on the monthly progress estimate, but will not be included in the total cost of work for determination of progress or for extension of contract time.

**(109BITUMADJ, 04/15/21)**

**SECTION 109 MEASUREMENT AND PAYMENT:** of the Standard Specifications is modified to add:

**109.16 Bituminous Price Adjustment:**

**(A) General:**

The term "bituminous material" as used herein shall include asphalt binder, asphalt rubber and emulsified asphalt.

The Department will adjust monthly progress payments as appropriate for market fluctuations in the price of bituminous material.

A price for bituminous material will be determined monthly by the Department based on the selling prices published by the Asphalt Weekly Monitor, a publication of Poten & Partners, Inc. The price will be the arithmetic average of the high and low selling prices for bituminous material shown in the previous four reports for the Arizona/Utah and Southern California regions.

This value will be effective as of the last Wednesday of each month, and will be posted on the ADOT Contracts and Specifications Group website, on or shortly after the last Wednesday of each month.

This price will be deemed the "initial cost" (IC) for bituminous material for projects on which bids are opened during the following month. This price will also be deemed the "current price" (CP) for bituminous material for the following month for projects in construction.

**(B) Measurement:**

For each item of bituminous material for which there is a specific pay item, and for the bituminous material used in Asphaltic Concrete (Miscellaneous Structural), an adjustment will be made for each month that a quantity of bituminous material was used on the project.

The IC for the month in which the project was bid will be compared with the CP for the appropriate current month. The CP will be as posted on the Department's website on the last Wednesday of each month, and will be used to adjust costs for bituminous material incorporated into the job during the following month (for example; bituminous material used

in May will be adjusted, as specified herein, based on the CP for May as posted on the last Wednesday of April). Any difference in price between these two values will be applied to the quantity of eligible bituminous material incorporated into the work.

Determination of the eligible quantities of bituminous material for adjustment will be based on contractor-furnished invoices, except as described herein.

The tons of emulsified products to which the adjustment will be applicable will be the tons of the emulsified asphalt prior to dilution.

Adjustments in compensation for emulsified asphalts will be made at 60 percent of either the increase or decrease of IC. For emulsified asphalts containing polymer, adjustments in compensation will be made at 66 percent of either the increase or decrease.

The tons of Bituminous Material (Asphalt-Rubber) to which the adjustment is applicable will be 80 percent of the total quantity of the item used. The adjustment is not applicable to the 20 percent of the material which constitutes the crumb rubber additive.

The tons of bituminous material incorporated in Asphaltic Concrete (Miscellaneous Structural) or Asphaltic Concrete (Miscellaneous Structural-Special Mix) to which an adjustment will be applicable is as follows:

- (1) For mixes without reclaimed asphalt pavement (RAP), the adjustment will be equal to 5 percent of the quantity, measured in tons, of asphaltic concrete placed, regardless of the actual percentage of bituminous material incorporated into the mix.
- (2) For mixes with RAP, the adjustment will be equal to 4 percent of the quantity, measured in tons, of asphaltic concrete placed, regardless of the actual percentage of bituminous material incorporated into the mix.
- (3) If the quantity of asphaltic concrete is measured by volume, the supplemental agreement establishing the method of measurement will specify the manner in which the tons of bituminous material eligible for the adjustment is determined.

**(C) Payment:**

The tons of bituminous materials which are paid for on the basis of testing by nuclear asphalt content gauge, ignition furnace, or other approved methods to which the adjustment will be applicable, are the tons which have been incorporated into the mixture.

When RAP is used in asphaltic concrete, only the tons of virgin asphalt binder will be subject to a bituminous material price adjustment. RAP binder will not be subject to a price adjustment.

No compensation will be made for changes that may have occurred since the time of bidding and which may be the result of any increase in the IC of bituminous material.

Adjustment in unit prices of items governed by this provision will be made in the next regular monthly progress payment following actual use or application of the bituminous material.

**(201MTBRN, 10/18/10)**

**SECTION 201 CLEARING AND GRUBBING:**

**201-3.02 Removal and Disposal of Materials:** the third paragraph of the Standard Specifications is revised to read:

Burning of trash, debris, plant material, wood, or any other waste materials will not be allowed.

**(201PAY, 07/15/21)**

**SECTION 201 CLEARING AND GRUBBING:**

**201-5 Basis of Payment:** of the Standard Specifications is modified to add:

When clearing and grubbing is not included as a contract pay item, full compensation for any clearing and grubbing necessary to perform the construction operations designated on the project plans or specified in the Special Provisions shall be considered as included in the price of contract item.

**SECTION 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS:** the first paragraph of the Standard Specifications is hereby deleted:

**202-3.03 Removal of Pavement:**

**(B) Bituminous Pavement:** the first paragraph is modified to add:

All removed pavement material shall become property of the contractor.

(303RASBAB, 04/18/24)

## SECTION 303 AGGREGATE SUBBASES AND AGREGGATE BASES:

**303-2 Materials:** of the Standard Specifications is revised to read:

Aggregate for the various classes of aggregate subbases and aggregate bases shall consist of stone, gravel or other approved inert material of similar characteristics, and shall be clean and free from vegetable matter and other deleterious substances.

Aggregate subbase and aggregate base material may be comprised of processed salvaged asphaltic concrete, processed salvaged aggregate base material, processed salvaged Portland Cement Concrete materials, virgin aggregate base materials or any combination of these materials meeting the requirements of Table 303-1. These materials may be from a specific project site or approved commercial source. Processed salvaged materials shall conform to the requirements specified in AASHTO M 319.

Aggregate subbases and aggregate bases shall conform to the requirements of Table 303-1:

<b>TABLE 303-1</b>										
Class of Aggregate	Percent Passing Sieve (Inch or No.)									PI, Max.
	3	1-1/2	1	3/4	1/4	4	8	30	200	
1		100	90 - 100				35 - 55		0 - 8.0	3
2		100	90 - 100			38 - 65	25 - 60	10 - 40	3.0 - 12.0	3
3										
4	100				35 - 70				0 - 10.0	5
5	100				30 - 75				0 - 10.0	5
6										

**Notes:**

- (2) The PI (Plasticity Index) will be determined in accordance with the requirements of AASHTO R 58, T 89, and T 90.
- (3) Classes 1, 2 and 3 are bases; Classes 4, 5 and 6 are subbases.
- (4) The requirements for Class 3 and for Class 6 will be specified in the Special Provisions.
- (5) For Class 1 through Class 4 aggregate, the amount of one fractured face coarse aggregate particles shall be at least 50 percent.
- (6) Resistance to abrasion for Class 1 through Class 4 aggregate will be



determined in accordance with the requirements of AASHTO T 96 and shall meet the following requirements:

Maximum loss of 12 percent at 100 revolutions

Maximum loss of 40 percent at 500 revolutions

- (7) When determining gradation of aggregate subbase or aggregate base material containing processed salvaged asphaltic concrete materials, drying to a constant weight shall be performed at a temperature of  $140 \pm 5$  F, in accordance with the requirements of AASHTO T 265.

Aggregate subbase and aggregate base material not conforming to the requirements of Table 303-1 for gradation and/or PI may be accepted by the Engineer upon the contractor's submittal of testing results demonstrating that the R-Value is at least 79 when determined by AASHTO T 190. At the contractor's option, the material may be reprocessed and re-compacted at no additional cost to the Department.

All metal reinforcement and expansion materials shall be removed from processed salvaged Portland Cement Concrete prior to its use in aggregate subbase and aggregate base material.

The contractor shall submit the testing information for the base and subbase materials which are intended to be used to the Engineer for approval. Any significant change in the materials shall be approved by the Engineer prior to use.

Mixing on grade shall be accomplished using a full depth reclamation machine or pulverizer, manufactured for this purpose. Motor graders, gannon boxes, auger scrapers, or other similar devices will not be allowed for mechanical mixing on grade.

If suitable in-place aggregate subbase or aggregate base materials are available, the contractor shall have the option of re-using such materials as processed salvaged aggregate base. Processed salvaged asphaltic concrete and salvaged Portland Cement Concrete materials may be blended with the processed salvaged aggregate subbase, processed salvaged aggregate base and virgin base aggregates. The blended material shall be homogenous mixture in which there is no segregation, crusts, lumps, or nesting, and shall be sampled and tested to meet the requirements specified herein.

**303-3.01                      Placement:** of the Standard Specifications is modified to add:

When processed salvaged materials are utilized, either from in-place or from a commercial source, the Engineer may require a test section of 1000 feet be placed utilizing the processed materials and construction methods proposed for use by the contractor. Full operations shall not proceed until the test section has been tested and approved by the Engineer. The contractor shall use the same equipment, material processing, and construction methods for the remainder of the construction, unless adjustments made by the contractor are approved in advance by the Engineer.

**303-3.02                    Compaction:** of the Standard Specifications is revised to read:

Each layer of aggregate subbase and aggregate base material shall be compacted to a density of not less than 100 percent of the maximum density determined in accordance with the requirements of the applicable test methods of the ADOT Materials Testing Manual, as directed and approved by the Engineer.

The moisture content shall be determined per AASHTO T 265 when determining density for aggregate subbase and aggregate base material containing processed salvaged asphaltic concrete and/or processed salvaged Portland Cement Concrete.

When AASHTO T 265 is utilized to determine moisture content, acceptance testing results for density will be furnished to the contractor up to 24 hours after performance of in-place density testing to allow sufficient time for moisture determination.

**303-5                        Basis of Payment:** of the Standard Specifications is revised to read:

The accepted quantities of aggregate subbase and aggregate base, measured as provided above, will be paid for at the contract unit price per cubic yard, which price shall be full compensation for the work, complete in place.

**(404BITUM, 08/18/22)**

**SECTION 404    BITUMINOUS TREATMENTS:**

**404-1                        Description:** of the Standard Specifications is revised to read:

The work under this section shall consist of furnishing all materials and constructing or applying bituminous treatments at the locations designated on the plans and in accordance with the requirements of the specifications and in conformity to the lines shown on the project plans or established by the Engineer.

The bituminous treatments include one or a combination of prime coat, tack coat, and fog coat. The bituminous treatments also include emulsified asphalt chip seal and hot applied chip seal both either with or without fog coat.

When a "hot applied" chip seal is called for on the plans and specifications, it refers to a chip seal using a performance grade asphalt cement or a crumb rubber asphalt as the bituminous material.

**404-2.02                    Aggregate Materials:**

**(A)                        General:** the second and third paragraphs of the Standard Specifications are revised to read:

With the exception of precoated cover material, aggregate material shall be sampled for gradation acceptance from the final stockpile prior to being incorporated into the work. The aggregate for the precoated material shall be sampled prior to precoating.

**(B) Blotter Material:** of the Standard Specifications is revised to read:

Blotter material shall be natural or manufactured sand, volcanic cinders, or other approved material and shall be free of deleterious materials or foreign substances.

The gradation shall meet the following requirements when tested in accordance with the requirements of Arizona Test Method 201:

Sieve Size	Percent Passing
3/8 inch	100
No. 4	80 - 100
No. 16	45 - 80
No. 200	0 - 5.0

**(C) Cover Material:** of the Standard Specifications is revised to read:

Aggregate for cover material shall be clean gravel or crushed rock, shall be free of clay, and shall not contain calcium carbonate, caliche, synthetic materials, organic matter, or foreign substances. Cover material shall not be obtained from sweepings of previously applied cover material.

The gradation shall meet the following requirements when tested in accordance with the requirements of Arizona Test Method 201.

Sieve Size	Percent Passing	
	Class 1	Class 2
3/4 inch	100	
1/2 inch	97 – 100	100
3/8 inch	70 – 100	97 – 100
1/4 inch	0 – 10	70 – 100
No. 8	0 – 5	0 – 5
No. 200	0 - 2.0	0 - 2.0

Cover material shall meet the following requirements:

Aggregate Characteristics	Test Method	Requirement
Abrasion	AASHTO T 96	100 Rev., Max 9% 500 Rev., Max 40%
Carbonates	Arizona Test Method 238	Maximum 20%
Fractured Coarse Aggregate Particles	Arizona Test Method 212	Minimum 75% one face, fractured face, determined on plus No. 8 material
Flakiness Index	Arizona Test Method 233	Maximum 20%

Bulk Oven Dry Specific Gravity	Arizona Test Method 210	2.350 – 2.850
Water Absorption	Arizona Test Method 210	0.0 – 2.5%

**(D) Precoated Cover Material:** of the Standard Specifications is revised to read:

For hot applied chip seals, the cover material shall be precoated with any grade of PG asphalt cement which meets the requirements of Section 1005 of the specifications. The precoating shall be accomplished by mixing at a central plant until the aggregate is evenly coated. The cover material shall have a minimum temperature of 250 degrees F at the time of precoating with asphalt cement. The cover material shall be precoated with approximately 0.40 to 0.60 percent asphalt cement, by weight of the aggregate. The final percentage of asphalt cement used for precoating will be as directed by the Engineer. Precoated cover material shall be dust free upon completion of coating and shall remain dust free prior to being incorporated into the work.

The aggregate for precoated cover material shall meet the requirements in Subsection 404-2.02(C) of the specifications prior to precoating with bituminous material.

No precoated cover material shall be stockpiled following precoating with asphalt cement for more than five calendar days prior to placement, unless otherwise approved by the Engineer.

**404-2.03 Bituminous Treatment Material Types and Application Rates:** of the Standard Specifications is modified to add:

The type of bituminous material for tack coat and approximate application rate shall be as specified in Subsection 404-4.02 of the specifications.

The bituminous material application rates provided in this Subsection are approximate, and are to be used for bidding purposes, and shall be modified as required herein. Final application rates for all materials shall be those required to ensure the most favorable outcome, as approved by the Engineer.

**404-3 Construction Requirements:**

**404-3.01 Seasonal and Weather Limitations:** of the Standard Specifications is revised to read:

**(A) General:**

At any time, the Engineer may require that the work cease or that the work day be reduced in the event that weather conditions, either existing or expected, are anticipated to have an adverse effect upon the bituminous treatment.

Placement shall cease for the remainder of the day if sustained wind velocities in excess of 15 MPH occur at the project site.

**(B) Prime Coat:**

Bituminous material used for prime coats shall be applied to an existing aggregate surface only when the ambient temperature in the shade is at least 70 degrees F and when the existing aggregate surface is slightly damp.

**(C) Fog Coat:**

Bituminous material used for fog coats shall be applied to an existing pavement surface only when the surface is dry, the pavement surface temperature is at least 60 degrees F but does not exceed 175 degrees F, and the ambient temperature at the beginning of the application is at least 50 degrees F and rising but does not exceed 110 degrees F. The application of bituminous material shall be stopped when the ambient temperature is 55 degrees F or less and falling.

**(D) Chip Seal:**

The contractor's bid submittal and initial construction schedule shall adhere to the beginning and ending dates shown in Subsection 404-4.04(A) of the specifications. Bituminous material used for chip seal coats shall only be placed when the existing pavement surface is dry, the surface temperature is at least 85 degrees F, and the ambient temperature at the beginning of the application of bituminous material is at least 65 degrees F and rising. The application of bituminous material shall be stopped when the ambient temperature is 70 degrees F or less and falling.

No placement of bituminous material for chip seals shall occur if ambient temperatures are forecasted to be at or below 40 degrees F at any time during the day or night after placement.

For hot applied chip seals, no placement shall occur if ambient temperatures exceed, or are forecasted to exceed, 110 degrees F the day before, the day of, or the two days after placement.

**404-3.02 Equipment:**

**(A) Distributor Truck:** the first sentence of the first paragraph of the Standard Specifications is revised to read:

Distributor trucks shall be so designed, equipped, maintained and operated that bituminous material at the specified temperature may be applied uniformly on variable widths of surface at readily determined and controlled rates from 0.03 to 1.00 gallons per square yard, with uniform pressure, and with an allowable transverse variation from any specified rate not to exceed 10 percent or 0.02 gallons per square yard, whichever is less.

**(A) Distributor Truck:** the first sentence of the fourth paragraph of the Standard Specifications is revised to read:

Distributor truck spray bars shall be equipped with the appropriate size nozzles adjusted to the proper angle with the associated adjustment wrench to achieve maximum overlap of spray and an even application.

**(B) Power Brooms:** of the Standard Specifications is revised to read:

Power brooms shall be of the rotary or pickup type, capable of completely removing excess blotter material, and cleaning without gouging or tearing the surface.

**(D) Aggregate Spreaders:** of the Standard Specifications is revised to read:

The application of blotter material shall be accomplished by means of a sand slinger or other equipment approved by the Engineer.

The application of cover material shall be accomplished by means of a calibrated spreader. The spreader shall be a self-propelled, computerized rate-controlled unit capable of an application width of 14 feet or greater. The spreader shall be in good mechanical condition, capable of applying the correct aggregate application rate uniformly across the spread width.

Chip spreader boxes shall be calibrated to ensure consistent discharge across all of the chutes except where the discharge is intentionally adjusted to compensate for site conditions and construction operations.

**404-3.03 Traffic Control:** of the Standard Specifications is hereby deleted.

**404-3.04 Preparation of the Surface:** of the Standard Specifications is revised to read:

The surface to be treated shall be thoroughly cleaned prior to applying bituminous material. Man holes, utility covers, and catch basins shall be protected prior to and during application of bituminous material. Self-propelled rotary power brooms, pickup brooms, and hand brooms shall be used immediately in advance of applying the bituminous material.

When a bituminous treatment is to be applied to an existing aggregate surface, the surface shall be uniformly smooth, firm and reasonably true to grades and cross sections as shown on the project plans, and shall be so maintained throughout the placing of the bituminous treatment. In no event shall a bituminous treatment be placed on a soft, uneven base. All holes, depressions or irregularities shall be repaired. All loose and unsuitable material shall be removed and replaced by suitable material, which shall be compacted to produce a dense uniform surface conforming to the adjacent area.

When required, the existing aggregate surface on which the bituminous treatment is to be placed shall be lightly bladed, watered and compacted immediately prior to the application of bituminous material. In extremely dry areas, additional light applications of water may be required prior to the application of the bituminous material to facilitate penetration of the bituminous material.

**404-3.05 Application of Bituminous Material:** the first, second and third paragraphs of the Standard Specifications are revised to read:

The types, grades, and approximate rates of application of bituminous material shall be as specified in Subsections 404-2.03 of the specifications. The application rates for chip seal

coats shall be determined by the contractor in accordance with the requirements herein, subject to approval by the Engineer.

The rates to be applied may vary substantially because of different surface conditions within the project limits. The actual bituminous material application rate shall not vary more than 10 percent from the application rate specified or approved by the Engineer.

The bituminous material shall be uniformly applied to the prepared surface at the rate specified or approved by the Engineer and in one application.

**404-3.05            Application of Bituminous Material:** the seventh, eighth and ninth paragraphs of the Standard Specifications are revised to read:

In the event that any spots are missed in the application, or any areas develop that do not have a uniform spread or penetration, such areas shall be remedied without delay.

Care shall be taken to prevent the spraying or splattering of bituminous material on adjacent pavements, structures, curb, guardrail, vegetation, or any other object outside of the area designated for spraying.

Removal and disposal of unused bituminous material shall be the contractor's responsibility and at no cost to the Department.

**404-3.06            Application of Blotter Material:** of the Standard Specifications is revised to read:

The approximate application rate of blotter material, when required as a part of a bituminous treatment, shall be as specified in Subsection 404-2.03 of the specifications; however, the Engineer will specify the exact rate to be applied based on the characteristics of the bituminous treated surface. The specified application rates are based on the wet weight of material.

Blotter material, at the time of spreading, shall be wet but free from running water. Blotter material shall be spread uniformly to the treated surface in one or more applications for a total application rate as specified. Blotter material shall be applied at a time acceptable to the Engineer and before opening to traffic.

Any oversized aggregate or foreign material picked up during stockpiling or loading operations shall be eliminated before entering the spreader. Supplemental spreading or smoothing shall be done by hand methods where necessary.

Prior to final acceptance and when ordered by the Engineer, the contractor shall remove and dispose of any excess blotter material. Removal and disposal of excess blotter material shall be the contractor's responsibility and at no cost to the Department.

**404-3.07            Joints:** of the Standard Specifications is revised to read:

**(A)            General:**

Transverse joints with the preceding work, at intersections, and at all existing pavements and structures shall be made by a method approved by the Engineer prior to the start of the work.

Longitudinal joints shall be overlapped between 2 to 6 inches.

Regardless of the width of the roadway to be sealed, the number of longitudinal joints shall be kept to a minimum. Longitudinal joints shall be located to the greatest degree obtainable to coincide with the painted lines between traffic lanes.

**(B) Chip Seal:**

Unless otherwise directed by the Engineer, transverse joints with the preceding work shall be made by placing building paper over the end of the previous application, and the joining application shall start on the building paper. Once the application process has progressed beyond the paper, the paper shall be disposed of as directed by the Engineer. Transverse joints at other locations shall be made by a method approved by the Engineer prior to the start of the work.

Joints shall be cleaned as deemed necessary by the Engineer prior to the application of bituminous material in the adjacent strip.

**404-3 Construction Requirements:** of the Standard Specifications is modified to add:

**404-3.08 Opening to Traffic:**

In the construction or application of bituminous treatments, no traffic or equipment will be permitted on the treated roadway surface until it has been established to the satisfaction of the Engineer that the treated roadway surface will not be damaged or marred under the action of traffic. No traffic of any description shall be allowed on any bituminous treatment until approved by the Engineer.

**404-4 Prime Coat:** the title and text of the Standard Specifications is revised to read:

**404-4 Bituminous Surface Treatment:**

**404-4.01 Prime Coat:**

The type of bituminous material and the approximate application rate shall be as specified in Subsection 404-2.03 of the specifications. The Engineer may adjust the actual application rate based on specific trials and visual observations performed on test areas for different base conditions.

When it is deemed necessary, areas having excess bituminous material shall be blotted with material as directed by the Engineer.

When directed by the Engineer, the surface of the completed prime coat shall be rolled with a pneumatic-tired roller.



The integrity of the prime coat shall be maintained at all times until the next course is placed or until final acceptance. In the event traffic has caused holes or breaks in the surface, such holes or breaks shall be repaired by the contractor.

#### **404-4.02 Tack Coat:**

Tack coat shall be applied prior to placing a bituminous mixture on a primed surface, an existing bituminous surface, or an existing Portland cement concrete pavement surface. Tack coat shall also be applied between each layer of bituminous mixtures. A light coat of bituminous material shall also be applied to edges or vertical surfaces against which a bituminous mixture is to be placed.

The contractor shall choose the bituminous material to be used for tack coat. The Engineer must approve the contractor's choice of bituminous material prior to its use.

The rate of application for the specific usage will be specified by the Engineer. The following table shows approximate tack coat application rates:

Type of Bituminous Material	Approximate Tack Coat Application Rates: Gallons / Square Yard		Payment Factor
	Prior to Placing ACFC or AR-ACFC	All Other Tack Coats	
Emulsified Asphalt (Special Type) – See Note (1) Below.	Not Allowed	0.12	0.7
Emulsified Asphalt (Other than Special Type)	0.08	0.08	1.0
Asphalt Cement	0.06 to 0.08	0.06 to 0.08	1.0
Note:  (1) Emulsified Asphalt (Special Type) shall consist of Type SS-1 or CSS-1 emulsified asphalt diluted with water to provide an asphalt content of not less than 26 percent.			

The Engineer may adjust the application rate.

If emulsified asphalt of any type is used, it shall have broken before the bituminous mixture is placed.

Tack coat shall be applied only as far in advance of the placement of the bituminous mixture as is necessary to obtain the proper condition of tackiness. All traffic on a tack coat surface shall be minimized to the greatest extent possible. In no event shall more tack coat be applied in one day than will be covered by the bituminous mixture during that same day.

#### **404-4.03 Fog Coat:**

The type of bituminous material and the approximate application rate shall be as specified in Subsection 404-2.03 of the specifications. The material shall be diluted with one part

water to one part bituminous material. The specified application rate is based on the diluted material. The Engineer may adjust the actual application rate based on specific trials and visual observations performed on test areas for different pavement conditions.

When specified in Subsection 404-2.03 of the specifications, blotter material shall be applied following the application of bituminous material.

#### **404-4.04            Chip Seal Coat:**

##### **(A)            General:**

The contractor shall prepare their bid submittal and initial construction schedule, submitted at the Preconstruction Conference as described in Subsection 108.03 of the specifications, based on the following beginning and ending dates for placement of the chip seal.

<b>Average Elevation of Project, Feet</b>	<b>Beginning and Ending Dates</b>
0 – 3499	March 15 – May 31
0 – 3499	September 1 – October 31
3500 – 4999	May 1 – September 30
5000 and over	June 1 – August 31

Any proposed placement deviating from the beginning and ending dates shall be detailed in the written schedule of construction submitted at the weekly meeting described in Subsection 108.04 of the specifications. No contract time extension will be granted for placement outside of the beginning and ending dates. Any placement deviating from the beginning and ending dates shall be at the sole risk of the contractor.

The type of bituminous material and the approximate application rate shall be as specified in Subsection 404-2.03 of the specifications. The type of cover material shall be as specified in Subsection 404-2.03 of the specifications.

The contractor shall determine the application rates and corresponding quantities of bituminous material and cover material for chip seal coat in accordance with Arizona Test Method 819. Application rates are subject to approval by the Engineer. Areas and locations anticipated to require adjustment to the rate(s) shall also be identified.

The application rates and performance of emulsified asphalt chip seals shall be evaluated using the Sweep Test in accordance with ASTM D7000.

The performance of hot applied chip seals shall be verified using the Vialit Retention Test in accordance with EN 1272-3, modified as necessary to account for the specific characteristics of the proposed chip seal.

The actual application rate shall be such that the aggregate is embedded approximately 70 percent (80 percent above 4,000 feet elevation) and excessive tracking of bituminous material does not occur under construction equipment or when opened to traffic.

The actual rate of cover material to be applied shall be such that no more than 5 percent of the chips applied are removed during sweeping and approximately 20 percent void space exists between the aggregate particles once realigned after opening to traffic.

The proposed application rate(s), locations requiring adjustment, and the associated basis for each adjustment, shall be submitted to the Engineer for approval no later than five days following completion of the Pre-Activity Walkthrough as described in Subsection 404-4.04(B) of the specifications and at least five days prior to placement of the test strip.

The basis for any anticipated adjustments shall include use of one or more of the following:

- (a) Sand Patch tests performed in accordance with *STP762 Pavement Surface Characteristics and Materials*; Haydon, C.E. (ASTM, 1982),
- (b) Appendix B of Chip Seal Guide for Application and Construction; Pavement Preservation Committee of the Arizona Chapter of The Associated General Contractors (AGC-Arizona Chapter, 2013),
- (c) Arizona Test Method 742 for mean macrotexture.

The approved application rate(s) and adjustments shall be clearly marked at the corresponding locations and remain visible to equipment operators prior to placement.

At least 10 days prior to chip seal placement, the contractor shall submit a minimum 75-pound sample of uncoated cover material to the Engineer for testing. In addition to the submitted cover material, the contractor shall also submit 3 full gallons of emulsion (5 to 8 gallons for hot applied) in 1-gallon cans in accordance with the requirements of Arizona Test Method 103. The contractor shall also submit 40 pounds of granulated rubber if included in the bituminous material.

#### **(B) Pre-Activity Walkthrough:**

Prior to placement, the contractor shall conduct a Pre-Activity Walkthrough with all parties expected to work on the chip seal.

Locations where adjustments in application rate may be appropriate shall be documented.

A location for a test strip, approximately 1,000 feet in length shall be identified. If additional test strip locations are desired due to varying surface conditions, these shall also be identified.

Other factors or site conditions such as turn or deceleration lanes, changes in surface characteristics, crack fill, and recent patchwork which may affect placement of the chip seal coat shall also be identified. A description of any affecting conditions and the corresponding locations and action to be taken to minimize their impact shall be documented.

In addition to the requirements herein, the items contained on the checklists provided in AGC-Arizona Chapter's Chip Seal Guide for Application and Construction shall be considered.

**(C) Chip Seal Test Strip:**

Prior to the start of placement, all equipment used in the placement of the chip seal coat shall be verified to be in satisfactory operating condition and in accordance with the requirements herein.

Cover material shall be verified to have appropriate moisture and be in a condition consistent with that in which it existed at the time initial acceptance samples were obtained. Bituminous material certifications shall be verified to indicate that the required type of material is on hand. The bituminous material shall be at the proper temperature prior to application.

The chip seal test strip shall be a minimum of 500 linear feet. The existing pavement surface to receive the test strip shall be verified to have been adequately swept and cleaned and meeting the requirements herein. Anticipated application rates shall have been marked and clearly visible to equipment operators.

During placement of the test strip, all equipment shall be observed to confirm proper operation. The application rate of both the bituminous material and cover material shall be measured and verified using a catch-and-weigh "tarp" method. The application rate of the bituminous material shall also be measured and verified by means of a volume per area calculation using the distributor trucks calibrated thermometer and volume measuring gauge or device.

Rolling shall immediately follow placement of the cover material and be verified to be in conformance with the requirements herein.

For emulsion chip seals, the contractor shall broom the surface to remove excess cover material only after the emulsion has fully broken and cured sufficiently for maximum chip retention.

Prior to any subsequent placement, the test strip shall be observed to have adequate embedment of the cover material without excessive void space between the chips, stacking of chips, or accumulation of chips on the shoulders. If the condition of the test strip is not acceptable, adjustments shall be made as appropriate, and an additional test strip shall be performed.

**(D) Application of Bituminous Material for Chip Seal:**

The following bituminous material application requirements for chip seal are in addition to the requirements specified in Subsection 404-3.05 of the specifications.

Bituminous material shall not be applied a distance ahead of the chip spreader that results in excessive lag of the rollers allowing hot applied bituminous material to cool or emulsified bituminous material to break prior to achieving adequate embedment of the cover material.

When inclement weather is expected, only the amount of hot applied bituminous material which can receive adequately embedded cover material, or only the amount of emulsified asphalt that can receive adequately embedded cover material and has sufficiently broken, shall be placed prior to the start of inclement weather.

**(E) Application of Cover Material:**

Cover material shall be immediately and uniformly spread over the freshly applied bituminous material such that aggregate particles are securely adhered and will not roll, tumble, or be picked up during the rolling process. Any oversize aggregate or foreign material picked up during stockpiling or loading operations shall be eliminated before entering the aggregate spreader hopper. Supplemental spreading and smoothing shall be done by hand methods where necessary.

When emulsified asphalt is used, the cover material shall be at a saturated surface-dry condition at the time of spreading.

For hot applied chip seals, and when project conditions require, precoated cover material shall be at a sufficient temperature to facilitate adequate embedment.

**(F) Rolling Cover Material:**

Following the spreading of cover material, the surface shall be promptly rolled with self-propelled pneumatic-tired rollers. A minimum of three rollers shall be provided; however, a sufficient number of rollers shall be provided to cover the entire width of the material spread in one pass of the compactors and rolling shall continue until a minimum of three passes has been completed.

For chip seals with a hot applied bituminous material the first roller pass shall occur as soon as possible but no longer than 2 minutes after applying the aggregate. The third pass shall be completed quickly enough to embed the aggregate before the binder cools, and no longer than 15 minutes after the binder is applied.

**(G) Removal of Loose Cover Material:**

The cover material shall be removed by means of a power broom which shall be in good condition and of a design suitable for the work. The action of the broom shall be such that particles which are stuck to the bituminous material will not be dislodged.

For chip seals with an emulsified bituminous material, initial removal of all loose cover material shall not commence prior to two hours after placement or at such time that the Engineer has determined that the emulsion has sufficiently cured.

For chip seals with a hot applied bituminous material, the removal of loose cover material shall commence approximately 30 minutes after the final rolling is completed.

Initial removal of loose cover material shall occur prior to opening to traffic. All loose cover material shall be removed from the paved surface by brooming within 24 hours after application.

After the traffic free period as specified in Subsection 404-4.04(H) of the specifications, but prior to final removal of loose cover material, all traffic permitted by the Engineer shall not exceed 25 miles per hour.

If the Engineer determines that conditions are not conducive to obtaining the best results, brooming shall be discontinued until the Engineer has considered all conditions and has determined the best time for the removal of the cover material.

**(H) Minimum Traffic-Free Period:**

The minimum traffic-free period for a newly applied emulsion chip seal coat shall be three hours. The contractor's hauling equipment may use the new seal coat surface during the traffic free period at a speed not to exceed 15 miles per hour but shall not make sharp turns of brake abruptly.

**(I) Fog Coat on New Chip Seals:**

When specified in Subsection 404-2.03 of the specifications, a fog coat shall be placed on the new chip seal following the curing period. The type of bituminous material and the approximate application rate shall be as specified in Subsection 404-2.03 of the specifications. The material shall be diluted with one part water to one part bituminous material. The specified application rate is based on the diluted material. The Engineer may adjust the actual application rate based on specific trials and visual observations performed on test areas for different pavement conditions.

When specified in Subsection 404-2.03 of the specifications, blotter material shall be applied following the application of bituminous material.

**(J) Contractor Quality Control:**

The contractor shall be responsible for the chip seal design, performing quality control testing on materials, and designating an individual charged with constant observation and monitoring.

Need for an adjustment to application rates or a correction to process or equipment shall be communicated immediately to the necessary personnel.

The initial condition of equipment, materials, and the project and pavement surface conditions shall be documented. The performance and results of the test strip shall be documented. Observations of monitoring activities and quantification of application rates during the test strip and production shall be documented no less frequently than every other placement run.

The cause for any adjustments, including quantifying tests performed, the adjustments made, and the result of such adjustments with regard to acceptability and performance of the chip seal coat shall be documented.

**404-5 Tack Coat:** of the Standard Specifications is hereby deleted.

**404-6 Fog Coat:** of the Standard Specifications is hereby deleted.

**404-7 Chip Seal Coat:** of the Standard Specifications is hereby deleted.

**404-8 Method of Measurement:** the fourth paragraph of the Standard Specifications is revised to read:

The contractor shall be responsible to determine the amount of cover material that will be required to complete the work from the source(s) from which the cover material is obtained.

**404-8 Method of Measurement:** the sixth paragraph of the Standard Specifications is revised to read:

Measurement for payment will be made only for the quantity of bituminous material and for the quantity of aggregate material used in accordance with the requirements of the specifications.

**404-9 Basis of Payment:** of the Standard Specifications is revised to read:

The accepted quantities of the work under this section, complete in place, measured as provided above, will be paid for at the contract unit price as designated in the bidding schedule, except the contract unit price for the quantities of bituminous material will be adjusted on the basis of the test results in accordance with the requirements of Section 1005 of the specifications.

No measurement or direct payment will be made for precoating the cover material, material for precoating, rolling and removal of loose cover material, and removal of loose blotter material.

The contract unit price for each item of bituminous material except tack coat will be considered to include all costs for furnishing, hauling, handling, spreading, and mixing of the material as required.

The unit price for bituminous tack coat is deemed to be the cost to furnish, transport, and store asphalt cement or emulsified asphalt at the project location. Payment for bituminous tack coat will be made at the unit price multiplied by the respective payment factor listed under Subsection 404-4.02 of the specifications, and adjusted to the nearest dollar.

Unless otherwise specified, the accepted quantity of bituminous tack coat, measured as provided above, will be paid at the contract unit price per ton adjusted as provided above which price shall be full compensation for furnishing, transporting, and storing the exact type, grade or designation of bituminous tack coat specified by the Engineer.

Unless otherwise specified, the accepted quantity of time to apply bituminous tack coat, measured as provided above, will be paid for at the contract unit price per hour which payment shall be full compensation for applying bituminous tack coat.

The bidding schedule quantity for tack coat is based on an estimated application rate of 0.06 gallons per square yard for each application shown on the project plans.

The unit price of bituminous material will be adjusted in accordance with the requirements of Subsection 109.16 of the specifications based on the "initial cost" of bituminous material between the date of bid opening and the date that the material is used on the project.

No measurement or direct payment will be made for furnishing, applying and removing blotter material, furnished in conjunction with the application of a prime coat.

No measurement or direct payment will be made for the maintenance or repair of a prime coat surface.

**(409ACMS, 03/15/18)**

## **SECTION 409 ASPHALTIC CONCRETE (MISCELLANEOUS STRUCTURAL):**

**409-2 Materials:** of the Standard Specifications is modified to add:

The bidding schedule quantity of asphaltic concrete is based on an estimated unit weight of 150 pounds per cubic foot.

**409-2.02 Bituminous Material:** the first paragraph of the Standard Specifications is revised to read:

Asphalt cement shall be a performance grade (PG) asphalt binder, conforming to the requirements of Section 1005 of the specifications. The type of asphalt binder shall be PG 76-16.

**(608 PANEL, 06/17/21)**

## **SECTION 608 SIGN PANELS:**

**608-1 Description:** of the Standard Specifications is revised to read:

The work under this section shall consist of furnishing and installing sign panels in accordance with the details shown on the plans and the requirements set forth herein.

The sign panels shall be of the following types:

- (A) Extruded Aluminum Sign Panels with Direct-Applied, or Demountable Characters;
- (B) Flat Sheet Aluminum Sign Panels with Direct-Applied, Electronic-Cut, or Screen-Printed Characters;
- (C) Warning, Marker, and Regulatory Sign Panels;
- (D) Route Shields for Installation on Sign Panels; and/or
- (E) EXIT ONLY Panels for Installation on Sign Panels.



**608-2.02 Extruded Aluminum Sign Panels with Direct-Applied, Digitally-Imaged, or Demountable Characters:** the title and the third paragraph of the Standard Specifications are revised to read:

**608-2.02 Extruded Aluminum Sign Panels with Direct-Applied or Demountable Characters:**

The letters, numerals, symbols, borders and other features of the sign message shall be direct-applied, or demountable, and shall conform to the requirements of Subsection 608-2.08 or Subsection 608-2.09 of the specifications.

**608-2.03 Flat Sheet Aluminum Sign Panels with Direct-Applied, Digitally Imaged, Electric-Cut or Screen-Printed Characters:** the title and the fifth paragraph of the Standard Specifications are revised to read:

**608-2.03 Flat Sheet Aluminum Sign Panels with Direct-Applied, Electronic-Cut, or Screen-Printed Characters:**

Messages shall be reflectorized white or, if called for on the plans, opaque black, and shall be produced by either screen printing, direct-applying, or electronic cutting, as specified under Subsections 608-2.09 of the specifications.

**608-2.05 Route Shields (For Installation on Sign Panels):** The first paragraph of the Standard Specifications is revised to read:

Route shields may be demountable or direct-applied.

**608-2.06 EXIT ONLY Panels (For Installation on Sign Panels):** the first paragraph of the Standard Specifications is revised to read:

EXIT ONLY panels may be demountable or direct-applied. Demountable EXIT ONLY panels shall be attached to the sign panel with self-plugging aluminum blind rivets.

**608-2.10 Digitally-Imaged Characters:** of the Standard Specifications is hereby deleted:

**(609DRSFD, 01/21/21)**

## **SECTION 609 DRILLED SHAFT FOUNDATIONS:**

**609-1.03 Installation Plan:** The third paragraph of the ADOT Standard Specifications for Road and Bridge Construction (Standard Specifications) is revised to read:

Unless otherwise specified in the Special Provisions, foundations of 4 feet or less in diameter and 30 feet or less in length utilized in light pole and sign post foundations shall be

exempt from the requirement to submit an installation plan, perform integrity testing, conduct a drilled shaft preconstruction meeting, and construct a confirmation shaft.

**609-3.02 Confirmation Shafts:** The third paragraph of the Standard Specifications is revised to read:

When shown on the plans or when directed by the Engineer in writing, the reaming of bells or development of rock sockets at specified confirmation shaft holes shall be required to establish feasibility in specific soil strata.

**(701LUMPSUM, 07/21/22)**

## **SECTION 701 MAINTENANCE AND PROTECTION OF TRAFFIC:**

**701-1 Description:** the first paragraph of the Standard Specifications is revised to read:

The work under this section shall consist of providing flagging services and pilot trucks, and furnishing, installing, maintaining, moving and removing barricades, warning signs, lights, signals, cones, temporary pavement markings and other traffic control devices to provide safe and efficient passage through and/or around the work and to protect workers in or adjacent to the work zone. The work shall be done in accordance with the requirements of Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) and the associated Arizona Department of Transportation supplement. When referred to herein, these documents will be referred to as MUTCD and associated ADOT Supplement.

**701-1 Description:** the third paragraph of the Standard Specifications is revised to read:

Any traffic control plan included in the project plans shall govern unless an alternate plan, acceptable to the Engineer, is submitted by the contractor. If no traffic control plan is provided or if the contractor desires to deviate from the provisions for maintaining traffic as described in this section, it shall submit to the Engineer for the approval of a proposed sequence of operations and a compatible method of maintaining traffic.

**701-3.01 General:** of the Standard Specifications is modified to add:

At the preconstruction conference the contractor shall submit a log of all existing signs within the limits of the construction zone. The Department will verify the accuracy of the sign log. Throughout the duration of this project, all existing traffic signs shall be maintained by the contractor in accordance with Subsection 701-3.11 of the specifications.

The contractor shall coordinate all traffic control work on this project with any adjoining or overlapping projects during the construction activities. This may include barricade placement necessary to provide a uniform traffic progress.

**701-4.01**            **General:** the first paragraph of the Standard Specifications is revised to read:

The Department will reimburse the contractor for the work of maintaining and protecting traffic on a lump sum basis except for the following Elements of Work:

- 1) Changeable Message Boards
- 2) Temporary Impact Attenuation Devices
- 3) Temporary Concrete Barrier
- 4) Specialty Signs
- 5) Law Enforcement Officers
- 6) Flaggers
- 7) Pilot Vehicles
- 8) Truck-Mounted and Trailer-Mounted Attenuators

No additional measurement for payment to the contractor will be made for any Elements of Work other than those listed above.

**701-4.01**            **General:** the first sentence of the third paragraph of the Standard Specifications is revised to read:

Elements of Work except those reimbursed under the lump sum item will be measured for payment as follows:

**701-4.03(E)**        **Limitation of Measurement:** the second paragraph of the Standard Specifications is revised to read:

For all items except those reimbursed under the lump sum item, measurement will be made after the initial installation and once weekly thereafter for items in continuous use and at any other times changes are made in the use of traffic control elements listed under Subsection 701-4.01(B) of the specifications. The contractor shall notify the Engineer when any changes are made in the use or location of traffic control elements.

**701-4.04**            **Measurement of Work Elements:** Sub-paragraphs (D), (G), (H), (J), (K), (L), and (N) of the Standard Specifications are hereby deleted.

**701-5**                **Basis of Payment for Elements of Work (Complete-in-Place):** of the Standard Specifications is modified to add:

All elements of work necessary for the work of maintaining and protecting traffic, excluding Elements of Work listed in Subsection 701-4.01 of the specifications, shall be reimbursed as a single, complete item of work, which price shall be considered full compensation for the work, complete in place, including furnishing, removing, setting up, relocating, taking down, maintaining, and storing the devices.

Lump sum traffic control will be paid according to the schedule shown in Table 701-5 of the specifications.

<b>Table 701-5</b> <b>Payment Schedule for Lump Sum Traffic Control</b>	
Percent of Total Contract Amount Earned (Excluding Mobilization and Traffic Control)	Allowable Percent of Lump Sum Price for Maintenance and Protection of Traffic
5	20
25	40
50	60
75	80
90*	100
*Or substantial completion	

If the Engineer determines that the final contract amount earned will fall between 75 and 100 percent of the original contract amount, lump sum traffic control will be compensated at 100 percent once final acceptance is achieved.

In the event the Department revises the contract in accordance with Subsection 104.02 of the specifications due to a significant change in the character of work, and the revisions impact the Maintenance and Protection of Traffic, the lump sum price for Maintenance and Protection of Traffic will be adjusted as part of the contract revision under the relevant supplemental agreements.

No adjustments to the lump sum price for Maintenance and Protection of Traffic will be made for suspension of work for seasonal restrictions.

Revisions in the phasing of construction or maintenance of traffic control operations, requested by the contractor, may require traffic control to be installed in accordance with standards and/or designs other than those included in the plans. Such revisions or modifications to the traffic control plans shown in the contract shall be submitted by the contractor for approval by the Engineer. No additional payment will be made for the revised plans requested by the contractor.

**701-5.03 Temporary Preformed Markings for Pavement:** of the Standard Specifications is hereby deleted.

**701-5.05 Obliterate Pavement Marking:** of the Standard Specifications is hereby deleted.

**701-5.06 Temporary Pavement Markers and Chip Seal Pavement Markers:** of the Standard Specifications is hereby deleted.

**701-5.07 Obliterate Pavement Markers:** of the Standard Specifications is hereby deleted.

**701-5.08 Temporary Delineators:** of the Standard Specifications is hereby deleted.

**701-5.10 Temporary Removal or Covering of Signs:** of the Standard Specifications is hereby deleted.

**701-6.01 Quantity Variances:** of the Standard Specifications is revised to read:

Payment for variances in quantities of items listed in Subsection 701-4.01 of the specifications shall be in accordance with Subsection 104.02 of the specifications, except that, for decreases in quantities, Temporary Concrete Barrier (In-Use) will be considered as a major item.

**701-6.03 Channelization Devices:** of the Standard Specifications is hereby deleted.

**701-6.04 Temporary Signs:** of the Standard Specifications is hereby deleted.

**701-6.06 Flashing-Arrow Panels, and Changeable Message Boards:** the title and text of the Standard Specifications are revised to read:

**701-6.06 Changeable Message Boards:**

The accepted quantities of changeable message boards, measured as provided above, will be paid for at the unit bid price per day, which price shall be full compensation for the work, complete, including any grading and furnishing, operating, maintaining, and relocating the boards on the work site.

## **ITEM 7320110 ELECTRICAL CONDUIT (1") (RIGID METAL):**

### **Description:**

The work under these items shall consist of furnishing and installing conduit for lighting elements at the locations designated on the project plans.

### **Materials:**

Rigid Metallic Conduit (RMC), and Flexible Metal Conduit shall conform to Subsection 732-2.02 of the Standard Specifications.

Unless otherwise shown on the plans, conduit bends, fittings, expansion couplings, sweeps, and other accessories shall be of the same material as the conduit.

### **Construction Requirements:**

Construction Requirements shall conform to Section 732, unless otherwise specified on the project plans.

Conduit installation shall conform to Subsection 732-3.01 with the following exceptions.

(A) Conduits Embedded in or Attached to Structures:

Conduit installed within open bridge cells or attached to structures shall be rigid metal conduit (RMC). RMC shall be painted to match the exterior color of the structure when required by the Engineer. Painting may require pre-treatment of the RMC and shall be done at the direction of the Engineer.

Intermediate junction boxes shall be used in RMC runs over 1,000 feet in length. Intermediate junction boxes shall be evenly spaced or as shown on the project plans.

Expansion couplings shall be installed in conduit runs which cross an expansion joint in a structure. Approved expansion couplings shall be as shown in the ITS Standard Drawings or project plans. A minimum of 3 feet shall separate a conduit expansion coupling and the pipe sleeve where the conduit enters a structure. Expansion couplings on adjacent conduits shall be staggered to keep conduit runs as straight as possible. Where bonding is not continuous, expansion couplings shall be provided with a #6 AWG bonding jumper conductor with enough slack to accommodate the range of expansion of the coupling.

**Method of Measurement:**

Conduit will be measured by the linear foot for each type, size, and diameter size from center to center of pull boxes or, from center of pull box to edge of foundation or, from edge to edge of cabinet or node foundation or, from end of conduit to center of pull box or foundation or, from end to end of conduit when no pull boxes are used.

No measurement will be made for distances of unsuccessful conduit runs not used.

**Basis of Payment:**

The accepted quantities of electrical conduit of various types, sizes, and configuration, measured as provided above, will be paid for at the contract unit price, which price shall be considered as full compensation for the work, complete in place.

**ITEM 7360348 – UNDERDECK LIGHTING:**

**Description:**

The work under this item shall consist of furnishing and installing underdeck light emitting diode (LED) luminaires in accordance with the project plans and as specified herein.

**Materials:**

All Underdeck LED luminaires shall be manufactured by General Electric Model Evolve EWLS L Series or approved equal as shown on the plans.

The Luminaire and components shall be rated for operation in ambient temperatures from -40 degrees Celsius to +50 degrees Celsius (-40°F to 122°F). All components shall be UL listed and comply with applicable ANSI standards.

No luminaire shall be ordered until shop drawings are approved by the Engineer.

**Construction Requirements:**

The luminaires shall be installed in accordance with the manufacturer recommendations.

**Method of Measurement:**

**Underdeck Lighting** will be measured as a unit for each luminaire furnished and installed.

**Basis of Payment:**

The accepted quantities of Underdeck Lighting, measured as provided above, will be paid for at the contract unit price per each, which price shall be full compensation for the work, complete in place, including mounting hardware, electrical wiring, and conduit to the nearest pull box.

**SECTION 803 — LANDSCAPE PLATING MATERIALS:**

**803-1**                **Description:** of the Standard Specifications is revised to read:

The work under this section shall consist of furnishing, placing, and compacting imported materials for plating embankment slopes, dikes, unpaved disturbed construction ground/soil surface and other designated areas, which shall include all excavation and backfilling; eradicating existing grasses and weeds with application(s) of an approved herbicide, and by mechanical methods; furnishing and applying herbicide mixed in water, which is placed on the cleared ground and on the decomposed granite /granite mulch; grading surfaces upon which imported material shall be placed, to ensure proper drainage and maintaining areas free of weeds and trash/debris during construction all in accordance with these specifications.

**803-2.02**            **Decomposed Granite and Granite Mulch:** of the Standard Specifications is modified to add:

The contractor shall not impair air and stormwater quality through selecting and installing rock materials to maximum extent practicable (MEP). Sedimentary rocks and/or rock materials that will naturally generate excessive fine particles beyond the specified amount as shown in the gradation requirements below shall not be allowed.

Decomposed granite/granite mulch shall be placed at the designated locations shown on the project plans and/or in these Special Provisions. Decomposed granite/granite mulch shall be approved for color and gradation requirements before final placement/installation on site in accordance with the project plans and/or these Special Provisions. Unless

otherwise directed by the Construction Professional Landscape Architect (PLA) through the Engineer, the color to be used on the project shall match the existing adjacent decomposed granite/granite mulch color and shall be approved by a Construction PLA in coordination with IDO Roadside Development Section prior to any processing or placement/installation.

Contractor shall provide a 0.25-ton material sample spread over an area minimum 2-inches thick for review. Criteria to be used for approval for project granite color(s) will be based on the following: similarity to the existing granite color for this highway section and the material's appearance after being wet and then dried.

Gradation requirements for the 1-1/4 inch (1.25") granite mulch are as follows:

<b>Passing Sieve</b>	<b>Percent</b>
1¼ inch	100
¾ inch	60—80
½ inch	45—65
No. 40	5—20

Decomposed granite/granite mulch shall be placed to a depth of minimum 4-inches. After rough spreading and rough grading of the granite mulch within the designated areas, the granite mulch shall be raked evenly and thoroughly to blend the different gradation sizes.

The use of conveyor belt type equipment for placing granite mulch shall not relieve the contractor from the requirements of compacting the granite much.

After placement, the granite mulch shall be saturated with water to an optimum moisture level as recommended by the supplier. The Engineer will approve the amount of water necessary to aid in the compaction of the granite mulch, prior to application.

The pre-emergent herbicide shall be utilized in the manner recommended by the manufacturer to prevent germination of weeds/undesirable plant species, and shall be Gallery, Pendulum AquaCap, Surflan, Dimension, or an approved equal, and shall be applied at a rate based on product information/data for best control effects. Pre-emergent herbicide shall also be employed to the designated decomposed granite and granite mulch area, prior to the final water settling operation. Selection of pre-emergent herbicide products shall be based on the type of weeds or undesirable plant species to be treated as evaluated/approved by a Construction PLA through the Engineer. The first application of pre-emergent herbicide and each subsequent application shall be from different products to optimize the lasting result of designated decomposed granite and granite mulch area.

After placing, spreading and grading the granite mulch, the contractor shall water settle the total thickness of the granite mulch, to remove the fine material from the surface. The water settling operation, noted above, shall be completed by applying water at minimum depth of ½-inch over the granite mulch placed or as approved by the Engineer.



**803-3 Construction Requirements:** of the Standard Specifications is modified to add:

The contractor shall receive approval from a Construction PLA through the Engineer for decomposed granite/granite mulch color before final installation.

Decomposed granite/granite mulch to be used on the project must meet the following additional requirements, in addition to providing documentation from the contractor to the Engineer:

1. Copy of Environmental Permit for granite pit.
2. Written acknowledgement from the granite supplier that the material can be provided with the quantity of granite mulch needed for the project.
3. Written acknowledgement that granite supplier material will be provided within the contract construction time frame.

Unless otherwise directed/approved by the Engineer, granite mulch to be placed shall be spread and leveled away from any traffic recovery areas / clear zones.

Labeling of granite mulch shall first list on line one the name of the product, and on the second line shall appear the name of supplier. Text for labeling shall be waterproof, clearly legible, printed, and 1-inch capitalized text.

All granite mulch samples provided shall be clean and washed, leveled covering an approximate spread area of 5-feet X 5-feet, and signed identifying the product and source.

Remove all non-planted vegetation from all areas designated to receive granite mulch (by chemical or mechanical means) and maintain the designated areas "vegetation-free" prior to placement of the granite mulch, or as specified by the Engineer.

Prior to placement of the granite mulch, designated areas to receive granite mulch shall be made completely free of all grass, weeds, or other miscellaneous vegetation growth and have an approved herbicide applied. The herbicide shall be followed by an application of water for activation.

When using herbicides, the contractor shall comply with all applicable portions of Subsection 803-3.02 of the Standard Specifications. All dead vegetation including herbaceous plants shall be removed and properly disposed of. The contractor shall be responsible for all erosion repairs on project site that may occur during granite mulch color review and approval process at no additional expense to the Department.

**803-4 Method of Measurement:** the first paragraph of the Standard Specifications is revised to read:

Decomposed granite and granite mulch will be measured and by the square yard (Yd<sup>2</sup>) of material in place at the specified thickness. The quantity shown in the Bid Schedule will be

used for payment of Item 8030092 — Granite Mulch (1-1/4 Inch Minus), unless both the contractor and the Engineer mutually agree that a variation in excess of 10 percent of this quantity exists. If a variation exists, the Engineer will determine the variation based on the project plans and evidence provided by the contractor. Acceptable form of evidence can be construction survey – such as making field measurements for verification as approved by the Engineer.

**803-5 Basis of Payment:** of the Standard Specifications is modified to add:

There shall be no separate measurement or direct payment for required or requested samples, grading, compaction, or pre-emergent herbicide. The cost for this work is considered to be included in the cost of the contract items.

## **8101018 EROSION CONTROL (CONSTRUCTION ENTRANCE / EXIT GRAVEL PAD):**

### **Description:**

The work under this item consists of furnishing, installing, maintaining, removing, and disposing construction entrance and/or exit gravel pads in accordance with the details shown on the project plans and at locations to be determined in the field by the Engineer and the contractor.

Construction entrance and/or exit gravel pads are required for controlling and minimizing the transportation of debris from the site onto the adjacent roadways and surfaces.

### **Materials:**

Gravel material shall conform to the requirements of Subsection 810-2.03 for Gradation C.

Filter fabric material shall conform to the requirements of Subsection 1014-4.04(A).

### **Construction Requirements:**

The gravel pads bed shall be shaped and trimmed to provide even surfaces and at a depth to accommodate the stone size and minimum depth of rocks specified on the plans.

The contractor, in conjunction with the Engineer, shall determine the locations of the construction entrance/exit gravel pads. As the project progresses, multiple gravel pads may be utilized or relocated as approved by the Engineer.

The contractor shall remove and legally dispose from the site all rocks and fabrics associated with this item of work at the time approved by the Engineer.

### **Method of Measurement:**

Erosion Control (Construction Entrance/Exit Gravel Pad) will be measured by the square yard of gravel pad installed.

## **Basis of Payment:**

The accepted quantities of Erosion Control (Construction Entrance/Exit Gravel Pad), measured as provided above, will be paid for at the contract price per square yard, which price shall be full compensation for the work, complete in place. The contract price includes the cost of grading the area to accept rock, excavating, furnishing, and placing material and filter fabric, removing, and disposing of all materials and backfilling, and recompacting.

**(913BKPRT, 02/18/21)**

**SECTION 913 BANK PROTECTION:** of the Standard Specifications is revised to read:

### **913-1 Description:**

The work under this section shall consist of furnishing all materials and constructing bank protection in accordance with the details shown on the plans and the requirements of the specifications.

Bank protection shall be dumped riprap, grouted riprap, wire tied riprap, riprap in wire baskets or gabions, soil-cement, and other types of bank protection and shall be constructed at the locations and as shown on the plans.

### **913-2 Materials:**

#### **913-2.01 Riprap Bank Protection:**

##### **(A) Rock:**

Rock shall be sound and durable, free from clay or shale seams, cracks or other structural defects.

The bulk (SSD) specific gravity of the rock shall be a minimum of 2.4 as determined in accordance with the requirements of Arizona Test Method 210.

Rock used to construct dumped riprap shall be angular in shape. Rock used to construct other types of bank protection may be rounded stones or boulders. Rock shall have a least dimension not less than one-third of its greatest dimension and a gradation in reasonable conformity with that shown herein for the various types of bank protection. Control of the gradation will be by visual inspection.

When a source of rock is designated by the Department, it shall be the contractor's responsibility to negotiate for the material, obtain the right-of-way, and pay all royalties and damages.

The acceptability of the rock will be determined by the Engineer by visual inspection and/or testing. If testing is required, suitable samples of rock shall be taken in the presence of the Engineer at least 25 days in advance of its expected use. The approval of some rock

fragments from a particular quarry site shall not be construed as constituting the approval of all rock fragments taken from that quarry.

During construction of the bank protection, the contractor shall provide two samples of rock for the intended use. The amount of each sample for dumped riprap and riprap (slope mattress) shall be at least five tons. The amount of each sample for grouted riprap, wire tied riprap, gabions, and rail bank protection shall be at least 500 pounds. One sample shall be provided at the construction site and may be a part of the finished bank protection. The other sample shall be provided at the quarry. These samples will be used as a frequent reference for judging the gradation of the rock supplied. Any difference of opinion between the Engineer and the contractor shall be resolved by checking the gradation of two random samples of the rock.

Material that is deemed unacceptable by the Engineer shall be replaced with acceptable material at no additional cost to the Department.

**(1) Grouted Riprap:**

Gradation of the rock for grouted riprap shall be as specified in the Special Provisions or as shown on the plans.

**(2) Wire Tied Riprap:**

Rock for wire tied riprap shall be well graded with at least 95 percent exceeding the least dimension of the wire mesh opening. The maximum size rock, measured normal to the mat, shall not exceed the mat thickness.

**(3) Dumped Riprap:**

Gradation of the rock for dumped riprap shall be as shown on the plans or as specified in the Special Provisions.

All equipment, sorting sites, and labor needed to check gradation shall be provided by the contractor at no additional cost to the Department.

**(4) Gabions:**

Rock for gabions shall be well graded, varying in size from 4 to 8 inches.

**(5) Riprap (Slope Mattress):**

Rock for slope mattress shall be well graded with 70 percent exceeding three inches. The maximum dimension of a single rock shall not exceed the least dimension of the gabion.

**(6) Rail Bank Protection:**

Rail bank protection rock shall be well graded, varying in size from 4 to 12 inches.

**(B) Metal Items:**

**(1) Wire Fabric:**

Welded wire fabric shall be galvanized and shall conform to the requirements of AASHTO M 336, except that the minimum weight of the zinc coating shall be 0.15 ounces per square foot of actual surface.

Woven wire fabric shall be galvanized and shall conform to the requirements of ASTM A116, except that the minimum weight of the zinc coating shall conform to the requirements of ASTM A641, Class 3.

Wire fabric shall be of the diameter, spacing, pattern, and dimensions shown on the plans. The selvage on each sheet of mesh shall be galvanized steel wire with a minimum diameter 25 percent larger than that used in the body of the mesh.

Certificates of Compliance conforming to the requirements of Subsection 106.05 of the specifications shall be submitted to the Engineer.

**(2) Miscellaneous Fittings and Hardware:**

Miscellaneous fittings and hardware shall be of the type and size provided by the manufacturer of the major item to which they apply and shall be galvanized in accordance with the requirements of AASHTO M 232.

Certificates of Compliance conforming to the requirements of Subsection 106.05 of the specifications shall be submitted to the Engineer.

**(3) Tie Wires:**

Tie wires shall be of good commercial quality and the size shall be as shown on the plans, except that the minimum weight of the zinc coating shall conform to the requirements of ASTM A641, Class 3. The contractor may use approved wire fasteners on gabions, slope mattresses, or wire fabric in lieu of tie wires.

Certificates of Compliance conforming to the requirements of Subsection 106.05 of the specifications shall be submitted to the Engineer.

**(4) Steel Cable:**

Steel cable shall be zinc-coated steel structural wire rope conforming to the requirements of ASTM A475, seven-wire strand, Class A, for the diameter shown on the plans.

Certificates of Compliance conforming to the requirements of Subsection 106.05 of the specifications shall be submitted to the Engineer.

**(5) Railroad Rail:**

Railroad rails may be new or used. If used rails are furnished, they shall be free from rust and equal to at least 95 percent of the original section.

**(6) Soil Anchor Stakes:**

Soil anchor stakes shall be made of steel and of the length shown on the plans. When not specified to be railroad rails, the following items may be used: crane rails with a weight of at least 40 pounds per linear foot, 2-inch diameter steel pipe conforming to the requirements of ASTM A53, or 3-inch by 3-inch by 3/8-inch structural steel angles conforming to the requirements of ASTM A36. Used rails, pipes or angles may be used provided the material is not rusted or damaged to the extent that the strength of the item is reduced to less than 90 percent of a new item of the same type and size.

Certificates of Compliance conforming to the requirements of Subsection 106.05 of the specifications shall be submitted to the Engineer.

**(C) Bedding Material:**

Bedding material shall consist of granular material having a maximum dimension of 2 inches and shall be free of clay or organic material.

**(D) Grout:**

Grout shall consist of Portland cement, aggregate, and water. It may also contain supplementary cementitious material. Portland cement, aggregate, water, and supplementary cementitious material shall conform to the requirements of Section 1006 of the specifications. Chemical admixtures may be used and shall conform to the requirements of Subsection 1006-2.04 of the specifications, except no admixtures containing chlorides or nitrates shall be used. Air-entraining admixtures, conforming to the requirements of Subsections 1006-2.04 and 1006-3.01(E) of the specifications, shall be required for grout placed at elevations of 3000 feet or above.

The grout shall meet the requirements shown in table 1:

<b>Table 1</b>			
<b>Minimum Cementitious Material Content: Lbs per CY (See Note 1)</b>	<b>Maximum Water/Cementitious Material Ratio (w/cm): Lb./Lb.</b>	<b>Slump: Inches (See Note 2)</b>	<b>Air Content: Percent (See Note 3)</b>
850	0.60	9 ± 2	0 – 8
<b>Notes:</b>  (1) A maximum of 25 percent of the cementitious material, by weight, may consist of an approved Class F fly ash, conforming to the			

requirements of ASTM C618.

- (2) The slump shall be in the appropriate range to permit gravity flow into the interstices with limited spading and brooming. The consistency of the grout shall be as approved by the Engineer.
- (3) For placement of grout at elevations of 3000 feet or above, the air content shall be a minimum of 4 percent and a maximum of 8 percent.

The mix shall consist of fine aggregate; however, the contractor may use No. 8 coarse aggregate in the grout. If No. 8 coarse aggregate is used, the volume shall be a maximum of 35 percent of the total aggregate volume.

For plant-mixed grout, the proportioning, mixing, and placing shall be in accordance with the applicable requirements in Section 1006 of the specifications.

For on-site mixing, grout that has been mixed more than one hour shall not be used.

Retempering of grout will not be permitted.

**(E) Bank Protection Fabric:**

Fabric shall be supplied in accordance with and conform to the material requirements of Subsections 1014-1 and 1014-5 of the specifications, respectively. Special attention shall be given to the required survivability of the fabric.

The identification, packaging, handling, and storage of the geotextile fabric shall be in accordance with ASTM D4873. Fabric rolls shall be furnished with suitable wrapping for protection against moisture and extended ultraviolet exposure prior to placement. Each roll shall be labeled or tagged to provide product identification sufficient to determine the product type, manufacturer, quantity, lot number, roll number, date of manufacture, shipping date, and the project number and name to which it is assigned. Rolls shall be stored on-site or at another storage location in a manner which protects them from the elements. If stored outdoors, rolls shall be elevated and protected with a waterproof, light colored, opaque cover. At no time, shall the fabric be exposed to sunlight for a period exceeding 14 days.

**(F) Sacked Concrete:**

Sacked concrete shall be utility concrete conforming to the requirements of Section 922 of the specifications, except that the minimum cement content shall be 376 pounds per cubic yard; the slump shall be from 3 to 5 inches; and the aggregate shall conform to the gradation requirements shown in table 2 when tested in accordance with the requirements of Arizona Test Method 201:

Table 2	
Sieve Size	Percent Passing
2 inch	100

1/4 inch	45 - 89
No. 200	0 -12

Sacks for sacked concrete riprap shall be made of at least AASHTO M 182, Class 3, burlap and shall be approximately 19-1/2 by 36 inches measured inside the seams when the sack is laid flat, with an approximate capacity of 1-1/4 cubic feet. Sound, reclaimed sacks may be used.

#### **913-2.02 Soil-Cement Bank Protection:**

##### **(A) Hydraulic Cement, Fly Ash, and Water:**

Hydraulic cement, fly ash, and water shall conform to the requirements of Subsection 1006-2 of the specifications.

##### **(B) Soil-Aggregate:**

The source of soil-aggregate materials shall be the responsibility of the contractor. The contractor shall be solely responsible for the construction of the stockpile(s), including monitoring for quality and uniformity of the material placed therein. The soil-aggregate used in the soil-cement mixture shall consist of stones, gravel or other approved inert material of similar characteristics, and shall be clean and free from vegetable matter and other deleterious substances. Soil-cement aggregate shall conform to the gradation requirements shown in table 3 when tested in accordance with Arizona Test Method 201:

<b>Table 3</b>	
<b>Soil-Cement Aggregate</b>	
<b>Sieve Size</b>	<b>Percent Passing</b>
1-1/2 in	98 - 100
No. 4	60 - 90
No. 200	5 - 15

Class 2 ABC may be used in-lieu of aggregate meeting the requirements of the table 3. The contractor may submit a request to use alternate material to the Engineer for review and approval.

The Plasticity Index shall be a maximum of seven when tested in accordance with the requirements of AASHTO T 90.

Clay lumps larger than 1 inch shall be removed.

When soil-aggregates are stored on the ground, the sites for the stockpiles shall be clear of all vegetation and level. The bottom six inch layer of aggregate stored on the ground shall not be disturbed or used.

The debris or waste material resulting from the clearing and preparing of the site shall be disposed of in accordance with Subsection 201-3.02 of the specifications.



**(C) Mix Design Requirements for Soil-Cement Bank Protection:**

Utilizing soil-aggregate, cementitious material, and water, a mix design conforming to the requirements specified herein shall be formulated and submitted by the contractor to the Engineer for approval prior to incorporating any of the material into the work.

The amount of cement shall be determined by laboratory testing by the contractor in accordance with Arizona Test Method 220. For mix design purposes only, the cement content of the soil-cement mixture shall be determined as the cement content which yields a seven day compressive strength of 1250 psi for the soil-cement mixture.

The percent of cement to be used in the mix shall be calculated to be the weight of cement divided by the total weight of the dry compacted soil-cement.

Included in the mix design data shall be the grade of cement, brand of fly ash, and the source of aggregate. A new mix design shall be submitted for approval any time the contractor requests a change in soil-aggregate source from that given in the approved mix designs.

**913-3 Construction Requirements:**

**913-3.01 Riprap Bank Protection:**

Areas on which bank protection is to be constructed shall be cleared, grubbed, and excavated or backfilled in accordance with the requirements of the appropriate sections of Division II to produce a ground surface in reasonable conformance with the lines and grades shown on the plans or established by the Engineer.

Placement through water will not be permitted unless otherwise approved by the Engineer.

Areas which are excavated for installation of rail bank protection shall be backfilled to original ground or to the lines and grades shown on the plans.

**(A) Bank Protection Fabric:**

When fabric is required, it shall be placed in the manner and at the locations shown on the plans. The surface to receive the fabric shall be free of obstructions, depressions and debris. The fabric shall be loosely laid and not placed in a stretched condition.

The strips shall be placed to provide a minimum 24 inches of overlap for each joint. On horizontal joints, the uphill strip shall overlap the downhill strip. On vertical joints, the upstream strip shall overlap the downstream strip. The fabric shall be protected at all times during construction from extensive exposure to sunlight.

When the maximum size of the rock to be placed on fabric exceeds 18 inches, the fabric shall be protected during the placement of the rock by a layer of bedding material. The bedding material shall be spread uniformly on the fabric to a depth of 4 inches and shall be free of mounds, dips or windrows. Compaction of the bedding material will not be required.

Rock shall be carefully placed on the bedding material and fabric in such a manner as not to damage the fabric. If, in the opinion of the Engineer, the fabric is damaged or displaced to the extent that it cannot function as intended, the contractor shall remove the rock, regrade the area if necessary, and replace the fabric.

**(B) Dumped Riprap:**

The rock shall be placed to its specified thickness in one operation and in a manner which will produce a reasonably well graded mass with a minimum amount of voids and with the larger rock evenly distributed throughout the mass.

No method of placing the rock that will cause segregation will be allowed. Hand placing or rearranging of individual rock may be necessary to obtain the specified results.

**(C) Wire Tied Riprap:**

After installation of the lower portion of the wire mesh, rock shall be placed in accordance with the requirements of Subsection 913-3.01(B) of the specifications.

After placement of the rock, the upper portion of the wire mesh shall be placed, laced, and tied in accordance with the details shown on the plans.

**(D) Grouted Riprap:**

Rock for grouted riprap shall be placed in accordance with the requirements of Subsection 913-3.01(B). The stones shall be thoroughly moistened and any excess of fines shall be sluiced to the underside of the stone blanket before grouting.

The grout may be delivered to the place of final deposit by any means that will ensure uniformity and prevent segregation of the grout. If penetration of grout is not obtained by gravity flow into the interstices, the grout shall be spaded or rodded to completely fill the voids in the stone blanket. Pressure grouting shall not unseat the stones, and during placing by this method, the grout shall be spaded or rodded into the voids.

Penetration of the grout shall be to the depth specified on the plans. When a rough surface is specified, stones shall be brushed until 25 to 50 percent of the depth of the maximum size stone is exposed. For a smooth surface, grout shall fill the interstices to within 1/2 inch of the surface.

Grout shall not be placed when the descending air temperature falls below 40 degrees Fahrenheit nor until the ascending air temperature rises above 35 degrees Fahrenheit. Temperatures shall be taken in the shade away from artificial heat.

Curing of the grout shall be in accordance with the requirements of Subsection 912-3.09 of the specifications.

The contractor may use shotcrete conforming to the requirements of Section 912 of the specifications in lieu of grout.

**(E) Slope Mattress Riprap:**

The mattress bed shall be excavated to the width, line and grade as shown on the plans. The mattress shall be founded on this bed and laid to the lines and dimensions required.

Excavation for toe or cut-off walls shall be made to the neat lines of the wall.

Mattresses shall be fabricated in such a manner that the sides, ends, lid and diaphragms can be assembled at the construction site into rectangular units of the specified sizes. Mattresses are to be of single unit construction, the base, ends and sides either to be woven into a single unit or one edge of these members connected to the base section of the unit in such a manner that strength and flexibility at the point of connection is at least equal to that of the mesh.

All perimeter edges of the mattresses are to be securely selvaged or bound so that the joints formed by tying the selvages have at least the same strength as the body of the mesh.

Mattresses shall be placed to conform to the details shown on the plans. Stones shall be placed in close contact within the unit so that maximum fill is obtained. The units may be filled by machine with sufficient hand work to accomplish the requirements of this specification.

Broken concrete shall not be used in slope mattresses.

Before the mattress units are filled, the longitudinal and lateral edge surfaces of adjoining units shall be tightly connected by means of wire ties placed every four inches or by a spiral tie having a complete loop every four inches. The lid edges of each unit shall be connected in a similar manner to adjacent units. The slope mattress shall be anchored as shown on the plans. Each anchor stake shall be fastened to the cover mesh with a tie wire.

**(F) Gabions:**

The gabion bed shall be excavated to the width, line and grade as shown on the plans. The gabions shall be founded on this bed and laid to the lines and dimensions required.

Excavation for toe or cut-off walls shall be made to the neat lines of the wall.

Gabions shall be fabricated in such a manner that the sides, ends, lid and diaphragms can be assembled at the construction site into rectangular units of the specified sizes. Gabions are to be of single unit construction, the base, ends and sides either to be woven into a single unit or one edge of these members connected to the base section of the unit in such a manner that strength and flexibility at the point of connection is at least equal to that of the mesh.

Where the length of the gabion exceeds its horizontal width, the gabion is to be equally divided by diaphragms, of the same mesh type as the body of the gabions, into cells whose length does not exceed the horizontal width. The gabion shall be furnished with the

necessary diaphragms secured in proper position on the base section in such a manner that no additional tying at this juncture will be necessary.

All perimeter edges of gabions are to be securely selvaged or bound so that the joints formed by tying the selvages have at least the same strength as the body of the mesh.

Gabions shall be placed to conform to the details shown on the plans. Stones shall be placed in close contact in the unit so that maximum fill is obtained. The units may be filled by machine with sufficient hand work to accomplish requirements of this specification.

The exposed face or faces shall be hand-placed using selected stones to prevent bulging of the gabion cell and to improve appearance. Each cell shall be filled in three lifts.

Two connecting tie wires shall be placed as shown on the plans between each lift in each cell.

Care shall be taken to protect the vertical panels and diaphragms from being bent during filling operations.

The last lift of stones in each cell shall be level with the top of the gabion in order to properly close the lid and provide an even surface for the next course.

All gabion units shall be tied together each to its neighbor along all contacting edges in order to form a continuous connecting structure.

Empty gabions stacked on filled gabions shall be laced to the filled gabion at the front, side and back.

#### **(G) Sacked Concrete Riprap:**

The sacks shall be filled with concrete, loosely packed so as to leave room for folding or tying at the top. Approximately one cubic foot of concrete shall be placed in each sack. Immediately after filling, the sacks shall be placed according to the details shown on the plans and lightly trampled to cause them to conform with the earth face and to adjacent sacks in place.

The first two courses shall provide a foundation of double thickness. The first foundation course shall consist of a double row of stretchers laid level and adjacent to each other in a neatly trimmed trench. The trench shall be cut back into the slope a sufficient distance to enable proper subsequent placement of the riprap. The second foundation course shall consist of a row of headers placed directly above the double row of stretchers. The third and remaining courses shall consist of a double row of stretchers and shall be placed in such a manner that joints in succeeding courses are staggered.

All dirt and debris shall be removed from the top of the sacks before the next course is laid thereon. Stretchers shall be placed so that the folded ends will not be adjacent. Headers shall be placed with the folds toward the earth face. Not more than four vertical courses of sacks shall be placed in any tier until initial set has taken place in the first course of any such tier.

When there will not be proper bearing or bond for the concrete because of delays in placing succeeding layers of sacks, a small trench shall be excavated back of the row of sacks already in place, and the trench shall be filled with fresh concrete before the next layer of sacks is laid. The size of the trench and the concrete used for this purpose shall be approved by the Engineer. The Engineer may require header courses at any level to provide additional stability to the riprap.

Sacked concrete riprap shall be cured by being covered with a blanket of wet earth or by being sprinkled with a fine spray of water every two hours during the daytime for a period of four days.

#### **(H) Rail Bank Protection:**

Excavation, where required for rock fill, shall be performed in reasonably close conformity to the lines and grades established or shown on the plans.

Rails shall be driven at the locations and to the minimum penetrations shown on the plans. Driving equipment shall be capable of developing sufficient energy to drive the rails to the specified minimum penetration and be approved by the Engineer.

If hard material is encountered during driving before minimum penetration is reached and it has been demonstrated to the satisfaction of the Engineer that additional attempts at driving would result in damage to the rails, the Engineer may order additional work to be performed, such as jetting or drilling, in order that minimum penetration may be obtained or the Engineer may order the minimum penetration to be reduced as required by the conditions encountered.

Wire fabric shall be securely fastened to the rails, placed in the trenches and laid on the slopes. The rock backfill shall then be carefully placed so as not to displace the wire fabric or rails. The wire fabric shall entirely enclose the rock backfill.

The completed rock fill shall be backfilled as necessary and the waste material disposed of as directed by the Engineer.

#### **913-3.02 Soil-Cement Bank Protection:**

Soil-cement bank protection construction shall include excavating, backfilling, and grading the wash bed and banks to the lines, grades and cross sections shown on the plans or established by the Engineer; furnishing and mixing aggregate, cement, fly ash and water; and spreading, compacting, and curing the mixture.

The contractor shall investigate for ground water as soon as possible. If there is a need for dewatering, the contractor shall provide to the Engineer for review a comprehensive dewatering plan a minimum of two weeks before construction starts. The dewatering plan shall address any water quality requirements of the Corps of Engineers permit and ADEQ certification. Dewatering activities shall not begin until the Engineer has approved the plan.

The dewatering shall comply with all laws and permit requirements.

If changes to the approved dewatering plan are required, the contractor shall submit a revised plan to the Engineer for approval.

For soil-cement bank protection, the contractor shall be responsible for quality control as necessary to meet the requirements established herein. The contractor shall monitor the complete mix during construction of soil-cement, including the amounts of cement and fly ash used.

**(A) Required Contractor Submittals:**

Two weeks prior to the start of the soil-cement bank protection construction, the contractor shall submit in writing to the Engineer for approval, the following items:

- (1) The type of spreading and compaction equipment to be used.
- (2) The number and type of watering equipment to be used.
- (3) The method used to keep surfaces continuously moist until subsequent layers of soil-cement are placed.
- (4) The method used to cure permanently exposed surfaces.
- (5) The proposed source of soil-aggregate.
- (6) The proposed source(s) of Portland cement and fly ash (if used).
- (7) The approximate length of soil-cement bank protection or area of soil-cement to be placed each day prior to starting placement and compaction operations, on a daily basis.
- (8) The soil-cement mix design.

Such submittals shall not relieve the contractor of the responsibility for achieving the desired result of constructing sound soil-cement, free from defects, according to the specifications and plans, or as directed by the Engineer. Changes in the source(s) of cement or fly ash will not be permitted without the prior approval of the Engineer.

**(B) Preparation of Subgrade:**

Before placement of the soil-cement, the area to be treated shall be graded and shaped to the lines and grades as shown on the plans. The subgrade shall be compacted to a minimum of 95 percent of the maximum dry density determined in accordance with Arizona Test Method 225. The subgrade shall be compacted at a moisture content within two percentage points of the optimum moisture content determined in accordance with Arizona Test Method 225.

When the embankment material is composed predominantly of rock such that these compaction control procedures will not indicate the density achieved, the Engineer will determine the amount of compaction required and the adequacy of equipment used in

obtaining the required compaction. Immediately prior to placement of the soil-cement mixture, the subgrade within the lines and grades of the plans shall be moistened and any soft or yielding subgrade shall be corrected and made stable before construction proceeds in accordance with requirements of Subsection 203-5.03(A) of the specifications. Any additional subgrade reparations required outside of the lines and grades shown on the plans, as determined by the Engineer, shall be repaired by the contractor and paid for by Force Account.

**(C) Mixing Plant:**

Aggregate and cementitious materials for the soil-cement shall be proportioned and mixed in a central mixing plant. The mixing plant shall be either of the batch-mixing type using revolving blade, rotary drum mixers, or of the continuous mixing type using a stationary twin shaft pug mill mixer. The aggregate, fly ash, and cement shall be proportioned by weight. The mixing plant shall be designed, coordinated, and operated to produce a soil-cement mixture of the proportions specified within required tolerances.

If the soil-cement temperatures measured at the mixer are 85 degrees Fahrenheit or less, the placing and compaction shall be completed within 1-1/2 hours of the batch time. If soil-cement temperatures measured at the mixer are greater than 85 degrees Fahrenheit but less than 96 degrees Fahrenheit, placing and compaction shall be completed within 1 hour of the batch time. If soil-cement temperatures are 96 degrees Fahrenheit or greater when measured at the mixer, the contractor shall take immediate steps to lower the batch plant mix temperature to 95 degrees Fahrenheit or below, and follow the above time limits as mix temperature dictates, prior to further placement and compaction of soil-cement materials.

The water shall be proportioned by weight or volume and there shall be means by which the Engineer may readily verify the amount of water utilized per batch or the rate of water flow utilized for continuous mixing.

**(1) Measuring Devices:**

The mixing plant shall record the quantity of the material, shall have a digital readout, and shall provide daily printed record such that the total discharged quantity per hour and the cumulative total quantity are displayed.

Measuring devices shall be calibrated and approved by the Engineer.

Each weight measuring device shall be calibrated to an accuracy of 0.2 percent and shall be inspected and calibrated as often as the Engineer deems necessary to assure their accuracy.

Each volume measuring device shall be calibrated to an accuracy of  $\pm 1.5$  percent and shall be inspected and calibrated as often as the Engineer deems necessary to assure their accuracy.

## **(2) Batch Mixing:**

The mixer shall be equipped with a sufficient number of paddles of a type and arrangement to produce a uniformly mixed batch. The mixer shall be equipped with a timing device which will indicate, by a definite audible or visual signal, the expiration of the mixing period. The device shall be accurate to within two seconds. The allowable tolerance for weight batching of aggregates and cementitious material shall be two percent and 0.5 percent, respectively, for each batch.

The batch mixing plants shall provide sampling facilities which are satisfactory to the Engineer and which allow representative samples of the soil-aggregate mixture prior to the addition of water and cementitious material to be obtained easily and safely. Samples of the soil-aggregate will be taken at this point to determine conformance to the gradation and plasticity requirements listed in Subsection 913-2.02(B) of the specifications.

## **(3) Continuous Mixing:**

Aggregates shall be drawn from the storage facility by a feeder or feeders which will continuously supply the correct amount of soil-aggregate in proportion to the cementitious material.

A control system shall be provided that will automatically close down the plant when material in any storage facility approaches the strike off capacity of the feed gate. The plant will not be permitted to operate unless this automatic control system is in good working condition. The feeder for the soil-aggregate shall be mechanically or electrically driven.

Continuous mix plants shall provide sampling facilities which are satisfactory to the Engineer and which allow representative samples of the soil-aggregate mixture prior to the addition of water and cementitious material to be obtained easily and safely. Samples of the soil-aggregate will be taken at this point to determine conformance to the gradation and plasticity requirements listed in Subsection 913-2.02(B) of the specifications.

## **(4) Blending of Cement and Fly Ash:**

The blending procedure shall be sufficient to provide a uniform, thorough, and consistent blend of cement and fly ash. The blending method and operation shall be approved by the Engineer prior to the commencement of soil-cement production. During blending of the cementitious materials, the percent of fly ash content shall not vary by more than  $\pm 0.5$  percent of the content approved by the Engineer.

Weight measuring devices are required at both the cement and fly ash feeds. At the direction of the Engineer, an additional measuring device may also be required when the cement and fly ash are pre-blended at the site. In the production of the soil-cement mixture, the percent of cementitious material shall not vary by more than  $\pm 0.5$  percent of the contents approved by the Engineer.



Silos and feeders shall be equipped and operated so as to provide uniform rates of feed and prevent caking. The charge in the batch mixer or rate of feed to the continuous mixer shall not exceed that which will permit complete mixing of all the mix material. Provisions shall be made to allow for ready sampling of the cementitious materials.

**(D) Transporting, Spreading, and Compaction:**

The soil-cement mixture shall be transported from the mixing plant to the construction site in clean hauling equipment vehicles outfitted with suitable covers to protect the mixture in unfavorable weather.

Spreading of the soil-cement mixture shall be accomplished using equipment that will produce uniform layers of the width and thickness necessary to provide for adequate compaction in conformance with the required dimensions shown on the plans for completed soil-cement layers. Where the soil-cement is to be placed in confined areas, the lifts may be spread by other methods as approved by the Engineer.

The layers of soil-cement shall not exceed 12 inches after compaction, or be less than four inches thick after compaction, unless the contractor can demonstrate the ability to place thicker layers with the equipment being utilized in the control strip. If potholing is performed to allow testing of each lift, the recompacted material used to repair the pothole shall also be tested and meet the requirements of this specification. Each successive layer shall be placed as soon as practicable after the preceding layer is completed, and approved by the Engineer. The maximum depth of compacted soil-cement that shall be placed per day in each location is four feet, unless approved by the Engineer.

Prior to spreading new material on a previously compacted lift which has cured for more than 1-1/2 hours, or if the surface has dried due to temperature and/or wind effects, scarification of the lift shall be performed parallel with the direction of placement using equipment approved by the Engineer. The scarification shall be performed to a depth of at least two inches, spaced between 18 and 24 inches. The Engineer may waive requirements for scarification if compaction is performed by means which provide an appropriate surface for bonding with the subsequent layer.

All construction equipment, including water spray trucks, shall be restricted from entering scarified surface areas during the interim between spreading and compaction operations.

If the surface cannot be scarified, the surface shall have cement grout slurry applied to ensure a proper bonding between lifts. The cement slurry shall have a water/cement ratio between 0.70 and 0.80 and be approved for use by the Engineer prior to placement of any additional soil-cement mixture.

All soil-cement surfaces that will be in contact with succeeding layers of soil-cement shall be kept continuously moist by fog spraying until placement of the subsequent layer, provided that the contractor will not be required to keep such surfaces continuously moist for a period longer than seven days. Mixing and placing shall not proceed when the soil-aggregate or the area on which the soil-cement is to be placed is frozen. Soil-cement shall be mixed and placed when the air is at least 40 degrees Fahrenheit and rising.

**(E) Monitoring Moisture Content in the Field:**

Control of water content by the contractor in the field shall be accomplished in two ways:

- (1) The moisture-density relationship for the soil-cement mixture shall be determined in accordance with Arizona Test Method 221 on a routine basis, or when any significant gradation shift or rock content change occurs.
- (2) The actual moisture content of the mixture at the time of compaction, or shortly thereafter, shall be determined in accordance with Arizona Test Method 235 to determine if the optimum moisture content as determined by Arizona Test Method 221 is being maintained. The water content in the soil-cement mixture is to be continuously monitored, and the mixing water shall be adjusted at the plant as necessary to achieve the compressive strength and compaction requirements specified herein.

**(F) Quality Control Compaction Testing:**

Soil-cement shall be uniformly compacted to a minimum of 98 percent of the maximum dry density determined in accordance with Arizona Test Method 221. A running average of five consecutive in place density tests shall not be less than 100 percent of maximum density as monitored by nuclear density tests in accordance with Arizona Test Method 235. Compaction shall be performed within 2 percentage points of the optimum moisture content as determined in accordance with Arizona Test Method 221. Quality control density and moisture tests shall be performed in accordance with Arizona Test Method 235 at a minimum frequency as specified in table 4:

<b>Table 4</b>	
<b>Quality Control Minimum Requirements for Compaction</b>	
Moisture/Density	1 test / 500 sy/lift

**(G) Control Strips:**

A control strip shall be constructed at the beginning of work on the soil-cement to be compacted. The control strip construction shall be required to establish equipment and procedures required to attain densities for the specified course.

Each control strip, constructed to acceptable density and surface tolerances shall remain in place and become a section of the completed embankment. Once control strip is complete and accepted, production may begin on the same shift for the remainder of project.

Unacceptable control strips shall be corrected or removed and replaced at the contractor's expense. A control strip shall have an area of approximately 100 square yards and shall be of the same depth specified for the construction of the course which it represents.

The materials used in the construction of the control strip shall conform to the specification requirements. They shall be furnished from the same source and shall be of the same type used in the remainder of the course represented by the control strip. The underlying surface upon which a control strip is to be constructed shall have prior approval of the Engineer.

The equipment used in the construction of the control strip shall be approved by the Engineer and shall be of the same type and weight to be used on the remainder of the course represented by the control strip.

Compaction of control strips shall commence immediately after the course has been placed to the specified thickness, and shall be continuous and uniform over the entire surface. Compaction of the control strip shall be continued until no discernable increase in density can be obtained by additional compaction effort.

Upon completion of the compaction, the mean density of the control strip will be determined by averaging the results of ten nuclear density tests taken at randomly selected sites within the control strip.

If the mean density of the control strip is less than 100 percent of the density of laboratory compacted specimens as determined by testing procedures appropriate for the material being placed, the Engineer may order the construction of another control strip.

A new control strip may also be ordered by the Engineer or requested by the contractor when:

- (1) A change in the material or mix design is made.
- (2) A control strip density is not representative of the material being placed.

**(H) Power Tampers and Small Vibratory Rollers:**

Small vibratory rollers which are capable of operating within 6 inches of a vertical face shall be used for compaction adjacent to the guide banks, next to the utilities and drainage conduit; at transitions to constructed levee protection, and at other areas where larger vibratory rollers cannot maneuver. The amount of rolling and tamping required shall be whatever is necessary for the particular equipment to provide the same degree of compaction as would be attained with larger self-propelled vibratory rollers. Standby replacement equipment shall be available within 1 hour if needed.

**(I) Finishing/Trimming:**

After compaction, the soil-cement shall be further shaped, if necessary, to the required lines, grades, and cross-sections and rolled to a reasonably smooth surface. Shaping of the face of the soil-cement bank protection shall be conducted daily at the completion of each day's production.

The exposed face of the soil-cement bank protection shall be trimmed to a neat line as shown on the plans. The resulting soil-cement bank protection width shall not be less than 8 feet after trimming unless specified on the plans.

**(J) Curing:**

Whenever the atmospheric temperatures are expected to drop below 30 degree Fahrenheit, the soil-cement shall be protected from freezing for seven days, after its construction by a covering of straw, earth, or other suitable material approved by the Engineer.

Temporarily exposed surfaces shall be kept moist as previously set forth. Care must be exercised to ensure that no curing material other than water is applied to the soil-cement surface that will be in contact with succeeding layers.

Permanently exposed surfaces shall be kept in a moist condition for seven days, or they may be covered with bituminous curing material, subject to the Engineer's approval. Any damage to the protective covering within seven days shall be repaired to the satisfaction of the Engineer at no additional cost to the Department.

Regardless of the curing material used, the permanently exposed surfaces shall be kept moist until the protective cover is applied. Such protective cover is to be applied as soon as practicable, with a maximum time limit of 24 hours between the finishing of the surface and the application of the protective cover or membrane.

**(K) Backfill:**

Backfill shall not be placed against the soil-cement until the contractor has achieved the compaction requirement.

**(L) Maintenance:**

The contractor shall maintain and protect the soil-cement in good condition until all work is completed and accepted. Maintenance shall include immediate repairs of any defects that may occur. This work shall be done at no cost to the Department and repeated as often as necessary. Faulty work shall be replaced for the full depth of the layer. The contractor shall take all necessary precautions to avoid damage to the completed soil-cement by equipment, and to avoid the deposition of raw earth or foreign materials between layers of soil-cement. Where ramps are constructed over soil-cement layers which are not to grade, all foreign materials and the uppermost one inch of the previously placed soil-cement mixture must be removed prior to continuation of the soil-cement construction.

**(M) Construction Joints:**

Construction joints are to be provided at the end of each day's work or when work is to be halted for 90 minutes or more. The joints shall be trimmed to a 15 degree minimum skew, transverse construction joint shall be formed by cutting back into the completed work to form a vertical face to the full depth of the previous lift. Before resuming placement of new

material, the joints shall be roughened and loose material shall be removed by power broom.

**(N) Acceptance of Soil-Cement:**

The Engineer will cast, transport, cure, and test specimens in accordance with Arizona Test Method 241 for each 1,500 cubic yards of soil cement placed. Three cylinders will be tested at seven days. The average compressive strength of the three cylinders shall achieve a minimum compressive strength of 750 psi.

Any early strength testing for the purpose of correlating seven day strength results to provide an early indicator of potentially low strength material shall be the responsibility of the contractor.

**913-4 Method of Measurement:**

Riprap, except gabions and sacked concrete, will be measured by the cubic yard of protection constructed by computing the surface area measured parallel to the protection surface and the total thickness of the riprap measured normal to the protection surface.

Riprap (gabions) will be measured by the cubic yard by computing the volume of the rock-filled wire baskets used.

Riprap (sacked concrete) will be measured by the cubic yard of concrete placed in the completed work. The measurement will be based on mixer volumes.

Rail bank protection will be measured by the linear foot. Measurement will be made from top of rail to top of rail (longest rail where rails of two or more lengths are used) and the distance measured will be from end rail to end rail.

Where two parallel rows of vertical rails are used, the measurement for payment will be the average of the distance along the two rows. Rail bank protection will be measured along the bank protection control line from end rail to end rail.

Soil-cement will be measured per cubic yard of soil-cement furnished and placed per the specified lines, grades, and cross-sections shown on the plans.

**913-5 Basis of Payment:**

The accepted quantities of riprap and rail bank protection, measured as provided above, will be paid for at the contract unit price per cubic yard or linear foot, which price shall be full compensation for the work, complete in place, including excavation; preparing the ground area; furnishing and installing the rock, filter fabric, bedding material, metal items, concrete, sacks and grout; and backfilling as required.

Materials, labor and equipment necessary to perform additional work such as jetting or drilling, as specified under Subsection 913-3.01(H) of the specifications, will be paid for in accordance with the provisions of Subsection 109.04 of the specifications.

The accepted quantities of soil-cement, measured as provided above, will be paid for at the contract unit price per cubic yard of soil-cement bank protection. Such payment shall constitute full reimbursement for all work necessary to complete the soil-cement bank protection including:

- (1) Surface Preparation;
- (2) Providing and Stockpiling Soil-Aggregate;
- (3) Cementitious Material, Watering, Mixing;
- (4) Placing;
- (5) Compacting;
- (6) Shaping and Finishing;
- (7) Curing;
- (8) Quality Control Testing; and
- (9) Other Incidental Operations.

Any waste and non-compacted soil-cement material not used on the final soil-cement bank protection will not be measured for payment.

Excavation and backfill associated with the soil-cement construction will be measured and paid under the Structural Excavation and Structure Backfill items respectively.

Construction of Gabion Mattress associated with the soil-cement work will be measured and paid under the Riprap (Gabion Mattress) item.

Payment for additional excavation, where determined by the Engineer to remove unsuitable material, per the requirements of Subsection 203-5.03(A) of the specifications, will be made in accordance with the provisions of Subsection 109.04 of the specifications.

Payment for Dewatering will be made on a Force Account basis in accordance with the requirements of Subsection 109.04 of the specifications.

#### **ITEM 9080242 – CONCRETE SIDEWALK (STRUCTURAL CONCRETE (CLASS S) (F'C = 3,000):**

##### **Description:**

The work under this section shall consist of furnishing all materials and constructing portland cement sidewalk at the locations shown on the project plans in accordance with the details shown on the plans and ADOT's Standard Specifications for Road and Bridge Construction (Standard Specifications) except as modified by the requirements of these Special Provisions.

##### **Materials:**

Portland cement concrete shall be Class S (F'C=3,000 psi) conforming to the requirements of Section 1006 of the specifications.

All other Materials shall conform to the requirements of Subsection 908-2 of the Standard Specifications.

### **Construction Requirements:**

Joints shall be constructed in a straight line, vertical plane and perpendicular to the longitudinal line of the sidewalk except in cases of curved alignment, where they shall be constructed along the radial lines of the curve.

Expansion joints shall be constructed to the full depth and width of the concrete. The expansion joint material shall extend fully through the concrete and one inch into the subgrade with the top of the expansion joint material positioned one-quarter inch below the top surface. Expansion joint material shall be secured in place prior to placement of concrete.

Expansion joints shall be installed prior to concrete placement, and at a spacing of 50 feet.

Expansion joints shall be installed at all radius points.

Expansion joints shall be installed along all abutting structures to provide complete separation from the structure.

The large aggregate in contraction joints shall be separated to either side of the joint for a minimum depth equal to 25% of the concrete thickness; the finished depth shall be a minimum of 3/4 inch.

Contraction joints shall be constructed with 10 foot spacing.

Longitudinal contraction joints are not permitted.

All other Construction Requirements shall conform to the requirements of Subsection 908-3 of the Standard Specifications.

### **Basis of Payment:**

The accepted quantities of Concrete Sidewalk (Structural Concrete (Class S) (F'C = 3,000)), measured as provided in Subsection 908-4 of the Standard Specifications, will be paid for at the contract unit price per square foot, which price shall be full compensation for the work, complete in place, including furnishing and placing embankment material, excavating, removing unstable material, backfilling and compacting.

## **ITEM 9240011 – FORCE ACCOUNT WORK (BIOLOGIST):**

### **Description:**

The work under this section is described in the Environmental Mitigation Measures contained in the General Requirements of these Special Provisions.

### **Method of Measurement and Basis of Payment:**

Force Account Work (Biologist) will be measured and paid for in accordance with Subsection 109.4(D) of the Specifications.

## **ITEM 9240050 – MISCELLANEOUS WORK (PREFABRICATED STEEL TRUSS BRIDGE)**

### **Description:**

The work under this item shall include design, fabrication, delivery, and erection of a new steel truss bridge.

### **Scope:**

The work included under this item shall consist of furnishing, fully engineering, fabricating, transporting, and erecting a prefabricated steel truss bridge superstructure in conformance with the requirements and details shown on the Project Plans, ADOT's Standard Specifications for Road and Bridge Construction (Standard Specifications), and these Special Provisions. The steel bridge superstructure includes the following elements:

- Steel Truss
- Stay-in-Place Deck Forms
- Cast-in-Place Concrete Deck Slab (Design Only)
- Bearings
- Anchor Bolts
- Expansion Joints/Accommodation for Bridge Movement
- Railings

### **General Features of Design:**

### **Span:**

Bridge Length = 142'-0" measured from centerline of abutment to centerline of abutment as shown on the Project Plans. Final out-to-out bridge length shall be verified by the prefabricated steel truss bridge manufacturer.



**Width:**

The minimum bridge deck slab width, and minimum dimension from the inside to inside of main truss members, shall be 13'-0".

**Bridge System Type:**

The bridge superstructure shall be a "Through Truss", of the type and form indicated on the Project Plans. Limit the number of diagonal members to one-diagonal per bay. The end vertical members shall be plumb. Interior vertical members may be either plumb or perpendicular to the chord faces. Ends of tubular steel members shall be capped.

**Geometry:**

- (1) The bridge shall be cambered to account for the dead weight of: (a) steel truss and all steel attachments; (b) concrete deck slab; (c) stay-in-place formwork; (d) concrete curbs.
- (2) All bridge geometry shall be verified by the Contractor prior to the prefabricated truss bridge manufacturer commencing design or fabrication.
- (3) The contractor shall verify that all dimensions and elevations indicated on the Project Plans are consistent with the bridge manufacturer's design.

**Materials:**

All structural steel shall be new (unused) material and shall meet Charpy V-Notch values indicated in the AASHTO LRFD Bridge Design Specifications as applicable.

Main structural truss members (top and bottom chords, verticals, and diagonals) shall be either high strength, cold-formed welded, or seamless, square or rectangular structural tubing, conforming to ASTM A500, Grade C. Structural plates and other shapes shall conform to ASTM A709 (Grade 50) unless noted otherwise.

High-strength bolts, nuts and washers shall conform to the requirements of ASTM F3125/F3125M, Grade A325. Anchor bolts shall conform to ASTM F1554, Grade 105. Bolts and hardware shall be galvanized in accordance with ASTM F2329.

Steel Reinforced Elastomeric Bearing Pads shall conform to the requirements of Section 1013-2.04 of the Standard Specifications and shall satisfy the material properties indicated on the plans.

Structural Concrete shall be Portland Cement Class "S" Concrete and shall be in accordance with Section 1006 of the Standard Specifications.

Reinforcing Steel shall be in accordance with Section 605 and Section 1003 of the Standard Specifications.

### **Design and Construction Requirements:**

The design of the steel truss bridge, stay-in-place formwork, concrete deck slab, railings, expansion joints, bearings, and anchor bolts are the responsibility of the prefabricated truss manufacturer. The design of all components of the prefabricated steel truss bridge shall be sealed by a professional engineer licensed in the State of Arizona.

The contractor shall submit to the Engineer, an original or copy of either a Certificate of Compliance or a Certificate of Analysis prior to the use of any materials or manufactured assemblies in accordance with the Standard Specifications. The Certificate of Compliance shall conform to the requirements of Section 106.05 of the Standard Specifications.

The contractor shall coordinate the construction of the abutments with the prefabricated truss manufacturer to verify the substructure dimensions, elevations, and anchor bolt locations/requirements.

The prefabricated steel truss bridge components shall be designed in accordance with the following criteria:

### **Truss:**

The design, fabrication, and installation of the truss shall be in conformance with the following:

- LRFD Guide Specifications for the Design of Pedestrian Bridges, 2nd Edition, 2009 with 2015 Interim Revisions.
- AASHTO LRFD Bridge Design Specifications, 9th Edition, 2020.
- ADOT Bridge Design Guidelines.

The prefabricated truss manufacturer shall be currently certified by the American Institute of Steel Construction (AISC) and have the personnel, organization, experience, capability, and commitment to produce fabricated structural steel for Major Steel Bridges as set forth in the AISC Certification Program.

Vehicle live load shall be equivalent to an H10 vehicle.

Vehicle dynamic load allowance is not required.

Pedestrian live load = 90 psf over the entire path width.

Vehicle live load need not be in combination with the pedestrian live load.

The composite concrete deck slab, railings, deck joint assemblies, and supporting members shall be designed for all code required loads and load combinations.

The design shall be performed using the Load and Resistance Factor Design (LRFD) methodology unless noted otherwise in the ADOT Bridge Design Guidelines.

Welded tubular connections shall be designed in accordance with the current editions of the Structural Welding Code-Steel ANSI/AWS D1.1 and the Bridge Welding Code ANSI/AWS D1.5.

The bridge abutments and foundations have been designed for a total factored reaction equal to 350,000 pounds per abutment. If the prefabricated bridge manufacturer's design results in total factored reactions greater than 350,000 pounds per abutment, the bridge manufacturer shall design the abutments and foundations accordingly at no additional cost to ADOT.

Limit live load deflection of main truss members to a value less than the span length/600. Dynamic deflection response shall be controlled by applying the vibration criteria in the AASHTO Guide Standard for Pedestrian Bridges.

Provide 3/8" structural steel thickness unless indicated otherwise.

Minimum thickness of closed structural tube members shall be 1/4 inch.

### **Metal Railing:**

The design, fabrication, and installation of the railing shall satisfy the design loading and geometrical requirements of the AASHTO LRFD Bridge Design Specifications, Article 13.8, Special Provisions, and Project Plans.

### **Metal Handrails:**

Handrails shall conform to the requirements of the Public Rights-of- Way Accessibility Guidelines (PROWAG) Section R409, except as modified herein. Provide a continuous circular diameter tubing or pipe handrail along each side of the bridge as indicated on the Project Plans. Handrails shall be provided with a minimum 1½" knuckle space between the handrail and the metal railing. The handrails shall be secure and not allowed to rotate within their fittings.

### **Bearing Devices:**

The design, fabrication, and installation of bearing devices shall satisfy all design loads and criteria in accordance with the design specifications, except where superseded by the ADOT Bridge Design Guidelines, Section 14. Bearings shall be steel reinforced elastomeric bearing pads unless an alternate bearing device type is approved by the engineer. All steel plates and bars shall conform to ASTM A36.

### **Anchor Bolts:**

The design, fabrication, and installation of anchor bolts shall satisfy all design loads and criteria in accordance with the design specifications, except where superseded by the ADOT Bridge Design Guidelines. Factored dead, live, vehicle, wind, pedestrian, thermal and seismic loads shall be clearly indicated on the prefabricated bridge shop drawings. Anchor bolts shall be ASTM F1554, Grade 105, and shall be compatible with the bearing devices provided.

### **Deck Joint Assembly:**

The prefabricated truss manufacturer shall provide design and details to accommodate bridge movement. Submit the design and details of the deck joint assembly to the engineer for approval. Details of the proposed system shall be coordinated with the contractor to verify that the deck joint assembly is compatible with the construction of the abutment backwalls and deck slab as indicated in the Project Plans.

### **Concrete Deck Slab:**

The design of the deck slab shall satisfy all design loads and criteria in accordance with the design specifications, except where superseded by the ADOT Bridge Design Guidelines. The deck slab shall be composite and constructed with ADOT Class 'S' concrete having a minimum 28-day compressive strength of 4,500 psi. Use shear studs attached to the floorbeams which extend beyond the center of the deck slab.

The deck slab shall be placed after the steel truss bridge has been erected at its final location.

Verify all elevations based on the design thickness of the deck slab.

### **Stay-In-Place Metal Deck Forms:**

The concrete deck slab shall be constructed utilizing 20 gage minimum galvanized stay-in-place (SIP) deck forms and shall be installed per the manufacturer's recommendations.

The SIP manufacturer shall be a member of the Steel Deck Institute. The deck slab forms shall be designed to carry the dead weight of the wet concrete plus a 50 pound per square foot construction live load. Submit the design of the SIP forms to the Engineer for approval.

### **Placing Concrete:**

Do not place concrete until all formwork, installation of items to be embedded, and preparation of surfaces involved in the placement have been approved by the Engineer. All surfaces of forms and embedded materials shall be free from curing compound, dried mortar from previous placements, or other foreign substances prior to concrete placement. Structural concrete shall be in accordance with Section 601 of the Standard Specifications.

### **Finishing Bridge Deck:**

The bridge deck slab shall be textured to a medium broom finish.

### **Shop and Working Drawings:**

Submit shop drawings and working drawings for approval in accordance with the Standard Specifications. Do not fabricate any component of the truss bridge prior to receiving approval. Working drawings shall not be from standard forms requiring blank spaces to be populated unless all extraneous information has been deleted and standard forms provide an exact description of the work.

### **Submittals:**

1. Detailed shop drawings indicating all member sizes, connection details, general notes, and materials.
2. Indicate Charpy v-notch requirements.
3. Design calculations for truss bridge, bridge deck slab, railings, anchor bolts, expansion joints, and bearings including bearing loads.
4. Geometry verification indicating that the dimensions, elevations, and layout of the truss are consistent with the substructure shown or provide detailed information documenting proposed changes. Provide verification of anchor bolt layout.
5. Erection drawings including positions and size of cranes.
6. Drawings for temporary works if required.
7. Documentation for AISC Bridge Fabricator Certification.

Shop and working drawings shall have cross-referenced details and sheet numbers.

## **Welding:**

Welding and fabrication of the prefabricated steel truss bridge shall conform to the provisions of ANSI/AWS D1.1 "Structural Welding Code", latest edition.

Submit a Quality Control Plan including personnel, qualifications, certifications, and written practice.

Welders shall be properly accredited operators, each of whom shall submit certification of satisfactorily passing AWS standard qualification tests for all positions with unlimited thickness of base metal, having a minimum of 6 months experience in welding tubular structures and have demonstrated the ability to make uniform sound welds of the type required.

Nondestructive weld testing shall be performed by a qualified ASNT Level II Technician or higher certification. All welds shall be 100% visually inspected. Ten percent (10%) of all fillet and partial penetration welds shall be magnetic particle tested.

Complete Joint Penetration Joint welds shall be 100% Magnetic Particle tested in accordance with ASTM E709. Base material certifications shall be supplied by material suppliers. Inspection results shall be available upon request. For Complete Penetration Butt welds of tubular members, the backing material shall be fabricated in the tube prior to installation to be continuous around the full perimeter of the tube, including corners.

Fillet weld details shall be in accordance with AWS D1.1, Section 3.9. Fillet welds which intersect the radius of a tube shall be built up to obtain the full throat thickness. The maximum root openings of fillet welds shall not exceed 3/16 inch in conformance with AWS D1.1, Section 5.22.

Magnetic Particle Testing shall be performed on 100% of all attachment welds to the bottom truss chord.

## **Finishing:**

Prepare and paint all structural steel components in accordance with Section 610 of the Standard Specifications. Finish color(s) to be provided by the City of Peoria.

## **Method of Measurement:**

Prefabricated Steel Truss Bridge will be measured for payment by the lump sum as a single complete unit of work.

### **Basis of Payment:**

The accepted quantities of Prefabricated Steel Truss Bridge, measured as provided above, will be paid for at the contract lump sum price, which price shall be full compensation for the work, complete in place, including steel truss, metal railing, bridge aesthetics, metal handrail, bearing devices, anchor bolts, deck joint assembly, stay-in-place metal deck forms, shop and working drawing preparation, and welding as described and specified herein and indicated on the Project Plans.

### **ITEM 9240051 – MISCELLANEOUS WORK (ESTABLISH ELECTRICAL CONNECTION):**

#### **Description:**

The work under this item shall consist of furnishing and installing a complete electrical system including fees for utility and City of Peoria Building permits, connection to existing power supplies, and all necessary hardware needed to complete a functioning underdeck lighting system in accordance with the project plans and as specified herein.

The contractor shall provide to the Engineer, for review and approval, copies of all agreements between the utility company and the contractor. The contractor may proceed with those agreements after Engineer approval. If the contractor proceeds before or without Engineer approval, the Engineer may withhold reimbursement to the contractor.

The contractor shall contact Salt River Project to coordinate extended connection to existing power services and comply with all regulations and, if necessary, the appropriate requirements, permits, and fees.

#### **Materials:**

All material required to establish electrical connection to existing power source including conduit, conductors, hardware and junction boxes per the project plans and utility requirements.

#### **Construction Requirements:**

The contractor shall contract with the utility to provide service and be billed for all construction charges (extension fees, inspection, etc.) and any required applications and/or agreements.

#### **Method of Measurement:**

Establish electrical connection will be measured as a lump sum for all material and labor required for the furnished and installed system.

**Basis of Payment:**

The accepted established electrical connection, measured as provided above, will be paid for at the contract lump sum.

**ITEM 9240052 – MISCELLANEOUS WORK (WINGWALL CONCRETE CAP):**

**Description:**

The work under this section shall consist of furnishing all materials and constructing a concrete cap for existing retaining walls in accordance with the details shown on the Contract Plans and ADOT's Standard Specifications for Road and Bridge Construction (Standard Specifications) except as modified by the requirements of these Special Provisions. Note that removal of existing concrete to the limits shown on the Contract Plans is paid for under Item 2020009, Removal of Structural Concrete.

**Materials:**

Concrete shall be Class S ( $f'_c = 3,500$  psi) conforming to the requirements of Section 1006 of the Standard Specifications.

Reinforcing Steel bars shall be Grade 60 and in accordance with Section 605 and Section 1003 of the Standard Specifications.

**Construction Requirements:**

Existing reinforcement steel bars indicated to remain shall be cleaned and straightened. Clean the surface of the existing concrete to remove any loose debris. Apply an approved Epoxy Bonding Compound to the existing concrete surface in accordance with the manufacturer's recommendations. Install new reinforcement steel as indicated on the Contract Plans. Place new Class S concrete to the limits indicated. Cure and finish the concrete surfaces in accordance with the Standard Specifications.

**Method of Measurement:**

Wingwall Concrete Cap will be measured for payment by the lump sum as a single complete unit of work.



**Basis of Payment:**

The accepted quantity of Wingwall Concrete Cap will be paid for at the contract Lump Sum price, which shall be full compensation for the work complete in place including preparing the existing concrete surface, and furnishing and installing epoxy bonding compound, Class S ( $f'c = 3,500$  psi) concrete, and reinforcement steel bars.

**ITEM 9240111 MISCELLANEOUS WORK (WINGWALL METAL RAILINGS):**

**Description:**

The work shall consist of furnishing, and installing Wingwall Metal Railings as indicated on the project plans and not otherwise included as part of other items of work. The metal railings on the wingwalls is the same type and paint color as the metal railings on the bridge superstructure.

**Materials:**

In accordance with Section 1004 of the ADOT Standard Specifications for Road and Bridge Construction (Standard Specifications) and with the project plans.

**Construction Requirements:**

In accordance with Section 604 of the Standard Specifications and the project plans.

The construction shall include assembly and erection of all components at the locations indicated on the project plans or as directed by the Engineer.

All metal work shall be assembled in the shop. No cutting, drilling, punching, or welding shall be completed in the field.

Prepare and paint all railing components in accordance with Section 610 of the Standard Specifications. The contractor shall contact Craig Bolze with the City of Peoria, 602-935-6119, for the paint color.

**Method of Measurement:**

The metal railing will be measured for payment by linear foot.

**Basis of Payment:**

The accepted quantity of railing will be paid for at the contract unit price per linear foot complete in place including paint.

## **ITEM 9240119 – MISCELLANEOUS WORK (COLLAPSIBLE BOLLARDS):**

### **Description:**

The work under this section shall consist of furnishing and installing a Single Post, Low Profile, Heavy Duty, Hinged Bollard in locations shown on the project plans.

### **Materials:**

The single post bollard shall be provided by TrafficGuard Direct, Inc. or an approved equal manufacturer.

Bollard post shall be 30 inches in height consisting of a 6" x 3" x 3/8" or similar size steel tubing. Steel tubing shall conform to ASTM A500.

Bollard base plate shall be 12" x 12" or similar size conforming to ASTM A36.

Provide stainless steel lock and hinge pins.

All surfaces shall be primed with rust and corrosion resistant zinc rich primer with 5,000 hour salt spray performance. Standard finish coat shall be polyester exterior use finish, yellow in color. Submit finish coat paint chips for approval.

Apply a 3" x 12" safety label to each side of the bollard, positioned 1" below the top of the bollard.

Padlock to be provided by the City of Peoria.

### **Construction Requirements:**

Comply with manufacturer provided instructions and drawings.

Install the base plate using an approved anchoring system.

Install bollard base true and level on the anchorage system.

Install bollard to base using hinge bolt, flat washer, and hex nut. Tack weld hex nut to hinge bolt so it cannot be easily removed.

Install locking pin thru bollard post and install padlock.

If touch up painting in the field, be careful not to paint moving parts which may restrict the bollard's proper function.

### **Performance Requirements:**

Bollard shall collapse to a 4-inch clearance above finished grade allowing vehicle traffic to pass.

Bollard locks in upright position with stainless steel lock pin and padlock.

### **Delivery, Storage and Handling:**

Inspect materials upon receipt to ensure that the correct materials have been received and that they are in good condition.

If not installing immediately, store units to avoid damage from other construction activities and elements. Store units in a dry location away from possible damage until the time of installation.

### **Method of Measurement:**

Collapsible Bollards will be measured for payment by the lump sum as a single unit for each collapsible bollard, base plate, lock and hinge pins furnished and installed.

### **Basis of Payment:**

The accepted quantities of Collapsible Bollards, measured as provided above, will be paid for at the contract unit price, which price shall be considered as full compensation for the work, complete in place, including collapsible bollard, base plate, lock and hinge pins, necessary to complete the work.

## **ITEM 9240135 – MISCELLANEOUS WORK (COP SIGN TYPE A1.1 AND FOUNDATIONS):**

### **Description:**

The work under this section shall consist of furnishing and installing City of Peoria Sign Type A1.1 – Primary Trailhead Identification as shown in the project plans.

### **Materials:**

Sign Type A1.1 – Primary Trail Identification and foundations shall conform to the City of Peoria Trails Signage & Wayfinding Plan (2018), project plans and these project Special Provisions.

### Construction Requirements:

Construction Requirements shall conform to Sections 607 and 608, unless otherwise specified on the project plans, or these Special Provisions. The contractor shall coordinate with the City regarding the Header Panel, Map Panel and Wing Panel information. Sign content will be provided by the City at the time of construction.

### Method of Measurement:

COP Sign Type A1.1 and foundations will be measured as a unit for each type of Sign Type A1.1 and foundations furnished and installed.

### Basis of Payment:

The accepted quantities of COP Sign Type A1.1 and foundations, measured as provided above, will be paid for at the contract unit price, which price shall be considered as full compensation for the work, complete in place, including foundations, posts, wire mesh frames, brackets, panels, and coordination with the City, necessary to complete the work. No payment will be made for potholing or locating existing utilities, the cost being considered as included in this item of work.

(925SRVY, 08/16/19)

## SECTION 925 CONSTRUCTION SURVEYING AND LAYOUT:

**925-5**                    **Basis of Payment:** the fourth paragraph of the Standard Specifications is revised to read:

If additional staking and layout are required as a result of additional work ordered by the Engineer, such work will be paid under items listed in the table below.

ITEM	PREDETERMINED RATE
9250101-ONE-PERSON SURVEY PARTY	\$110 per hour
9250102-TWO-PERSON SURVEY PARTY	\$150 per hour
9250103-THREE-PERSON SURVEY PARTY	\$190 per hour
9250106-SURVEY MANAGER	\$175 per hour
9250105-OFFICE SURVEY TECHNICIAN	\$85 per hour

**(1001MATL, 06/17/21)**

**SECTION 1001 MATERIAL SOURCES:** of the Standard Specifications is revised to read:

**1001-1 Description:**

The work under this section shall consist of the procuring of borrow, topsoil, subbase and base materials, mineral aggregates for concrete structures, surfacing, and landscape plating, from sources either designated on the project plans or in the Special Provisions or from other sources.

**1001-2 General:**

The contractor shall determine for itself the type of equipment and work required to produce a material meeting the requirements of the specifications.

Sites from which material has been removed shall, upon completion of the work, be left in a neat and presentable condition. Where practicable, borrow pits, gravel pits, and quarry sites shall be located so that they will not be visible from the highway.

The contractor shall provide an environmental analysis, as specified in Subsection 104.12 of the specifications, for any source proposed for use regardless of whether a previously approved environmental analysis exists for the site.

In accordance with Subsection 104.12 of the specifications, the contractor may utilize an existing environmental analysis approved after January 1, 1999, provided that the analysis is updated as necessary to be in compliance with current regulations and with the contractor's planned activities.

It shall be the responsibility of the contractor to conduct any necessary investigations, explorations, and research, on-site and otherwise, before and after submitting the bid proposal, to satisfy itself that the specified quantity and/or quality of material exists in any proposed material source.

The contractor shall not produce material for the project, mobilize crushing equipment or clear a worksite prior to approval of the environmental analysis.

The contractor shall comply with the requirements of the landowner or agency having jurisdiction over the land.

The Department makes no representation regarding quality or quantity of materials in any source.

**1001-2.01 Information Available:**

The Department maintains a listing of materials sources for which a completed environmental analysis is available and the landowner has allowed the source to be placed on the list. Further information on material sources is available at

<https://azdot.gov/business/environmental-planning/material-source-guidance>.

## **1001-2.02 Material Sources in Floodplains:**

Any development of a material source that is determined to be in a flood plain must meet the requirements of the appropriate local, state, and federal agencies, including as applicable, the U.S. Army Corps of Engineers, Section 404 of the Clean Water Act, ADEQ or Tribal 401 Water Quality Certification, and the National or Arizona Pollutant Discharge Elimination System (NPDES/AZPDES).

If the contractor wishes to procure a material source within a floodplain, the contractor or material supplier shall submit a Floodplain Use Permit application to the appropriate floodplain management agency. The contractor shall submit to the Department documentation that the Floodplain Use Permit for the material source was approved and signed by the appropriate agency's Floodplain Administrator. The contractor or material supplier shall comply with all the requirements of the Floodplain Use Permit, including renewal of the Permit as needed or required.

The Department will require an engineering report if the material source is situated in the 100 year floodplain of any stream or watercourse, and located within one mile upstream and two miles downstream of any highway structure or surfaced roadway crossing. The engineering report shall be prepared by a professional engineer with expertise in hydrology, hydraulics, river mechanics, and fluvial geomorphology. The engineering report shall address the effects of the potential for structural damages following a 100 year flood event.

All other permits required to obtain a material source shall be furnished to the Department upon request.

Surplus material from agency administered flood control management projects may be used as borrow material only if the contractor submits written evidence to the Engineer that the flood control agency project was fully designed and funded.

Material sources in floodplains located on Native American Tribal Lands will be considered for use on an individual analysis. The analysis shall include a review of applicable land use plans, floodplain management plans, environmental plans, applicable laws and regulations pertaining to Native American Tribal Lands, and an engineering analysis of the effects on any highway facility or structure. The contractor shall obtain from the Bureau of Indian Affairs (BIA) and the Native American Tribal Council all permits, licenses, and approvals for the Department to review.

## **1001-2.03 Protection and Restoration:**

The contractor shall comply with the requirements of Subsections 107.11 and 107.12 of the specifications for protecting and restoring the material source. The contractor shall assume full responsibility to protect and rehabilitate the material source to the satisfaction of the Department and in compliance with the requirements of the Federal Land Management Agency (FLMA) having jurisdiction or by the owner of the material source.-

**1001-3 Proposed Source:**

**1001-3.01 Approval Requirements:**

**(A) General:**

The contractor shall notify the Engineer prior to or at the preconstruction conference as to the source that it proposes to use.

The contractor acknowledges that all the conditions set forth in this subsection shall be met prior to the source being approved for use.

Other than sampling and testing, the requirements of this subsection shall be completed prior to initiation of any activities that disturb the existing conditions at the proposed source.

Regulatory changes, specification changes, or other reasons may preclude the approval of a materials source. The contractor acknowledges that the Department may refuse to approve a material source even if the Department had approved the source for other projects.

**(B) Specific Conditions for Approval:**

The use of a source will require written approval by the Engineer. No approval will be given until the contractor has complied with the following conditions:

- (1) The contractor has submitted an environmental analysis, as specified in Subsection 104.12 of the specifications, of the source proposed for use and the Department has reviewed the analysis and satisfied itself that the use of such source will not have an adverse social, economic or environmental impact. The requirements of Subsection 1001-3.01 of the specifications shall be completed prior to initiation of any activities that disturb the existing conditions at the proposed source.
- (2) The contractor has furnished the Engineer with evidence that he has secured the rights to the source, including ingress and egress.

**(C) Historical and Cultural Resources:**

The archaeological survey report of the proposed material source shall be prepared by the contractor's archaeological consultant and shall conform to the requirements of Subsection 104.12 of the specifications.

In the event that prehistoric or historic structures and prehistoric or historic artifacts are encountered during any activity related to the construction of the material source, the contractor shall immediately cease operations within a 50 foot radius of the discovery location and notify the Engineer. In the event that an unmarked human burial and/or funerary remains are encountered during any activity related to the construction of the material source, the contractor shall immediately cease operations within a 100 foot radius

of the discovery location and notify the Engineer. The Engineer will contact the Environmental Planning – Historic Preservation Team so that appropriate notification of the discovery is made per state and federal regulations.

After notifying the Engineer, the contractor shall, within good faith, secure the area and take all reasonable measures to protect the historical and cultural resources. No activity shall resume unless authorized by the Engineer. The Engineer will not authorize resumption of any activity until receiving confirmation from the Environmental Planning – Historic Preservation Team that the contractor may commence work.

If the Department determines that the proposed use will have major adverse impact on cultural or historic resources, the Department will not allow the use of the source.

**(D) Permit from Navajo Nation:**

For projects located on the Navajo Reservation, the Navajo Nation has adopted a permitting system for any sources, regardless of whether on or off the Navajo reservation, which are to supply material for projects located within its boundaries. No material source will be approved until the contractor submits a copy of the permit from the Navajo Nation allowing materials from the proposed source to be used on the project. For information concerning the permit, the contractor shall contact the Navajo Nation Historic Preservation Office.

**(E) Bureau of Land Management Material Sources:**

If the contractor elects to pursue the use of material sources on BLM land under Title 30 Code of Federal Regulations, it is at the contractor's sole risk, and the Department bears no responsibility for any delays or costs associated with the request to use material sources on BLM Land.

The Department will not request or pursue any "free-use permit" under Title 23 Code of Federal Regulations or any other arrangement with BLM on this project.

**1001-4 Special Access within Right Of Way:**

The contractor may submit a request to the District Engineer to approve special access to a controlled access highway if special access is not shown on the project plans.

The request by the contractor shall be accompanied by an environmental analysis and by documents which specify the point(s) of access, the acquisition of right of way, the manner in which access will be attained, the traffic control plan, and crossovers, along with all other appropriate data which will allow the District Engineer to evaluate its request. If the request is approved, a supplemental agreement shall be entered into.

All costs associated with the special access requested by the contractor shall be borne by the contractor, including, but not limited to, cattle guards, fences, gates and restoration work.



When access is not being utilized, gates shall be closed and locked. Upon completion of all operations, the area within the right of way that has been disturbed shall be restored to the condition existing prior to the contractor's operations.

The decision by the District Engineer to deny a request by the contractor will be considered to be final.

#### **1001-5 Fences and Cattle Guards:**

Where the haul roads to material sources cross existing fence lines in areas where there is livestock of any kind, temporary cattle guards shall be installed by the contractor at each crossing.

The livestock operator or owner shall be contacted prior to the beginning of any operations and effective measures shall be taken and means provided by the contractor to prevent livestock from straying.

In operations where conditions will exist that are dangerous to livestock of any kind, temporary cattle guards and fence shall be installed around the pit area by the contractor to protect livestock.

Temporary cattle guards and fence installed by the contractor shall be removed and existing fence disturbed shall be replaced or reconstructed and all fence shall be left in as good condition as it was prior to the beginning of work.

**(1005PG, 12/17/20)**

### **SECTION 1005 BITUMINOUS MATERIALS:**

#### **1005-3 Bituminous Material Requirements:**

##### **1005-3.01 Asphalt Cement:** of the Standard Specifications is revised to read:

Asphalt cement shall be a performance grade (PG) asphalt binder conforming to the requirements of AASHTO M 320. Air blown/oxidized asphalt and recycled engine oil bottom (REOB) will not be accepted. Polyphosphoric acid (PPA) modification shall be limited to a maximum of 0.50 percent. The pressure aging temperature for all binders, including Terminal Blend rubberized binder and Polymer modified asphalt binder shall be as specified below:

<b>PG Asphalt Binder</b>	<b>Pressure Aging Temperature</b>
PG 70-XX and above	110 °C
PG 64-XX and below	100 °C

If Terminal Blend rubberized binder (XX-XXTR+) is used, it shall conform to the requirements of Table 1005-1 and 1005-1a.

If Polymer modified asphalt binder (XX-XXPM) is used, it shall conform to the requirements of Table 1005-1 and 1005-1b.

If, during asphaltic concrete production, it is determined by testing that asphalt cement fails to meet the requirements for the specified grade, the asphaltic concrete represented by the corresponding test results shall be evaluated for acceptance. Should the asphaltic concrete be allowed to remain in place, the contract unit price for asphalt cement will be adjusted by the percentage shown in Table 1005-1. Should the asphalt cement be in reject status, the contractor may, within 15 days of receiving notice of the reject status, supply an engineering analysis of the expected performance of the asphaltic concrete in which the asphalt cement is incorporated. The engineering analysis shall detail any proposed corrective action and the anticipated effect of such corrective action on the performance. Within three working days, the Engineer will determine whether or not to accept the contractor's proposal. If the proposal is rejected, the asphaltic concrete shall be removed and replaced with asphaltic concrete meeting the requirements of the specifications at no additional expense to the Department. If the contractor's proposal is accepted, the asphaltic concrete shall remain in place at the applicable percent of contract unit price allowed, and any necessary corrective action shall be performed at no additional cost to the Department.

**1005-3.03 Emulsified Asphalt:** the fourth paragraph of the Standard Specifications is revised to read:

Emulsified asphalts shall be homogeneous. If emulsified asphalt has separated, it shall be thoroughly mixed to insure homogeneity. If emulsified asphalt has separated due to freezing, it shall not be used. Emulsified asphalt shall not be used after 30 days from production.

**1005-3.04 Emulsified Asphalt (Special Type):** of the Standard Specifications is revised to read:

Emulsified asphalt (special type) shall consist of Type SS-1 or CSS-1 diluted with water to provide an asphalt content not less than 26 percent. The water used shall be potable. Potable water obtained from public utility distribution lines will be acceptable. The water used shall be free of injurious amounts of oil, acid, alkali, clay, vegetable matter, silt, or other harmful matter. The material shall not be diluted in the field.

**1005-3.07 Other Requirements:** the tables 1005-1a and 1005-1b of the Standard Specifications are revised to read:

TABLE 1005-1a Terminal Blend rubberized binder (XX-XXTR+)				
Test Property	Test Method	Requirement	Test Result	Percent of Contract Unit Price Allowed
Solubility, %, minimum	ASTM D7553 or ASTM 2042	98	-----	-----

Elastic Recovery, @ 10 °C, %, minimum	AASHTO T 301	75	75 70 - 74 < 70	100 80 65 (1)
(1) Reject Status: The pay adjustment applies if allowed to remain in place.				
<b>Notes:</b>  <p>In case of dispute, ASTM D2042 shall be used to determine the Solubility.</p> <p>The asphalt binder shall contain a minimum of 8 percent crumb rubber and a minimum of 3 percent SBS (styrene-butadiene-styrene) polymer.</p> <p>The crumb rubber shall be derived from processing whole scrap tires or shredded tire materials. The tires from which the crumb rubber is produced shall be taken from automobiles, trucks, or other equipment owned and operated in the United States. The processing shall not produce, as a waste product, casings or other round tire material that can retain moisture when stored or disposed of above ground.</p> <p>Modified binders shall be blended at the source of supply and delivered as a homogenous mixture to the job site.</p> <p>Modified Binders stored at the asphalt concrete mixing plant for more than two weeks or beyond the supplier recommended shelf life, whichever is less, shall be sampled and tested.</p>				

**TABLE 1005-1b**  
**Polymer Modified Asphalt Binder (XX-XXPM)**

Test Property	Test Method	Requirement	Test Result	Percent of Contract Unit Price Allowed
Solubility, %, minimum	ASTM D7553 or ASTM D2042	98	-----	-----
Elastic Recovery @ 10°C, %, minimum	AASHTO T 301	75	≥ 75 70 - 74 < 70	100 80 65 (1)
(1) Reject Status: The pay adjustment applies if allowed to remain in place.				

**TABLE 1005-1b**  
**Polymer Modified Asphalt Binder (XX-XXPM)**

Test Property	Test Method	Requirement	Test Result	Percent of Contract Unit Price Allowed
<b>Notes:</b>  In case of dispute, ASTM D2042 shall be used to determine the Solubility.  Asphalt binder shall contain a minimum of 3 percent SBS (styrene-butadiene-styrene) polymer.  Modified binders shall be blended at the source of supply and delivered as a homogenous mixture to the job site.  Modified Binders stored at the asphalt concrete mixing plant for more than two weeks or beyond the supplier recommended shelf life, whichever is less, shall be sampled and tested.				

**1005-3.07**      **Other Requirements:** the table 1005-1c of the Standard Specifications is hereby deleted.

**1005-3.07**      **Other Requirements:** the table 1005-3 of the Standard Specifications is revised to read:

<b>TABLE 1005-3</b>							
<b>EMULSIFIED ASPHALTS</b>							
Tests On Emulsion	Test Method	Requirement					
		RS-1	CRS-1	RS-2	CRS-2	SS-1	CSS-1
Viscosity: Saybolt Furol, seconds, range 77 °F 122 °F	AASHTO T 59	20-100	20-100	50-400	50-400	20-100	20-100
Settlement: 5 days, %, maximum	AASHTO T 59	5	5	5	5	5	5
Sieve: Retained on No. 20, %, maximum	AASHTO T 59 (1)	0.10	0.10	0.10		0.10	0.10
Particle Charge	AASHTO T 59		Pos.		Pos.		Pos. (2)
Demulsibility: 35 mL, 0.02 N calcium chloride , minimum	AASHTO T 59	60		60			
Classification: Uncoated	Arizona Test				55		

particles, minimum	%, Method 502						
Residue: (3)							
Residue, %, minimum (4)		55	60	63	65	57	57
<p>Notes:</p> <p>(1) Distilled water shall be used. Two percent sodium oleate solution will not be accepted.</p> <p>(2) If the Particle Charge Test result is inconclusive, material having a maximum PH value of 6.7 will be acceptable.</p> <p>(3) Residue will be obtained in accordance with the requirements of Arizona Test Method 504 and shall conform to all the requirements of AASHTO M 320 for PG 64-16, except that for CRS-2 the dynamic shear (<math>G^*/\sin \delta</math>) on the original residue shall be a minimum of 1.00 kPa and a maximum of 1.50 kPa.</p> <p>(4) Residue by evaporation may be determined in accordance with the requirements of Arizona Test Method 512; however, in case of dispute, AASHTO T 59 will be used.</p>							

**1005-3.07 Other Requirements:** the note (2) of Table 1005-3a of the Standard Specifications is revised to read:

(2) Testing shall be performed on residue by distillation. Testing on residue by oven evaporation will not be accepted.
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**1005-3.07 Other Requirements:** the table 1005-5 of the Standard Specifications is revised to read:

TABLE 1005-5					
EMULSIFIED RECYCLING AGENTS					
Tests on Emulsified Recycling Agent	Test Method	Requirement			
		ERA-1	ERA-5	ERA-25	ERA-75
Viscosity: Saybolt Furol, 77 °F, seconds range	AASHTO T 59	15 - 40	15 - 100	15 - 100	15 - 100
Miscibility	AASHTO T 59	Passes	Passes	Passes	Passes
Sieve Test: %, maximum	AASHTO T 59 (1)	0.10	0.10	0.10	0.10
Particle Charge	AASHTO T 59	Positive	Positive	Positive	Positive
Residue: (2) Residue, %, minimum	(3)	60	60	60	60

<b>Notes:</b>	
(1)	Distilled water shall be used. Two percent sodium oleate solution will not be accepted.
(2)	Residue will be obtained in accordance with the requirements of Arizona Test Method 504 and shall conform to the requirements specified in Table 1005-4.
(3)	Residue by evaporation may be determined in accordance with the requirements of Arizona Test Method 512; however, in case of dispute, AASHTO T 59 will be used.

**1005-3.07**      **Other Requirements:** the Paving Asphalt row of the table 1005-6 of the Standard Specifications is modified to add:

<b>TABLE 1005-6 OTHER REQUIREMENTS</b>			
<b>Grade of Asphalt Specification Designation</b>	<b>Range of Temperatures for Application by Spraying, °F (Not applicable for Plant Mixing)</b>	<b>Range of Aggregate Temperature s for Plant Mixing, °F</b>	<b>Basis of Conversion, Average Gallons Per Ton at 60 °F</b>
Paving Asphalt	275 - 400	-----	
PG 76-22 PM			231
PG 70-22 PM			232
PG 64-28 PM			233

**(1013BRPD, 01/20/22)**

**SECTION 1013 BEARING PADS:** of the ADOT Standard Specifications for Road and Bridge Construction is revised to read:

**1013-1 Preformed Fabric Pads:**

Preformed fabric pads shall be composed of multiple layers of 8-ounce cotton duck impregnated and bound with high quality natural rubber or of equivalent and equally suitable materials compressed into resilient pads of uniform thickness. The number of plies shall be such as to produce the specified thickness, after compression and vulcanizing. The finished pads shall withstand compression loads perpendicular to the plane of the laminations of not less than 10,000 pounds per square inch without detrimental reduction in thickness or extrusion.

Preformed fabric pad samples will be tested by the Department.

The manufacturer certification and sampling shall conform to the requirements of Subsection 1013-3 of the specifications.

**1013-2 Elastomeric Bearing Pads:**

**1013-2.01 General:**

The work shall consist of furnishing and installing elastomeric bearing pads. Bearings shall be constructed in accordance with the details shown on the contract plans and as specified in these specifications.

Prior to shipment from the point of manufacture, bearings shall be packaged in such manner to ensure that during shipment and storage the bearings will be protected against damage from handling, weather, or any normal hazard. All bearings shall be stored at the work site in an area that provides protection from environmental and physical damage. When installed, bearings shall be clean and free of all foreign substances.

Bearings shall be installed to the positions and orientations shown on the contract plans. Bearings shall be set level, in exact positions, and must have full and even bearing on all bearing planes. Bearings surfaces located at improper elevations or set not level and true to plane shall be corrected prior to placement of bearings. Elastomeric bearing pads shall be set directly on properly prepared concrete surfaces without bedding material.

Elastomeric bearing pads shall include unreinforced pads (consisting of elastomer only) and reinforced bearings with steel or fabric laminates.

Bearings shall be furnished with the material properties and elastomer grade required by the contract plans. Unless otherwise specified on the contract plans, bearings which have thicknesses greater than 1/2 inch shall be reinforced with steel or fabric laminates. The design method (A or B) and the design load shall also be shown on the plans, and testing

shall be performed accordingly. In the absence of more specific information, bearings shall be Grade 3, shall be an elastomer with 130 pounds per square inch shear modulus (55 durometer hardness).

### 1013-2.02 Material Properties:

The sole polymer in the elastomeric compound shall be neoprene and shall be not less than 60 percent, by volume, of the total compound. The elastomer compound shall be classified as being of low temperature Grade 0, 2, or 3. The grades are defined by the testing requirements in Table 1013-1. A higher grade of elastomer, signified by a larger grade number, may be substituted for a lower one.

The elastomer compound shall meet the minimum requirements of Table 1013-1, except as otherwise specified by the Engineer. Test requirements may be interpolated for intermediate hardness. The material will be specified by its shear modulus whose measured value shall lie within 15 percent of the specified value. A consistent value of hardness shall also be supplied for the purpose of defining limits for the tests in Table 1013-1. Laminated bearings shall have a shear modulus not greater than 200 pounds per square inch. When test specimens are cut from the finished product, the physical properties shall be permitted to vary by 10 percent from those specified in Table 1013-1. All material tests shall be carried out at  $73 \pm 4$  degrees F, unless otherwise noted. Shear modulus tests shall be carried out using the apparatus and procedures described in Annex A1 of ASTM D4014.

Certification, sampling, and testing shall conform to the requirements of Subsection 1013-3 of the specifications.

Table 1013-1					
ELASTOMERIC COMPOUND REQUIREMENTS					
Note that ASTM D1043 refers to "modulus of rigidity" while ASTM D4014 refers to "shear modulus." The word "stiffness" is used here to cover both terms.					
Physical Properties					
D2240	Hardness: Durometer	Shore A	45 to 75		
			45 to 55	56 to 65	66 to 75
D412	Ultimate Elongation: min. %		400	350	300
	Tensile Strength: min. psi		2250		
Heat Resistance					
D573: 70 hours at 212 °F	Change in Durometer Hardness: maximum points		15		
	Change in Tensile Strength: maximum %		-15		
	Change in Ultimate Elongation: maximum %		-40		
Compression Set					



ASTM D395, Method B	22 hr at 212°F: maximum %	35
<b>Ozone</b>		
ASTM D1149	100 pphm ozone in air by vol., 20 % strain, 100 ± 2°F, 100 hr, mounting IAW ASTM D1149 (Procedure A)	No Cracks
<b>Low Temperature Brittleness</b>		
D746 Procedure B	Grade 0: No Test Required Grade 2: No Test Required Grade 3: Brittleness at -40°F	- - No Failure
<b>Instantaneous Low Temperature Thermal Stiffening</b>		
ASTM D1043	Grade 0: Tested at -25°F Grade 2: Tested at -25°F Grade 3: Tested at -40°F	(1) (1) (1)
<b>Low Temperature Crystallization</b>		
ASTM D4014 Quad Shear Test As Described in Annex A	Grade 0: No Test Required Grade 2: 7 Days at 0°F Grade 3: 14 Days at -15°F	(2) (2) (2)
Notes:		
(1) Stiffness at test temperature shall not exceed four times the stiffness measured at 73°F.		
(2) Stiffness at test time and temperature shall not exceed four times the stiffness measured at 73°F with no time delay. The stiffness shall be measured with a quad shear test rig in an enclosed freezer unit. The test specimens shall be taken from a randomly selected bearing. A ±25% strain cycle shall be used, and a complete cycle of strain shall be applied with a period of 100 seconds. The first 3/4 cycle of strain shall be discarded, and the stiffness shall be determined by the slope of the force deflection curve for the next ½ cycle of loading.		

### 1013-2.03 Plain and Fabric-Reinforced Elastomeric Bearing Pads:

Pads less than or equal to ½ inch in thickness shall be all elastomer. Pads greater than 1/2 inch thick shall be laminated.

Laminated pads shall consist of alternate layers of elastomer and fabric reinforcement bonded together. The top and bottom layers of reinforcement shall be uniformly covered with a layer of elastomer. The thickness of elastomer cover shall be allowed per tolerances listed in Table 1013-2.

Laminated pads shall have reinforcement every  $\frac{1}{2}$  inch through the entire thickness. Fabric reinforcement shall be single-ply at top and bottom surfaces of the pad and double-ply within the pad. Fabric shall be free of folds and ripples and shall be parallel to the top and bottom surfaces. Variations in the location of the reinforcement from its theoretical location in excess of the specified Fabrication Tolerances will be cause for rejection.

Pads of all-elastomer or with fabric reinforcement may be cut from large sheets. Cutting shall be performed in such a manner as to avoid heating of the material, to produce a smooth edge with no tears or other jagged areas, and to cause as little damage to the material as possible. The cutting method shall not cause any separation of the fabric from the elastomer for laminated bearings.

Flash tolerance, finish, and appearance shall meet the requirements of the latest edition of the Rubber Handbook published by the Rubber Manufacturers Association, Inc., RMA F3 and T.063 for molded bearings and RMA F2 for extruded bearings.

The bond between elastomer and fabric shall be such that when a sample is tested for separation, it shall have a minimum peel strength of 30 pounds per inch of width.

Fabric reinforcement shall be woven from 100 percent glass fibers of E-type yarn with continuous fibers. The minimum thread count in either direction shall be 25 threads per inch. The fabric shall have either a crowfoot or an 8 Harness Satin weave. Each ply of fabric shall have a breaking strength of not less than 800 pounds per inch of width in each thread direction when 3 inch by 36 inch samples are tested on split drum grips. The bond between double plies shall have a minimum peel strength of 20 pounds per inch of width. Holes in the fabric will not be permitted.

At the contractor's option, steel-reinforced elastomeric bearing pads may be furnished in lieu of fabric-reinforced elastomeric bearing pads that are  $\frac{1}{2}$  inch and over in thickness.

#### **1013-2.04 Steel Reinforced Elastomeric Bearing Pads:**

For steel-reinforced elastomeric bearings, the edges of the steel shall be protected at all times from corrosion. Steel-reinforced elastomeric bearing pads shall conform to the requirements for steel-laminated elastomeric bearings as specified in ASTM D4014 and the following:

- (A) The thickness of each bearing pad shall be as shown on the project plans or as determined by the prefabricated truss manufacturer. The bearings shall consist of (N-1) internal elastomer laminates and N steel laminates, where N is equal to the bearing pad thickness in inches shown on the project plans divided by  $\frac{1}{2}$  inch. The steel laminates shall be 11 gage and shall be spaced every  $\frac{1}{2}$  inch, center-to-center. The top and bottom steel laminates shall have  $\frac{1}{4}$  inch of

elastomer cover as measured from the center of the steel laminate to the pad surface;

- (B) The elastomer clear cover thickness from the surface to the steel laminates at the sides of the bearings shall be 1/8 inch. If guide pins or other devices are used to control the side cover over the steel laminates, any exposed portions of the steel laminates shall be sealed by vulcanized patching;
- (C) Steel laminates used for reinforcement shall be made from rolled mild steel conforming to ASTM A36, ASTM A1011, or ASTM A1008, Grade 40. Holes in plates for manufacturing purposes will not be permitted unless they have been accounted for in the design, as shown on the contract plans;
- (D) Bearings with steel laminates shall be cast as a unit in a mold and shall be bonded and vulcanized under heat and pressure. The mold finish shall conform to standard shop practice. The internal steel laminates shall be sandblasted and cleaned of all surface coatings, rust, mill scale, and dirt before bonding, and shall be free of sharp edges and burrs. External load plates (sole plates) shall be protected from rusting by the manufacturer, and, preferably, shall be hot bonded to the bearing during vulcanization. Bearings that are designed to act as a single unit with a given shape factor must be manufactured as a single unit; and
- (E) Steel laminated bearings shall develop a minimum peel strength of 40 pounds per inch of width.

#### 1013-2.05 Fabrication Tolerances:

Plain and laminated bearing pads shall be built to the specified dimension within the tolerances listed in Table 1013-2.

<b>Table 1013-2 FABRICATION TOLERANCES</b>		
<b>Parameters</b>	<b>Tolerances</b>	
	<b>Minus</b>	<b>Plus</b>
1. Overall Height: Design Thickness 1-1/4 inch or less Design Thickness over 1-1/4 inch	0 0	+1/8 inch +1/4 inch
2. Overall Horizontal Dimensions: 36 inches or Less Over 36 inches	0 0	+1/4 inch +1/2 inch
3. Thickness of Individual Layers of Elastomer at any Point within the Bearing	± 20 % of Design Value but no more than ± 1/8 inch	
4. Parallelism with Opposite Face: Top and Bottom Sides	0.005 Radians 0.02 Radians	
5. Position of Exposed Connection		

Members, Holes, Slots, or Inserts	$\pm 1/8$ inch	
6. Edge Cover: Embedded Laminates or Connection Members	0	+1/8 inch
7. Thickness: Top and Bottom Cover Layer (if required)	0	+1/8 inch
8. Size: Holes, Slots, or Inserts	$\pm 1/8$ inch	

### **1013-3 Certification and Testing:**

#### **1013-3.01 General Requirements:**

##### **(A) General:**

A lot shall consist of a single type of bearing of the same design, material and thickness, delivered to the project site at the same time. Unless otherwise specified on the plans, certification and testing shall be as described in Subsections 1013-3.01(B) and (C) of the specifications.

##### **(B) Quality Control Testing by Manufacturer:**

The contractor shall furnish the Engineer with Certificates of Analysis from the manufacturer, conforming to the requirements of Subsection 106.05 of the specifications.

Each reinforced bearing shall be marked in indelible ink or flexible paint. The marking shall consist of the order number, lot number, bearing identification number, and elastomer type and grade number. The marking shall be on the face that is visible after erection of the bridge structures.

The ambient temperature tests on the elastomer described in Subsection 1013-3.02(A) of the specifications shall be conducted for the materials used in each lot of bearings. In lieu of performing a shear modulus test for each batch of material, the manufacturer may elect to provide certificates from tests performed within the preceding year on identical formulations.

All three low temperature tests described in Subsection 1013-3.02(C) of the specifications shall be conducted on Grade 3 material used in each lot of bearings, with the following exception. In lieu of the low temperature crystallization tests on each lot of bearings to be used, the manufacturer may choose to provide Certificates of Analysis from low-temperature crystallization tests performed within the preceding year on identical Grade 3 material.

Every finished bearing shall be visually inspected in accordance with Subsection 1013-3.02(C) of the specifications.

Every steel reinforced bearing shall be subjected to the short-term load test described in Subsection 1013-3.02(D) of the specifications.

From each lot of bearings designed by Method B of AASHTO LRFD Bridge Specifications Article 14.7.5, a random sample shall be subjected to the long-term load test described in Subsection 1013-3.02(E) of the specifications. The sample shall consist of at least one bearing chosen randomly from each size and material batch and shall comprise at least 10 percent of the lot. If one bearing of the sample fails, all the bearings of that lot shall be rejected, unless the manufacturer elects to test each bearing of the lot at no additional cost to the Department. In lieu of this random sampling procedure, the Engineer may require every bearing of the lot to be tested.

### **(C) Acceptance Testing:**

A minimum of two sample pads from every 100 pads furnished, or portion thereof, will be selected at random by the Engineer at the project site for testing. A minimum of one sample pad will be selected from each lot. Bearing pads marked or otherwise presented to the Department as being test pads shall not be tested. Samples shall consist of complete pads as detailed on the project plans and as specified herein. The contractor shall furnish additional complete pads to replace those taken for testing. Pads shall be available for testing at least three weeks in advance of intended use.

Acceptance testing shall be performed by a laboratory listed in the ADOT Directory of Approved Testing Laboratories on the Department's website.

The contractor shall, at no additional cost to the Department, have the elastomeric bearing pad samples tested by an approved testing laboratory. The testing laboratory shall be approved by the Engineer, shall not be affiliated with the bearing pad manufacturer, and shall be under the supervision of a registered professional engineer.

The contractor shall furnish the Engineer with Certificates of Analysis, conforming to the requirements of Subsection 106.05 of the specifications, from the approved testing laboratory certifying that the bearings tested conform to the specified requirements for dimensional tolerances and material properties. The following tests shall be performed as appropriate and be supported with Certificates of Analysis:

- (1) Ambient temperature test;
- (2) Heat resistance test;
- (3) Visual inspection;
- (4) Shear modulus test; and
- (5) Bond and peel strength tests

The heat resistance tests shall be performed in accordance with Subsection 1013-3.02(B) of the specifications.

Shear stiffness tests shall be performed on material from a random sample of the finished bearings in accordance with Subsection 1013-3.02(F) of the specifications.

### **1013-3.02 Testing Requirements:**

**(A) Ambient Temperature Tests on the Elastomer:**

The elastomer used shall satisfy the limits prescribed in Table 1013-1 for durometer hardness, tensile strength, and ultimate elongation. The bond to the reinforcement, if any, shall also satisfy the bond requirements in Subsection 1013-2.03 or 1013-2.04 of the specifications and shall be tested in accordance with ASTM D429, Method B. The shear modulus of the material shall be tested at 73 degrees F using the apparatus and procedure described in Annex A1 of ASTM D4014. The shear modulus shall fall within 15 percent of the specified value.

**(B) Heat Resistance Tests on the Elastomer:**

The elastomer shall satisfy the limits prescribed in Table 1013-1 for the change in durometer hardness, change in tensile strength, and change in ultimate elongation, as well as for compression set and ozone.

**(C) Visual Inspection of the Finished Bearing:**

Every finished bearing shall be inspected for compliance with dimensional tolerances and for overall quality of manufacturing.

**(D) Short-Duration Compression Tests on Bearings:**

The bearing shall be loaded in compression to 1.5 times its maximum design load. That load shall be held constant for five minutes, removed, and reapplied for another five minutes. The bearing shall be examined visually while under the second loading. If the bulging pattern suggests layer thickness or parallelism outside the specified tolerances or a poor laminate bond, the bearing shall be rejected. If there are three or more separate surface cracks greater than 0.08 inches wide and 0.08 inches deep, the bearing shall be rejected.

**(E) Long-Duration Compression Tests on Bearings:**

The bearing shall be loaded in compression to 1.5 times its maximum design load for a minimum period of 15 hours. If, during the test, the load falls below 1.3 times the maximum design load, the test duration shall be increased by the period of time for which the load is below this limit. The bearing shall be examined visually at the end of the test while it is still under load. If the bulging pattern suggests layer thickness or parallelism outside the specified tolerances or a poor laminate bond, the bearing shall be rejected. If there are three or more separate surface cracks greater than 0.08 inches wide and 0.08 inches deep, the bearing shall be rejected.

**(F) Shear Modulus Tests on Material From Bearings:**

The shear modulus of the material in the finished bearing shall be evaluated by testing a specimen cut from it using the apparatus and procedures described in Annex A1 of ASTM D4014, or, if directed by the Engineer, a comparable nondestructive stiffness test may be conducted on a pair of finished bearings. The shear modulus shall fall within 15 percent of

the specified value. If the test is conducted on finished bearings, the material shear modulus shall be computed from the measured shear stiffness of the bearings, taking account of the influence on shear stiffness of bearing geometry and compressive load.

**(G) Bond and Peel Strength Tests:**

Cold bonding between individual laminated pads, if used, shall be tested in accordance with the requirements of California Test Method 663.

The peel strength test shall be performed in accordance with ASTM D429, Method B, for both fabric and steel reinforced pads.

**1013-4 Installation:**

Bearings shall be placed on surfaces that are plane to within 1/16 inch and horizontal to within 0.01 radians. Exterior plates of the bearing shall not be welded unless at least 1-1/2 inches of steel exists between the weld and the elastomer. In no case shall the elastomer or the bond be subjected to temperatures higher than 400 degrees F.

## **Appendix A**

### **Western Burrowing Owl Awareness**





## Western Burrowing Owl Awareness

ADOT Environmental Planning Group

1611 W. Jackson St- Mail Drop EM02  
Phoenix, AZ 85007

*The purpose of this flyer is to provide ADOT employees and contractors, working on roadside projects, with basic knowledge to reduce the risk of incidental take of Western Burrowing Owls.*

### Legal Status:

Western Burrowing Owls (*Athene cunicularia*) are protected under the Federal Migratory Bird Treaty Act of 1918. All migratory birds and their parts are fully protected. They are also protected under Arizona State Law in Title 17-101, Title 17-235, and Title 17-236.

### What to look for:

- Description– small, ground-dwelling owl.
- Length– 19.5-25.0 cm (7.68-9.85 inches)
- Wingspan– 58.42 cm (23.0 inches)
- Mass– about 150 grams
- Males are typically slightly larger than females.
- Round head, lacks ear tufts.
- Distinct oval facial ruff, framed by a broad, puffy white eyebrow.
- Eyes contain a bright yellow iris.

### Where are owls found?

- Dry, open, short grass, treeless plains.
- Dependent on fossorial mammals. (ground squirrels, prairie dogs, badgers, etc.) to construct burrows.
- Human dominated landscapes: golf courses, airports, agricultural fields.

### Identifying an active burrow:

- Owls use burrows constructed by ground squirrels, badgers, coyotes and tortoises. They can also use pipes, culverts, and ditches.
- Presence of excrement (whitewash) near entrance to burrow.
- Burrowing owls frequently decorate entrance of burrows with cow or horse manure, feathers, vegetation and trash items.

### How to avoid them:

- Scan ahead prior to arriving at a sign location.
- If burrowing owls are observed within the project area, stop and move at least 100 feet beyond the owl or occupied burrow before resuming work.

*If you think your work may potentially impact a Burrowing Owl or active burrow, please stop.  
Move at least 100 feet from the animal or burrow before resuming work.*

*If you have any questions or think you have a borrowing owl or active burrow on your work site please contact:*

*Joshua Fife, Biologist, ADOT Environmental Planning Group, [jfife@azdot.gov](mailto:jfife@azdot.gov)*

*Office: (602)712-6819, Mobile: (602) 622-9622, EPG General: (602)712-7767*

*Source: Arizona Game and Fish Department Animal Abstract: Western Burrowing Owl. Heritage Data Management System*

*(revised November 25, 2013)*

## REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

### ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

### I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

### II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

#### **6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

#### **8. Reasonable Accommodation for Applicants /**

**Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

#### **9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:**

The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### **10. Assurances Required:**

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov). The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov), refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

## 2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph



2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its procurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

### 3. Records and certified payrolls (29 CFR 5.5)

*a. Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

*(2) Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

*(3) Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

*(4) Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

*b. Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

*(2) Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHDL/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

*(3) Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

*(4) Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature*. The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification*. The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention*. The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents*. The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers*. The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements*. If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures*. Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

#### **4. Apprentices and equal employment opportunity (29 CFR 5.5)**

a. *Apprentices (1) Rate of pay*. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits*. Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio*. The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates*. Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity*. The use of apprentices and journeyworkers under this part must be in conformity with



the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

**6. Subcontracts.** The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

**9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.** a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

**11. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

## **V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)\* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

\* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

### 3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

**4. Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

**5. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

- a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;
- b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;
- c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or
- d. Informing any other person about their rights under CWHSSA or this part.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and  
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

## **VII. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

## **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

## **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)**

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

## **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

\* \* \* \* \*

## **2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with 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 (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

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## **3. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

\* \* \* \* \*

#### **4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with 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. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

\* \* \* \* \*

#### **XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

#### **XII. USE OF UNITED STATES-FLAG VESSELS:**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.



**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY  
CONSTRUCTION CONTRACT SPECIFICATIONS  
EXECUTIVE ORDER 11246, July 1, 1978**

(Revised November 3, 1980)

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted:

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority:

c. "Employer Identification Number" means the Federal Social Security Number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin):

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race):

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership or participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown plan. Each Contractor or Subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each

construction trade in which it has employees in the covered area

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications. Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such site or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on the job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations: by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and



female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative actions obligations (7a through p). The efforts of a contractor association, joint contractor- union, contractor community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is under utilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm

debarred from Government Contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as an limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

## TITLE VI / NON-DISCRIMINATION ASSURANCES

### APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, the *Federal Highway Administration*, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performance by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the *Federal Highway Administration* to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the *Federal Highway Administration*, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the *Federal Highway Administration*, may determine to be appropriate, including, but not limited to:
  - a. withholding payments to the contractor under the contract until the contractor complies; and/or
  - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with request to any subcontract or procurement as the Recipient or the *Federal Highway Administration* may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**TITLE VI / NON-DISCRIMINATION ASSURANCES**  
**APPENDIX E**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

**Pertinent Non-Discrimination Authorities:**

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1687 *et. seq.*).

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION  
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY  
(EXECUTIVE ORDER 11246)

JULY 1, 1978 (Revised November 3, 1980)

(Revised April 15, 1981)

1. The bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

	Minority	Female
Tucson and balance of Pima County Cochise, Graham, Greenlee and Santa Cruz Counties	24.1 27.0	6.9 6.9
Phoenix and balance of Maricopa County Apache, Coconino, Gila, Mohave, Navajo, Pinal, Yavapai and Yuma Counties	15.8 19.6	6.9 6.9

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in all areas where he has Federal or federally assisted work.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3 (a), and 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, and 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, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

EQUAL EMPLOYMENT OPPORTUNITY  
COMPLIANCE REPORTS

(Project, Training and Annual)

Federal-Aid Projects

February 1, 1977; Revised July 1, 1978; Revised November 3, 1980

Revised April 15, 1981; Revised September 7, 1983

Revised October 15, 1998; Revised August, 1, 2005;

Revised March 1, 2015

**ANNUAL REPORT:**

For each contract in the amount of \$10,000 or more, and for each subcontract, regardless of tier not including material suppliers, in the amount of \$10,000 or more, the contractor and each subcontractor regardless of tier shall submit an annual Equal Employment Opportunity (EEO) Report containing all the information required on Form FHWA-1391. Contractors and subcontractors are required to submit the required information through the LCPtracker system, a labor compliance software monitoring certified payroll and prevailing wage.

The staffing figures to be reported should represent the project workforce on board in all or any part of the last payroll period preceding the end of July.

The report shall be submitted no later than September 1.

"General Decision Number: AZ20230008 01/06/2023

Superseded General Decision Number: AZ20220008

State: Arizona

Construction Type: Highway

Counties: Coconino, Maricopa, Mohave, Pima, Pinal, Yavapai and Yuma Counties in Arizona.

#### HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered  into on or after January 30,  2022, or the contract is  renewed or extended (e.g., an  option is exercised) on or  after January 30, 2022:           	. Executive Order 14026  generally applies to the  contract.  . The contractor must pay  all covered workers at  least \$16.20 per hour (or  the applicable wage rate  listed on this wage  determination, if it is  higher) for all hours  spent performing on the  contract in 2023. 
If the contract was awarded on  or between January 1, 2015 and  January 29, 2022, and the  contract is not renewed or  extended on or after January  30, 2022:     	. Executive Order 13658  generally applies to the  contract.  . The contractor must pay all  covered workers at least  \$12.15 per hour (or the  applicable wage rate listed  on this wage determination,  if it is higher) for all 

		hours spent performing on	
		that contract in 2023.	

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/06/2023

CARP0408-005 07/01/2022

	Rates	Fringes
CARPENTER (Including Cement Form Work).....	\$ 32.90	13.62
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ENGI0428-001 06/01/2022		

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1.....	\$ 30.14	12.57
Group 2.....	\$ 33.41	12.57
Group 3.....	\$ 34.49	12.57
Group 4.....	\$ 35.52	12.57

#### POWER EQUIPMENT OPERATORS CLASSIFICATIONS:

GROUP 1: A-frame boom truck, air compressor, Beltcrete, boring bridge and texture, brakeman, concrete mixer (skip type), conductor, conveyor, cross timing and pipe float, curing machine, dinky (under 20 tons), elevator hoist (Husky and similar), firemen, forklift, generator (all), handler, highline cableway signalman, hydrographic mulcher, joint inserter, jumbo finishing machine, Kolman belt loader, machine conveyor, multiple power concrete saw, pavement breaker, power grizzly, pressure grout machine,

pump, self-propelled chip spreading machine, slurry seal machine (Moto paver driver), small self-propelled compactor (with blade-backfill, ditch operation), straw blower, tractor (wheel type), tripper, tugger (single drum), welding machine, winch truck

GROUP 2:

ALL COUNTIES INCLUDING MARICOPA: Aggregate Plant, Asphalt plant Mixer, Bee Gee, Boring Machine, Concrete Pump, Concrete Mechanical Tamping-Spreading Finishing Machine, Concrete Batch Plant, Concrete Mixer (paving & mobile), Elevating Grader (except as otherwise classified), Field Equipment Serviceman, Locomotive Engineer (including Dinky 20 tons & over), Moto-Paver, Oiler-Driver, Operating Engineer Rigger, Power Jumbo Form Setter, Road Oil Mixing Machine, Self-Propelled Compactor (with blade-grade operation), Slip Form (power driven lifting device for concrete forms), Soil Cement Road Mixing Machine, Pipe-Wrapping & Cleaning Machine (stationary or traveling), Surface Heater & Planer, Trenching Machine, Tugger (2 or more drums).

MARICOPA COUNTY ONLY: Backhoe < 1 cu yd, Motor Grader (rough), Scraper (pneumatic tired), Roller (all types asphalt), Screed, Skip Loader (all types 3<6 cu yd), Tractor (dozer, pusher-all).

GROUP 3:

ALL COUNTIES INCLUDING MARICOPA: Auto Grade Machine, Barge, Boring Machine (including Mole, Badger & similar type directional/horizontal), Crane (crawler & pneumatic 15>100 tons), Crawler type Tractor with boom attachment & slope bar, Derrick, Gradall, Heavy Duty Mechanic-Welder, Helicopter Hoist or Pilot, Highline Cableway, Mechanical Hoist, Mucking Machine, Overhead Crane, Pile Driver Engineer (portable, stationary or skid), Power Driven Ditch Lining or Ditch Trimming Machine, Remote Control Earth Moving Machine, Slip Form Paving Machine (including Gunnert, Zimmerman & similar types), Tower Crane or similar type.

MARICOPA COUNTY ONLY: Backhoe<10 cu yd, Clamshell < 10 cu yd, Concrete Pump (truck mounted with boom only), Dragline <10 cu yd, Grade Checker, Motor Grader (finish-any type power blade), Shovel < 10 cu yd.

GROUP 4: Backhoe 10 cu yd and over, Clamshell 10 cu yd and



over, Crane (pneumatic or crawler 100 tons & over),  
Dragline 10 cu yd and over, Shovel 10 cu yd and over.

All Operators, Oilers, and Motor Crane Drivers on equipment  
with Booms, except concrete pumping truck booms, including  
Jibs, shall receive \$0.01 per hour per foot over 80 ft in  
addition to regular rate of pay

Premium pay for performing hazardous waste removal \$0.50 per  
hour over base rate.

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IRON0075-004 08/01/2022

COCONINO, MARICOPA, MOHAVE, YAVAPAI & YUMA COUNTIES

	Rates	Fringes
Ironworker, Rebar.....	\$ 28.50	18.16
Zone 1: 0 to 50 miles from City Hall in Phoenix or Tucson		
Zone 2: 050 to 100 miles - Add \$4.00		
Zone 3: 100 to 150 miles - Add \$5.00		
Zone 4: 150 miles & over - Add \$6.50		

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LABO1184-008 06/01/2021

	Rates	Fringes
Laborers:		
Group 1.....	\$ 21.93	6.27
Group 2.....	\$ 23.57	6.27
Group 3.....	\$ 24.43	6.27
Group 4.....	\$ 25.40	6.27
Group 5.....	\$ 26.50	6.27

LABORERS CLASSIFICATIONS:

GROUP 1: All Counties: Chipper, Rip Rap Stoneman. Pinal  
County Only: General/Cleanup Laborer. Maricopa County  
Only: Flagger.

GROUP 2: Asphalt Laborer (Shoveling-excluding Asphalt Raker  
or Ironer), Bander, Cement Mason Tender, Concrete Mucker,  
Cutting Torch Operator, Fine Grader, Guinea Chaser, Power  
Type Concrete Buggy

GROUP 3: Chain Saw, Concrete Small Tools, Concrete Vibrating Machine, Cribber & Shorer (except tunnel), Hydraulic Jacks and similar tools, Operator and Tender of Pneumatic and Electric Tools (not herein separately classified), Pipe Caulker and Back-Up Man-Pipeline, Pipe Wrapper, Pneumatic Gopher, Pre-Cast Manhole Erector, Rigger and Signal Man-Pipeline

GROUP 4: Air and Water Washout Nozzleman; Bio-Filter, Pressman, Installer, Operator; Scaffold Laborer; Chuck Tender; Concrete Cutting Torch; Gunite; Hand-Guided Trencher; Jackhammer and/or Pavement Breaker; Scaler (using boson's chair or safety belt); Tamper (mechanical all types).

GROUP 5: AC Dumpman, Asbestos Abatement, Asphalt Raker II, Drill Doctor/Air Tool Repairman, Hazardous Waste Removal, Lead Abatement, Lead Pipeman, Process Piping Installer, Scaler (Driller), Pest Technician/Weed Control, Scissor Lift, Hydro Mobile Scaffold Builder.

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PAIN0086-001 04/01/2017

	Rates	Fringes
PAINTER		
PAINTER (Yavapai County only), SAND BLASTER/WATER BLASTER (all Counties).....	\$ 19.58	6.40
ZONE PAY: More than 100 miles from Old Phoenix Courthouse \$3.50 additional per hour.		

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SUAZ2009-001 04/20/2009

	Rates	Fringes
CEMENT MASON.....	\$ 19.28	3.99
ELECTRICIAN.....	\$ 22.84	6.48
IRONWORKER (Rebar)		
Pima County.....	\$ 23.17	14.83
Pinal County.....	\$ 20.27	8.35

# LABORER

Asphalt Raker.....	\$ 15.49	**	3.49
Compaction Tool Operator....	\$ 14.59	**	2.91
Concrete Worker.....	\$ 13.55	**	3.20
Concrete/Asphalt Saw.....	\$ 13.95	**	2.58
Driller-Core, diamond, wagon, air track.....	\$ 16.94		3.12
Dumpman Spotter.....	\$ 14.99	**	3.16
Fence Builder.....	\$ 13.28	**	2.99
Flagger			
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 12.35	**	1.59
Formsetter.....	\$ 16.09	**	3.97
General/Cleanup Laborer			
Coconino, Maricopa, Mohave, Pima, Yavapai & Yuma.....	\$ 14.54	**	3.49
Grade Setter (Pipeline).....	\$ 17.83		5.45
Guard Rail Installer.....	\$ 13.28	**	2.99
Landscape Laborer.....	\$ 11.39	**	
Landscape Sprinkler Installer.....	\$ 15.27	**	
Pipelayer.....	\$ 14.81	**	2.96
Powderman, Hydrasonic.....	\$ 16.39		2.58

# OPERATOR: Power Equipment

Asphalt Laydown Machine.....	\$ 21.19		6.05
Backhoe < 1 cu yd			
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 17.37		3.85
Backhoe < 10 cu yd			
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72		3.59
Clamshell < 10 cu yd			
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72		3.59
Concrete Pump (Truck Mounted with boom only)			
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 19.92		7.10
Crane (under 15 tons).....	\$ 21.35		7.36
Dragline (up to 10 cu yd)			
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72		3.59
Drilling Machine (including Water Wells).....	\$ 20.58		5.65

# Grade Checker

Coconino, Mohave, Pima,		
Pinal, Yavapai & Yuma.....	\$ 16.04 **	3.68
Hydrographic Seeder.....	\$ 15.88 **	7.67
Mass Excavator.....	\$ 20.97	4.28
Milling Machine/Rotomill....	\$ 21.42	7.45
Motor Grader (Finish-any type power blade)		
Coconino, Mohave, Pima,		
Pinal, Yavapai & Yuma.....	\$ 21.92	4.66
Motor Grader (Rough)		
Coconino, Mohave, Pima,		
Pinal, Yavapai & Yuma.....	\$ 20.07	4.13
Oiler.....	\$ 18.15	8.24
Power Sweeper.....	\$ 16.76	4.44
Roller (all types Asphalt)		
Coconino, Mohave, Pima,		
Pinal, Yavapai & Yuma.....	\$ 18.27	3.99
Roller (excluding asphalt)..<	\$ 15.65 **	3.32
Scraper (pneumatic tired)		
Coconino, Mohave, Pima,		
Pinal, Yavapai & Yuma.....	\$ 17.69	3.45
Screed		
Coconino, Mohave, Pima,		
Pinal, Yavapai & Yuma.....	\$ 17.54	3.72
Shovel < 10 cu yd		
Coconino, Mohave, Pima,		
Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Skip Loader (all types <3 cu yd).....	\$ 18.28	5.30
Skip Loader (all types 3 < 6 cu yd)		
Coconino, Mohave, Pima,		
Pinal, Yavapai & Yuma.....	\$ 18.64	4.86
Skip Loader (all types 6 < 10 cu yd).....	\$ 20.15	4.52
Tractor (dozer, pusher - all)		
Coconino, Mohave, Pima,		
Pinal, Yavapai & Yuma.....	\$ 17.26	2.65

## PAINTER

Coconino, Maricopa,		
Mohave, Pima, Pinal & Yuma..	\$ 15.57 **	3.92

## TRUCK DRIVER

2 or 3 Axle Dump or

Flatrack.....	\$ 16.27	3.30
5 Axle Dump or Flatrack.....	\$ 13.97 **	2.89
6 Axle Dump or Flatrack (< 16 cu yd).....	\$ 17.79	6.42
Belly Dump.....	\$ 14.67 **	
Oil Tanker Bootman.....	\$ 22.03	
Self-Propelled Street Sweeper.....	\$ 13.11 **	5.48
Water Truck 2500 < 3900 gallons.....	\$ 18.14	4.55
Water Truck 3900 gallons and over.....	\$ 15.92 **	3.33
Water Truck under 2500 gallons.....	\$ 15.94 **	4.16

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

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\*\* Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$16.20) or 13658 (\$12.15). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

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)).

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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 a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 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. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates

the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### 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 National Office because National Office has 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.

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END OF GENERAL DECISION"



ARIZONA DEPARTMENT OF TRANSPORTATION  
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION  
CONTRACTS AND SPECIFICATIONS GROUP

## BID SCHEDULE

**CONTRACT # 2022094**

TRACS No.	Project No.	Item	County	District	Gross Length	Net Length	Prepared By:
0000 MA PE0 T032101C	PE0-0-(229)T	101700	MARICOPA	CENTRAL		0	Jalal Kamal

Highway Termini	Location	Work Description
• CITY OF PEORIA	• 75th Ave to Skunk Creek	• System Enhancement (Traffic Mgmt and Engineering)

**BID SCHEDULE**

0000 MA PE0 T032101C

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Amount
2010020	REMOVAL OF TREES	EACH	4		
2020009	REMOVAL OF STRUCTURAL CONCRETE	CU.YD.	64		
2020025	REMOVAL OF CONCRETE SIDEWALKS, DRIVEWAYS AND SLABS	SQ.FT.	1,982		
2020036	REMOVAL OF ASPHALTIC CONCRETE PAVEMENT	SQ.YD.	872		
2020051	REMOVE (GROUTED RIPRAP)	CU.YD.	351		
2020101	REMOVE FENCE	L.FT.	64		
2030301	ROADWAY EXCAVATION	CU.YD.	2,078		
2030501	STRUCTURAL EXCAVATION	CU.YD.	187		
2030506	STRUCTURE BACKFILL	CU.YD.	50		
3030022	AGGREGATE BASE, CLASS 2	CU.YD.	59		
4090003	ASPHALTIC CONCRETE (MISCELLANEOUS STRUCTURAL)	TON	59		
6010003	STRUCTURAL CONCRETE (CLASS S) (F'C = 3,500)	CU.YD.	44		
6010005	STRUCTURAL CONCRETE (CLASS S) (F'C = 4,500)	CU.YD.	48		
6050002	REINFORCING STEEL	LB.	19,769		
6070048	FOUNDATION FOR SQUARE TUBE POST	EACH	5		

**BID SCHEDULE**

0000 MA PE0 T032101C

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Amount
6070054	SIGN POST (PERFORATED) (2 S)	L.FT.	42		
6070055	SIGN POST (PERFORATED) (2 1/2 S)	L.FT.	13		
6080005	REGULATORY, WARNING, OR MARKER SIGN PANEL	SQ.FT.	55		
6080110	REMOVE AND REINSTALL SIGN	EACH	1		
6090048	DRILLED SHAFT FOUNDATION (48")	L.FT.	141		
7010005	MAINTENANCE AND PROTECTION OF TRAFFIC	L.SUM	1		
7015091	SPECIALTY SIGNS	SQ.FT.	42		
7080202	WATERBORNE-TYPE I PAVEMENT MARKING (PAINTED) (YELLOW)	L.FT.	430		
7320110	ELECTRICAL CONDUIT (1") (RIGID METAL)	L.FT.	800		
7320500	CONDUCTOR (NO. 12)	L.FT.	2,400		
7360348	UNDERDECK LIGHTING	EACH	4		
8030100	DECOMPOSED GRANITE	CU.YD.	24		
8101014	EROSION CONTROL (WATTLE) (20")	L.FT.	2,665		
8101018	EROSION CONTROL (STABILIZED CONSTRUCTION ENTRANCE/EXIT GRAVEL PAD)	SQ.YD.	250		
9010001	MOBILIZATION	L.SUM	1		

**BID SCHEDULE**

0000 MA PE0 T032101C

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Amount
9080242	CONCRETE SIDEWALK (STRUCTURAL CONCRETE (CLASS S) (F'C = 3,000) (6"))	SQ.FT.	16,590		
9130001	RIPRAP (DUMPED)	CU.YD.	170		
9130009	RIPRAP (GROUTED)(FCD DET 555-1)	CU.YD.	2,528		
9240011	FORCE ACCOUNT WORK (BIOLOGIST)	L.SUM	1	\$15,000.00	\$15,000.00
9240050	MISCELLANEOUS WORK (PREFABRICATED STEEL TRUSS BRIDGE)	L.SUM	1		
9240051	MISCELLANEOUS WORK (ESTABLISH ELECTRICAL CONNECTION)	L.SUM	1		
9240052	MISCELLANEOUS WORK (WINGWALL CONCRETE CAP)	L.SUM	1		
9240111	MISCELLANEOUS WORK (METAIL RAILINGS)	L.FT.	41		
9240119	MISCELLANEOUS WORK (COLLAPSIBLE BOLLARD)	EACH	2		
9240135	MISCELLANEOUS WORK (COP SIGN TYPE A1.1 AND FOUNDATION)	EACH	2		

BID SCHEDULE

0000 MA PE0 T032101C

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Amount
9250001	CONSTRUCTION SURVEYING AND LAYOUT	L.SUM	1		

BID TOTAL :

## PROPOSAL

TO THE ARIZONA DEPARTMENT OF TRANSPORTATION:

Gentlemen:

The following Proposal is made for constructing project

0000 MA PEO T032101C PEO-0(229)T  
CITY OF PEORIA  
(STADIUM TRAIL PHASE II; 75TH AVE TO SKUNK CREEK)

in the State of Arizona.

The following Proposal is made on behalf of \_\_\_\_\_

and no others.

\_\_\_\_\_  
(NAME OF COMPANY, FIRM, OR CORPORATION)

The undersigned hereby certifies that (s)he has been duly authorized to submit a proposal on behalf of the company, firm, or corporation mentioned above; and further certifies, pursuant to Subsection 112(c) of Title 23, United States Code and Title 44, Chapter 10, Article 1 of the Arizona Revised Statutes, that neither (s)he nor anyone associated with the company, firm, or corporation mentioned above has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such project and furthermore that no member or employee of the Arizona Department of Transportation is personally or financially interested, directly or indirectly, in the Proposal, or in any purchase or sale of any materials or supplies for the work to which it relates, or in any portion of the profits thereof.

The undersigned certifies that the approved Plans, Standard Specifications, Special Provisions and forms of Contract and Bond authorized by the Arizona Department of Transportation and constituting essential parts of this proposal, have been carefully examined, and also that the site of the work has been personally inspected. The undersigned declares that the amount and nature of the work to be done is understood and that at no time will misunderstanding of the Plans, Specifications, Special Provisions, or conditions to be overcome, be plead. On the basis of Plans, Specifications, Special Provisions, and the forms of Contract and Bond proposed for use, the undersigned proposes to furnish all the necessary equipment, materials, machinery, tools, apparatus, and other means of construction, and labor to do all the work in the manner specified, and to accept, as full compensation therefor, the sum of the various products obtained by multiplying each unit price, herein bid for the work or materials, by the quantity thereof actually incorporated in the complete project, as determined by the State Engineer. The undersigned understands that the quantities mentioned herein are approximate only and are subject to increase or decrease and hereby proposes to perform all quantities of work as either increased or decreased, in accordance with the provisions of the Specifications, at the unit price bid in the Bidding Schedule.

The undersigned further proposes to perform all extra work that may be required on the basis provided in the Specifications and to give such work personal attention and to secure economical performance.

The undersigned further proposes to execute the Contract Agreement and furnish satisfactory Bond within ten calendar days from the date of Notice of Award, time being of the essence. The undersigned further proposes to begin work as specified in the contract attached hereto, and to complete the work on or before expiration of the contract time as defined in the Specifications, and maintain at all times a Payment Bond and a Performance Bond, approved by the State Engineer, in an amount equal to one hundred (100) percent of the total bid. These bonds shall serve not only to guarantee the completion of the work on the part of the undersigned, but also to guarantee the excellence of both workmanship and material and the payment of all obligations incurred, until the work is finally accepted and the provisions of the Plans, Standard Specifications and Special Provisions fulfilled.

12-5901 R03/11

Proposal  
Sheet 1 of 2

The undersigned hereby agrees to provide an electronic Proposal Guaranty in the amount and character named in the Advertisement for Bids. The Proposal Guaranty is submitted as a guaranty of the good faith of the bidder, and that the bidder will enter into written contract, as provided, to do the work, if successful in securing the award thereof, and it is hereby agreed that if at any time other than as provided in the Proposal there should be failure on the part of the undersigned to execute the Contract and furnish satisfactory Bond as herein provided, the State of Arizona, in either of such events, shall be entitled and is hereby given the right to retain the said Proposal Guaranty as liquidated damages.

If by a Corporation:

(Seal)

Corporate Name: \_\_\_\_\_

Corporate Mailing Address: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Incorporated under the laws of the State of: \_\_\_\_\_

By (Signature): \_\_\_\_\_ Date: \_\_\_\_\_

President: \_\_\_\_\_

Secretary: \_\_\_\_\_

Treasurer: \_\_\_\_\_

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If by a Firm or Partnership:

Firm or Partnership Mailing Name: \_\_\_\_\_

Firm or Partnership Address: \_\_\_\_\_

By (Signature): \_\_\_\_\_ Date: \_\_\_\_\_

Name and Address of Each Member: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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If by an Individual:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

ARIZONA DEPARTMENT OF TRANSPORTATION  
**SURETY (BID) BOND**  
(Penalty of this bond must not be less than 10% of the bid amount)



KNOW ALL MEN BY THESE PRESENTS, THAT \_\_\_\_\_

as Principal, hereinafter called the Principal, and \_\_\_\_\_

\_\_\_\_\_ a corporation duly organized under the laws of the state of \_\_\_\_\_ hereinafter called the Surety, holding a certificate of authority to transact surety business in this State issued by the Director of the Department of Insurance, are held and firmly bound unto the Arizona Department of Transportation, as Obligee, hereinafter called the Obligee, in the sum of Ten Percent (10%) of the amount of the bid of Principal, submitted by Principal to the Arizona Department of Transportation for the work described below, for the payment of which sum well and truly to be made, the said Principal and the said Surety bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is herewith submitting its proposal for TRACS/Project No. \_\_\_\_\_

0000 MA PEO T032101C PEO-0(229)T  
CITY OF PEORIA  
(STADIUM TRAIL PHASE II; 75TH AVE TO SKUNK CREEK)

NOW THEREFORE, if the Obligee, acting by and through its Transportation board, shall accept the proposal of the Principal and the Principal shall enter into contract with the Obligee in accordance with the terms of such proposal, and give such bonds and certificates of insurance as may be specified in the contract documents with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter into such contract and give such bonds and certificates of insurance, if the Principal shall pay to the Obligee the difference not to exceed the penalty of the bond between the amount specified in the proposal and such larger amount for which the obligee may in good faith contract with another party to perform the work covered by the proposal then this obligation is void. Otherwise it remains in full force and effect.

IN WITNESS WHEREOF, we hereunto set our hands and seals:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Surety

\_\_\_\_\_  
By

\_\_\_\_\_  
By Attorney-in-Fact

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address Attorney-in-Fact

Subscribed and sworn before me  
this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

My Commission expires: \_\_\_\_\_



**CERTIFICATION WITH REGARD TO THE PERFORMANCE OF  
PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO THE  
EQUAL OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS  
APRIL, 1969**

The bidder \_\_\_\_\_, proposed subcontractor \_\_\_\_\_, hereby certifies that it has \_\_\_\_\_, has not \_\_\_\_\_, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that it has \_\_\_\_\_, has not \_\_\_\_\_, filed with the Joint Reporting committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

\_\_\_\_\_  
(Company)

By: \_\_\_\_\_

\_\_\_\_\_  
(Title)

Date: \_\_\_\_\_

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7b (1),) and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5 (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Information concerning Standard Form 100 (EEO-1) is available from:

Joint Reporting Committee  
P.O. Box 19100  
Washington, D.C. 20036-9100

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

0000 MA PEO T032101C PEO-0(229)T  
CITY OF PEORIA  
(STADIUM TRAIL PHASE II; 75TH AVE TO SKUNK CREEK)

R7/03

**CERTIFICATION WITH RESPECT TO THE  
RECEIPT OF ADDENDA**

In the submission of a bid and by the signing of the Proposal, this will certify that the following numbered addenda issued on this project have been brought to my personal attention and furthermore that I understand and agree that those will be made a part of the Contract.

Addendum No. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_  
PRINT NAME OF CONTRACTOR

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
DATE

0000 MA PEO T032101C PEO-0(229)T  
CITY OF PEORIA  
(STADIUM TRAIL PHASE II; 75TH AVE TO SKUNK CREEK)

**ARIZONA DEPARTMENT OF TRANSPORTATION  
PARTICIPATION IN BOYCOTT OF ISRAEL CERTIFICATION FORM**

**Unless and until the District Court's injunction in Jordahl is stayed or lifted, the Anti-Israel Boycott Provision (A.R.S. § 35-393.01(A)) is unenforceable and the State will take no action to enforce it. This attachment (Participation in Boycott of Israel) is no longer a mandatory part of the offer. Offers will not be evaluated based on whether this certification has been completed.**

0000 MA PEO T032101C PEO-0(229)T  
CITY OF PEORIA  
(STADIUM TRAIL PHASE II; 75TH AVE TO SKUNK CREEK)

**This Certification is required in response to legislation enacted to prohibit the State from contracting with companies currently engaged in a boycott of Israel. To ensure compliance with A.R.S. §35-393.01, this form must be completed and returned with the bid. The bidder understands that this response will become public record and may be subject to public inspection.**

**As defined by A.R.S. §35-393.01:**

1. "Boycott" means engaging in a refusal to deal, terminating business activities or performing other actions that are intended to limit commercial relations with Israel or with persons or entities doing business in Israel or in territories controlled by Israel, if those actions are taken either:
  - (a) In compliance with or adherence to calls for a boycott of Israel other than those boycotts to which 50 United States Code section 4607(c) applies.
  - (b) In a manner that discriminates on the basis of nationality, national origin or religion and that is not based on a valid business reason.
2. "Company" means a sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, Limited Liability Company or other entity or business association, and includes a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate.
3. "Direct holdings" means all publicly traded securities of a company that are held directly by the state treasurer or a retirement system in an actively managed account or fund in which the retirement system owns all shares or interests.
4. "Indirect holdings" means all securities of a company that are held in an account or fund, including a mutual fund, that is managed by one or more persons who are not employed by the state treasurer or a retirement system, if the state treasurer or retirement system owns shares or interests either:
  - (a) Together with other investors that are not subject to this section.
  - (b) That are held in an index fund.
5. "Public entity" means this State, a political subdivision of this STATE or an agency, board, commission or department of this state or a political subdivision of this state.
6. "Public fund" means the state treasurer or a retirement system.
7. "Restricted companies" means companies that boycott Israel.
8. "Retirement system" means a retirement plan or system that is established by or pursuant to title 38.

**All Bidders must select one of the following:**

\_\_\_\_\_ **The bidder does not participate in, and agrees not to participate in during the term of the contract a boycott of Israel in accordance with A.R.S. §35-393.01.**

\_\_\_\_\_ **The bidder does participate in a boycott of Israel as defined by A.R.S. §35-393.01.**

By submitting this response, the bidder agrees to indemnify and hold the State, its agents and employees, harmless from any claims or causes of action relating to the State's action based upon reliance on the above representations, including the payment of all costs and attorney fees incurred by the State in defending such an action.

_____ Company Name	_____ Signature of Person Authorized to Sign
_____ Address	_____ Printed Name
_____ City                      State                      Zip	_____ Title

**ARIZONA DEPARTMENT OF TRANSPORTATION**

**DISADVANTAGED BUSINESS ENTERPRISE (DBE)  
GOAL ASSURANCE**

The undersigned, fully cognizant of the requirements and of the goal established, hereby certifies that in the preparation of this bid for federal aid project:

0000 MA PEO T032101C PEO-0(229)T  
CITY OF PEORIA  
(STADIUM TRAIL PHASE II; 75TH AVE TO SKUNK CREEK)

(CHECK ONE)

\_\_\_\_\_ The bidder has met the established DBE goal and arrangements with certified DBEs have been made prior to the submission of the bid, or

\_\_\_\_\_ The bidder has been unable to meet the established DBE goal prior to the submission of the bid and has made good faith efforts to do so.

THIS CERTIFICATE MAY NOT BE REVISED OR CORRECTED AFTER SUBMISSION OF THE BID.

If the bidder certifies that it has met the goal, the bidder cannot change its position after submission of the bid and submit documentation of a good faith effort. If the bidder certifies that it has been unable to meet the goal and has made a good faith effort, the bidder cannot change its position after submission of the bid and claim to have met or be able to meet the established goal.

In accordance with the DBE Special Provisions, the bidder shall specify its DBE participation on the "DBE Intended Participation Affidavit", or provide documentation of its good faith efforts, by 4:00 p.m. on the fifth calendar day following the bid opening. The bidder shall obtain the required affidavit from the Business Engagement & Compliance Office (BECO) website at <http://www.azdot.gov/bec> or email [contractorcompliance@azdot.gov](mailto:contractorcompliance@azdot.gov)

\_\_\_\_\_  
Print Name of Firm

\_\_\_\_\_  
Print Name of Authorized Officer of Firm

\_\_\_\_\_  
Signature of Authorized Officer of Firm

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**ARIZONA DEPARTMENT OF TRANSPORTATION**  
**Forced Labor of Ethnic Uyghurs Ban Certification Form**

**Forced Labor of Ethnic Uyghurs Ban**

Please note that if any of the following apply to the Contractor, then the bidder shall select the "Exempt Contractor" option below:

- Contractor is a sole proprietorship;
- Contractor has fewer than ten (10) employees; OR
- Contractor is a non-profit organization.

0000 MA PEO T032101C PEO-0(229)T  
CITY OF PEORIA  
(STADIUM TRAIL PHASE II; 75TH AVE TO SKUNK CREEK)

**Pursuant to A.R.S. § 35-394, written certification is required to show that the company entering into a contract with a public entity does not use the forced labor, or use any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor, of ethnic Uyghurs in the People's Republic of China.**

Under A.R.S. §35-394:

1. "Company" means an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company or other entity or business association, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate, that engages in for-profit activity and that has ten or more full-time employees.
2. "Public entity" means this State, a political subdivision of this State or an agency, board, commission or department of this State or a political subdivision of this State.

**In compliance with A.R.S. §§ 35-394 et seq., all bidders must select one of the following:**

<input type="checkbox"/>	<p>The bidder <b><u>does not</u></b> use, and agrees not to use during the term of the contract, any of the following:</p> <ul style="list-style-type: none"><li>• Forced labor of ethnic Uyghurs in the People's Republic of China;</li><li>• Any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or</li><li>• Any Contractors, Subcontractors, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.</li></ul>
<input type="checkbox"/>	<p>The bidder <b><u>does</u></b> participate in use of Forced Uyghurs Labor as described in A.R.S. § 35-394.</p>
<input type="checkbox"/>	<p><b>Exempt Contractor.</b></p> <p>Select all statements that applies to this Contractor:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Contractor is a sole proprietorship;</li><li><input type="checkbox"/> Contractor has fewer than ten (10) employees; and/or</li><li><input type="checkbox"/> Contractor is a non-profit organization.</li></ul>

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City                                      State                                      Zip

\_\_\_\_\_  
Signature of Person Authorized to Sign

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title