

**SPECIAL PROVISIONS
FOR
PIMA COUNTY DEPARTMENT OF TRANSPORTATION**



**SUMMIT VIEW ELEMENTARY SAFE
ROUTES TO SCHOOL PROGRAM - EAST
SUMMIT STREET, OLD NOGALES HIGHWAY
TO EPPERSON LANE PATHWAY PROJECT
FEDERAL PROJECT NO. SRS PPM-0(242)D
ADOT TRACS NO. 0000 PM PPM SF034 01C
PIMA COUNTY PROJECT NO. 4TASVE**

August 4, 2016

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PROFESSIONAL SEALS

These specifications were prepared under the direction of the following individuals:

- (a) Harold A. Evers, III, PE, Civil Engineer, HDR Engineering, Inc.

Their seals, affixed below, attest that those portions of these specifications which relate to the drawing sheet numbers appearing next to the seal were prepared under their direction.



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**SUMMIT VIEW ELEMENTARY SAFE ROUTES TO SCHOOL PROGRAM
EAST SUMMIT STREET, OLD NOGALES HIGHWAY
TO EPPERSON LANE PATHWAY PROJECT**

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GENERAL NOTES

1. Project Location

This project is located within Sections 5 and 6 of Township 16 South, Range 14 East, Gila and Salt River Meridian, Pima County, Arizona.

2. Scope of Work

The work under this contract consists of:

- Installing an 8-foot wide, American with Disabilities Act (ADA)- compliant paved asphalt pathway, along south side of East Summit Street, from South Old Nogales Highway east approximately 3,500 feet to South Epperson Lane (Summit View Elementary);
- Relocating an existing school crosswalk, pedestrian safety lighting, and associated pavements markings and signing from the east side of school to the west side of the school at South Vanessa Lane and East Summit Street;
- Removing existing crosswalk;
- Landscaping;
- Installing artwork;
- Installing sidewalk scuppers as required;
- Installing pedestrian safety railing as required;
- Modifying private utilities (electrical for lighting at crosswalk);
- Matching path where it crosses all school, park, commercial, and residential driveways and side streets as much as possible. Minor modifications will be made only as required to provide for ADA compliant path;
- Relocating mailboxes as required;
- Installing retaining wall and concrete headers at various locations along the path;
- Installing curb and ADA curb access ramp at intersection of South Old Nogales Highway, both sides of South Golden Summit Way, South Summit Park Road, and west side of South Epperson Lane;
- Installing truncated domes east of South Old Nogales Highway, both sides of South Golden Summit Way, South Summit Park Road, park entrances, new crosswalk, school entrances, and west side of South Epperson Lane;
- Conducting geotechnical investigation and potholing; and
- Providing helmets, safety incentives, and bicycle and pedestrian training by Pima County.

Work items included in this project are: site preparation, general grading, and clearing and grubbing; removal of the existing asphalt pavement, mailboxes, and signs; installation of concrete sidewalk, curb, driveways, landings, concrete walls, and headers; construction of an asphalt path; renewal of driveway connections; relocation of a school crosswalk, mailboxes, and signs; installation of curb access ramps; construction of scuppers and railing; milling and replacing asphaltic concrete pavement; maintenance and protection of traffic; compliance with the Storm Water Pollution Prevention Plans (SWPPP); and other related incidental work.

For purposes of this contract, the general contractor is referred to as the Contractor.

3. Contract Time

The work specified shall be completed within **70** working days.

The landscaping establishment period shall be three hundred and sixty-five (365) consecutive calendar days.

4. Maintenance & Protection of Traffic

Two-way traffic on Summit Street, Golden Summit Way, and Summit Park Road and one-way traffic at the entrances to Summit View Elementary School and Summit Old Nogales Park shall be maintained by the Contractor on the project site, except that the Contractor will be allowed to have intermittent stoppages with advanced notice and Engineer's approval for activities, such as paving, when such activities are seen as potential safety hazards to the public. The Contractor shall be responsible for all construction zone traffic control in accordance with Section 701 of the Standard Specifications and these Special Provisions. The Contractor's compensation for maintaining traffic on the detour and project site is included under Bid Item 7010005 – TRAFFIC CONTROL.

Access to adjacent businesses and residences shall be maintained throughout construction.

The contractor shall notify the public and business owners of temporary access changes during construction at least 7 calendar days in advance of the change.

At least 14 calendar days prior to construction, the contractor shall place advance-warning signs at locations designated by Pima County to notify motorists, pedestrians, and bicyclists of construction-related delays.

5. Permits

Before undertaking work at any location covered by this project, the Contractor shall obtain all applicable permits, including but not limited to: air quality permits, water quality permits, traffic control and street closure permits and permits for excavation/construction in the public rights-of-way from Pima County or any other governing agency as required or warranted. The contractor is responsible for paying all applicable fees, taxes, and other costs for all work performed on this project and for obtaining permits. No separate payment shall be made for preparation of the traffic control plans, and the costs shall be included in the overall cost of the project. The overall cost shall also include applicable plan review and permit fees. Excavation permits for excavation/construction in the public rights-of-way will not be required when the work is administered by the Agency.

All necessary Environmental studies have been completed and approved. On October 13, 2015, ADOT provided Pima County with Categorical Exclusion that constitutes federal environmental approval. A copy of the environmental clearance approval letter and required mitigation are included in Appendix C.

Pima County has filed a Notice of Intent to use the statewide Construction General Permit for Discharge to Waters of the United States.

6. Storm Water/Ground Water Management

The contractor shall maintain and implement Pima County's Stormwater Pollution Prevention Plan under the Construction General Permit. The contractor is directed to Section 810 of these Special Provisions and the Stormwater Pollution Prevention Plan for the project.

The contractor shall be required to follow the pollutant discharge elimination practices detailed in the ADEQ Construction General Permit No. AZG2013-001 including preservation of existing vegetation, implementation of effective erosion and sediment discharge controls and implementation of effective pollution prevention controls.

The contractor shall phase or sequence construction activities to minimize the area of disturbance at any one time. Sediment and erosion control measures shall be installed before upgradient land is disturbed. Once an area of the project has been cleared, the contractor is responsible for documenting in the SWPPP book all erosion control measure activities by the contractor or others in the area that has been cleared.

The contractor shall remove, dispose or realign any measures as directed by the Engineer. Subsequent removal, disposal or realignment of temporary erosion control measures will be incidental to the respective work item and no additional payment will be made.

7. Construction Survey and Layout

Construction survey and layout will be provided by Pima County. The Contractor shall provide a minimum of 48 hours advanced notice to the PCDOT survey department when survey services are needed.

8. Existing Vegetation

The removal, salvage, or protection of vegetation shall be in accordance with the details shown on the project Demolition Plans. Existing vegetation on this project shall not be disturbed beyond those limits actually needed for construction purposes. Those items unnecessarily damaged shall be repaired or replaced at the contractor's expense.

Existing or relocated vegetation which is identified on the project demolition plans as to be preserved in place on this project shall be protected in place with fencing installed at the drip-line of the tree canopy per Section 201. Preservation fencing shall be installed prior to project clearing. This protected vegetation and vegetation beyond the project impact limits shall not be disturbed. Those items in these areas which are damaged shall be repaired, remedied or replaced at the contractor's expense.

In some circumstances, vegetation from adjacent properties may obstruct construction, with branches or other plant parts leaning over into the right of way. This vegetation shall be managed per Section 201-3.01.

9. Disadvantaged Business Enterprise Goals and On-the-Job Training Hours

The Disadvantage Business Enterprise (DBE) goals and On-the-job Training (OJT) hours as identified by ADOT's EEO Section are located in the appendix.

10. Specifications and Details

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

Pima Association of Governments (PAG), Standard Specifications for Public Improvements, 2015 Edition, Volume 1, <http://apps.pagnet.org/standardspecifications>

Pima Association of Governments (PAG), Standard Details for Public Improvements, 2015 Edition, Volume 2, <http://apps.pagnet.org/standardspecifications>

Pima Association of Governments (PAG), Federal Aid Supplement for Public Improvements, 2015 Edition, Volume 3, <http://apps.pagnet.org/standardspecifications>

Pima County/City of Tucson, Pavement Marking Design Manual, Latest Edition
<http://webcms.pima.gov/cms/one.aspx?portalId=169&pageId=63368>

Pima County/City of Tucson Signing Manual, Latest Edition
<http://webcms.pima.gov/cms/one.aspx?portalId=169&pageId=63368>

U.S. Department of Transportation, Federal Highway Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, December 2009, and amendments
http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm

Arizona Supplement to the Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition (January 2012), <http://www.azdot.gov/Highways/Traffic/Standards.asp>

Tucson Water Standard Specifications, November 2011 Edition
<http://www.tucsonaz.gov/water/spec-book>

11. Project Limits

The contractor shall perform all work within the public right-of-way, legally obtained easements and property legally acquired by the Agency. The contractor shall assume all responsibility and liability for any encroachment upon private property. The use of private property for construction yards will be allowed only if zoning requirements allows its use for this purpose. See Section 106-9 of the Standard Specifications for further details regarding temporary construction yards.

12. Noxious and Invasive Vegetation

To prevent the introduction of invasive species seeds, the contractor shall inspect all earthmoving and hauling equipment at the equipment storage facility and the equipment shall be washed prior to entering the construction site.

To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site.

13. Disposal of Materials

All construction debris, rubble, and other materials that are not recycled on the project, sent to a recycling facility, or taken by the contractor, shall be disposed of by the contractor at a waste disposal facility. Costs associated with the disposal of these materials shall be incidental to the related items of work. Fees associated with the disposal of these materials shall be paid by the contractor.

14. Contract Administration

Prior to submittal of contract administration documents, examples of which are listed below, the contractor shall review all documentation for accuracy and compliance with the contract. Any variance from the plans and specifications shall be clearly noted and is subject to approval by the Engineer. A contractor's transmittal letter shall accompany all submittals and shall include certification as to accuracy and compliance with the plans and specifications.

Contract administration submittals shall include, but are not limited to, the following examples: escrow agreements; subcontracts; purchase orders; certified payrolls for contractor and subcontractors; Davis Bacon wage determinations; force account billings; equal employment opportunity reports for contractor and subcontractors; trainee preconstruction information; proof of apprenticeship; weekly individual training reports; rental equipment invoices; material invoices showing all unit prices; pay estimates; affidavit of certification of payments to disadvantaged business enterprise firms; requested lien releases; and consent from surety.

Monthly meetings may be scheduled with the contractor, at the discretion of the Engineer, to discuss and resolve any problems associated with contract administration submittals. The monthly meetings shall be held at the Field Engineering Building at 1313 South Mission Road. Meetings shall continue on an accelerated basis after project construction completion until all contract administration issues are resolved.

Submittals that are not certified, or are incomplete, will be returned to the contractor unprocessed for proper resubmittal and may result in payment delays, or partial payment, as deemed appropriate by the Engineer.

Submittals that are not certified, or are incomplete, will be returned to the Contractor unprocessed for proper resubmittal and may result in payment delays, or partial payment, as deemed appropriate by the Engineer.

15. Work Hours/Noise Abatement Ordinance

Construction noise abatement and start/stop times shall be in accordance with Pima County Ordinance No. 1999-61: *Regulating the Excessive, Unnecessary and Annoying Noises in Pima County*. A copy of the Noise Ordinance is included in Appendix A.

16. Shoring and Bracing

There will be no separate payment for shoring and bracing, unless shown in the bidding schedule.

17. Archeological Features

If previously unidentified cultural resources are encountered during activity related to the construction of the project, the contractor shall stop work immediately at that location, notify the Engineer, and shall take all reasonable steps to secure the preservation of those resources. The Engineer will contact the Pima County Office of Cultural Resources and Historic Preservation Program Manager, Roger Anyon at 520.740.6405 or 520.740.6416 and Arizona Department of Transportation Environmental Planning Group, Historic Preservation Team, at 602.712.8636 or 602.712.7767 immediately, and make arrangements for proper treatment of those resources.

18. Hazardous Materials

If suspected hazardous materials are encountered during construction, work shall cease at that location and the Engineer shall be contacted to arrange for proper assessment, treatment, or disposal of those materials.

An approved contractor shall develop and implement a Lead-Based Paint Removal and Abatement Plan for the removal of the yellow crosswalk pavement marking paint, Toxicity Characteristic Leaching Procedure testing of the generated waste stream, and proper disposal of the waste stream derived from the removal of the yellow crosswalk pavement markings within the project limits. A list of approved lead based paint abatement contractors is attached to the special provisions. The contractor shall follow all applicable federal, state, and local codes and regulations, including Arizona Department of Transportation Standard Specifications for Road and Bridge Construction (2008 Edition), related to the treatment and handling of lead-based paint.

The contractor shall submit a Lead-Based Paint Removal and Abatement Plan for the removal of yellow crosswalk pavement markings within the project limits to the Engineer and the Arizona Department of Transportation Environmental Planning Group hazardous materials coordinator (602.920.3882 or 602.712.7767) for review and approval at least 10 (ten) working days prior to paint obliteration.

No crosswalk pavement marking obliteration shall occur until the Lead-Based Paint Removal and Abatement Plan is approved by the Arizona Department of Transportation Environmental Planning Group hazardous materials coordinator and implemented.

Visible fugitive dust emissions from paint removal shall be controlled through wet or dry (e.g., vacuum) means during the removal process. If the liquid waste stream generated by a water-blasting obliteration method passes the Toxicity Characteristic Leaching Process analysis, it may be used as a dust palliative or for compaction on the project. If the water is not used on the project, it shall be properly disposed of in accordance with all applicable federal, state, and local regulations.

19. Contractor's Staging or Storage Yard

No contractor's staging area or storage yard has been identified for this project. It is the contractor's responsibility to locate a staging area(s) and obtain approval of said area(s) from the Engineer. Staging areas and vehicle storage yards are not permitted in the washes within the project area. The contractor will need to provide a SWPPP addendum to cover their offsite staging area and include the offsite staging area acreage of disturbance on their NOI. Refer to Section 106-9 of the Standard Specifications for offsite staging outside of the right-of-way.

20. Construction Water/Dust Control

The contractor shall provide potable water for use in construction, compaction and dust control. Reclaimed water may only be used if there is no discharge of this water to surface waters of the U.S. and the reclaimed water remains on-site. The contractor shall notify the Arizona Department of Environmental Quality (ADEQ) for all discharges of reclaimed water to surface waters of the U.S. or off-site.

The contractor shall comply with all local air quality and dust control rules, regulations, and ordinances which apply to any work performed pursuant to the contract.

21. Utility Relocation

The contractor will be required to relocate certain water distribution facilities owned by Tucson Water as shown on the plans and hereinafter specified. The contractor shall obtain all construction permits required for this work. During construction operations, all contact between the contractor and Tucson Water personnel will be through the Engineer. The contractor shall give all notices to the Engineer two (2) working days in advance of the notice periods required by Tucson Water.

Utility relocation work not shown on the project plans or noted in the Special Provisions will be the responsibility of the appropriate utility. The contractor is hereby notified that the utility companies, in conjunction with the contract work, will perform utility relocation work. The contractor shall make every effort to cooperate fully with each utility company and acknowledges and agrees that delays to his operations may necessarily occur. Due to these delays that are anticipated by the utility companies, the Engineer shall consider requests by the contractor for contract time extensions. The contractor is also referred to Section 105-6 of the Standard Specifications, Cooperation With Utility Companies.

The contractor shall consider the extent of utility work in preparing the contract bid and project schedule. It will be the contractor's responsibility, prior to bidding, to contact the appropriate utilities to obtain additional information such as relocation as-builts, relocation sequencing, utility windows, construction time frames, and identification of areas requiring subgrade preparation by the contractor prior to the start of utility work.

22. Erosion Control Measures

The contractor shall implement a Stormwater Pollution Prevention Plan. The contractor shall also prepare a Notice of Intent and a Notice of Termination meeting the terms and conditions of the Arizona Pollutant Discharge Elimination System General Permit and submit each as directed by Pima County.

The contractor shall provide copies of the completed final Stormwater Pollution Prevention Plan and contractor Notice of Intent and Notice of Termination to the Pima County Department of Transportation.

All disturbed soils not paved that will not be landscaped or otherwise permanently stabilized by construction shall be seeded using species native to the project vicinity.

23. Biological Requirements

If vegetation clearing will occur during the migratory bird 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 this restriction.

24. Contractor’s Environmental Requirements and Mitigation Measures

All necessary Environmental studies have been completed and approved. On October 13, 2015, ADOT provided Pima County with Categorical Exclusion, Clearance Memo, and Environmental Commitments that constitutes federal environmental approval. A copy of the environmental clearance approval letter and required mitigation are included in Appendix C. The Contractor’s Environmental Commitments are included within the General Notes of these Special Provisions. The project environmental commitments are not subject to change without prior written approval from the Environmental Planning Group.

SECTION 101 - ABBREVIATIONS AND DEFINITIONS

(101ABREV, 6/5/14)

101-3 TERMS of the Standard Specifications are revised as follows:

Contract Time - Change to read “**Construction Time**”. This change is applicable when the term “Contract Time” is used in all sections throughout the Standard Specifications.

Supplemental Agreement - Add the following: “All supplemental agreements will be issued in compliance with Section 11.16.010 of the Pima County Procurement Code.”

(101FHWA_MAJOR_ITEMS, 10/24/13)

101-3 DEFINITIONS of the Standard Specifications is modified to add:

Major Items - A major item is an item whose total cost, determined by multiplying the bidding schedule quantity and the contract unit price, is equal to or greater than the amount indicated in the following table:

Original Total Contract Amount (Dollars)		Major Item Criteria
Equal to or greater than	But less than	Equal to or greater than the amount listed (dollars)
\$0.00	\$100,000	\$5,000
\$100,000	\$200,000	\$10,000
\$200,000	\$450,000	\$15,000
\$450,000	\$750,000	\$25,000
\$750,000	\$1,100,000	\$35,000
\$1,100,000	\$1,500,000	\$45,000
\$1,500,000	\$2,000,000	\$55,000
\$2,000,000	\$2,500,000	\$65,000
\$2,500,000	\$3,000,000	\$75,000

\$3,000,000	\$5,000,000	\$85,000
\$5,000,000	\$7,000,000	\$120,000
\$7,000,000	\$10,000,000	\$150,000
\$10,000,000	\$25,000,000	\$250,000
\$25,000,000	\$50,000,000	\$350,000
\$50,000,000	---	\$500,000

A major item will remain a major item unless it is completely eliminated.

Minor Item - A minor item is any item which is not a major item.

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS

(102FHWA_NOBID, 10/23/13)

102-3 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.

(102FHWA_DEBARM'T_LOBY, 7/8/14)

102-9.01 NON-COLLUSION CERTIFICATION of the Standard Specifications is modified to add:

The bidder certifies that, 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 it nor anyone associated with the company, firm, corporation, or individual has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of full competitive bidding in connection with the above referenced project.

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

- (1) 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 this Federal contract, the making of any Federal loan, the entering into any cooperative 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 the Pima County Administration Building, Procurement Department - Design and Construction Division, 130 West Congress Street, Third Floor, Tucson, AZ 85701.
- (3) 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 \$10,000.00 and not more than \$100,000.00 for each such failure. This penalty also applies to any person or agency that fails to submit or amend the disclosure form (LLL), when required. Failure to submit the required certification may result in payment under this contract being delayed or denied.
- (4) The bidder also agrees, by submitting his or her bid or proposal, that he or she shall require that the language of this certification be included in all subcontracts and lower tier subcontractors shall certify and disclose accordingly.

The Agency will keep the prime contract's 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. Certification 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 subcontractor or lower tier subcontractor, as required under subsection 108-1, when said subcontractors 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.

SECTION 103 - AWARD AND EXECUTION OF THE CONTRACT

(103FHWA_NO_LOCAL_PREF, 4/1/14)

103-1 CONSIDERATION OF BIDS of the Standard Specifications is modified to add:

No part of these specifications shall be construed to:

- (a) To require the use of or provide a price differential in favor of articles or materials produced within the State, or otherwise to prohibit, restrict or discriminate against the use of articles or materials shipped from or prepared, made or produced in any State, territory or possession of the United States; or
- (b) To prohibit, restrict or otherwise discriminate against the use of articles or materials of foreign origin to any greater extent than is permissible under policies of the Department of Transportation as evidenced by requirements and procedures prescribed by the FHWA Administrator to carry out such policies.

(103FHWA_AWARD_LISC, 12/23/12)

103-2 AWARD OF CONTRACT of the Standard Specifications is modified to add:

This contract is funded, either wholly or in part, by federal funds, and the award of contract may be made contingent upon the successful bidder obtaining an appropriate license from the State Registrar of Contractors, in accordance with Arizona Revised Statutes 32-1101 through 32-1170.03. 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 Agency.

Licensing information is available from:

Registrar of Contractors
3838 N. Central, Suite 400
Phoenix, AZ 85012
Phone: (602) 542-1525

(104FHWA_CHANGE_CONDITION, 3/29/12)

SECTION 104 - SCOPE OF WORK

104-2 ALTERATIONS TO THE CONTRACT

104-2.01 By the Agency of the Standard Specifications is revised to read:

The Agency reserves the right to revise the contract at any time. Such revisions shall neither invalidate the contract nor release the surety. The contractor agrees to complete the contract as revised. The contractor shall not proceed with work for which a revision to the contract is required without prior approval from the Engineer. Once approval is received, the contractor shall proceed with such direction immediately, whether the Engineer considers that the contract has been revised or not.

It is the contractor's obligation to notify the Engineer in writing that a revision to the contract is necessary and provide such notification in accordance with Subsection 104-4. Whenever the words notice, notification, request or notify are used in this subsection, such notice or request shall be provided in accordance with the requirements of Subsection 104-4.

Supplemental Agreements will be issued for the reasons specified in 104-2.03 and 104-2.04 of the Standard Specifications, in addition to the following reasons:

- (A) To accomplish extra work as defined in Subsection 101-3 and specified in subsection 104-3.
- (B) If the work is suspended by order of the Engineer as provided below:
 - (1) If the performance of all or any portion of the work is suspended or delayed by the Engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the Engineer, in writing, a request for adjustment within seven calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.
 - (2) Upon receipt, the Engineer will evaluate the contractor's request. If the Engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the Engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The contractor will be notified of the Engineer's determination whether or not an adjustment of the contract is warranted.
 - (3) No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.
 - (4) No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.
- (C) If there are significant changes in the character of work, as provided below:
 - (1) The Engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Changes in quantities and alterations shall not invalidate the contract nor release the surety. The contractor agrees to perform the work as altered.
 - (2) If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or, by affecting other work, cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the Engineer may determine to be fair and equitable.

- (3) If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided in the contract.
 - (4) The term "significant change" shall be construed to apply only to the following circumstances:
 - (a) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or
 - (b) When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any adjusted unit price for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity. Any adjustment in contract unit price for a decrease in quantity below 75 percent shall apply only to the actual amount of work performed, except that the product of the adjusted unit price and the reduced quantity of work performed shall in no case exceed the product of the original contract unit price and 75 percent of the Bid Schedule quantity.
- (D) To revise the contract time in accordance with Subsection 108-8.

If the Supplemental Agreement is to provide for an increase or decrease in the contract price or time, such increases or decreases will be determined in accordance with the requirements herein and Subsections 108-8 and 109-4.

When the Agency makes alterations in the details of construction or specifications that are limited in scope, to the extent that the cost of the alterations will not exceed \$10,000.00, the Agency and the contractor may reach agreement upon the scope of work and an amount to cover the cost of the work to be performed. This agreement shall be reflected in a letter from the Agency to the contractor, which, when executed by both parties, shall have the same force and effect as a supplemental agreement. Work shall not proceed until both parties have signed the agreement. This work will be paid for under Item 9300100 - Incidental Items Allowance, which shall serve as an account for the payment of letter agreements in accordance with this specification. Any balance left in this account at the end of the construction phase will not be paid and will be expunged from the contract.

104-2.02 Due to Physical Conditions of the Standard Specifications is revised to read:

104-2.02 Differing Site Conditions

- (A) During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.
- (B) Upon written notification, the Engineer will investigate the conditions and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding anticipated profits, will be

made and the contract modified in writing accordingly. The Engineer will notify the contractor of the determination whether or not an adjustment of the contract is warranted.

- (C) No contract adjustment which results in a benefit to the contractor will be allowed, unless the contractor has provided the required written notice.
- (D) No contract adjustment will be allowed under this clause for any effects caused on unchanged work.
- (E) The contract contains no indication of the soil conditions to be encountered. Caliche-like material is prevalent throughout the Tucson area and the contractor is expected to utilize the proper equipment to excavate the material. Hard digging is not considered a differing site condition.
- (F) Archaeological or cultural features shall be treated as noted in Subsection 107-6.

SECTION 105 - CONTROL OF WORK

105-17 ACCEPTANCE

(105FHWA_PARTIAL, 12/19/14)

105-17.01 PARTIAL ACCEPTANCE of the Standard Specifications is revised to read:

If at any time during the prosecution of the project the contractor completes a unit or portion of the project, the contractor may submit a written request to the Engineer to conduct an inspection of the specified unit or portion. The Engineer shall approve or disapprove the contractor's request within five working days of its receipt.

If the Engineer determines, upon inspection, that the unit or portion of the project has been satisfactorily completed in compliance with the contract, the Engineer may accept that unit or portion of the project as being completed. If such a determination is made by the Engineer, the contractor may be relieved of further responsibility for that unit or portion of the project, in conformance with the provisions of Subsection 105-16.

Any retainage previously withheld for work which has been included in the partial acceptance shall be promptly released to the contractor. The contractor shall pay any such retainage owed to subcontractors within 30 days of receipt by the contractor.

Partial acceptance shall neither void nor alter any of the terms of the contract nor constitute the start of the warranty/guarantee period specified in Subsection 105-21.

(105FHWA_FNL, 10/23/13)

105-17.04 Final Acceptance of the Standard Specifications is modified to add:

Final acceptance will not be made until all completed plans and working drawings as required in Subsection 105-2 have been submitted and deemed acceptable by the Engineer. In addition, final acceptance will not be made until all "*Certification of Payments to DBE Firms*" affidavits, as required in the contract documents, have been submitted and deemed acceptable by the Engineer and the Arizona Department of Transportation Civil Rights Office.

(105FHWA_WARRANTIES, 8/7/14)

105-21 WARRANTIES AND GUARANTEES of the Standard Specifications is revised to read:

Warranty provisions for projects on the federal National Highway System (NHS) are subject to the provisions of 23 CFR 635.413. Warranties for this project shall be as defined in the project's Special Provisions, recognizing the unique features, equipment and nature of this project.

(106FHWA_DMAT, 4/30/14)

SECTION 106 - CONTROL OF MATERIALS

106-14 DOMESTIC MATERIALS (FEDERAL-AID PROJECTS ONLY) is hereby added to the Standard Specifications:

Portland cement used on this project may be foreign or domestic. Certificates of Compliance and Certificates of Analysis for cement shall conform to the requirements of Subsection 106-5, and shall additionally identify whether the cement is foreign or domestic.

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

All manufacturing processes to produce steel products used on this project shall occur in the United States. The iron used in the process shall be domestic. Raw materials used in manufacturing the steel products may be foreign or domestic. Steel 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 one-tenth of one 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 106-5, which state that steel products utilized on the project meet the requirements specified. The Certificates of Compliance shall also certify that all manufacturing processes to produce steel 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.

SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107-21 CONTRACTOR’S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES of the Standard Specifications is modified to add:

The following utilities may have facilities in the project area:

Owner	Contact	Phone Number
Centurylink Corporation	Meron Kidane	(520) 838-3042
Cox Communications	Jeff Krause	(520) 867-7526
La Casita Water Company	Keith Dojaquez	(520) 623-5172
Metropolitan Water	Timothy Dinkel	(520) 575-8100
Southwest Gas Corporation	Christopher Aleccia	(520) 794-6063
Tucson Electric Power	David Smith	(520) 396-2788
Tucson Water	Ed Lopez	(520) 837-2125

The existence and locations of underground utilities indicated on the plans are not guaranteed and shall be investigated and verified in the field by the Contractor before starting work. Excavations in the vicinity of existing structures and utilities shall be carefully done. At least two full working days prior to commencing excavation, the Contractor shall call Blue Stake Center, 1-800-STAKE-IT, between the hours of 7:00 a.m. and 4:30 p.m., Monday through Friday, for information relative to the location of buried utilities.

It shall be the responsibility of the Contractor to contact the utility companies in order for them to determine if there is a need to brace, shore, support and protect their facilities during the construction of the project.

Utility locations shown on the Plans are approximate, and all utilities are not necessarily shown. The possibility of conflicts with existing utilities-in-service exists. If conflicting utilities interfere with the Contractor's normal progress towards completion of this project, the Pima County Department of Transportation may, at its option, authorize the Contractor to relocate said conflicting utilities by force account in accordance with the provisions of subsection 109-5.02 of these Special Provisions.

(107FHWA_RECORDS, 8/5/14)

107-25 CONTRACTOR AND SUBCONTRACTOR RECORDS of the Standard Specifications is revised to read:

The contractor shall keep one copy of all specifications, project plans, addenda, modifications, working drawings, and shop drawings at the site, in good order and annotated to show all changes made during the construction process as they occurred. Upon completion of the project and prior to submittal of the final application for payment, the annotated set of project plans together with any annotated working and shop drawings of significance shall be delivered to the Engineer for the Agency's record.

The contractor, subcontractors and all material suppliers shall keep and maintain all books, papers, records, files, accounts, reports, bid documents with backup data, and all other material relating to the contract and project for the length of time required under:

- 49 CFR 18.42
- The term of the program regulations
- The term of the grant Agreement
- Arizona Revised Statutes
- Local ordinance or policy
- 5 years following project closeout, whichever is longest.

All of the above material shall be made available to the Agency for auditing, inspection and copying and shall be produced, upon request, at the Agency office.

The contractor shall insert the above requirement in each subcontract, purchase order and lease agreement and shall also include in all subcontracts a clause requiring subcontractors to include the above requirement in any lower-tier subcontract, purchase order or lease agreement.

SECTION 108 - PROSECUTION AND PROGRESS

(108FHWA_SUBCONTRACTS, 12/06)

108-1 SUBLETTING OF CONTRACT of the Standard Specifications is modified to add:

The Contractor shall provide to the Engineer a complete copy of each subcontract and lower tier subcontract. Each subcontract and lower tier subcontract shall include all of the required contract provisions including, but not limited to, the *Equal Opportunity Provisions*, *FHWA Form 1273*, *Required Contract Provisions* and the *Wage Determination Decision*, if these Provisions are made part of the prime contract.

(108LIQUID_DAMAGES, 11/12/14)

108-9 FAILURE TO COMPLETE THE WORK ON TIME the Schedule of Liquidated Damages table of the Standard Specifications is revised to read as follows:

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	100,000	430	600
100,000	500,000	640	900
500,000	1,000,000	1,000	1,400
1,000,000	2,000,000	1,290	1,800
2,000,000	5,000,000	1,860	2,600
5,000,000	10,000,000	2,710	3,800
10,000,000	20,000,000	2,790	3,900
20,000,000	30,000,000	3,570	5,000
30,000,000	60,000,000	5,500	7,700
60,000,000	90,000,000	9,430	13,200

SECTION 109 - MEASUREMENT AND PAYMENT

(109ALLOWANCE, 12/5/14)

109-1 MEASUREMENT OF QUANTITIES the 31st paragraph of the Standard Specifications is revised to read:

The term “Force Account” or its abbreviation “FA” or “Dollar” or its abbreviation “USD” (US Dollar), when included in the bidding schedule as a unit of measurement, shall mean an allowance for the payment of the work in conformance with the provisions of Subsection 109-5.

(109FHWA_CHANGE_CONDITION, 3/29/12)

109-3 ALTERATIONS TO THE CONTRACT WORK of the Standard Specifications is revised to read:

Altered work shall be performed as a part of the contract and shall be paid for at the same contract prices as for other parts of the work, unless the alterations in the details of construction or increases or decreases in quantities materially change the character of the work to be performed or the cost thereof. The term "materially change," for purposes of intent under the contract, is as defined as a significant change in Section 104-2.

When no work is done under an item, no adjustment in the unit bid price shall be made. The item shall be eliminated in accordance with the provisions of Subsection 109-6.

Payment for work that has materially changed shall be made in accordance with the requirements of Subsection 109-4.

If the alterations made or increases in the quantities are of sufficient magnitude as to require additional time in which to complete the project, such time adjustment shall be made in accordance with the requirements of Subsection 108-8.

(109FHWA_RETENTION, 12/19/14)

109-8 RETENTION of the Standard Specifications is modified to add:

On federally funded projects only, as applicable under the Agency’s DBE program, the prime contractors shall:

- 1) Incrementally reduce the amount of retention specified in the Standard Specifications to correspond with the value of retention for individual subcontractors which have satisfactorily completed their unit of work in accordance with Section 105-17.01.
- 2) Make prompt final payment to each of its subcontractors all monies, including retention, due the subcontractor within 14 days after the subcontractor has satisfactorily completed all of its work.

Any retainage previously withheld for work which has been included in a partial acceptance pursuant to Section 105-17.01 shall be promptly released to the contractor. The contractor shall pay any such retainage owed to subcontractors within 30 days of receipt by the contractor.

Non-compliance:

If prompt partial payment, or prompt final payment including any retention, is not made within the time frames established above, the Agency will retain \$500 per sub-contractor, per occurrence. Each additional month that payment is not made constitutes an additional occurrence. The amount withheld by the Agency will be released after the issue is resolved.

(110AC_DEFICIENCY_REDUCE, 4/23/15)

SECTION 110 - CORRECTIVE REQUIREMENTS FOR DEFICIENCIES

110-2 ASPHALTIC CONCRETE

110-2.02 Asphaltic Concrete Mixture Properties. Note (2) of Table 110-2 of the Standard Specifications is revised to read:

Reject Status: The payment reduction shall apply only if the asphaltic concrete is allowed to remain in place subject to the provisions of Subsection 110-2.02 (B).

(110CONCRETE_REDUCE, 7/27/15)

110-3 PORTLAND CEMENT CONCRETE

110-3.01 Class S and Class B Concrete of the Standard Specifications is revised to read:

110-3.01 Class X, Class S and Class B Concrete

(A) Compressive Strength. Class X, Class S and Class B Portland cement concrete will be accepted for compressive strength and paid for in accordance with Table 110-4. Concrete will be paid for by the square foot or by the cubic yard, complete in place, except that a reduction in the contract unit price, to the nearest cent, will be made for the quantity of concrete represented by 28-day compressive strength test results less than the specified requirement.

Concrete failing to meet at least 95 percent of the 28-day compressive strength specified or any concrete failing to meet the requirements of Subsection 1006-7.01 will be subject to the provisions of Subsection 1006-7.06.

Class S Portland cement concrete which fails to achieve the required 28-day compressive strength but meets the percent of the 28-day compressive strength noted in Table 110-4 may be subject to rejection by the Engineer if it is determined that the deficient compressive strength is detrimental to the integrity of the structure.

**TABLE 110-4
 PORTLAND CEMENT CONCRETE (CLASS ‘X’, ‘S’ AND ‘B’)
 CONTRACT UNIT PRICE REDUCTION FACTORS
 FOR STRENGTH DEFICIENCIES**

3,000 psi and Below ⁽¹⁾		3,500 psi ⁽¹⁾		4,000 psi and Above ⁽¹⁾	
Percent of 28-day strength attained ⁽²⁾	Percent Reduction in Contract Unit Price ⁽³⁾	Percent of 28-day strength attained ⁽²⁾	Percent Reduction in Contract Unit Price ⁽³⁾	Percent of 28-day strength attained ⁽²⁾	Percent Reduction in Contract Unit Price ⁽³⁾
100 or more	0	100 or more	0	100 or more	0
97 - 99	3	98 - 99	2	99	1
94 - 96	6	96 - 97	4	98	2
91 - 93	9	94 - 95	6	97	3
88 - 90	12	92 - 93	8	96	4
85 - 87	15	90 - 91	10	95	5
< 85	30 ⁽⁴⁾	< 90	30 ⁽⁴⁾	< 95	30 ⁽⁴⁾
(1) Compressive strength as shown on the project plans or specified in the Special Provisions.					
(2) To nearest one percent.					
(3) For items measured and paid for by the cubic yard, the reduction shall not exceed \$150.00 per cubic yard.					
(4) The contract unit price reduction factor applies only if the concrete represented by the test results is allowed to remain in place.					

(201NOX_PLANT_REM, 8/20/15)

SECTION 201 - CLEARING & GRUBBING

201-1 DESCRIPTION of the Standard Specifications is modified to add:

Removal and/or treatment of noxious or invasive plant species shall take place prior to the start of clearing and grubbing, in accordance with Subsection 201-3.04.

Clearing and grubbing shall be performed in advance of embankment construction and grading operations and in accordance with the requirements of these specifications.

In some circumstances, vegetation from adjacent properties may provide impediments to construction, with branches or other plant parts leaning over into the right of way. The extent of required pruning and/or removal of obstructive plant parts will be determined during the project walk through and treated as specified in Subsection 201-3.05 herein.

All pruning shall be performed or directed by a certified arborist in accordance with the requirements of Item 8061700.

201-2 MATERIALS

201-2.01 Herbicides of the Standard Specifications is modified to add:

Herbicides proposed in the plan for use on projects adjacent to BLM and or USFS Lands shall be in conformance with the following current environmental documents, including:

“*Final Vegetation Treatments Using Herbicides Programmatic Environmental Impact Statement for BLM*” available electronically at: http://www.blm.gov/wo/st/en/prog/more/veg_eis.html;

or the “*Environmental Assessment for Management of Noxious Weeds and Hazardous Vegetation on Public Roads on National Forest System Lands in Arizona*”, available electronically on the Arizona Memory Project website (Arizona State Library):

<http://azmemory.azlibrary.gov/cdm/ref/collection/feddocs/id/486>;

The environmental documents include lists of approved Herbicides, Mitigations and Best Management Practices.

201-3 CONSTRUCTION DETAILS

201-3.01 Clearing and Grubbing the sixth paragraph of this subsection of the Standard Specifications is revised to read:

The contractor shall carefully prune all branches of trees less than 16 feet above any part of the roadway and less than 8 feet above or within 2 horizontal feet of sidewalks, multi-use paths, traffic control cabinets and intersection site distance triangles and all branches which have been broken or injured during construction. Pruning shall be performed or directed by a certified arborist in accordance with the requirements of Item 8061700.

201-3.03 Salvaged and Transplanted Vegetation of the Standard Specifications is modified to add:

The Contractor shall guarantee the survival and health of all plants salvaged and replanted as part of this contract in conformance with the requirements of Subsection 809-3.08.

201-3.04 Noxious and Invasive Vegetation of the Standard Specifications is modified to delete the 5th and 6th paragraphs and to add the following:

The Contractor may also retain the services of a person, subject to the approval of the Engineer, knowledgeable in identification of noxious and invasive plant species, such as; a certified arborist; biologist, horticulturist, or botanist with a degree in a plant oriented natural resource field; or a person holding a State of Arizona Office of Pest Management Applicator License in Category B3 (Right of Way and Weed Control) to survey the limits of the project in order to determine the presence of noxious or invasive plant species.

Areas of noxious and invasive vegetation infestation shall be mapped on a project site map or aerial photo of the project and shall be provided to the Engineer before work begins and when work is completed. This map shall be updated throughout the duration of the project and placed in an appendix in the Stormwater Pollution Prevention Plan (SWPPP). In addition, all herbicides used at the site shall be listed in Section 1.11, *Potential Sources of Pollution*, of the SWPPP.

Noxious or Invasive species that shall be treated include the following:

<u>Scientific Name</u>	<u>Common Name</u>
Acroptilan repens	Russian Knapweed
Alhagi maurorum	Camelthorn
Arundo donax	Giant Reed
Brassica tournefortii	Sahara Mustard
Bromus rubens	Red Brome
Bromus species	Other Brome species
Centaurea spp.	Starthistle species
Chondrilla juncea	Rush Skeletonweed
Cortaderia selloana	Pampas Grass
Cynodon dactylon	Bermudagrass
Eragrostis lehmanniana	Lehmann lovegrass
Erodium cicutarium	Redstem filaree
Hordeum murinum	Mouse Barley
Mesembryanthemum Nodiflorum	Slenderleaf Iceplant
Nicotina glauca	Tree Tobacco
Pennisetum ciliare	Buffelgrass
Pennisetum setaceum	Fountain Grass
Rhus lancea	African Sumac
Salsola species	Russian Thistle
Sorghum halepense	Johnsongrass
Sisymbrium ino	London Rocket
Sonchus asper	Spiny sowthistle
Tamarix spp.	Tamarix
Tribulus terrestris	Puncturevine

Herbicides shall not be used in washes and right-of-way dip crossings classified as waters of the United States (WUS). Only manual removal of noxious and invasive species shall be allowed at these locations. Invasive species that are treated by herbicides can be left in place to decompose. Plants that are manually dug shall be put into large plastic bags with tie closures before removing from site. No portion of the root ball shall be left behind. Bags shall be disposed of in a landfill. Mowing or chopping of invasive species is prohibited.

In regard to buffelgrass and fountain grass, plants treated by chemical means must be green and actively growing for herbicides to be effective. Plants shall be sprayed when greater than 50% of the plant is green material. Only targeted plants shall be sprayed. Targeted plants shall be sprayed so that the herbicide coats all leaves but does not run off.

The Contractor shall keep records of all herbicide applications, as outlined in Arizona Administrative Code R4-29-307. Treated areas shall be recorded on the project site map or project aerial photo as described previously. This map shall include all areas of noxious and invasive species removal, whether by manual or chemical means.

201-3.05 Vegetation from Private Property obstructing Construction is hereby added to the Standard Specifications:

In some circumstances, vegetation from adjacent properties may obstruct construction, with branches or other plant parts leaning over into the right of way. Prior to the start of construction, the contractor shall

determine which vegetation may impede construction and shall bring this to the attention of the Engineer. The Engineer shall consult with the arborist to determine the extent of work and whether preservation, pruning, or removal is advisable.

The Engineer shall contact the Agency's Community Relations section regarding pruning and/or plant removal a minimum of four weeks in advance of the work needing to be done. Community Relations shall direct property owners to prune and/or remove obstructive plant parts within two weeks of the time they are contacted. If removal and/or pruning are not provided by the property owner within the specified date, the property owner shall be advised that pruning and/or removal will be done by the Agency. No pruning or removal of plant parts from vegetation originating on private property shall be performed without proof of notification to the property owner by Community Relations.

If the Engineer determines that additional pruning and/or removal of plants is required during construction, the notification procedure described above shall be followed.

All required pruning shall be performed or directed by a certified arborist in accordance with the requirements of Item 8061700.

201-4 METHOD OF MEASUREMENT of the Standard Specifications is modified to delete the 5th paragraph and to add the following:

All work required to eradicate and control noxious and invasive plant species, as described herein, by either manual means or with herbicides, will be completed on an extra work basis, as approved and directed by the Engineer, in conformance with the requirements of Subsection 109-5.

All noxious and invasive plant species eradication in landscaped areas after construction shall be considered incidental to the work described in Section 807 - Landscape Establishment.

Landscape pruning of vegetation will be measured by the hour, including the time that a registered arborist is on site.

201-5 BASIS OF PAYMENT of the Standard Specifications is modified to add:

Landscape pruning of vegetation, measured as provided above, will be paid at the contract unit price per hour, in accordance with the requirements of Item 8061700.

ITEM NO. 2010004 - PRESERVATION FENCING

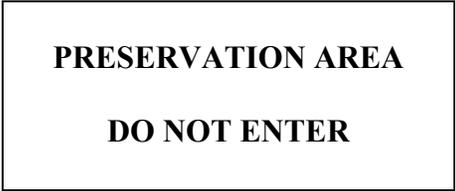
1. DESCRIPTION

The work under this item consists of furnishing, installing, maintaining and removal of Preservation Fencing with warning signs in order to protect environmentally sensitive areas and/or the preservation of existing plants to remain in place, as shown in the SWPPP & Landscape Plans.

2. MATERIALS

Fencing will consist of high visibility orange, heavy duty High Density Polyethylene (HDPE) that is UV resistant. The fencing shall be four feet (4') tall. Fence posts will be either wood or metal and shall be suitable for the work intended and a minimum of six feet (6') long.

Warning signs shall be made of durable, weatherproof material. Lettering shall be 1” high, minimum and clearly legible. The text on the signs shall be as follows:



3. CONSTRUCTION REQUIREMENTS

All vegetation identified on the project plans as being preserved-in-place shall be protected from damage or destruction caused by the Contractor’s operations by protective fencing. The locations of vegetation so identified on the project plans are approximate. Actual locations will be determined during the project walk-through specified in Subsection 201-3.01 of the Standard Specifications.

The Contractor shall flag all plants designated to be preserved-in-place and/or to be transplanted-on-site during the inspection. Designated plants may lie within and as well as be adjacent to the project limits. These areas shall also be preserved with protective fencing, as described herein. Flagging may be used to designate preserve in place areas prior to the installation of the protective fencing.

The Contractor shall provide and install all required fencing materials. Fencing shall be installed at the drip line of each tree or group of trees, and shall remain in place for the duration of construction operations. Fencing that is damaged or destroyed shall be repaired or replaced by the Contractor within 2 working days.

Warning signs shall be attached securely to fence fabric in the upper half of the fence, and placed at 50-foot maximum intervals.

4. METHOD OF MEASUREMENT

Preservation fencing shall be measured by the linear foot of fence in place.

5. BASIS OF PAYMENT

Payment for preservation fencing, measured as provided above will be made at the contract unit price and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals required to furnish, install, maintain and remove the preservation fencing and warning signs.

(202RELOC_MAILBOX, 11/20/14)

ITEM NO. 2020061 - RELOCATE MAILBOX

1. DESCRIPTION

The work under this item shall consist of removing, temporarily relocating and reinstalling new mail boxes in accordance with Standard Detail No. 102, the project plans and these Special Provisions.

2. MATERIALS

Materials for new mailboxes, posts and foundations shall be as specified in Standard Detail No. 102.

3. CONSTRUCTION REQUIREMENTS

During construction, mail boxes may need to be temporarily placed in five gallon buckets filled with aggregate base material (as required due to contractor's schedule) in a location that mail carriers will have access to. Buckets shall only be used where the outside lane is barricaded from traffic use. Buckets shall have addresses identified on the side with paint for easy identification. For the permanent installation, the contractor shall video tape the location of the existing mail box prior to the start of construction to re-establish the layout sequence of the grouping.

New mailboxes shall be installed at the completion of work as indicated in Standard Detail No. 102. If the Engineer determines that the existing mailbox is serviceable, it may be remounted with new hardware on a new post and foundation; otherwise the Contractor shall provide and install a new, similarly sized mailbox on a new post and foundation. The Contractor shall coordinate the permanent location of the mail boxes with the local post office.

4. METHOD OF MEASUREMENT

Relocate Mailbox will be measured and paid for as a unit each, complete in place. This item shall include videoing the existing location of the mail boxes, removal of the existing mailbox, the temporary relocation(s) of the existing mailbox including bucket and aggregate base material, new mailbox, mounting hardware, post, foundation, and all labor materials and incidentals required to complete the work.

5. BASIS OF PAYMENT

Relocate Mailbox, measured as provided above, will be paid for at the contract unit price each.

ITEM NO. 2020063 - REMOVE MAILBOXES, INSTALL NEW CBU

1. DESCRIPTION

The work under this item shall consist of removing existing mail boxes, temporarily relocating existing mail boxes, and installing new collection box unit (CBU) mail boxes on new posts and foundations in accordance with Standard Detail No. 102, the project plans and these Special Provisions.

MATERIALS

Materials for new CBU mailboxes, posts and foundations shall be as specified in U.S Postal Service Standard Details.

3. CONSTRUCTION REQUIREMENTS

During construction, existing mail boxes may need to be temporarily placed in five gallon buckets filled with aggregate base material (as required due to contractor's schedule) in a location where mail carriers

will have access to them. Buckets shall only be used where the outside lane is barricaded from traffic use. Buckets shall have addresses identified on the side with paint for easy identification.

New collection box unit (CBU) mail boxes shall be installed at the completion of work as indicated in Standard Detail No. 102. The contractor shall provide a new CBU (including locks and keys) and install on a new post and foundation, at the location shown on the project plans. The contractor shall coordinate notifications with Pima County Community Relations. The contractor shall coordinate temporary mail box and permanent CBU mail box locations with the local post office.

4. METHOD OF MEASUREMENT

Remove Mailboxes, Install New CBU will be measured and paid for as a unit, complete in place for each CBU placed and the removal of the corresponding existing mail boxes at the locations as shown on the plans

5. BASIS OF PAYMENT

Remove Mailboxes, Install New CBU, measured as provided above, will be paid for at the contract unit price each. This price shall include videoing the existing location of the existing mailboxes; removal of the existing mailboxes; temporary relocation(s) of the existing mailboxes, including mounting hardware, post and foundation; final location(s) of the new CBU including mounting hardware, post and foundation; and all labor, materials and incidentals required to complete the work.

(203_BORROW, 12-21-15)

ITEM NO. 2030907 - BORROW (DISCRETIONARY)

1. DESCRIPTION

The work under this item shall include furnishing and placing suitable material obtained from sites outside the project limits and right-of-way for use in embankments, shoulders, berms, dikes, pathways, and other similar purposes.

2. MATERIALS

Borrow material shall be of a quality suitable for the purpose intended, free of vegetation or other unsuitable material. Borrow material placed within three feet (3') of finished subgrade elevation shall be smaller than three inches (3") in greatest dimension and shall have a maximum plasticity index of seven (7) and a maximum percent passing the No. 200 sieve of twenty (20).

The contractor shall promptly advise the Engineer as to the source of borrow that he proposes to use and shall furnish equipment and personnel and shall obtain representative samples of the material under the supervision of the Engineer. At the option of the contractor, the material shall be tested by either the Agency or by an independent approved laboratory.

If testing is performed by a testing laboratory, the contractor shall arrange for the samples to be delivered to the testing laboratory. Tests shall be performed using appropriate test procedures referred to in sections of the specifications in which the specific material requirements are described.

The contractor shall make the arrangements necessary to see that the testing laboratory submits the results of the tests to the Engineer. He shall also submit to the Engineer sufficient material from the samples taken so that the test results may be verified, if necessary.

The cost of all sampling and testing, including the cost of supervision by the Engineer, shall be borne by the contractor until the testing has been satisfactorily completed.

Every effort will be made by the Agency to advise the contractor as quickly as possible that the source he proposes to use has been either approved or disapproved. The contract time will not be adjusted because of any time required by either the contractor or the Agency to sample and test the material and to determine the quality of the material.

The use of a borrow source will require written approval by the Engineer. No approval shall be assumed, nor will it be made, until the Agency has determined that the material not only meets the specified requirements, but is also compatible with the established project design criteria developed by it.

3. CONSTRUCTION DETAILS

Discretionary borrow material shall be placed in conformance with the requirements of Subsection 203-9.

4. METHOD OF MEASUREMENT

Borrow (Discretionary) shall be measured in tons or cubic yards by a method that is approved by the Engineer. The quantity included in the bidding schedule is discretionary and the Engineer will determine the quantity for payment based on the actual quantity used on the project.

Discretionary borrow measurement is made in addition to any of the following Items of work if it exists in the bidding schedule: Item 2050001 Grading Roadway for Pavement; Item 2050003 Roadway Grading; and/or Item 2050010 Pathway Grading.

5. BASIS OF PAYMENT

The accepted quantity of Borrow (Discretionary), measured as provided above, will be paid for at the contract unit price, complete in place including all materials, labor and equipment.

Price adjustment for variation in bid quantity per Subsections 109-3 and 109-4, and Section 203 of the Standard Specifications and Special Provisions does not apply to this bid item.

ITEM NO. 2050010 - PATHWAY GRADING

1. DESCRIPTION

The work under this Item shall consist of removing pavement, excavating, removal and disposal of excess material, furnishing and placing embankment material including borrow, and all grading, shaping and compacting of materials necessary to construct the subgrade to the lines and grades shown in the project plans and in conformance with the requirements of these specifications.

2. MATERIALS (None Specified)

3. CONSTRUCTION REQUIREMENTS

3.01 General. All existing pavement shall be removed as designated on the project plans and in conformance with the requirements of Section 202.

Where new bituminous pavement is to match existing bituminous surfaces, the existing bituminous surfaces shall be saw cut to a straight line, perpendicular to the centerline with vertical edges free from irregularities.

If, at the time of removing any portion of the existing roadway, materials from which the new subgrade is to be constructed contain an excess of moisture such that the required compaction cannot be obtained with reasonable and customary aeration and manipulation, the Engineer will determine the cause of such condition and will determine whether the material shall be further aerated or removed and replaced.

If the cause of such condition is determined to have been unforeseeable and beyond the control of and without fault or negligence of the contractor, such further work shall be done as directed and will be paid for as extra work in conformance with the requirements of Subsection 104-2. Excess moisture caused by irrigation water, storm drainage, weather, breakage of mains, or other similar cause will be considered as within the responsibility of the contractor.

3.02 Excavation. Excavation shall conform with the requirements of Subsection 203-3.

3.03 Embankment. The placing and compaction of embankment shall conform with the requirements of Subsection 203-9.

3.04 Compacting and Finishing. The top 6 inches of the subgrade shall be compacted to a density not less than 95 percent of the maximum density as determined in conformance with the requirements of the applicable test methods of the Arizona Department of Transportation Materials Testing Manual, as directed and approved by the Engineer, except that when asphaltic concrete is to be placed directly on subgrade, the required density shall be 100 percent.

The compacted surface shall remain firm and stable as demonstrated by the lack of observable signs of deformation from wheel loading, prior to and after placement of any cover material.

The surface of the subgrade shall be finished to a reasonably smooth and uniform surface and in reasonably close conformity to the lines, grades, dimensions and cross section shown on the project plans or established by the Engineer. The finished surface of the subgrade shall not vary by more than 0.04 foot above or below the grade established by the Engineer, except when asphaltic concrete pavement or Portland cement concrete pavement are to be placed directly on the subgrade, the finished surface of the subgrade shall not vary by more than 0.02 foot above or 0.04 foot below the established grade.

4. METHOD OF MEASUREMENT

Measurement of pathway grading will be made by the square yard of the area prepared and subsequently covered with pathway pavement, pathway sidewalk or other pathway materials as shown on the project plans. No direct measurement will be made for grading, shaping or placing shoulder material outside the pathway area, such work being considered incidental, and the cost will be considered as included in the cost of this contract item. No direct measurement will be made for grading shoulder material under ramps, landings or detectable warning strips.

5. BASIS OF PAYMENT

The accepted quantity of pathway grading, measured as provided above, will be paid for at the contract unit price per square yard, complete in place, including borrow or disposal of excess material, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the work in conformance with the requirements of this item, Section 205 and the project plans, or as may be directed by the Engineer.

(404BITUM_SM_PROJ, 10/4/10)

SECTION 404 - BITUMINOUS TREATMENTS

404-4 OF MEASUREMENT of the Standard Specifications is modified to add:

Bituminous treatments for tack coat shall not be measured separately, but shall be considered as incidental to the cost of other contract items requiring tack coat.

404-5 BASIS OF PAYMENT of the Standard Specifications is modified to add:

Separate payment for bituminous treatments for tack coat shall not be made, the cost being considered as incidental to the cost of other contract items requiring tack coat.

(406NO_RAP_MIX_DESIGN, 4/9/15)

SECTION 406 - ASPHALTIC CONCRETE

406-1 DESCRIPTION the last sentence of the 1st paragraph of the Standard Specifications is revised to read:

Recycled asphalt pavement (RAP) shall not be utilized in the asphaltic concrete mix design or in the production of hot mix asphaltic concrete for this project.

406-2 MATERIALS

406-2.01 General. the 1st two sentences of the 1st paragraph of the Standard Specifications are revised to read:

Recycled asphalt pavement (RAP) shall not be utilized in the production of hot mix asphaltic concrete.

406-2.05 BITUMINOUS MATERIAL revise the first sentence of the first paragraph of the Standard Specifications to read:

The bituminous material for PAG 2 Terminal Mix shall be an asphalt binder performance grade PG 70-22 TR, in accordance with the requirements of Section 1005.

(503SIDEWALK_SCUPPER, 7/30/12)

ITEM NO. 5030092 - SIDEWALK SCUPPER (TYPE 2)

1. DESCRIPTION

The work under this section shall include furnishing all materials and constructing concrete sidewalk scuppers, including excavation and backfill. Work shall be done at the locations designated on the project plans and in accordance with the details included in the project plans.

2. MATERIALS

Materials furnished for portland cement concrete shall conform to the requirements of Section 1006 for Class B concrete.

Reinforcing steel bars or mesh shall conform to the requirements of Section 1003.

Structural steel parts shall conform to the requirements of Section 1004.

3. CONSTRUCTION REQUIREMENTS

Unless otherwise shown on the project plans, sidewalk scuppers, aprons and incidentals shall conform to the Standard Details for the type of scupper noted on the project plans, and shall meet adjacent sidewalk, curb, or gutter surfaces with no appreciable offsets.

Excavation shall be in accordance with the requirements of Subsection 203-5.

Preformed bituminous joint filler shall be installed where the sidewalk scupper abuts new or existing concrete curb, sidewalk or pavement.

Backfilling of the completed scupper shall be in accordance with the requirements of Subsection 203-5.

4. METHOD OF MEASUREMENT

Concrete sidewalk scuppers will be measured by the linear foot along the centerline of the scupper, from the top front face to the end of the scupper for each unit furnished, including scupper, apron and incidentals, complete-in-place. Railing, when indicated on the project plans, will be measured separately under other contract items.

5. BASIS OF PAYMENT

The accepted quantities of sidewalk scuppers, measured as provided above, will be paid for at the contract unit price per linear foot, complete in place, which shall include excavation, backfill, forms, concrete and reinforcement, steel tube or steel diamond plate, if required, finishing and all

appurtenances. Railing, when indicated on the project plans, will be measured and paid in conformance with the requirements of Section 933.

The removal of unsuitable material below the required depth of excavation and the furnishing and placing of material in the voids thus created will be paid for in conformance with the provisions found in Subsection 104-2.

(510ADJ_H2O_VALVE_TUC_H2O, 12/8/14)

ITEM NO. 5103101 - POTABLE WATER, ADJUST EXISTING VALVE BOX AND COVER

1. DESCRIPTION

The work under this item shall consist of furnishing all labor, equipment and materials required to install Adjusting Existing Valve Boxes and Covers. All existing valve boxes and covers shall be replaced with new valve boxes and covers. New valve boxes and covers shall be installed and adjusted to finished grade at the existing valve locations shown on the project plans, in accordance with the details shown on the project plans, and in accordance with the requirements of these Special Provisions.

2. MATERIALS

All materials shall conform to the requirements of the Tucson Water Department Standard Specifications and Standard Detail SD-300.

All new polyvinyl chloride (PVC) pipe for use as riser pipe called for in Detail SD-300 shall be a minimum of Class 200.

3. CONSTRUCTION REQUIREMENTS

The Contractor shall furnish and install new valve boxes and covers at all locations where Adjusting Existing Valve Boxes and Cover are called for on the plans.

The Contractor shall adjust water main valve boxes and covers to the level of the new finished grade. This work shall be done in accordance with detail SD-300 and details on the drawings.

New valve boxes on existing valves shall not be installed in temporary paving. Existing valve boxes shall be adjusted to grade in temporary paving. When the final paving is installed to finished grade, new valve boxes shall be installed.

Valve boxes not scheduled for adjustment shall be protected from any damage during the course of the work.

Existing riser pipe may remain in place and be shortened in length to allow for the proper installation of a new valve box and cover. Any lengthening of the riser pipe shall require the installation of a new riser pipe meeting the requirements of Standard Detail SD-300.

4. METHODS OF MEASUREMENT

Adjustment of Existing Valve Boxes and Covers shall be measured by the unit Each (EA) for the actual number of Adjusted Valve Boxes and Covers installed.

Multiple adjustments to valve boxes in temporary pavement shall be considered incidental to the cost of adjusting valve boxes to the finished grade.

New valve boxes and covers called for as part of new valves are not a part of this bid item.

5. BASIS OF PAYMENT

The accepted quantities of Adjusted Existing Valve Boxes and Covers, measured as provided above, will be paid for at the contract unit price each, which price shall be full compensation for the work, complete in place.

(515UTL_POTHOLE, 6/12/12)

ITEM NO. 5150005 - UTILITY POTHOLING, Depth less than Twelve Feet (12')

1. DESCRIPTION

The work under these bid items, herein after referred to as “potholing”, consists of furnishing all labor, equipment, and materials required in exposing utility facilities as required under State regulations (i.e. “Blue Stake”) and as directed by the Engineer.

2. MATERIALS

All materials shall conform to the requirements of the Agency for backfilling and patching existing roadway surfaces.

3. CONSTRUCTION REQUIREMENTS

All procedures for potholing such as, but not limited to, traffic control, cutting existing roadway surfaces, backfill, and patching existing roadway surfaces, shall conform to the requirements of the Agency.

Areas disturbed during potholing are to be restored to their original condition.

Unless otherwise agreed to by the Engineer, potholing shall be done no less than fourteen (14) calendar days in advance of conducting an excavation or construction to avoid possible delay in the progress of the Work. Should a utility facility or obstruction be uncovered and determined to conflict or interfere with the Work, the contractor shall notify the Engineer and facility owner (if known) immediately.

The contractor shall maintain a record of pothole information including utility name, horizontal location, vertical elevation, size, and material type of utility facility uncovered. If a pothole does not uncover a utility facility, the pothole should be noted as “dry”. All pothole locations are to be surveyed and tied to the horizontal and vertical control unless otherwise directed by the Engineer. The contractor shall provide pothole information to the Engineer upon request.

4. METHOD OF MEASUREMENT

Potholing will be measured as a unit for each pothole whether or not an underground utility facility was uncovered.

No measurement will be made for potholes not approved by the Engineer.

5. BASIS OF PAYMENT

The accepted quantities of potholing, measured as provided above, will be paid for at the contract unit price per each. The price shall include full compensation for the work complete, including traffic control, area restoration, pavement cutting, excavating, backfilling, pavement patching, and surveying unless construction surveying is provided by the Agency.

No payment will be made for potholes not approved by the Engineer.

Price adjustment for variation in total bid quantity per Subsections 109-3 and 109-4 of the Standard Specifications do not apply to work under these bid items.

(515UTL_IMPACT_ALLOWANCE, 12/5/14)

ITEM NO. 5150101 - UTILITY IMPACTS ALLOWANCE

1. DESCRIPTION

The work under this item will be at the direction of the Engineer and shall consist of furnishing all labor, equipment, and materials required for modifying, adjusting, protecting, and supporting utility facilities not identified on the project plans or included in the bid documents, and which impact interfere and/or conflict with the construction of the project.

2. MATERIALS (None Specified)

3. CONSTRUCTION REQUIREMENTS

All work under this item shall be as directed by the Engineer.

4. METHOD OF MEASUREMENT

The work under this item shall be completed on an extra work basis, in conformance with the provisions of Subsection 109-5 of these Special Provisions.

5. BASIS OF PAYMENT

Payment for unforeseen utility relocation impacts will be made in accordance with the provisions of Subsection 109-5.

SECTION 608 - SIGN PANELS

608-2 MATERIALS

608-2.02 Extruded Aluminum Sign Panels with Direct-Applied, Digitally-Imaged or Demountable Characters. the 3rd paragraph of the Standard Specifications is revised to read:

The letters, numerals, symbols, borders and other features of the sign message shall be direct-applied, digitally-imaged or demountable, and shall conform to the requirements of Subsection 608-2.06, Silk-Screen-Printed, Direct-Applied and Electronic-Cut Characters or Subsection 608-2.07, Digitally-Imaged Characters.

SECTION 701 - MAINTENANCE AND PROTECTION OF TRAFFIC

701-1 DESCRIPTION of the Standard Specifications is modified to add:

The Contractor shall be responsible for the control, direction, and safety of vehicular and pedestrian traffic in all work areas, and shall provide all necessary equipment and personnel for this work. Traffic control and site access arrangements shall be subject to the approval of the Owner and governmental agency with jurisdiction of the jobsite.

701-3 CONSTRUCTION DETAILS

701-3.11 Obliteration of Existing Pavement Markings the last paragraph of this subsection of the Standard Specifications is modified to add:

If pavement markings contain lead, the contractor shall follow all applicable federal, state and local codes and regulations related to the treatment, handling and disposal of lead-based paint. An abatement subcontractor approved by the Arizona Department of Transportation (ADOT) shall develop and implement a lead-based paint abatement plan for the removal of the paint. ADOT approved vendors can be found at <https://procure.az.gov/bsa/>. If lead exposure prevention measures are required, the contractor shall ensure that all contractor personnel, subcontractors, and Agency personnel present on the job site are notified of the activity and advised of precautions necessary to avoid contamination by lead compounds. The contractor shall submit the abatement plan to the Engineer for review and approval at least 10 working days prior to the removal of the paint. Waste generated during the paint removal shall be properly disposed of after testing the waste stream for lead using the analytical Toxicity Characteristic Leaching Procedure. Visible fugitive dust emissions from the paint removal shall be controlled using wet or dry (e.g. vacuum) means during the removal process. Payment for work to remove lead-based striping shall be under Item #7010265 Obliterate Pavement Markings (Special).

701-4 METHOD OF MEASUREMENT of the Standard Specifications is modified to add:

Basic Maintenance and Protection of Traffic, Construction Elements, Flagging Services, and Provide Detours will be measured as a single, complete, lump sum Item 7010005 - Traffic Control.

Basic maintenance and protection of traffic shall consist of the preparation and approval of a traffic control plan, flagging services and furnishing, installing, maintaining, moving, and removing barriers, barricades,

warning signs, delineators, lights, cones, installation of temporary pavement markings for the maintenance of traffic and/or construction sequencing, the removal of existing pavement markings and raised pavement markers by obliteration, the covering of any existing signs, impact attenuation devices, and other traffic control devices in order to provide safe and efficient passage through and/or around the project construction site and protect the public and workers from injuries and property damage for the duration of the project. The cost for maintaining all traffic control materials, labor and equipment is included under lump sum Item 7010005 – Traffic Control, except for bid Items 7010025 – Flashing Arrow Panel, 7010027 – Changeable Message Board, 7010075 – Flagging Services (Civilian), 7010077 – Flagging Services (Uniformed Officer) (Off Duty), and 7010079 – Official Police Vehicle (Off Duty). Flashing Arrow Panel and Changeable Message Board will be measured by Each/Day. 7010075 – Flagging Services (Civilian), 7010077 – Flagging Services (Uniformed Officer) (Off Duty), and 7010079 – Official Police Vehicle (Off Duty) will be measured by the hour.

The Agency will reimburse the contractor for the work under this Section on the basis of bid prices or the predetermined reimbursement rates, as specified in these Special Provisions.

Item	Elements of Work	Unit	Rate
7010005	Traffic Control	L.S.	BID

701-4.02 Construction Area Elements of the Standard Specifications is modified to add:

(B) Elements of Work (In-Use) and Flagging. The elements of work listed under this Subsection will be measured for payment from the time at which the element is put into active use on the project and accepted by the Engineer until such time that the Engineer determines that the element is no longer required. Individual flags and sandbags used in conjunction with the traffic elements of work shall be considered incidental items. No separate payment shall be made for flags and sandbags. Rather, their cost shall be included in their respective elements of work. The work shall also include all maintenance, cleaning, and repair of all elements. The Engineer must approve the use of Flagging Services. Approved Flagging Services will be paid as indicated in this Subsection as well as the Bidding Schedule.

Item	Elements of Work (In-Use)	Unit	Rate
7010025	Flashing Arrow Panel	Each/Day	BID
7010027	Changeable Message Board	Each/Day	BID
7010075	Flagging Services (Civilian)	Hour	BID
7010077	Flagging Services (Uniformed Officer) (Off Duty)	Hour	BID
7010079	Official Police Vehicle (Off Duty)	Hour	BID

701-5 BASIS OF PAYMENT of the Standard Specifications is modified to add:

The accepted quantity of Basic Maintenance and Protection of Traffic, Construction Area Elements, Flagging Services, and Provide Detour will be paid for at the contract lump sum price under Item 7010005, Traffic Control. The lump sum bid price submitted by the Contractor shall be full compensation for the work of maintenance and protection of traffic and work site access planning and control. The lump sum bid price shall also be estimated for the entire duration of the contract time that accounts for both the contract working days and non-working calendar days.

The accepted quantities for Flashing Arrow Panel, Changeable Message Board, Flagging Services (Civilian), Flagging Services (Uniformed Officer) (Off Duty), and Official Police Vehicle (Off Duty)

will be measured as provided above, will be paid for at the contract unit price included in the Bidding Schedule.

The Agency will compensate the contractor for the accepted quantities of work for Maintenance and Protection of Traffic on the basis of bid prices or the predetermined reimbursement rates, as specified in these Special Provisions. Price adjustment for variation in bid quantity per Subsections 109-3 and 109-4 of the Standard Specifications does not apply to the elements of work for Maintenance and Protection of Traffic.

(704EXTRUDED, 4/24/15)

SECTION 704 - THERMOPLASTIC STRIPES AND MARKINGS

704-2 MATERIALS

704-2.03 Physical Characteristics of the Composition

(C) **Retroreflectance.** of the Standard Specifications is revised to read:

(C) **Retroreflectance.** The white and yellow thermoplastic materials shall have the following minimum retroreflectance values by a Mirolux 30 portable retroreflectometer or similar approved device within 30 days after application to the roadway surface:

Product	Retroreflectance (Millicandelas)
White	200
Yellow	125

704-2.04 **Physical Requirements for Glass Beads** of the Standard Specifications is revised to read:

The term “glass bead” shall be synonymous with the term “glass sphere” as used herein.

Inter-mix and drop on reflective glass beads shall conform to the requirements of Subsection 708-2.02 or AASHTO M 247-13, Type 1, and may be coated or uncoated as recommended by the manufacturer. If uncoated beads are used, the thermoplastic formulation shall be configured to minimize settling of the intermix beads when the material is heated and applied.

If recommended by the manufacturer, the drop-on beads shall have an adherence coating.

704-3.03 Application

(G) **Thermoplastic Application.** the 1st paragraph of the Standard Specifications is revised to read:

The thermoplastic pavement marking material shall be extruded, ribbon, or sprayed on to the pavement surface at a material temperature between 400 and 440 degrees F, depending on manufacturer’s recommendations, ambient air and pavement temperatures, and the nature of the pavement surface. The contractor shall verify temperature requirements with a non-contact infrared thermometer as directed by the engineer.

(G) Thermoplastic Application. the 6th paragraph of the Standard Specifications is revised to read:

Unless otherwise specified, thermoplastic pavement markings for legends and symbols, and for crosswalks, stop bars and other transverse elements, shall be extruded, and shall be 0.090 ± 0.002 inches thick. Longitudinal markings, such as edge lines, lane lines, gore lines, and other markings parallel to traffic, shall be either sprayed, ribbon, or extruded thermoplastic as specified on the project plans. If sprayed, thermoplastic pavement marking lines are to be 0.060 ± 0.002 inches thick. If ribbon or extruded thermoplastic, pavement marking lines are to be 0.090 ± 0.002 inches thick. Longitudinal markings of approximately 200 feet or less may be extruded. The thermoplastic thickness shall be uniform and consistent throughout the total length of the marking project.

(708PAINT_LAYOUT_MK, 4/24/15)

SECTION 708 - PAINTED PAVEMENT MARKINGS

708-1 DESCRIPTION of the Standard Specifications is modified to add:

Work under this section also includes the installation of painted layout striping that is placed prior to the final thermoplastic striping, as indicated on the project plans under the pavement marking General Notes.

708-2 MATERIALS

708-2.01 Pavement Marking Paint.

(E) Qualitative Requirements:

(9) Spraying Properties. The first paragraph of the Standard Specifications is revised to read:

The paint shall be applied at a 15 mils (.015") wet film thickness in the field. The paint shall show the following properties at ambient temperatures of 50° F to 100° F with a paint spray temperature of 150° F, maximum, and 8 pounds of post-applied glass beads per gallon of paint conforming to Subsection 708-2.02 of these specifications:

708-2.02 Reflective Glass Beads (Spheres).

(A) General. of the Standard Specifications is modified to add:

Glass beads shall conform to the requirements of AASHTO M 247-13 Type 1, with an adhesion and moisture proof coating.

(803GRANITE_MULCH_SPECIAL, 4/7/2016)

SECTION 803 - LANDSCAPE BORROW AND PLATING MATERIAL

803-3 CONSTRUCTION REQUIREMENTS

803-3.02(A) Granite Mulch (Special) is hereby added to the Standard Specifications:

When required on the project plans, special granite mulch is to be applied prior to seeding, in accordance with the details shown on the plans in the locations specified. Prior to application of Granite Mulch (Special), the area is to be prepared in accordance with Section 803-3.02 Decomposed Granite and Granite Mulch of these specifications, with the exception that no pre-emergent herbicide shall be applied. The area shall also be prepared in accordance with Section 805-3.02(B) (Seeding Class II) of the Standard Specifications.

After the aforementioned preparation, Granite Mulch (Special) shall then be spread over the percentage of ground surface in accordance with the detail shown on the project plans. The detail will specify the percentage to be covered with granite mulch, as well as the percentage to be left bare. Granite Mulch (Special) is to be spread in a random pattern, with the intent of imitating natural desert ground surface.

Only upon completion of the Granite Mulch (Special) installation may seeding application in accordance with Section 805-3.02(B) commence.

803-4 METHOD OF MEASUREMENT of the Standard Specifications is modified to add:

Granite Mulch (Special) will be measured by the square yards of material in place and at the specified thickness. The area measured for payment will include the bare areas between the granite mulch within the perimeter of the Granite Mulch (Special) area.

803-5 BASIS OF PAYMENT of the Standard Specifications is modified to add:

The accepted quantities of Granite Mulch (Special), measured as provided above, will be paid for at the contract unit price specified in the bidding schedule, and will be considered as compensation, in full, for the item, complete in place. The seeding of Granite Mulch (Special) will be paid under the appropriate seeding item of work.

(805HYDROSEEDING, 4/7/2016)

SECTION 805 - SEEDING

805-1 DESCRIPTION of the Standard Specifications is modified to add:

The work covered by this section shall also include the preparation of soil within areas to be seeded, the hydroseeding of disturbed area with native plants (Class II), and the installation of a temporary, degradable erosion control blanket (in designated areas).

805-2 MATERIALS

805-2.08 Erosion Control Blanket is hereby added to the Standard Specifications:

Erosion control blankets shall be of the biodegradable blanket type. The blanket shall be a machine produced mat of straw or wood excelsior fiber covered on the top and bottom sides with photo degradable extruded plastic or woven biodegradable nettings having maximum openings of 0.5" x 1.0". Erosion control blankets shall have a functional longevity of 10 months. Erosion control blankets shall be as manufactured by North American Green, Model S150, or approved equal.

805-3 CONSTRUCTION DETAILS

805-3.02(B) Seeding (Class II) of the Standard Specifications is modified to add:

In areas specified on the project plans to receive special granite mulch or special rock mulch prior to seed application, see Section 803-3.02(A) – Granite Mulch Special or 803 - 3.03 (A) - Rock Mulch Special of these special provisions.

805-3.05 Erosion Control Blanket is hereby added to the Standard Specifications:

Upon completion of the hydroseeding operations, erosion control blankets shall only be installed over those seeded areas that are indicated on the landscape plans to receive erosion control blanket. The blanket shall be installed as detailed on the project plans and per the manufacturer's written instructions and recommendations. The blanket shall be installed as soon as possible after seeding. The Contractor shall be responsible for reseeded any seeded areas disturbed by the installation of the blanket or that area eroded prior to the installation of the blanket.

805-4 METHOD OF MEASUREMENT of the Standard Specifications is revised to read:

Seeding (Class I), will be measured for payment by the square foot of ground surface measured to the nearest 1,000 square feet or as a single complete unit of work for each completed seeding application.

Application of Class I seeding using hydroseeding methods shall be measured for payment as provided above.

The initial application for Seeding (Class II) will be measured either by the square yard of ground surface, to the nearest 100 square yards seeded, or by the acre to the nearest 0.1 acre, complete-in-place.

The second application for Seeding (Class II) will be measured either by the square yard of ground surface, to the nearest 100 square yards seeded, or by the acre to the nearest 0.1 acre, complete-in-place.

Seeding (Class III) will be measured for payment by the square foot of ground surface to the nearest 1,000 square feet seeded, by the acre to the nearest 0.1 acre or as a single complete unit of work for each completed seeding application.

Application of Class II and Class III seeding using hydroseeding methods shall be measured for payment as provided above.

Erosion Control Blankets will be measured by the square yard, complete-in-place.

805-5 BASIS OF PAYMENT of the Standard Specifications is revised to read:

Accepted quantities of seeding, measured as provided for above, will be paid for at the contract unit price indicated in the Bidding Schedule and will be considered as compensation, in full, for the item complete in place, including all labor, equipment, materials, tools, supplies and incidentals necessary for the work in conformance with the requirements herein, the project plans or as may be directed by the Engineer. Price adjustments for variation in total bid quantity per Subsections 109-3 and 109-4 of the Standard Specifications do not apply to work under this item.

No direct measurement or payment will be made for the preparation or the preservation of seeding areas, the cost being considered as included in the cost of the contract item.

Accepted quantities of erosion control blankets, measured as provided for above, will be paid for at the contract unit price indicated in the Bidding Schedule and will be considered as compensation, in full, for the item complete in place including all labor, equipment, materials, tools, supplies and incidentals necessary for the work in conformance with the requirements herein, the project plans or as may be directed by the Engineer.

When multiple mobilizations are required to accomplish seeding as specified herein, the cost will be included in the price bid for the seeding. No adjustments will be made to the contract for the number of seeding mobilization activities. Should the contractor fail to provide seeding for a sub-area as specified herein, the Engineer will immediately notify the contractor of such non-compliance. Should the contractor fail to immediately remedy the unstabilized area, the Engineer may suspend work until such seeding stabilization has been completed, or proceed to provide the necessary seeding stabilization. The entire cost of such work will be deducted from the monies due or to become due to the contractor. In addition, no adjustment to the contract time will be made for suspensions resulting from the contractor's failure to provide seeding for a sub-area within the time periods specified herein.

(806TREES_SHRUBS, 8/20/15)

SECTION 806 - TREES, SHRUBS, AND PLANTS

806-2 MATERIALS

806-2.02 Nursery Stock Plants. of the Standard Specifications is modified to add:

The presence of any noxious or invasive species listed in Section 201-3.04, or any undesirable organism in the soil surrounding the plants, or any of the before mentioned conditions, may be cause for rejection of the plants.

Nursery provided plants shall be as listed in the Special Provisions.

806-2.02(A) Plant Size. of the Standard Specifications is modified to add:

All plants specified as tree pot containers shall have a height of either 15 or 24 inches. Fifteen inch tree pots shall have a root zone at least 13 inches in length. Twenty-four inch tree pots shall have a root zone

at least 22 inches in length. The height of tree pot plants shall be as follows: a minimum of 12 inches measured from the top of the soil to the apical tip of the plant for 15 inch tree pots, and a minimum of 24 inches from the top of the soil to the apical tip of the plant for 24 inch tree pots. A maximum height does not apply for plants grown in tree pots as long as the plant is still viable and healthy. Each plant shall be capable of standing erect without support, after planting.

806-2.06 Prepared Soil. of the Standard Specifications is hereby renamed as follows:

806-2.06 Soil backfill. Soil backfill at tree pits and shrub pits, planting trenches and bedding shall consist of a clean, native site soil, with all rocks over 2" in diameter removed.

Backfilling mix for succulents, ocotillo and other cacti shall include 0.25 pounds of soil sulfur blended uniformly and homogeneously into clean, native site soil prior to backfilling of pits, as noted on project plans. Soil sulphur shall be granular or prilled agricultural grade, containing 99.5 percent sulphur and 0.5 percent inert ingredients ("Dispersion" or approved equal).

No mulch shall be included in planting pits.

806-2.08 Mulch. of the Standard Specifications is revised to read:

Mulch shall not be used.

806-2.14 Agency Provided Plants. is hereby added to the Standard Specifications:

In addition to the general requirements listed above, plants listed as *Agency Provided* shall be provided by the Pima County Native Plant Nursery (PCNPN), located at 3500 W. River Road, Tucson, Arizona 85741. The contractor shall notify the Nursery Manager at (520) 877-6000 one month prior to the first pickup date, and at least 5 business days for subsequent pickups. The contractor shall arrange for pickup from this site, and delivery to the installation site. The contractor shall be responsible for the return of plant containers to the nursery.

The contractor has the option to refuse selected plants from PCNPN stock due to ill health, poor form or other specific reasons. Placement of PCNPN plants on the delivery vehicle constitutes acceptance of the plant material by the contractor. Any PCNPN provided plants above the 10% margin that die while under the duration of the contractor's construction and landscape establishment period, shall be replaced in kind by the contractor at no cost to the Agency.

The PCNPN will replace any deceased plant material free of charge regardless of container size. This guarantee covers plant material for a 180 day period after project landscape establishment when plants were properly installed according to county specifications. This guarantee does not include plant mortality due to poor contractor oversight or design flaws. The Engineer is responsible for determining if the plants were installed and maintained per specification or if mortality was due to unforeseen causes not at the fault of the PCNPN, i.e. vandalism. Failure to install plant material per specification, which has been established to ensure plant health and survivability, will void the replacement guarantee. This guarantee is for original plant material and does not cover replaced plant material.

The contractor shall return all containers to the PCNPN. This includes all hardware (wire and screens) associated with the tall pots. Failure to do so will result in the following charges to the contractor: \$2.00

per 3 or 5 gallon standard container; \$5.00 per 15 gallon container; \$5.00 per tall pot unit consisting of tall pot tube, tall pot hardware, and galvanized wire; \$2.00 per 15 inch Tree pot; and \$5.00 per 24 inch tree pot.

Agency provided plants shall be as listed in the Special Provisions.

806-3 CONSTRUCTION REQUIREMENTS

806-3.01 Planting Season. of the Standard Specifications is revised to read:

806-3.01 Schedule and Planting Season. The contractor shall provide a tentative planting schedule to the Engineer at the pre-construction meeting and shall update this schedule as the project progresses. No later than 30 days after the contract is awarded, the Contractor shall meet with the PCNPN Manager and the Engineer to discuss planting schedule, plant pickup, return of containers, and guarantee limitations. At this meeting the Contractor will provide a time-window for picking up agency provided plants that is agreeable to the Engineer and the PCNPN Manager. The Contractor will provide the Engineer and the PCNPN Manager with meeting notes that include a schedule for picking up agency provided plants. The Contractor is responsible for notifying the Engineer and the PCNPN Manager immediately whenever changes in the planting schedule occur. The Contractor shall be responsible for, delivering, unloading, installing and fulfilling the guarantee requirements of agency provided plants. One month prior to planting, the contractor shall coordinate a firm schedule for picking up plants from the PCNPN that is within the previously agreed upon time-window for pick up.

The schedule for planting trees and shrubs, within the contract time shall be at the discretion of the contractor. Planting during extremely cold, hot or windy periods shall be at the sole risk of the contractor. Plants which are damaged or die prior to final acceptance as a result of extreme weather conditions shall be removed and replaced, in kind, at no additional cost to the Agency.

If *Agency Provided* plants as described in Subsection 806-2.03 become unviable due to project delays, 4-10 active grow months may be necessary to establish replacement plants from the notice of delay. If the contractor cannot pick up agency provided plants from the PCNPN, then the contractor is responsible for payment of the full cost of the unviable plants and the replacement plants.

806-3.02 Excavation. of the Standard Specifications is modified to add:

Planting pits for tree pots shall be excavated to the specified dimensions with the sides of the pit roughened or scarified. Pits to accommodate tree pots shall be sized as follows: planting pits for 24 inch tree pots shall be augured with a 16 inch diameter augur to a depth of 30 inches; planting pits for 15 inch tree pots shall be hand-dug or augured to a diameter of 12 inches and to a depth of 18 inches.

Planting tree pot plants in soft, sandy, or cobble soils requires no special treatment above the afore listed specification for tree pot planting pits. The methods and means required to satisfy the planting pit specifications in soft, sandy, or cobble soils is at the discretion of the landscape contractor. After placing the tree pot plant in the pit, the pit shall then be backfilled with on-site native soil and thoroughly soaked at the end of each days planting session. Tree pot backfill may utilize on-site native soil providing the soil meets the requirements of Subsection 806-2.05.

806-3.04 Planting

806-3.04 (A) General. of the Standard Specifications is modified to add:

The contractor shall pay particular attention to the presence of noxious and invasive species listed in Section 201-3.04 in, or adjacent to, planting areas.

The presence of any noxious or invasive species in the planting pit shall be grounds for immediate removal, disposal, and replacement of that plant.

Should the contractor encounter any unforeseen or unsuitable planting condition, it shall be immediately brought to the attention of the Engineer.

Prior to planting trees and shrubs, the contractor shall remove all container stakes. Stakes shall be removed carefully so as to not damage plants. Under no circumstance shall container stakes be included when trees or shrubs are planted into the ground.

806-3.05 Pruning. All plants shall be pruned at the direction of a Certified Arborist approved by the Engineer. Pruning shall conform to the requirements of *ANSI-A-300 (Part 1)-2008 Pruning*, as published by the Tree Care Industry Association, Inc. (Telephone: 1-800-733-2622, website: www.tcia.org); and *Best Management Practices, Tree Pruning (Revised 2008)*, as published by the International Society of Arboriculture (Telephone: 1-217-355-9411, website: www.isa-arbor.com).

Pruning shall be kept to a minimum and shall only be undertaken to achieve the primary objectives established in *ANSI-A-300 (Part 1)* as follows:

- restoration (removing dead, damaged or diseased branches);
- managing health;
- providing clearance or;
- reducing risk.

No more than 25% of the foliage shall be removed by pruning. Excessive branch removal on the lower two-thirds of a branch or stem is to be avoided. If excessive pruning is necessary to avoid conflicts with utilities, traffic, or other site element; the arborist shall notify the Engineer for approval prior to pruning. Pruning equipment that damages living tissues and bark beyond the scope of normal work practices shall be avoided.

Treatments shall not be used to cover wounds or pruning cuts, except when necessary for disease, insect, or mistletoe control.

806-3.06 Staking. of the Standard Specifications is modified to add:

No trees shall be staked except when directed by the Engineer. When staking is specified or directed, the work shall be performed as detailed on the project plans or Standard Details.

806-3.07 Care and Protection of Trees, Shrubs and Plants.

806-3.07 (B) Application of Chemicals. of the Standard Specifications is modified to add:

All herbicide application shall be done in accordance with Section 201-3.04.

Herbicides shall not be used in waters of the U.S. These include washes, the edge of the wash, dip crossings and conveyances to waters of the U.S. Only manual removal of noxious and invasive species shall be allowed at these locations. See Section 201-3.04.

806-3.07 (C) Rodent Damage. of the Standard Specifications is modified to add:

Pre-emergent herbicides shall not be used in areas that will be seeded as shown on the project plans.

(806LNDSC_PRUNING, 10/28/10)

ITEM NO. 8061700 - LANDSCAPE PRUNING

1. DESCRIPTION

The work under this Item shall consist of pruning existing trees designated to remain in place or trees previously salvaged. The work shall be done by or supervised by a certified arborist. The trees to be pruned shall be identified by the Engineer. The work shall be done by the arborist and one or more laborers. The work shall include providing necessary tools, and removing all debris from the area, and taking it to a proper disposal site.

2. MATERIALS (None Specified)

3. CONSTRUCTION REQUIREMENTS

The work consists of pruning existing trees designated for preservation that may be in conflict with new work. Pruning work shall be performed in accordance with *ANSI-A-300 (Part 1)-2008 Pruning*, as published by the Tree Care Industry Association, Inc. (Telephone: 1-800-733-2622, website: www.tcia.org); and *Best Management Practices, Tree Pruning (Revised 2008)*, as published by the International Society of Arboriculture (Telephone: 1-217-355-9411, website: www.isa-arbor.com). The Contractor is expected to familiar with accepted horticulture practices as defined by these guidelines. All pruning work shall be performed or directed by a certified arborist.

Pruning shall be kept to a minimum and should only be done in order to achieve the following objectives (summarized from *ANSI A300 (Part 1)-2008*): Pruning shall be limited to the objectives of restoration (removing dead, damaged or diseased branches), managing health, providing clearance, or risk reduction. No more than 25% of the foliage shall be removed. Excessive branch removal on the lower two-thirds of a branch of stem is to be avoided. If excessive pruning is necessary to avoid conflicts with utilities, traffic, or other site element, the arborist is to bring this to the attention of the project engineer.

Pruning equipment that damages living tissues and bark beyond the scope of normal work practices shall be avoided.

Pruning cuts shall be made according to these practices: Pruning tools shall be sharp. Pruning cuts shall remove a branch at its point of origin, close to the trunk or parent branch. It shall not cut into the branch bark ridge or branch collar or leave a stub. Branches shall never be left cut mid-branch. When pruning to

a lateral, the remaining lateral branch should be large enough to assume the terminal role. The final cut should result in a flat surface with adjacent bark firmly attached. When removing a dead branch, the final cut shall be made just outside the collar of living tissue. Tree branches shall be removed in such a manner so as to avoid damage to other part of the tree or to other plants or property. Severed branches shall be removed from the crown upon completion of the pruning, at times when the tree would be left unattended, or at the end of the workday.

Wound treatments shall not be used to cover wounds or pruning cuts, except when necessary for disease, insect, or mistletoe.

4. METHOD OF MEASUREMENT

Landscape pruning of existing trees will be measured by the hour, and will include the time the certified arborist is on site. The cost for the time spent in taking debris to the landfill or proper disposal site, including dumping fees will be considered incidental to the work.

5. BASIS OF PAYMENT

Landscape pruning, measured as provided above, will be paid at the contract unit rate per hour, which includes full compensation for the work described herein.

(807LANDSCP_EST, 3/07/15)

SECTION 807 - LANDSCAPING ESTABLISHMENT

807-1 DESCRIPTION of the Standard Specifications is modified to add:

The work shall also consist of replacing irrigation gel system packets, as soon as depleted and at an interval not to exceed ninety days.

807-3 CONSTRUCTION REQUIREMENTS

807-3.01 General of the Standard Specifications is modified to add:

The Prime Contractor (or the Landscape/Irrigation Subcontractor responsible for the initial installation) shall be the only contractor that performs the Landscaping Establishment work. Subcontracting of this work will not be permitted except for noxious or invasive species eradication with herbicides, because of special licensing requirements.

(A)Noxious or Invasive Species Eradication. Noxious or invasive species eradication shall be provided over the entire site through the use of herbicides and manual labor in accordance with Section 201-3.04. The contractor shall treat all species listed in Section 201-3.04.

Manual labor/hand removal of noxious or invasive species shall occur when noxious or invasive species are growing around trees and other plants included in this contract. Herbicides shall not be used in this instance as they will cause damage to desirable vegetation. Herbicides employed during the term of the maintenance period shall not cause the extermination of any landscape plant material nor have detrimental residual effects.

No chemical shall stain or cause to stain, nor cause damage to any portion of the site or improvements, including landscape plant material. If staining or damage occurs, requisite repairs or replacements shall be made by the Contractor at his expense.

A record shall be kept of all chemical applications noting date and where applied, rate of application, whether pre-emergent or post emergent and method of application. A copy shall be submitted to the Agency Representative at the end of the maintenance period.

Applications of chemicals shall be in such a manner so as to not cause injury to the personal health of anyone working on the site, observing, or passing by. Care shall be taken such that no puddles or pools of water which may contain toxic amounts of chemicals shall remain after completion of operations. Chemicals shall not be allowed to fall on or translocate to areas other than the site.

Chemicals shall be approved by the EPA for the intended use and applied in strict accordance with EPA guidelines and the manufacturer's instructions.

(B) Frequency. Establishment work shall be performed a minimum of one time per week. Work that the Contractor fails to do when necessary during the Establishment Period may be performed by others as directed by the Agency Representative, the cost to be borne by the Contractor.

(C) Hand watering of cactus. Provide supplemental hand watering during the establishment period as required and/or directed by the Agency's Representative to un-irrigated cacti. Supplemental watering shall occur a minimum of twice monthly for the first four weeks after planting and during the months of May, June, July, August, and September except when sufficient rainfall has occurred to support plant health.

(D) Replacement of irrigation gel system packs. Replace irrigation gel system packs when depleted and at an interval not to exceed ninety days between replacements.

807-3.02 Time Period and Schedule of the Standard Specifications is revised to read:

The landscaping establishment period shall be three hundred and sixty-five (365) consecutive calendar days. The time period shall begin after written notice from the Engineer of substantial completion of the landscape portion of the project and when the Engineer is assured that the work can be performed in a continuous and consistent manner without restricting the use of any facilities by the traveling public.

The contractor shall submit a work schedule of operations for approval by the Engineer each month with the dates of work to be completed. The work schedule shall indicate responsibility for the landscaping establishment work, including contact information. The work shall include the tasks specified in Subsection 807-1.

The Engineer, accompanied by the Contractor, will inspect the site monthly during the landscape establishment period and at its expiration; and at other times as deemed necessary by the Engineer or Contractor. The Engineer will send a punchlist to the Contractor that includes items requiring attention and correction. The Contractor shall have 30 calendar days from when the punchlist is sent, to complete these items. If the items on the list are not completed within the 30 day time period, the landscape establishment period will be extended additional days for each day until the work is completed. Should the Contractor fail to carry out the work within thirty days, the Agency may, at its sole discretion, have

the work performed. The cost of work performed by the Agency shall be invoiced to, or withheld from funds owed the contractor.

When, in the opinion of the Engineer, the methods being used to control or eradicate pests and noxious or invasive species or perform other maintenance functions are unsatisfactory, the Contractor shall immediately modify his methods, as directed by the Engineer.

A special inspection will be required at any time during the landscaping establishment period when, in the opinion of the Engineer, conditions justify such action.

During any suspension of the work period, the contractor shall properly and continuously maintain, in an acceptable growing condition, all newly established plantings, including hydroseeded areas, furnished and installed under the contract and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

Final acceptance of the project shall be granted after satisfactory completion of the Maintenance Period.

807-3.03 Planted Stock Establishment of the Standard Specifications is modified to add:

(D) Tree Staking. All tree stakes shall be removed by the end of the landscape establishment period, at the latest.

807-3.05 Control of Weeds and Pests of the Standard Specifications is modified to add:

All precautionary provisions of Section 807-3.01(B) “Noxious or Invasive Species Control” of these Special Provisions shall apply for the application of pest and disease control chemicals.

Rodent protection shall be maintained by re-applying chemical rodent repellent in accordance with the manufacturer’s instructions and securing and / or resetting chicken wire fabric cages.

807-3.08 Contractor’s Responsibility

The Contractor shall be bound by all requirements of the General Conditions which in any way apply to his work.

The Contractor will not be held responsible for any damages on or within the site due to vehicular and non-vehicular accidental or malicious causes by the public or an “Act of God”. It shall be the responsibility of the contractor to inform the Engineer of any damage due to these causes as soon as detected.

808IRRIGATION_GEL, 4/7/2016

ITEM 8080051 - IRRIGATION GEL SYSTEM

1. DESCRIPTION

The work under this item shall include furnishing, installing and maintaining an irrigation gel system as designated on the project plans and details.

2. MATERIALS

The Irrigation Gel System consists of time-release water bound packets in the form of a solid gel used for the watering and establishment of plant materials. Each unit of the Supplemental Gel Irrigation System will be packaged in a (1) quart biodegradable paper carton labeled clearly with an expiration date. Ingredients are to consist of 97.85 percent potable water, two (2) percent cellulose gum and 0.15 percent aluminum sulfate. Polymer-based products are NOT acceptable watering products for arid land planting.

3. CONSTRUCTION REQUIREMENTS

Construction details shall conform to the requirements of Section 806-3.08 and the Project Plans and Details. The time-release water bound packets shall be replaced when depleted or at a minimum of 90 day intervals following installment throughout the Landscape Establishment period.

4. METHOD OF MEASUREMENT

The Irrigation Gel System shall be measured as a unit for each quart of gel system installed, which includes replacement of depleted packets throughout the Landscape Establishment period, complete in place.

5. BASIS OF PAYMENT

The accepted quantity of the Irrigation Gel System, measured as provided above, shall be paid for at the contract unit price, complete in place including all equipment, labor and materials.

(810EROS_CON, 3/31/15)

SECTION 810 - EROSION CONTROL AND POLLUTION PREVENTION

810-1 DESCRIPTION of the Standard Specifications is modified to add:

810-1.01 General. On projects where an Arizona Pollutant Discharge Elimination System or equivalent National Pollutant Discharge Elimination System (AZPDES/NPDES) permit is required, the contractor shall implement the requirements of the permit for sediment and erosion control due to stormwater runoff during construction, as specified under the current AZPDES/NPDES Construction General Permit. The Agency and the contractor shall prepare and submit separate Notices of Intent (NOI) and Notices of Termination (NOT) forms for the project. The contractor shall copy their AZPDES NOI Application and NOI Certification to the owner of the Municipal Separate Storm Sewer System (MS4) (i.e. Pima County Department of Environmental Quality). The contractor shall copy their AZPDES NOT Acknowledgement to the owner of the MS4 upon project stabilization. Copies of all NOI and NOT documentation shall be placed in to the SWPPP, along with verification that these were sent to the owner of the MS4. If the project lies in multiple MS4s, the NOI Application, Authorization, notification of sending the permit, and NOT shall be sent to all MS4s in which the project is located.

The Agency has prepared a Stormwater Pollution Prevention Plan (SWPPP), which includes a narrative description of the proposed measures to be implemented, sequence of construction activities, and a site-specific diagram indicating the proposed locations where erosion and sediment control devices or measures

may be required during construction. The SWPPP also includes pollution prevention controls.

This SWPPP is included in the Special Provisions. A list of subcontractors and key field personnel contact numbers shall be placed into the SWPPP. The contractor shall also be responsible for assembling member(s) of a Stormwater Team. The Stormwater Team shall be responsible for modifications to the SWPPP, and for compliance with the requirements in the AZPDES permit. Members of the Stormwater Team shall be listed in the SWPPP, along with title, responsibility, and qualifications. A member of the contractor's Stormwater Team shall be available for inspections with an Agency Representative. Prior to the start of construction, each contractor and all subcontractors shall be asked to sign a certification that they understand all requirements of the AZPDES/NPDES permit. Signed certifications shall be placed into the SWPPP.

Documentation in the SWPPP book required by the AZPDES permit shall also be included. This includes updating project maps and all appendices as required in the permit. It also includes placing the inspection report in the SWPPP book within 7 calendar days of completing the inspection.

Permanent erosion control will be constructed under the specific items found in the plans and listed in the Special Provisions and bid schedule.

810-2 MATERIALS

810-2.09 Track Out Pad is hereby added to the Standard Specifications:

Track Out Pads shall consist of clean fractured aggregate between 1" and 3" in size and 6" in depth.

810-2.10 AZPDES Sign Information is hereby added to the Standard Specifications:

The contractor shall post the AZPDES Authorization number near entrances to the project. The Authorization number can be added to existing project signs near project entries, such as the RTA sign. Lettering is to be a simple and legible font, minimum 2" height. If the job trailer is not on the project site, the location of the job trailer shall also be provided on the sign using similar lettering. Lettering shall be of a waterproof type, such as ready to apply, waterproof, vinyl letters.

810-3 CONSTRUCTION REQUIREMENTS

810-3.01 General of the Standard Specifications is modified to add:

Prior to the start of construction, the Engineer and contractor will jointly review the Stormwater Pollution Prevention Plan (SWPPP), make any revisions needed, and approve and sign the SWPPP. The contractor shall use the signed SWPPP provided at the pre-construction meeting, and implement the SWPPP as required throughout the construction and establishment periods. The Engineer and contractor will perform a minimum of one routine inspection of disturbed areas that have not been stabilized at least once every 14 calendar days *and* within 24 hours of the end of a 0.5 inch rainfall. Reduced inspection frequency can occur when the site has been temporarily stabilized. The reduced inspection frequency is once every 28 days *and* before predicted rainfall events *and* after 0.5 inch rainfall events.

After each inspection, the contractor shall document the findings and revise the SWPPP as necessary. The Engineer and contractor shall jointly approve and sign each revision to the SWPPP before implementation.

The contractor shall complete revisions to the SWPPP within 15 calendar days following notification if ADEQ determines the SWPPP is deficient. The contractor shall amend the SWPPP, as needed and record inspection results in the SWPPP within 7 calendar days after an inspection by local, state or federal officials. Changes to the SWPPP must be implemented in the field within 7 calendar days, or before the next rainfall event.

Final stabilization is met when all soil disturbing activities have been completed, temporary Best Management Practices have been removed and disposed of, and either a uniform perennial vegetative cover with a density of 70% of the native background has been established on all unpaved areas, or equivalent permanent stabilization measures are in place. Final stabilization work will be done by Pima County. Until final stabilization of the project, 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 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 stabilization. No reimbursement shall be made for work necessary due to the contractor's failure to comply with the requirements of the SWPPP. The original completed SWPPP shall be returned to the Agency.

Except as specifically provided under Subsection 108-4, in the case of suspension of work from any cause whatsoever, the contractor shall be responsible for the project and shall take such precautions as may be necessary to prevent damage to the project, provide for normal drainage and shall erect any necessary temporary structures, signs, or other facilities. During such period of suspension of work, the contractor shall properly and continuously maintain, in an acceptable growing condition, all newly established plantings, seedlings and soddings, furnished under its contract and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

810-3.04 Other Pollution Controls of the Standard Specifications is modified to add:

The contractor shall document all treatment chemicals, i.e. polymers, flocculants or other cationic treatment chemicals used on the project. Documentation shall be in accordance with the current AZPDES/NPDES Construction General Permit and shall include a list of treatment chemicals used, justification for use, training provided in appropriate use, description of how they will be stored, dosage used, and a copy of Material Safety Data Sheets (MSDS).

Storage, handling and disposal of construction products, materials, and wastes shall comply with the current AZPDES/NPDES Construction General Permit. Control measures include the use of plastic sheeting under containers or bags of chemicals stored outside, providing adequately sized secondary containment under drums of chemicals, storing chemicals in water-tight, sealed containers that are labeled in accordance with applicable federal, state, tribal, or local requirements, and separating and labeling hazardous and non-hazardous waste. The contractor shall implement measures to minimize the potential for leaks and spills by installing barriers between material storage and traffic areas.

The contractor shall provide waste containers (e.g. dumpster or trash receptacles with covers/lids) of sufficient size and number to contain construction and domestic wastes. Domestic waste shall be cleaned up and disposed of daily in designated waste containers, and cleaned up immediately if overflowing.

810-3.06 Off Site Staging and Storage Yard of the Standard Specifications is modified to add:

If the contractor has entered into a separate agreement with an owner or lessee of private property to obtain

property for use as a storage or staging area, both the Agency and the contractor shall state in its SWPPP that this area is under the control of the contractor.

810-3.07 SWPPP Implementation Plan of the Standard Specifications is modified to add:

The contractor will provide an implementation plan describing the SWPPP activities associated with the construction sequencing of the project and how all requirements of the SWPPP will be accomplished during all phases of construction, including housekeeping requirements. All disturbed slopes that will not be stabilized within the SWPPP mandated 14 days must have temporary stabilization installed.

The implementation plan shall also include the contractor's training plan for their own Stormwater Team, as well as for remaining staff and sub-contractors. The contractor shall provide new employee training at least one (1) time per year and shall provide refresher training for existing employees directly involved in SWPPP activities at least once every two (2) years. The contractor's training plan shall cover all requirements included in the most current version of the AZPDES Construction General Permit and shall include at minimum:

- County ordinances related to stormwater and construction
- Requirements for structural and non-structural control measures on construction sites, such as erosion and sediment controls
- Construction control measures maintenance requirements
- Inspection procedures
- Enforcement procedures
- Requirements and restrictions related to other permits included in the SWPPP, including the 404 Permit, prohibiting stockpiling in drainage conveyances and washes
- Concrete Waste Management
- Hazardous waste management, including spill reporting and mitigation
- Proper storage of construction materials
- Proper storage of construction waste
- Litter control
- Management of stockpiles, excavations, and spoils
- Management of portable toilets
- Respect for project work boundaries and preservation fence limits
- Respect for existing vegetation
- Installation of sediment wattles and logs

810-3.08 (H) Track Out Pad is hereby added to the Standard Specifications:

The work under this item shall consist of furnishing all materials, tools, equipment, and labor necessary to install and remove the Track Out Pads at all construction entrances; locations to be determined by the contractor and approved by the Engineer.

At the completion of the project, the contractor shall remove the Track Out Pads and restore/re-grade the area to return the ground elevation and grading to existing conditions as close as possible.

810-3.10 (J) AZPDES Sign Information is hereby added to the Standard Specifications:

The work under this item shall consist of furnishing all materials and labor necessary to add the AZCON authorization number to signs at all major entrances to the project site. The wording shall read “AZCON – (*No. to be determined*)”. Wording or diagrams showing the location of the job trailer shall also be provided. If there is no sign which this information can be added to, the contractor shall furnish a sign for this purpose.

(810LOGS_WATTLES, 3/25/15)

ITEM NO. 8100005 - SEDIMENT LOG (DISCRETIONARY)

ITEM NO. 8100006 - SEDIMENT WATTLE (DISCRETIONARY)

1. DESCRIPTION

The work under these items shall include furnishing, installing, maintaining, and removing of sediment logs and sediment wattles, as directed by the Engineer during the course of construction and not provided for in the original project SWPPP plans. This work is in addition to the work shown in the project SWPPP plans, and is solely at the discretion of the Engineer.

2. MATERIALS

Materials shall conform to the requirements of Section 810-2.04.

3. CONSTRUCTION DETAILS

Construction details shall conform to the requirements of Section 810-3.08, and placement of sediment logs and sediment wattles shall conform to the details shown on the project SWPPP plans, at the direction of the Engineer.

4. METHOD OF MEASUREMENT

The work under these items shall be measured by the linear foot of Sediment Logs and Sediment Wattles, complete in place, parallel to the central axis of the log or wattle.

5. BASIS OF PAYMENT

The accepted quantity of Sediment Log (Discretionary) and Sediment Wattle (Discretionary), measured as provided above, shall be paid for at the contract unit price, complete in place including all equipment, labor and materials.

Price adjustment for variation in total bid quantity per Subsections 109-3 and 109-4 of the Standard Specifications do not apply to work under these bid items.

SECTION 908 - CONCRETE CURBS, GUTTERS, SIDEWALKS AND DRIVEWAYS

908-1 DESCRIPTION of the Standard Specifications is modified to add:

The work under this section shall also include the installation of Detectable Warning Surfaces at sidewalk ramps, median refuge areas and concrete landing areas.

908-2 MATERIALS

908-2.06 Detectable Warning Surface of the Standard Specifications is modified to add:

The detectable warning panel shall be a minimum of one quarter of an inch (1/4 inch) thick, exclusive of the truncated domes and the anchoring system. The panel shall include an anchoring system, such as metal or composite anchors, or composite ribbing or a combination thereof, with a minimum depth of three quarters of an inch (3/4 inch) measured from the underside of the panel, in sufficient numbers so the panel will resist movement (i.e. sliding, rocking or lifting) once in service.

Detectable warning panels shall be non-flammable, skid resistant, rigid, non-flexible, non-yielding and shall not be subject to spalling, chipping, delamination, cracking, or separation throughout the manufacturer's warranty period. The manufacturer's warranty period shall be 10 years from the date of installation and be issued to the agency.

908-4 METHOD OF MEASUREMENT of the Standard Specifications is modified to add:

Concrete sidewalk ramps and concrete landing areas will be measured as a unit for each sidewalk ramp and concrete landing area installed, complete in place, including detectable warning surfaces and ramp curb. The measurement limits for sidewalk ramps and landing areas will be shown on the project plans and the standard details.

Median refuge areas will be measured as a unit for each refuge area installed, complete in place, including detectable warning surfaces. The measurement limits for the median refuge area will be shown on the project plans and the standard details. Concrete median nose paving adjacent to the median refuge area will be measured separately.

908-5 BASIS OF PAYMENT of the Standard Specifications is modified to add:

The accepted quantities of sidewalk ramps, concrete landing areas and median refuge areas, measured as provided above, will be paid for at the contract unit price each, which price shall be full compensation for the work, complete in place, including furnishing and placing embankment material, excavating, removal of unsuitable material, backfill, compaction, grading, forming, furnishing and installing concrete, surface finishing, and furnishing and installing the detectable warning panel.

(930INCIDENTAL_ITEMS_ALLOWANCE, 9/13/12)

ITEM NO. 9300100 - INCIDENTAL ITEMS ALLOWANCE

1. DESCRIPTION

The work under this section is intended to cover miscellaneous work added to the contract by the Engineer during the course of construction. Miscellaneous work shall be work that was not covered by other items included in the project.

2. MATERIALS (None Specified)

3. CONSTRUCTION DETAILS

All work under this item shall be as directed by the Engineer.

4. METHOD OF MEASUREMENT

The work under this item shall be completed on an extra work basis, in conformance with the provisions of Subsection 109-5.

5. BASIS OF PAYMENT

Payment for incidental items of work will be made in accordance with the provisions of Subsection 109-5.

(1005BITMAT, 12/5/14)

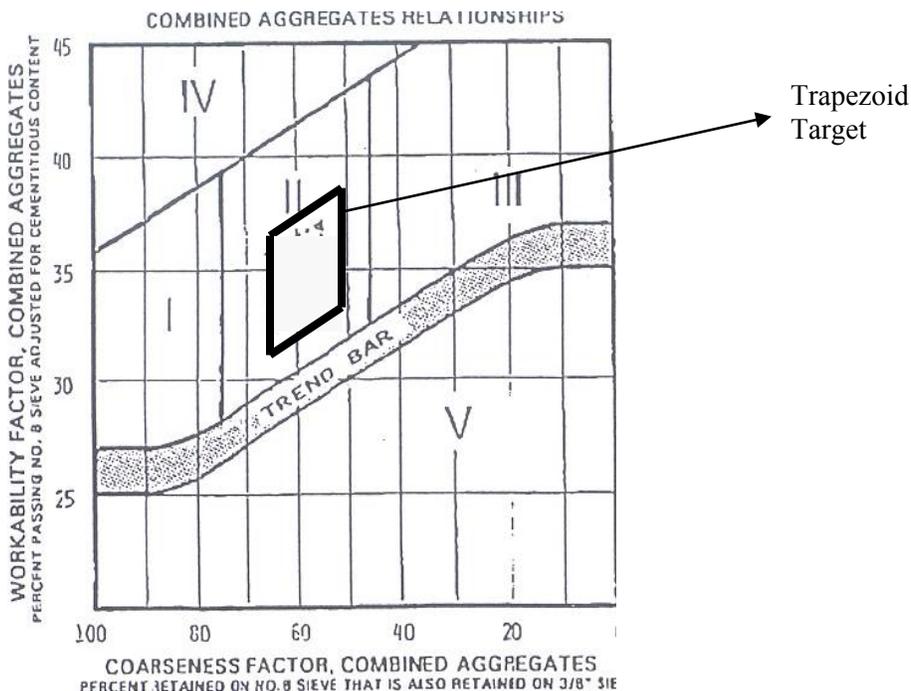
SECTION 1005 - BITUMINOUS MATERIALS FOR SURFACING

1005-3 BITUMINOUS MATERIAL REQUIREMENTS

1005-301 Asphalt Cement of the Standard Specifications is modified to add:

Asphalt cement shall be performance grade (PG 70-10) asphalt binder conforming to the requirements of AASHTO Provisional Standard MP1. The pressure aging temperature shall be 110° C.

**CONCRETE MIXTURE DESIGN
 CHART 1**



**CONCRETE MIX ANALYSIS
 WORKSHEET**

These charts help evaluate concrete mixture proportions. Instead of using the traditional division of “coarse” and “fine” aggregate at the #4 sieve, aggregates are classified in three sizes. The coarse particles (“Q”) are those retained on the 3/8” sieve. The “intermediate” particles (“I”) pass the 3/8” sieve but are retained on the #8 sieve. The fine aggregate (“W”) passes the #8 sieve.

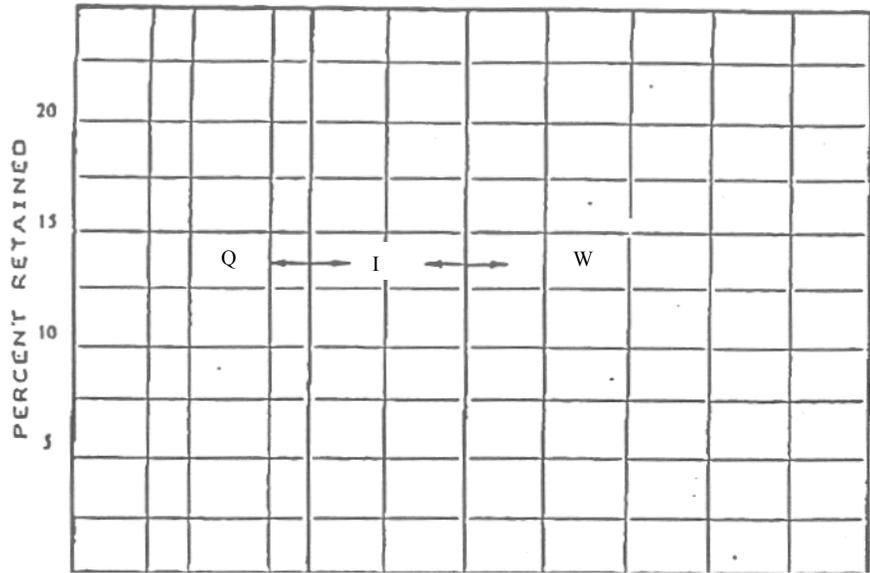
The Percent Aggregate Retained Chart shows the particle distribution by sieve. Cubically crushed and gravel particles should be well distributed with a high incidence in the intermediate range. They reduce water demand and improve mobility. Avoid peaks (in “Q” & “W”) and valleys (in “I”) unless the intermediate particles are slivered. If slivers, the “I” becomes “Interference” and leads to mobility problems.

The Optimum Aggregate Chart shows the relationship between the two coarser fractions and the fine fraction. The Coarseness Factor is the percent of all aggregate retained on the #8 sieve (“Q” & “I”) that is also retained on the 3/8” sieve (“Q”). The Workability Factor is the percent of all aggregate passing the #8 sieve (“W”). It should be adjusted for cementitious materials at the rate of 2.5% per US bag (94#) more or less that 6 US bags of cement. Mixes plotted at the top of the trend bar are generally excellent for paving and those placed by chute or bottom-drop bucket in an open space. General use concrete should be 3 to 5 points above trend bar. Mixtures in the “Sandy” area generally have wide strength variations, are difficult to finish, and exhibit a high incidence of crazing and cracking.

The 0.45 Power Chart is an asphalt industry standard but an excellent tool to analyze the combined aggregate in concrete. An optimum asphalt grading should follow the line drawn from the first sieve on which aggregate is retained to “O”. Concrete aggregate gradation should drop below the optimum line bar at the No. 8 sieve. Wide swings across the “optimum” line can indicate potential problems.

PERCENT AGGREGATE RETAINED EACH SIEVE

MIX DESIGN FORM



1 1/2" 1 3/4" 1/2" 3/8" #4 #8 #15 #30 #50 #100 #200

MIXTURE ID _____

Compressive Strength, Min PSI _____

Cementitious Materials:

Portland Cement, ASTM C150, Lbs _____

Fly Ash Lbs _____

Total Water, Lbs/Gal _____

W/(C/P) Ratio Max _____

Aggregate:

_____ ASTM C33, Size _____, Lbs - SSD _____

_____ ASTM C33, Size _____, Lbs - SSD _____

_____ ASTM C33, Sand _____, Lbs - SSD _____

_____ ASTM C33, Sand _____, Lbs - SSD _____

Admixtures/Air Entrainment:

_____ ozs / cuyd _____

_____ ozs / cuyd _____

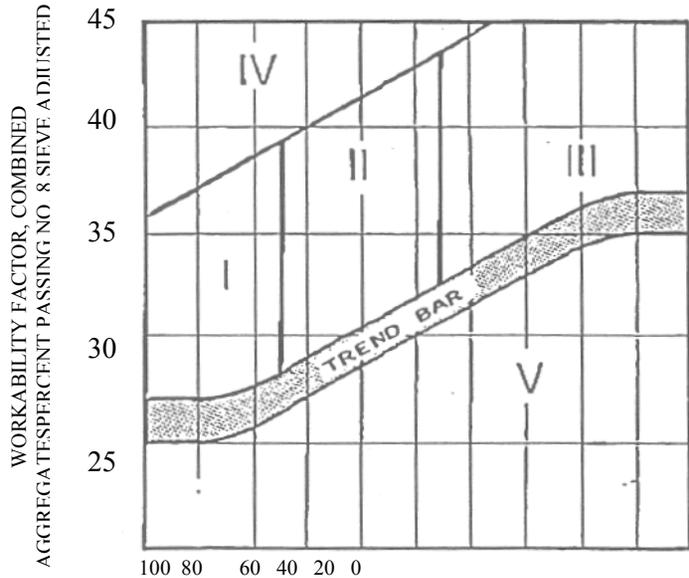
_____ ozs / cuyd _____

Slump:

Without/With HRWR, Inches _____

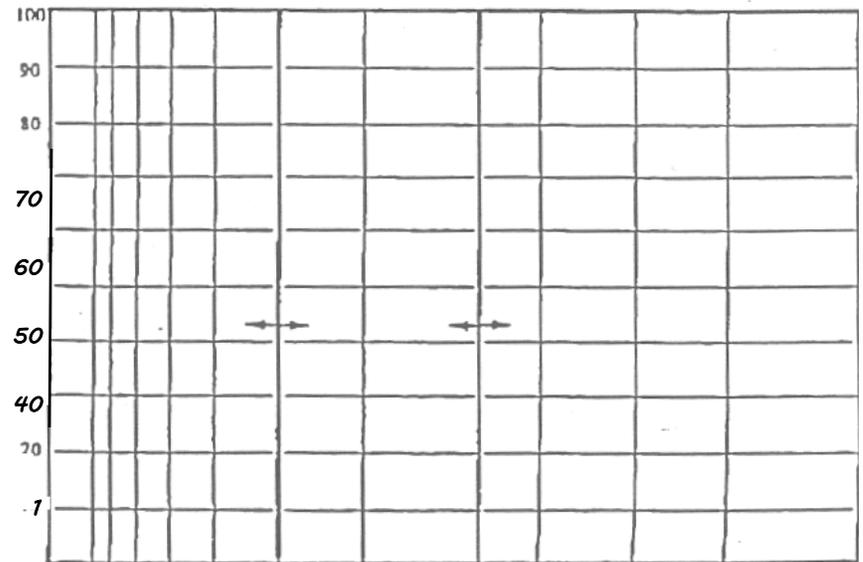
ASTM STANDARD SIEVE SIZE

CONCRETE MIXTURE DESIGN COMBINED AGGREGATES RELATIONSHIPS



COARSENESS FACTOR, COMBINED AGGREGATES
PERCENT RETAINED ON NO. 8 SIEVE THAT IS ALSO
RETAINED ON 3/8" SIEVE

0.45 POWER GRADING CI-CART



#200 #10 #30 #16 #8 #4 3/8" 1/2" 3/4" #100
ASTM STANDARD SIEVE SIZE

APPENDIX A

PIMA COUNTY NOISE ORDINANCE

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Pima County Noise Ordinance 1999-61 § 1 (part), 1999
Title 9 Pima County Code: Public Peace, Morals and Welfare

Chapter 9.30 - Regulation of Excessive, Unnecessary and Annoying Noises

9.30.010 Applicability.

This chapter shall not apply to any incorporated city, town or Indian reservation. It shall apply only within the unincorporated areas of the county.

9.30.020 Purpose.

It is hereby declared to be the policy of Pima County to prohibit excessive, unnecessary and annoying noises from all sources. At and above certain level, noises are detrimental to the health and welfare of the citizens of the county, and it is in the best interest of the citizens of Pima County that such noises be systematically eliminated. (Ord. 1999-61 § 1 (part), 1999)

9.30.030 Definitions.

The following definitions shall apply throughout this chapter unless a different meaning is clearly indicated by the context:

- A. Commercial property means any property occupied by business which sell, rent, trade or store goods, or which provide a service.
- B. Industrial property means any property occupied by land uses whose primary operation involves manufacturing, assembling, processing or otherwise treating raw materials, semi-finished products, or finished products for packaging and distribution to either wholesale or retail markets.
- C. Property line means the line which represents the legal limits of property (including an apartment, condominium, room or other dwelling unit) owned, leased or otherwise occupied by a person, business, corporation or institution. In cases involving sound from an activity on a public street or other public right-of-way, the property line shall be the nearest boundary of the public right-of-way.
- D. Residential property means any property, the dominant use of which is nontransient occupancy of residential dwelling units.
- E. Motor vehicle means any self-propelled vehicle operated within the county, including but not limited to licensed or unlicensed vehicles, automobiles, minibikes, go-carts, all terrain vehicles, and motorcycles.
- F. Emergency work means any work performed to prevent or alleviate physical trauma or property damage threatened or caused by an emergency which has or may result in a disruption of service and which is necessary to protect the health, safety and welfare of persons or property.
- G. Emergency vehicle means vehicles of the fire, police and public service departments and legally authorized ambulances and emergency vehicles of state departments or any political subdivisions thereof and vehicles of public service corporations.

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H. Person means a human being and, as the context requires, an enterprise, a public or private corporation, an unincorporated association, a partnership, a firm, a society, a government, a governmental authority or an individual or entity capable of holding a legal or beneficial interest in property.(Ord. 2001-127 § 1 (part), 2001; Ord. 1999-61 § 1 (part), 1999)

9.30.040 Impermissible sound levels.

In addition to the prohibited noises described in 9.30.050, 9.30.060 and 9.30.070, it shall be unlawful for any person to make or continue, or cause or permit to be made or continued, any excessive, unnecessary or offensive noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area. (Ord. 2001-127 § 1 (part), 2001; Ord. 1999-61 § 1 (part), 1999)

9.30.050 Loud radios, sound sets, etc.

- A. It shall be unlawful for any person, including the owner or manager of a restaurant, bar, inn, or resort of any kind, to operate or permit to be operated any radio receiving set, phonograph, musical instrument, or sound producing or sound reproducing mechanism, at any time in such a manner as to permit the same to be heard at a distance of more than one hundred twenty-five (125) feet from the property line or motor vehicle where such radio receiving set, phonograph, or sound producing or sound reproducing mechanism is located, when the sound of such radio receiving set, phonograph, musical instrument, or sound producing or sound reproducing mechanism is operated in such a manner as to create an excessive, unnecessary or offensive noise that a reasonable person of normal sensitivity residing in the area is caused discomfort or annoyance.
- B. It shall be unlawful for any person, including the owner or manager of a restaurant, bar, inn, or resort of any kind, to operate or permit to be operated any radio receiving set, phonograph, musical instrument, or sound producing or sound reproducing mechanism, between the hours of 10:00 P.M. and 7:00 A.M. in such a manner that the sound from such radio set, phonograph, musical instrument, sound producing or sound reproducing mechanism may be heard beyond the property line from which it is operated or outside the motor vehicle in which it is operated in such a manner as to create an excessive, unnecessary or offensive noise that a reasonable person of normal sensitivity residing in the area is caused discomfort or annoyance. (Ord. 2001-127 § 1 (part), 2001; Ord. 1999-61 § 1 (part), 1999)

9.30.060 Vehicular noise.

- A. It shall be unlawful for any person within any residential area of this county to repair, rebuild or test any motor vehicle between the hours of 10:00 p.m. of one day and 7:00 a.m. of the next day in such a manner as to create an excessive, unnecessary or offensive noise that a reasonable person of normal sensitivity residing in the area is caused discomfort or annoyance.
- B. No person shall operate or cause to operate any motor vehicle unless the exhaust system of such vehicle:

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Chapter 9.30 - Regulation of Excessive, Unnecessary and Annoying Noises

1. Is free from defects which may cause sound level magnification,
 2. Is equipped with a muffler,
 3. Has not been modified in such a manner which will amplify or increase the sound level emitted by the motor of such vehicle above that emitted by a muffler originally installed on the vehicle as manufactured for initial sale.
- C. No person shall operate a motor vehicle in such a manner which creates the squealing of tires in the roadway. (Ord. 1999-61 § 1 (part), 1999)

9.30.070 Construction of buildings and other projects.

- A. Noise limitations: Subject to the provisions of section 9.30.040, it shall be unlawful for any person to operate equipment or perform any outside construction or repair work on buildings, structures or projects, or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist or any other construction type device except within the time periods specified below unless an appropriate permit has been obtained beforehand from the county.
- B. Construction start/stop times:
1. Concrete work: From April fifteenth to October fifteenth, inclusive, concrete may be poured each day between the hours of 5:00 a.m. and 7:00 p.m. or at such other times as authorized by permit. From October sixteenth to April Fourteenth, inclusive, concrete may be poured each day between the hours of 6:00 a.m. to 7:00 p.m. or at such times as authorized by permit.
 2. Other type construction (residential zones): From April fifteenth to October fifteenth, inclusive, all other construction or repair work shall not begin prior to 6:00 a.m. and must stop by 7:00 p.m. each day in, or within five hundred (500) feet of, a residential zone or at such other times as authorized by permit. From October sixteenth to April fourteenth, inclusive, all other construction or repair work shall not begin prior to 7:00 a.m. and must be stopped by 7:00 p.m. each day in, or within five hundred (500) feet of, a residential property or at such other times as authorized by permit.
 3. Other type construction (commercial and industrial zones): Construction and repair work in commercial and industrial zones, not within five hundred (500) feet of a residential property, shall not begin prior to 5:00 a.m. and must stop by 7:00 p.m. or at such other times as authorized by permit.
 4. Weekends and holidays excluded: Notwithstanding anything to the contrary herein, construction or repair work shall not begin prior to 7:00 a.m. and must stop by 7:00 p.m., and concrete pouring should not begin prior to 6:00 a.m. and must stop by 7:00 p.m. on any Saturday, Sunday or state or federal holiday, unless such other times are authorized by permit.
- C. Permits: Construction and repair work may be conducted at different times and at higher noise levels

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than otherwise permitted, if upon written application, a permit is obtained beforehand from the county administrator or his designee. The permit shall be kept on the work site and shown to county officials on request. In granting such permit, the county administrator or his designee shall consider if construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime because of different population levels or different neighboring activities; if obstruction and interference with traffic, particularly on streets of major importance, would be less objectionable at night than during the daytime; if the kind of work to be performed emits noises at such a low level as to not cause significant disturbance in the vicinity of the work site; if the neighborhood of the proposed work site is of such a character wherein sleep could be disturbed; if great economic hardship would occur if the work was spread over a longer time; if the work will abate or prevent hazards to life or property; if proposed early morning or night work is in the general public interest; and, he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise emissions as he deems to be required in the public interest. No permit shall be required to perform emergency work as defined in section 9.30.030.

- D. Revocation of permits: The county administrator or his designee may revoke any permit granted hereunder upon complaint based upon substantial evidence that the construction activity caused significant disturbance in the vicinity of the work site. (Ord. 1999-61 § 1 (part), 1999)

9.30.080 Exemptions.

The following uses and activities shall be exempt from the provisions contained in this article:

- A. Heating and cooling equipment when it is functioning in accordance with manufacturer's specifications and is in proper operating condition provided that no unit may create an excessive, unnecessary or offensive noise causing annoyance or discomfort to a reasonable person of normal sensitivity within any sleeping or living area inside any dwelling unit;
- B. Landscape maintenance equipment when it is functioning in accordance with the manufacturer's specifications and with all mufflers and noise-reducing equipment in use and in proper operating condition;
- C. Nonamplified crowd noises resulting from activities such as those planned by school, governmental or community groups, or organized sports except for such noises generated at restaurants, bars, inns, or resorts of any kind;
- D. Noises of safety signals, warning devices and emergency pressure relief valves;
- E. Noises resulting from any authorized emergency vehicle when responding to an emergency call or acting in time of emergency;
- F. Noises resulting from emergency work as defined in section 9.30.030;
- G. Noises from the normal operation of railroad trains;

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Chapter 9.30 - Regulation of Excessive, Unnecessary and Annoying Noises

- H. Noises from church chimes;
- I. Power plant equipment during normal operation;
- J. Noise created by any county vehicle, equipment or facility while being operated for official use;
- K. Operation of agricultural equipment in connection with farming operations;
- L. Any aircraft operated in conformity with, or pursuant to, federal law, federal air regulations or air traffic control instructions issued pursuant to or within duly adopted federal air regulations, together with any noise created by aircraft operated under, or pursuant to, declaration of an emergency under federal air regulations. (Ord. 2001-127 § 1 (part), 2001; Ord. 1999-61 § 1 (part), 1999)

9.30.090 Penalty.

A violation of any provision of this article shall be deemed and is declared to be a public nuisance and any person who violates any of the provisions of this article shall be guilty of a class 1 misdemeanor. Each day a violation continues or exists shall be a separate offense subject to punishment as a separate class 1 misdemeanor. (Ord. 1999-61 § 1 (part), 1999)

9.30.100 Severability.

If any provisions of this ordinance, or the application thereof to any person or circumstance, is invalid, that invalidity shall not effect other provisions or applications of this ordinance which can be given effect without the invalid provisions or applications, and to this end the provisions of this ordinance are severable. (Ord. 1999-61 § 1 (part), 1999)

9.30.110 Effective date.

This ordinance will be in full force and effective after thirty days from the date of enactment. (Ord. 1999-61 § 1 (part), 1999)

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Summit View Elementary Safe Routes to School Program
(East Summit Street Pathway Project)
Special Provisions

Federal Project No. SRS PPM-0(242)D
ADOT TRACS No. 0000 PM PPM SF034 01C
Pima County Project No. 4TASVE

APPENDIX B

CLEARANCE MEMO AND ENVIRONMENTAL COMMITMENTS

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Summit View Elementary Safe Routes to School Program
(East Summit Street Pathway Project)
Special Provisions

Federal Project No. SRS PPM-0(242)D
ADOT TRACS No. 0000 PM PPM SF034 01C
Pima County Project No. 4TASVE

APPENDIX C

STORM WATER POLLUTION PREVENTION PLAN AND ADEQ NOI (Bound Separately)

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APPENDIX D

LIST OF APPROVED LEAD BASED PAINT ABATEMENT CONTRACTORS

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Environmental Strategies, Ken Goodman
<http://www.estratinc.com/>
520-884-1114
Email, kgstrat@aol.com

American Restorations Inc (ATI), Kelley Amy
<http://www.ATIrestoration.com>
Phone, 520-807-9400
Email, kelly.amey@atirestoration.com

Southwest Hazard Control, Mitch King
<http://swhaz.com/>
Phone, 520-622-3607
Email, mkring@swhaz.com

Additional contractors may be approved by Pima County.
ADOT approved vendors can be found at <https://procure.az.gov/bs/>.

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APPENDIX E

DISADVANTAGE BUSINESS ENTERPRISE GOALS AND ON-THE-JOB TRAINING HOURS

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