



CITY OF TEMPE, ARIZONA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

CONTRACT DOCUMENTS

FOR

TRAFFIC CONTROL CABINETS AND HARDWARE REPLACEMENT

PROJECT NO. 6905701
FEDERAL AID PROJECT NO. CM-TMP-0(228)D
ADOT TRACS NO. 0000 MA TMP SZ051 01C



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(EXPIRES 12/31/15)

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2013

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TECHNICAL SPECIFICATIONS TS-1

**CITY OF TEMPE, ARIZONA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION**

NOTICE TO CONTRACTORS

**TRAFFIC CONTROL CABINETS AND HARDWARE REPLACEMENT
PROJECT NO. 6905701
FEDERAL AID PROJECT NO. CM-TMP-0(228)D
ADOT TRACS NO. 0000 MA TMP SZ051 01C**

1. INTRODUCTION

THIS INVITATION FOR BIDS is hereby offered by the City of Tempe, an Arizona municipal corporation ("City"), for Traffic Control Cabinets and Hardware Replacement, as set forth herein, and shall be identified as Project No. 6905701.

This Project is funded by the U.S. Department of Transportation, Federal Highway Administration (FHWA), through the Arizona Department of Transportation (ADOT).

The Federal Provisions section of this Invitation for Bids and Contract applies to all bidders and all contractors for the Project.

1.1. OVERVIEW OF PROJECT

The Project is located at various intersections in Tempe, Arizona, which are listed in the Technical Specifications. The Project work consists of removing and salvaging existing traffic control cabinets; removing and re-installing the signal controllers and malfunction management units; and furnishing and installing new NEMA TS 2 traffic control cabinets on existing cabinet foundations. The Project also includes bench testing of equipment prior to installation and final testing of the unit complete-in-place.

1.2. EXAMINATION OF PREMISES, SPECIFICATIONS, AND CONTRACT

Bidder shall visit the site of the Project and shall fully acquaint itself with all conditions as they exist, so that it may fully understand the site, difficulties, and restrictions attending the execution of the work.

Bidder shall also thoroughly examine and be familiar with the specifications, plans, and the Contract documents. Failure of Bidder to obtain, receive, or examine any addenda to the proposed Contract, or to visit the site and acquaint itself with the conditions there existing, shall not relieve it from any obligation with respect to the submitted bid.

By submitting a bid, Bidder agrees that it has examined the site, specifications, plans, and Contract, and accepts all site conditions, the proposed Contract, and all exhibits and addenda thereto.

1.3. START OF WORK / TERM OF CONTRACT

Work shall start as soon as practicable, but not later than seven (7) calendar days after the Notice to Proceed date and shall be completed within two hundred ten (210) calendar days following the Notice to Proceed date.

2. SCOPE OF WORK

The proposed work will consist of **REMOVING AND SALVAGING EXISTING TRAFFIC CONTROL CABINETS, REMOVING AND RE-INSTALLING THE SIGNAL CONTROLLERS AND MALFUNCTION MANAGEMENT UNITS, FURNISHING AND INSTALLING NEW NEMA TS-2 TRAFFIC CONTROL CABINETS, AND TESTING EQUIPMENT BEFORE AND AFTER INSTALLATION**, together with associated work.

2.1. CONTRACTOR'S CONSTRUCTION SCHEDULE

Prior to the start of work, a construction progress schedule shall be required and shall comply with the requirements of MAG Specifications 108.4. In addition, a schedule update comparing actual progress with scheduled progress will be required with the submission of each monthly pay request.

2.2. UNIFORM STANDARD SPECIFICATIONS

All work done under this Contract shall be accomplished in accordance with the Maricopa Association of Governments Uniform Standard Specifications and Details for Public Works Construction – 2013 Revision to the 2012 Edition (“MAG Specifications”) and the City of Tempe Supplement to the MAG Uniform Standard Details and Specifications for Public Works Construction – 2010 (“City of Tempe Supplement”), except as modified in the Contract.

In the case of a discrepancy or conflict, the order in which documents and Contract sections govern is as follows, from highest to lowest: federal provisions, special terms and conditions, technical specifications, plans, general terms and conditions, City of Tempe Supplement, and MAG Specifications.

All bids shall be made in accordance with the General Conditions of the MAG Specifications.

2.3. CONTRACTOR'S REPRESENTATIVE

Contractor shall at all times be present at the worksite or represented by a superintendent or other properly designated agent. Instructions and information

given by City construction project manager to Contractor's superintendent or agent on the work shall be considered as having been given to Contractor.

2.4. SUPERVISION BY CONTRACTOR

Contractor will supervise and direct the work. It will be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor will employ and maintain on the work a qualified superintendent who shall be designated in writing by Contractor and approved by City as Contractor's representative at the site. The superintendent shall have full authority to act on behalf of Contractor and all communications given to the superintendent shall be as binding as if given to Contractor. The superintendent shall be present on the site at all times in order to perform adequate supervision and coordination of the work. No substitution of the superintendent will be permitted without prior written request by the Contractor and written consent of City.

2.5. AUTHORITY OF CITY ENGINEER'S APPOINTED REPRESENTATIVE

City construction project manager shall act as City Engineer's designated representative during the construction period. He or she shall advise on questions concerning coordination with City, public safety, and quality and acceptability of materials and work performed. City Engineer, City construction project manager, or their assigned inspector shall interpret the intent of the Contract plans, specifications, and technical provisions in an unbiased manner.

City Engineer, City construction project manager, or their assigned inspector shall be present on the site at times during construction to monitor the work and to maintain records for Contract management. City construction project manager shall promptly make decisions relative to the interpretation of the Contract so as to minimize delays in construction. City construction project manager will not be responsible for directing construction, control, techniques, sequence, or procedures, or for directing job safety.

2.6. BENEFICIAL OCCUPANCY

Beneficial occupancy is use of a facility or project, in whole or in part, by City for its intended purpose. This may occur even though some work of the Contract remains undone. Prior to such use or occupancy, City will provide notice to Contractor and accomplish a partial acceptance inspection. Beneficial occupancy will apply to general right-of-way projects only.

2.7. SUBSTANTIAL COMPLETION

Substantial completion is work that is ready for occupancy and use for its intended purpose as certified by City and a certificate of occupancy. This term will be applied to building construction projects only.

2.8. PROJECT COMPLETION

Project completion is full completion of all construction associated with the Contract, including, but not limited to, punch list items, close-out documentation, operations and maintenance manuals, warranties, and record plans as certified by the architect/engineer of record. Contractor may be found in default of this Contract in accordance with MAG Specifications 108.10 should project completion fall behind substantial completion by more than forty-five (45) days.

2.9. CONTRACT COMPLETION DATE

The Contract completion date established by reference to the Notice to Proceed date is for completion of all or specified portions of the work. This includes items of work to be completed under an owner allowance or as part of a contingency item. The stated Contract completion date will take into account anticipated or actual weather conditions that are not unusually severe for the area and time of year. This date may be expressed as a calendar date or as a number of calendar days after the Notice to Proceed date.

If time extensions are issued by City, the revised Contract completion date will be referred to as the adjusted Contract completion date.

2.10. FINAL INSPECTION

Contractor is responsible for complying with the specifications and is hereby forewarned that final approval of any work will not be given until the entire project is completed and accepted by City. Prior to final inspection on any City facilities requiring a building permit, Contractor must call for final inspection from the Community Development Department and Public Works Department of City. The final inspection must be completed prior to final acceptance and payment.

2.11. FINAL ACCEPTANCE & GUARANTEE

Final acceptance shall mean a written final acceptance of the work. City Engineer shall make the final acceptance promptly after the work has been inspected and found to be completed in accordance with the Contract. The work performed under this Contract shall be guaranteed for a period of one (1) year from the date of final acceptance.

2.12. AS-BUILT DRAWINGS

Contractor shall provide and maintain accurate field data on a redlined set of Contract drawings, which are to be kept current and submitted as complete at the conclusion of the construction. These record drawings will be used as documentation for progress payments, and upon project completion, for the preparation of record drawings by the architect/engineer. Final payment will not be issued until all record drawings are submitted by Contractor, and are certified to be complete by the architect/engineer of record.

2.13. SHOP DRAWINGS, SCHEDULES & SAMPLES

In time for each to serve its proper purpose and function, Contractor shall submit to City construction project manager such schedules, reports, drawings, lists, literature samples, instructions, directions, and guarantees as are specified or reasonably required for construction, operation, and maintenance of the facilities to be built and/or furnished under this Contract.

Shop drawings and data shall be submitted to City construction project manager as one (1) hard copy and one (1) legible electronic PDF document of each submittal.

The submittal shall clearly indicate the specific area of the Contract for which the submittal is made. The additional copies received will be returned to Contractor's representative at the job site. City construction project manager's notations of the action taken will be noted on one (1) of these returned copies.

The above drawings, lists, prints, samples, and other data shall become a part of the Contract and a copy of the same shall be kept with the job site Contract, and the fabrications furnished shall be in conformance with the same.

City construction project manager's review of the above drawings, lists, prints, specifications, samples, or other data shall in no way release Contractor from its responsibility for the proper fulfillment of the requirements of this Contract, nor for fulfilling the purpose of the installation, nor from its liability to replace the same should it prove defective or fail to meet the specified requirements.

2.14. QUALITY CONTROL

All material shall be new and of the specified quality and equal to the accepted samples, if samples have been submitted. All work shall be done and completed in a thorough, workmanlike manner, notwithstanding any omission from the Contract, and it shall be the duty of Contractor to call City construction project manager's attention to apparent errors or omissions and request instruction before proceeding with the work.

City Engineer may, through appropriate instruction, correct errors and supply omissions. Instructions provided by City Engineer shall be as binding upon Contractor as though contained in the original Contract.

At the option of City construction project manager, material to be supplied under this Contract will be tested and/or inspected either at its place of origin or at the site of the work. Contractor shall give City construction project manager written notification well in advance of actual readiness of material to be tested and/or inspected at point of origin. Satisfactory tests and inspections at the point of origin shall not be construed as a final acceptance of the material, nor shall it preclude retesting or reinspection at the site of the work.

2.15. EXCESS MATERIALS

Excess or unsuitable material, broken asphaltic concrete, and broken Portland cement concrete shall be disposed of by Contractor. Contractor shall, prior to commencement of the work, submit a letter to City Engineer stating the location of disposal site(s) for all excess or unsuitable material and certifying that it has obtained the property owner's permission for the disposal of all surplus material.

2.16. MISCELLANEOUS REMOVAL AND RELOCATIONS

Miscellaneous removals and relocations shall be performed by the Contractor, and is construed to mean the removal of all unsuitable materials, whether designated or implied by the plans and specifications, and shall include but not be limited to removal of items of every nature and description such as pipes, concrete, asphalt, block, brick, rock, and metal, including temporary removal and reinstallation, unless such items are specifically designated in a separate bid item. In addition, certain items requiring temporary removal and reinstallation such as mail box stands, sign posts, survey monument frames and covers, shall be included in this category.

2.17. PROTECTION OF FINISHED OR PARTIALLY FINISHED WORK

Contractor shall properly guard and protect all finished or partially finished work, and shall be responsible for the same until that phase is completed and accepted by City.

Estimate or partial payment of completed work shall not release Contractor from such responsibility prior to City's acceptance, but Contractor shall turn over the entire work in full accordance with these specifications before final payment can be made.

2.18. SURVEY CONTROL POINTS

Existing survey monuments shall be protected by Contractor or removed and

replaced under the direct supervision of City of Tempe Engineering Division Land Services Section.

One week prior to construction, Contractor shall notify City of Tempe Engineering Division Land Services Section of any survey monuments that need to be relocated. Any monuments damaged or lost due to the Contractor's negligence and/or lack of notification to City of Tempe Engineering Division Land Services Section shall be replaced at Contractor's expense. In the event a lot corner will be disturbed, Contractor shall notify affected property owner(s) and obtain consent prior to any construction. Any lot corners disturbed or lost due to Contractor's negligence shall be replaced at Contractor's sole expense.

2.19. HINDRANCES AND DELAYS

Except as provided herein, no charge shall be made by Contractor for hindrances or delays from any cause during the progress of any portion of the work set forth in this Contract; however, delays due to no fault or neglect of Contractor may entitle Contractor to a time extension sufficient to compensate for the delays. The amount of the time extension, if any, shall be determined by City Engineer provided Contractor gives City Engineer immediate notice in writing of the cause of such delay.

The parties agree to negotiate in good faith for the recovery of damages related to expenses incurred by Contractor for a delay for which City is solely responsible that is unreasonable under the circumstances, and that was not within the contemplation of the parties to the Contract at the time the Contract was entered into.

2.19.1. Unless specifically provided for herein, the maximum compensation for an unreasonable or unforeseen delay shall not exceed the daily amount specified for liquidated damages in MAG Specification 108.9, as based on the original Contract amount.

2.19.2. This section shall not be construed to void any provisions of this Contract, which require notice of delays, or which provide for alternative dispute resolution, other procedures for settlement, or which provide for liquidated damages.

However, if the parties cannot reach agreement for the recovery of damages as set forth herein, the determination of City shall be final.

2.20. SUBSIDIARY WORK

All work called for in the plans and specifications shall be performed by Contractor, and unless a specific bid item is provided for the work, then such portion of the work will be considered subsidiary to other work for which payment is provided.

2.21. MISCELLANEOUS WORK AND ALLOWANCES

The following items will be included in the work with no direct payment allowed. Payment shall be included in the payment for other items for which direct payment is made.

- 2.21.1. Contractor's expenses for, but not limited to, mobilization, job site office, storage facilities, traffic control and public safety devices, sanitary facilities, utilities, and telephone.
- 2.21.2. Cleanup, including day-to-day cleanup.
- 2.21.3. Notification to residents adjacent to this project prior to the start of work on construction that may affect them.
- 2.21.4. Water required for compaction or dust control.
- 2.21.5. Miscellaneous removals and relocations not otherwise specified in the Technical Specifications.
- 2.21.6. Power pole bracing.
- 2.21.7. Removal of trees twelve inches (12") or less in diameter.
- 2.21.8. Removal, relocation, and/or modification of existing walls and fences.
- 2.21.9. Trimming of trees and bushes.
- 2.21.10. Replacement of plant material and repair of irrigation equipment to meet or exceed conditions existing prior to Contractor beginning work.

2.22. CHANGE ORDERS

In the event that significant changes in the scope of the work and/or changes in the quantities due to contingencies of construction become necessary, such changes shall be made in accordance with Section 104.2 of the General Conditions in the MAG Specifications.

The costs associated with any extra work as authorized by City must be approved prior to the start of work. The final costs for additional work shall also include all charges associated with extended general conditions or Contract acceleration. Pay requests for extra work performed shall be submitted with the next billing cycle and shall not exceed thirty (30) days from the date extra work was performed.

2.23. ADDITIONAL SERVICES

Additional services that are outside the scope of basic services contained in this Contract shall not be performed by Contractor without prior written authorization from City. Additional services, when authorized by an executed Contract or an amendment to this Contract, shall be compensated for by a fee mutually agreed upon between City and Contractor.

3. SPECIAL TERMS AND CONDITIONS

3.1. PAYMENT BOND; PERFORMANCE BOND

A payment bond and a performance bond, each in an amount equal to the full contract amount, will be required of the Contractor immediately after notice of Contract award, and before final Contract execution. Each bond shall be in accordance with Arizona Revised Statutes (A.R.S.) § 34-201, *et seq.*, as amended from time to time.

Arizona law provides that the bonds shall be executed solely by a bonding company, liability insurance carrier, or excess insurance carrier that holds a certificate of authority to transact surety business in Arizona, issued by the director of the department of insurance pursuant to A.R.S. title 20, chapter 2, article 1, as amended from time to time. Additionally, the City requires that the bonding company, liability insurance carrier, or excess insurance carrier have a Financial Strength Rating of A- or better and a Financial Size Category of VII or higher, as listed in the most recent "Best's Key Rating Guide – Property/Casualty," published by A.M. Best Company. An individual surety or sureties shall not execute either bond, even if the requirements of A.R.S. § 7-101 are satisfied.

3.2. INSURANCE

Certificates of Insurance verifying insurance coverage that meets the following minimum requirements will be required of the Contractor immediately after notice of Contract award, and before final Contract execution.

Arizona law provides that the insurer must hold a certificate of authority to transact insurance in Arizona, issued by the director of the department of insurance pursuant to Arizona Revised Statutes, title 20, chapter 2, article 1, as amended from time to time. Additionally, the City requires that the insurance

company have a Financial Strength Rating of A- or better and a Financial Size Category of VII or higher, as listed in the most recent "Best's Key Rating Guide – Property/Casualty," published by A.M. Best Company. This requirement does not apply to the Workers' Compensation / Employer's Liability portion of the Certificate of Insurance.

3.2.1. Contractor shall maintain limits no less than:

- a. **Commercial General Liability:** \$5,000,000 combined single limit per occurrence for bodily injury and property damage, including coverage for contractual liability (including defense expense coverage for additional insureds), premises/operations, underground explosion and collapse hazard, personal injury, broad form property damage, products and completed operations, independent contractors and product liability. The general aggregate limit shall apply separately to this project/location or the general aggregate shall be twice the required occurrence limit.
- b. **Automobile Liability:** \$1,000,000 combined single limit per accident for bodily injury and property damage, including coverage for owned, hired, and non-owned vehicles as applicable.
- c. **Excess Liability (umbrella form):** As required.
- d. **Workers' Compensation and Employer's Liability:** Workers' Compensation and Employer's Liability statutory limits as required by the State of Arizona.

City shall have no responsibility or liability for such insurance coverage.

3.2.2. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared and approved by City. At the option of City, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects City, its officials, employees, and volunteers, or Contractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration, and defense expenses.

3.2.3. Other Insurance Provisions

The policies or self-insurance certifications are to contain, or be endorsed to contain, the following provisions:

- a. **Commercial General Liability and Automobile Liability Coverage:**

City, its officers, officials, employees, agents, and volunteers are to be covered as additional insureds with respect to: liability arising out of activities performed by or on behalf of Contractor including the insured's general supervision of Contractor; products and completed operations of Contractor; premises owned, occupied, or used by Contractor; or automobiles owned, leased, hired, or borrowed by Contractor. The coverage shall contain no special limitations on the scope of protection afforded to City, its officers, officials, employees, agents, or volunteers, for work related to Contractors', employees', agents', subcontractors', or sub-subcontractors' activities.

Contractor's insurance coverage shall be primary with respect to City, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by City, its officials, employees, or volunteers shall be in excess of Contractor's insurance and shall not contribute to it.

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to City, its officers, officials, employees, agents, or volunteers.

Coverage shall state that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

b. Workers' Compensation and Employer's Liability Coverage

The insurer shall agree to waive all rights of subrogation against City, its officers, officials, employees, agents, and volunteers for losses arising from work performed by Contractor for City.

c. All Coverages

Each insurance policy required by this Contract shall be endorsed to state that the coverage shall not be suspended, voided, and/or canceled by either party, reduced in coverage or in limits, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to City.

3.2.4. Other Insurance Requirements

Contractor shall:

- a. Immediately after notice of Contract award, and before final Contract execution, furnish City with certificates of insurance, in form and with insurers acceptable to City, which shall clearly evidence all insurance

required in this Contract and provide that such insurance shall not be canceled, allowed to expire, or be materially reduced in coverage except on thirty (30) days' prior written notice by certified mail to City, and in accord with stated insurance requirements of this bid solicitation. MAG Specification 103.6 is fully incorporated into this Contract, except to the extent it conflicts with the limits set forth in this Contract. The insurance policies required by MAG Specification 103.6 shall additionally provide full coverage of indemnity to City, including an increase in the minimum limits to \$5,000,000 combined single limit coverage for General Liability. Prior to execution of the Contract, Contractor shall furnish City with a Certificate of Insurance as evidence that policies providing the required coverages, conditions, and limits are in full force and effect. Such certificates shall identify the project and shall provide for not less than thirty (30) days' advance written notice to City, by certified mail, of cancellation or termination. Any cancellation clause shall not include the phrases "endeavor to" or "but failure to do so shall impose no obligation or liability of any kind upon the insurer, its agents or representatives." City shall not be obligated, however, to review same or to advise Contractor of any deficiencies in such policies and endorsements, and such receipt shall not relieve Contractor from, or be deemed waiver of City's right to insist on, strict fulfillment of Contractor's obligations under this Contract.

- b. Provide certified copies of endorsements and policies if requested by City in addition to certificates of insurance.
- c. Replace certificates, policies, and endorsements for any such insurance expiring prior to completion of services.
- d. Maintain such insurance from the time services commence until services are completed. Should any required insurance lapse during the Contract term, requests for payments originating after such lapse shall not be processed until City receives satisfactory evidence of reinstated coverage as required by this Contract, effective as of the lapse date. If insurance is not reinstated, City may at its sole option, terminate this Contract effective on the date of such lapse of insurance.

3.2.5. Subcontractors and Sub-Subcontractors

Contractor shall include all subcontractors and sub-subcontractors as insureds under its policies. All coverage for subcontractors and sub-subcontractors shall be subject to all of the requirements stated herein for Contractor.

3.3. INDEMNIFICATION

To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold City harmless, including City's agents, officers, assigns, officials, and employees, from and against all claims, damages, losses, liability, and/or expenses, relating to, arising out of, or resulting from, any negligent acts, errors, mistakes, or omissions in the work or services performed by Contractor and its agents, employees, subcontractors, or assigns, for whom Contractor may be deemed responsible, relating to any goods, services, or materials arising from, or relating to, any term or covenant of this bid. The amount and type of insurance coverage required of Contractor as set forth herein will in no way be construed as limiting the scope of Contractor's duties to indemnify City. This provision shall survive the Contract term.

3.4. PAYMENT

3.4.1. Method of Payment. Payment shall be made as directed in MAG Specifications 109.

3.4.2. Measurement of Payment.

- a. Quantities of materials for this work shall be paid under the appropriate schedule at the applicable Contract price per unit of measurement with no allowances for waste. Payment will be made after completion upon acceptance by City, and upon City's receipt of approved invoices.
- b. Payment for various items in the bid shall be compensation in full for furnishing all materials, labor, tools, equipment, and appurtenances necessary to complete the work in a satisfactory manner as specified. No additional payment will be made for work related to any item unless specifically called for in the bid.
- c. Materials placed without approval of the inspector, or materials rejected due to improper placing, improper proportions of materials, or materials found to be defective, will not be paid for.

3.5. PRE-CONSTRUCTION MEETING

Contractor shall meet with the City Engineer for a preconstruction conference prior to commencing work. At the preconstruction conference, Contractor shall submit a progress schedule showing the order in which Contractor proposes to carry out the work; the dates on which Contractor and its subcontractors will start the salient features of the work, including procurement of materials, equipment, etc.; the ordering of articles of special manufacture; the furnishing of drawings, plans, and other data for the review and approval of the City Engineer; the

inspection of structural steel fabrication; and the contemplated dates for the completion of the said salient features. The schedule may be in a bar chart format or a critical path method format. No schedule activity shall be shorter than one day or longer than 15 working days. The schedule must show interrelationships among the activities, and the controlling items of work throughout the project shall be identified. If requested by the City Engineer, Contractor shall furnish information needed to justify activity time durations. Such information shall include estimated manpower, equipment, unit quantities, and production rates. The schedule shall illustrate the completion of the work not later than the contract completion date.

Contractor shall furnish authorized signature forms and a list of Contractor's proposed subcontractors and major material suppliers.

Progress schedules shall have considered the time requirement for ordering articles of special manufacture to meet specific requirements of the work when structural steel fabrication inspection is required.

Contractor shall submit a traffic control plan in accordance with the subsection of Special Terms and Conditions titled Traffic Control.

Contractor shall also submit a safety plan and designate an employee as Safety Supervisor, in accordance with ADOT Standard Specifications Subsection 107.08. If approved by the City Engineer, Contractor may designate one employee to be responsible for both the traffic control and safety plans.

If the project requires that Contractor or City personnel to work from falsework, within shoring, or in any other hazardous area, Contractor shall submit as part of Contractor's safety plan specific measures it will use to ensure worker safety.

Contractor shall also submit a program for erosion control and pollution prevention, as set forth in ADOT Standard Specifications Subsection 104.09, on all projects involving clearing and grubbing, earthwork, structural work, or other construction, when such work is likely to create erosion or pollution problems.

If the project has an On-the-Job Training (OJT) requirement (see the subsection of Federal Provisions titled On-the-Job Training), the Contractor shall submit its written OJT schedule and training plan.

If Contractor fails to provide the required submissions, the City Engineer may order the preconstruction conference suspended until such time as they are furnished. Work shall not begin until the preconstruction conference has been concluded and the safety plan has been approved, unless authorized by the City Engineer. Contractor shall not be entitled to additional compensation or an extension of contract time resulting from any delays due to such a suspension.

When the specifications require specific quality control measures for certain materials, Contractor shall designate a qualified employee as Quality Control Manager. The Quality Control Manager shall be responsible for the implementing and monitoring of the quality control requirements described in ADOT Standard Specifications Subsection 106.04(C).

3.6. SUBLETTING OF CONTRACT

In accordance with Form FHWA-1273, VII, Contractor shall perform, with Contractor's own organization, construction work that amounts to not less than thirty percent (30%) of the total Contract price.

3.7. LICENSES

The low bidder and all subcontractors must carry the appropriate State of Arizona contractor's license(s) for the proposed work prior to award of the Contract. Should the lowest responsive bidder not be able to obtain the required license(s), the project may be awarded to the next lowest responsive bidder who has the required license(s).

Prior to execution of the Contract, the low bidder must possess a valid City Transaction Privilege License and shall provide the permit number of such for validation.

3.8. HAUL PERMIT

In any operation where more than one-tenth of an acre of surface area is disturbed and/or when unpaved onsite haul roads are used, Contractor will obtain a Maricopa County Air Quality Department permit as required under Rule 200 of the Maricopa County Air Pollution Control Rules and Regulations. This permit will require that a control plan to mitigate dust and tracking problems be submitted to the County for approval prior to issuance of the Earth Moving Permit. The control plan should be submitted to City for review prior to County submittal to ensure that all elements of the planned operation are covered. Please contact the Maricopa County Air Quality Department at 602-506-6010 for additional details.

In addition, all Contractors hauling fill or excavation materials where the haul exceeds five thousand (5,000) cubic yards, or when the duration of the haul is more than ten (10) working days, are required to obtain a City haul permit before the hauling operation begins.

Prior to receiving a hauling permit, Contractor must submit the required certificate of insurance, a plan showing the proposed haul routes, and a complete schedule of the hauling operation to the City Transportation Division. Prior to

submittal, Contractor should contact Engineering Services for complete details for issuance of a City haul permit.

3.9. LANDSCAPING AND IRRIGATION REQUIREMENTS

As applicable, Contractor shall be required to construct the landscape and irrigation improvements in accordance with the requirements of MAG Specifications Sections 430, 440, and 795, and the City of Tempe Public Works Department Standard Landscape and Irrigation Details and Specifications, latest edition (available at the City of Tempe Engineering Division, 31 East Fifth Street for five dollars (\$5.00) or online at <http://www.tempe.gov/engineering>). In addition, the landscape plant establishment and maintenance period will be ninety (90) days.

3.10. SPECIFIC PRODUCTS OR BRANDS

In accordance with MAG Specification 106.4, specific brands and/or models of equipment, materials, or patented processes listed in the plans, specifications, standard details, and standard specifications are for demonstrative purposes only. They should not be construed as a sole source request for a specific product or brand. Contractor shall provide City with the required product data including, but not limited to, manufacturers' standard catalog cuts, brochures, diagrams, schedules, performance charts, illustrations, calculations, schematic drawings, printed installation, erection, application, and placing instructions, and other descriptive data related to the product in order for City to determine if the product is equivalent to the product listed for approval.

3.11. ENVIRONMENTAL REQUIREMENTS

3.11.1. Contractor covenants and agrees that it shall, at all times during the term of the Contract, and at its sole cost and expense, comply with and assume sole responsibility and liability under all environmental laws applicable to use of or operations at the project site by Contractor, its agents, assigns, and/or employees. Contractor agrees that should it or any of its agents, assigns, or employees know of (a) any violation of environmental laws relating to the project site, or (b) the escape, release, or threatened release of any hazardous materials in, on, under, or about the project site, Contractor shall promptly notify City in writing of such, and that it will provide all warnings of exposure to hazardous materials in, on, under, or about the project site, in strict compliance with all applicable environmental laws. Further, Contractor covenants and agrees that it shall at no time use, analyze, generate, manufacture, produce, transport, store, treat, release, dispose of, or permit the escape of, or otherwise deposit in, on, under, or about the project site, any hazardous materials, or permit or allow any of its agents, assigns, or employees to do so. Prior to use of the project site, Contractor shall provide City an inventory of all equipment and materials stored and/or to be stored at the project site.

3.11.2. For purposes of this Contract, hazardous materials shall include but is not limited to, any and all substances, chemicals, wastes, sewage, or other materials that are now or hereafter regulated, controlled, or prohibited by any environmental laws, including, without limitation, any (a) substance defined as a "hazardous substance", "extremely hazardous substance", "hazardous material", "hazardous chemical", "hazardous waste", "toxic substance", or "air pollutant" by federal laws, including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601, *et seq.*; the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.*; the Hazardous Materials Transportation Act, 49 U.S.C. § 1801, *et seq.*, the Toxic Substances Control Act, 15 U.S.C. § 2601, *et seq.*, and all amendments thereto or other similar governmental restrictions; and (b) any chemical, compound, material, substance, or other matter that: (i) is a flammable explosive, asbestos, radioactive material, nuclear material, drug, vaccine, bacteria, virus, hazardous waste, toxic substance, injurious by itself or in combination with other materials; (ii) is controlled, designated in, or governed by any hazardous materials laws; (iii) gives rise to any reporting, notice, or publication requirements under any hazardous materials laws; or (iv) gives rise to any liability, responsibility, or duty on the part of City or Contractor with respect to any third person under any hazardous materials laws.

3.11.3. In addition, Contractor must comply with the following requirements:

- a. Non-pick-up sweepers will not be allowed except as required to make joints during chip sealing operations.
- b. Water flooding of trenches with potable water will not be permitted.
- c. All paints applied by sprayers shall be of a water-based type.
- d. Provisions shall be made to prevent the discharge of construction silt, mud, and debris into City storm drains or streets.
- e. Spills of oil, gas, chemical, or any other hazardous materials must be reported and removed by approved procedures. Mitigation measures shall be taken to prevent contamination of construction storage sites.
- f. Concrete waste must be disposed of in an approved location and at least twenty-five (25) feet from established landscaping.
- g. City refuse roll-off containers shall be used on City projects unless otherwise directed by the City of Tempe Solid Waste Supervisor. If

you should have any questions concerning any of the requirements or charges, please contact the Solid Waste Supervisor, at 480-350-8268.

- h. Hazardous wastes shall not be discharged into City's sanitary sewers or storm drainage system. All waste products shall be disposed of in accordance with applicable regulations.
- i. When archaeological features are encountered or unearthed, Contractor shall promptly report to the Director of the Arizona State Museum and to City. Excavation shall not resume in the identified area until approved by City Engineer.
- j. Contractor shall take whatever steps, procedures, or means to prevent abnormal, material spillage, or tracking conditions due to their construction operations in connection with the Contract. The dust control measures shall be maintained at all times during construction of the project, to the satisfaction of City Engineer, in accordance with Rule 200 of the Maricopa County Health Department Air Pollution Control Regulations, which require that an Earth Moving Permit be issued and a Control Plan be approved prior to commencement of work. Contact Maricopa County at 602-506-6700 for details.
- k. Contractor shall comply with all applicable federal regulations concerning National Pollutant Discharge Elimination System (NPDES) permits for storm discharges from construction sites.
- l. All materials supplied by Contractor shall be one hundred percent (100%) asbestos free unless otherwise approved by City.

No additional payment will be made for compliance with the above items.

In addition to the above, the use of new products made with reclaimed material and that meet project specifications is encouraged.

3.12. SAFETY REQUIREMENTS

Contractor shall comply with all applicable federal, state, and local health and safety regulations, ordinances, and requirements including, but not limited to, the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 *et seq.*), and all rules, regulations, and orders adopted pursuant thereto.

3.13. TRAFFIC CONTROL

- 3.13.1. All traffic shall be regulated in accordance with the MAG Specifications; the City of Tempe Traffic Barricade Manual, latest edition; the Manual on Uniform Traffic Control Devices (MUTCD); and any special provisions included herein.

At the time of the pre-construction conference, Contractor shall designate an American Traffic Safety Services Association (ATSSA) certified individual, who is well qualified and experienced in construction traffic control and safety, to be responsible for implementing, monitoring, and altering traffic control measures, as necessary, to ensure that traffic is carried through the work area in an effective manner and that motorists, pedestrians, bicyclists, and workers are protected from hazard including, but not limited to, motor vehicle accidents. City shall designate a representative who will oversee and monitor Contractor's agent and enforce City's requirements set forth herein. Contractor covenants to give City any assignment and/or assurances which may be necessary to effect such right of direct enforcement.

Contractor is solely responsible for, and assumes full liability for, the traffic control relating to this project. Contractor shall submit a final traffic control plan to City for its review and approval no less than one (1) week prior to commencing work under this Contract. Traffic, as referenced herein, shall include any and all motor vehicles, bicyclists, and pedestrian traffic on roadways, sidewalks, bicycle paths, alleys, and/or rights of way at, attendant to, and/or adjacent to the Project.

In the event alteration of traffic control is required for work or services provided herein, alterations shall be made in accordance with the latest edition of Part VI of the Manual on Uniform Traffic Control Devices, "Traffic Control for Streets and Highway Construction and Maintenance Operations," or the City of Tempe Traffic Barricade Manual, latest edition. The most restrictive provision shall apply. Unless identified otherwise in the Technical Specifications, City will undertake no responsibility or expenses relating to measurement, payment, or alteration of traffic control. All costs or expenses related to traffic control shall be considered incidental to other pay items. Any and all revisions relating to traffic and/or traffic control shall be submitted to City for review and approval in City's sole discretion.

Contractor is solely responsible for any and all loss, damage, replacement, or repair necessitated to any traffic signal equipment, traffic signal conduit, and/or circuits, arising from or relating to Contractor's work or services performed hereunder. Contractor shall have all repairs performed immediately at its sole expense by a licensed electrical contractor with experience in traffic signal repair, subject to pre-approval by City. Any and all repairs and/or replacement costs expended by City in this regard shall be reimbursed by Contractor at twice City's actual cost.

Contractor shall notify all adjacent or affected residents or businesses at least forty-eight (48) hours in advance of any street, alley, sidewalk, and/or driveway closures or modifications, and make suitable

arrangements to have all vehicles moved to a satisfactory location outside the closed area. Pedestrian access shall be maintained along the length of the project at all times per the requirements of the Americans with Disabilities Act and as approved by City. Contractor shall abide by applicable speed limits. Additional information may be obtained by contacting the City Transportation Division at 480-350-8219.

3.13.2. Temporary Barricades

Temporary barricades shall be regulated in accordance with the City of Tempe Traffic Barricade Manual, latest edition.

No additional payment by City will be made to Contractor or its subcontractor for temporary barricades, unless otherwise specified in the bid.

3.14. CLEAN-UP

Contractor agrees and covenants to adequately protect the work site, adjacent property, and the public in all phases of the work and/or services provided herein. Contractor shall be solely responsible for all damages or injuries due to action or neglect pursuant to this section. Contractor shall maintain access to all phases of the project pending inspection by City. Contractor hereby agrees to the following as to the job site: continually keep the job site free from debris, waste, and accumulation of materials; immediately clean up any oil, fuel, or chemical spills and take any and all remediation necessary; keep machinery clean and free of weeds and debris; remove all construction stains, smears, and debris from finished surfaces; perform site preparation to limit the spread of weeds, debris, and other nuisances prior to submission of final invoice to City; and remove all equipment, materials, tools, and Contractor's personal property prior to submission of final invoice to City.

In accordance with MAG Specifications Section 105, Contractor shall respond within twenty-four (24) hours after notice by City of any defects and/or maintenance requests to immediately remedy the condition of the job site. Should Contractor fail to respond promptly as set forth herein, City shall correct the job site at the expense of Contractor, and recover all attendant costs.

3.15. APPROXIMATE QUANTITIES

It is expressly understood and agreed by the parties hereto that the quantities of the various classes of work to be done and material to be furnished under this Contract, which have been estimated, as stated in the Invitation for Bids, are only approximate and are to be used solely for the purpose of comparing, on a consistent basis, the bids offered for the work under this Contract. Contractor further agrees that City will not be held responsible for any claim for damages or

for loss of profits because of a difference between the quantities of the various classes of work as estimated and the work actually done.

If any error, omission, or misstatement is found to occur in the estimated quantities, the same shall not invalidate this Contract or release Contractor from the execution and completion of the whole or any part of the work in accordance with the plans and specifications herein mentioned, and for the prices herein agreed upon and fixed therefore, or excuse Contractor from any of the obligations or liabilities hereunder, or entitle Contractor to any damages or compensation, except as may be provided for in this Contract.

3.16. BLUE STAKE & CALL BEFORE YOU DIG

Contractor is required to use Arizona Blue Stake, Inc., at 602-263-1100, to comply with the statutory requirements in A.R.S. title 40, chapter 2, article 6.3 (Underground Facilities); A.R.S. § 40-360.21, *et seq.*, as amended from time to time.

Where railroad property may be impacted, Contractor must also notify and secure a current Call Before You Dig (CBUD) Ticket at 1-800-336-9193 from Union Pacific Railroad's Response Management Communications Center (RMCC), wait for the site to be marked, respect all markings, and dig with care.

3.17. PROTECTION OF EXISTING FACILITIES

Contractor shall protect all existing facilities during construction or work. Utility poles that may be affected by construction activities shall be protected and/or braced by the Contractor. Contractor shall notify the appropriate utility company or agency of any construction or work that may affect their facilities and state the course of action which will be taken to protect such facilities.

3.18. UNDERGROUND UTILITIES

Underground utilities indicated on the plans are in accordance with maps furnished by City and by each utility company. The locations are approximate and require verification prior to construction, as mandated by the City of Tempe Utility Permit and Construction Manual, latest edition, available at <http://www.tempe.gov/engineering>.

3.19. RELOCATION OF UTILITIES

All utilities in conflict with the new work will be relocated by the utility company, except as otherwise provided in the plans and specifications.

3.20. NOTIFICATION OF PROPERTY OWNERS

Contractor shall notify all property owners who may be affected by the proposed construction activities of the scope and duration of the construction activities at least forty-eight (48) hours in advance of the start of any work or construction.

3.21. ACCESS

Contractor shall maintain public access to businesses adjacent to the job site at all times during construction. Where property has more than one access point, no more than one access point shall be restricted or closed at any one time. If only one driveway exists, access shall be maintained to at least one-half of the driveway at all times. Access to adjacent private driveways shall be maintained by Contractor during all non-working hours.

3.22. UTILITY AND PUBLIC AGENCY CONSTRUCTION CLEARANCE AGREEMENT

Utilities and other public agencies may require all contractors, if working on their facilities, to sign a standard form "Construction Clearance Agreement," or other form of agreement, prior to issuance of a license. Contractor shall execute the Construction Clearance Agreement with the utility or public agency, if required, and furnish a copy to City prior to proceeding with any construction on utility or public agency facilities. This agreement sets forth the requirements to complete the proposed work in an allotted time frame or to pay full costs for others to complete. It also obligates Contractor to comply with all applicable federal, state, and local laws, rules, regulations, and ordinances including, but not limited to, the OSHA Permit Required Confined Space rules, as amended.

3.23. GOVERNMENT APPROVALS AND PERMITS

3.23.1. Unless otherwise provided, Contractor shall obtain all necessary permits, approvals, and licenses required for the commencement of the work from any government or quasi-government entity having jurisdiction over the project at its sole expense. Contractor expressly covenants and agrees that it will obtain any and all necessary environmental permits and/or file the necessary environmental notices at its cost prior to undertaking work or performing services hereunder.

3.23.2. Copies of all permits and notices shall be provided to City prior to starting any work or performing services pursuant to the permitted activity. This provision does not constitute an assumption by City of an obligation of any kind for violation of said permit or notice requirements.

3.23.3. City agrees to be responsible for City's own review and permit(s) fees for building and demolition permits only. In addition, City shall bear its own review fees for grading and drainage, water, sewer, and landscaping. City may agree to pay utility design fees for permanent services in its sole discretion. Contractor shall be solely responsible for any and all other permit(s) and review fees not specifically designated herein.

3.23.4. Contractor is responsible for all costs of water meter(s), water and sewer taps, fire lines and taps, and all water bills on the project meters until completion of the project. Arrangements for water at the site or for construction purposes are the Contractor's sole responsibility.

3.24. KEY CONTACTS

City of Tempe Engineering	Ken Halloran	480-350-8200
City of Tempe Transportation Systems	Christine Warren	480-858-2060
Blue Stake Center		602-263-1100
Call Before You Dig (UPRR)		800-336-9193

3.25. DUST PREVENTION

Contractor shall take all necessary steps to ensure dust-free conditions on property within the City to the satisfaction of the City Engineer, and fully comply with A.R.S. § 49-474.06 and Maricopa County Air Pollution Control Rules and Regulations Rule 200 § 305-306, concerning dust-generating operations as defined by Maricopa County Rule 310. In any operation where more than one-tenth of an acre of surface area is disturbed and/or when unpaved onsite haul roads are used, Contractor shall obtain a Maricopa County dust control permit. Contractor shall provide assurance that subcontractors used on the dust-generating portion of the Project are registered with the Maricopa County Air Quality Department and that only certified PM-10 efficient street sweepers shall be used to sweep City streets, as required by Tempe City Code Sec. 26A-25. Contractor shall provide its subcontractor(s)' registration number and dust control plan, if applicable, to the City Engineer prior to engaging in any dust-generating activities. Project related hauling activities to and/or from storage located on property owned by City shall be listed on the approved dust control permit and shall be subject to control measures in the approved dust control plan. When hauling fill or excavation materials exceeding five thousand (5,000) cubic yards or when the duration of the haul is more than ten (10) working days, Contractor shall obtain a City haul permit before the hauling operation begins. Prior to receiving a haul permit, Contractor must submit the required certificate of insurance, a plan showing the proposed haul routes, and a complete schedule of the hauling operation to the City Engineer.

All costs associated with the submittal, approval, and implementation of the permit and dust control plan as approved by Maricopa County Air Quality Department shall be borne solely by the Contractor. Failure to fully comply with this provision shall be considered a material breach of the Contract, and shall subject the Contract to termination by the City, in addition to other legal remedies.

3.26. COMPLAINTS FROM THE GENERAL PUBLIC

Contractor shall respond to any and all claims or complaints from the general public in a reasonable and prompt manner. Information on any complaint shall be reported to the Project Manager promptly, but in no event more than forty-eight (48) hours of receipt of complaint.

4. INSTRUCTION TO BIDDERS

4.1. SEALED BIDS

Sealed bids will be received and the time of delivery recorded by the City of Tempe, Arizona, Public Works Department, Engineering Office, City Hall West Garden Level, 31 East Fifth Street, Tempe, Arizona 85281, until 10:00 a.m. (Arizona time) November 19, 2013. At that time and place, bids will be opened and the amount of each bid and the name of each bidder publicly read in the Public Works Conference Room. Bids received after the time specified will be returned unopened. All bids shall be submitted in a sealed envelope. The outside lower right-hand corner shall be marked:

BID OF _____, CONTRACTOR

**FOR: TRAFFIC CONTROL CABINETS AND
HARDWARE REPLACEMENT**

PROJECT NO. 6905701

FEDERAL AID PROJECT NO. CM-TMP-0(228)D

ADOT TRACS NO. 0000 MA TMP SZ051 01C

If a bid is mailed or delivered via overnight mail service, the outside envelope should be marked with the **date and time of the bid opening, as well as the words "PUBLIC WORKS ENGINEERING BID OPENING."** Please allow sufficient time for delivery.

Please see the **BIDDER'S CHECK SHEET** in the Exhibits section of this Invitation for Bid.

Each bid shall be accompanied by a bid guarantee for ten percent (10%) of the amount of the bid. See the subsection of Instructions to Bidders titled Bid Security.

Each bid also shall be accompanied, in a separate envelope, by the bidder's current loss history information from all of the bidder's insurance carriers. The information specific to workers' compensation insurance carriers must include a three-year (3-year) history of the bidder's Experience Modification Factor (EMOD) and its loss ratio.

Specifications are available for download from the City of Tempe Engineering Division at www.tempe.gov/engprojectsbidding. When the documents are downloaded, Contractors MUST register on-line as a plan holder to be notified of project addenda. If addenda are issued for this project the City of Tempe will attempt to notify plan holders at the email address provided. It is the Contractor's sole responsibility to confirm that they have received all addenda prior to submitting a bid. The City is not responsible for providing notification or addenda to Contractors.

When it is in the best interests of the City of Tempe, the City may cancel this solicitation, or may reject any and all bids in whole or in part, or may waive any informalities in the bids received.

Award will be made or bids rejected within sixty (60) days after bid opening.

Please direct any questions to City of Tempe Engineering Division at 480-350-8200. City Project Construction Manager for this project is Ken Halloran.

Anyone wishing to receive future notices through automatic notification by email can register their company name and email address at www.tempe.gov/enews (select the following e-notify list: Engineering Bid/RFQ Notification).

4.2. ADDENDA

Addenda issued prior to the deadline for bidding shall be attached to and made a part of the Contract. Contractor shall acknowledge receipt of all addenda on the Competitive Sealed Bid form.

4.3. BID SECURITY

Each bid shall be accompanied by a bid guarantee for ten percent (10%) of the amount of the bid, executed in accordance with the requirements of A.R.S. § 34-201, *et seq.*, as amended from time to time. The bid guarantee shall be in the form of a certified check, cashier's check, or surety bond. If a surety bond is used, the bond shall be executed solely by a surety company or companies holding a certificate of authority to transact surety business in Arizona, issued by the director of the department of insurance pursuant to Arizona Revised Statutes, title 20, chapter 2, article 1, as amended from time to time. The surety bond shall not

be executed by an individual surety or sureties, even if the requirements of A.R.S. § 7-101 are satisfied. Additionally, the City requires that a bonding company, liability insurance carrier, or excess insurance carrier issuing a surety bond have a Financial Strength Rating of A- or better and a Financial Size Category of VII or higher, as listed in the most recent "Best's Key Rating Guide – Property/Casualty," published by A.M. Best Company.

Bid guarantees shall be returned to bidders whose bids are not accepted, and to the successful Contractor upon its execution of the Contract and delivery of a satisfactory performance bond, payment bond, and certificate of insurance.

4.4. BIDS

Bids shall be properly executed upon the Competitive Sealed Bid Forms attached and made a part of this Contract. Electronic signatures will not be accepted. The completed forms shall be without interlineations, alterations, or erasures. Unit prices should be rounded to the nearest whole cent (two spaces behind the decimal point). In case of an error in the extension of unit prices and the totals, the unit price shall govern.

Bids shall not contain any recapitulations of the work to be done. Alternative bids will not be considered except as called for. No oral or electronic bids or modifications will be considered.

4.5. IRREGULAR BIDS

Bids may be considered irregular and may be rejected if any of the unit prices quoted in the bidding schedule are unbalanced, either above or below the amount of a reasonable bid price, to the potential detriment of City.

4.6. BIDDING PHASE REQUIREMENTS

4.6.1. Pursuant to A.R.S. § 1-502, any individual/sole proprietor who responds to this Invitation for Bids by signing the Competitive Sealed Bid Forms shall also sign a sworn Affidavit Demonstrating Lawful Presence in the United States (see Exhibits) and present one of the documents listed on the affidavit to verify lawful presence in the United States. Failure to sign said affidavit and present one of the listed documents **shall result in rejection of the bid.**

4.6.2. Each bid shall be accompanied, in a separate envelope, by the bidder's current loss history information from all of the bidder's insurance carriers. The information specific to workers' compensation insurance carriers must include a three-year (3-year) history of the bidder's Experience Modification Factor (EMOD) and its loss ratio. This information must be provided with the bidder's proposal.

4.7. PRE-CONTRACT AWARD REQUIREMENTS

4.7.1. Contractor shall provide a copy of its written health and safety program and any required employee training records or certificates.

4.7.2. **Taxes.** All applicable taxes due and owing by Contractor and all subcontractors shall be considered by City in determining award. At all times, the determination of applicable taxes and rates, and remitting taxes owed, shall be the sole responsibility of Contractor. Should any taxes owed to City by Contractor or any subcontractors, including privilege (sales) and use tax, not be remitted in full prior to Contract award, the bid shall be considered non-responsive and rejected by City.

4.8. BID QUANTITIES

The quantities listed in the specifications are for bid purposes. The actual quantities provided to Contractor may be adjusted to accommodate field requirements.

4.9. PROTEST PROCEDURE

A bidder or contractor who believes they are aggrieved in connection with the City's solicitation or award of a contract may file a protest with the Engineering Division procurement office, as set forth in Section 26A-21 of the Tempe City Code.

4.10. NO LOCAL PREFERENCE

In accordance with 49 CFR 18.36(c)(2), Tempe will conduct procurements in a manner that prohibits the use of statutorily or administratively imposed in-State or local geographical preferences in the evaluation of bids, except in those cases where applicable Federal statutes expressly mandate or encourage geographic preference.

5. EVALUATION AND AWARD

5.1. AWARD AND EXECUTION OF CONTRACT

Except as provided herein to the contrary, the respective rights and remedies of the parties to this Contract shall be cumulative and in addition to any rights and remedies not specified in this Contract. It is understood that there are no oral or written agreements or representations between the parties hereto affecting this Contract, and that this Contract supersedes any and all prior negotiations, arrangements, representations, and understandings between the parties. No

provision of this Contract may be amended except by an agreement in writing signed by City. This Contract, including exhibits and attachments attached hereto, signed by City and Contractor, constitutes the entire agreement between the parties.

This Contract shall be in full force and effect only after it has been awarded by the City Council of Tempe, Arizona.

Contractor shall execute the Contract and all exhibits and attachments thereto, counterparts permitted, within ten (10) calendar days after being given formal notice of City Council's award of the Contract.

Contractor's failure to execute this Contract and to file satisfactory contract bonds and insurance certificates as provided herein within ten (10) calendar days after being given formal notice of Contract award shall result in immediate cancellation of the award.

5.2. PLANS TO THE SUCCESSFUL BIDDER

The successful bidder may obtain (7) sets of specifications for this project from the office of City Engineer, at no cost.

5.3. ISSUANCE OF THE NOTICE TO PROCEED

Notwithstanding unforeseeable circumstances, the Notice to Proceed shall be issued by City within thirty (30) days of contract award.

6. GENERAL TERMS AND CONDITIONS

6.1. LIQUIDATED DAMAGES

Unless otherwise specified, liquidated damages will be applied in accordance with the MAG Specifications 108.9. Completion of the work as stated in this Contract is the same as completion of the work as stated in MAG Specifications 108.9. Damages will be applied at the amounts specified in MAG Specifications Table 108-1.

6.2. ESCROW AND HOLDBACK

In the event of a dispute arising under this Contract that is not summarily resolved by the parties concerning any withholding or nonpayment of funds by the City, the parties agree that said disputed funds may be held back and placed into a neutral escrow account, in the form of an interest bearing savings account, until the dispute is resolved. By signing this Contract, Contractor acknowledges and agrees to the deposit of any and all disputed funds into an escrow account into the financial institution of the City's election.

Except as to those amounts withheld, at City's direction, the balance of the funds shall be paid to Contractor or subcontractor(s), as set forth by Arizona law. Any funds remitted to City in excess of the amount allowed by statute will be reimbursed to Contractor. In no event shall City be liable to Contractor for damages resulting from a claimed loss due to payment of the excess funds or due to a delay in reimbursing the excess payment.

Once per calendar month, the financial institution shall furnish the City and Contractor with a statement reflecting the funds held as of the last day of the preceding calendar month, and showing the transactions for that prior month. At the request of Contractor or City, the financial institution shall furnish both parties with an interim statement showing funds held as of the 25th day of the most recent month or, if a non-business day, the following business day of that month.

Contractor acknowledges and agrees that all fees, costs, and charges imposed by any financial institution in connection with the maintenance and administration of the disputed funds shall be charged to, and paid by, Contractor. The funds shall be free of any claim for such fees, costs, or charges. However, the financial institution may obtain payment for any such accrued fees, costs, and charges owed by Contractor related to said funds out of available interest earned on the funds, or deduct the same from any funds to be paid to Contractor, according to written disbursement instructions from City.

The parties acknowledge and agree that in the event of no resolution between the parties concerning distribution of the disputed funds, the funds may be interplead in a court of competent jurisdiction in Maricopa County, Arizona.

It is understood that financial institution shall not be deemed liable, nor responsible, for the collectability of any funds assigned or held in connection with this provision.

6.3. TERMINATION

In addition to MAG Specifications 108.11, City, at its sole discretion, may terminate this Contract for convenience or abandon any portion of the project for which services have not been performed by Contractor, upon fourteen (14) days' written notice delivered to Contractor personally or by certified mail.

Immediately after receiving such notice, Contractor shall discontinue advancing the services under this Contract and proceed to close said operations under this Contract. Contractor shall appraise the services it has completed and submit an appraisal to City for evaluation. City shall have the right to inspect and approve Contractor's work to appraise the services completed.

Contractor shall deliver to City all drawings, special provisions, field survey notes, reports, estimates, and any and all other documents or work product generated by Contractor under the Contract, entirely or partially completed, together with all unused materials supplied by City.

In the event of such termination or abandonment, Contractor shall be paid for services approved and accepted by City that Contractor performed prior to receipt of said notice of termination, including reimbursable expenses previously incurred.

If the remuneration scheduled hereunder is based upon a fixed fee or definitely ascertainable sum, the portion of such sum payable shall be proportionate to the percentage of work completed, as reviewed and approved by City, based upon the scope of work. However, in no event shall the fee exceed the full cost of the Contract.

If City terminates or abandons the Contract, City shall make final payment within sixty (60) days after Contractor has delivered the last of the completed items and City has approved and determined the final fee.

In the event this Contract is terminated or abandoned prior to completion, City may complete the work, or enter into a Contract with another party for the remaining work.

In no event shall the City be obligated, liable, or responsible for performance of the obligations set forth herein, any provision of this Contract, or any expenses incurred by Contractor in securing this Contract (including, but not limited to, purchasing insurance coverage, performance bonds, or other security), at any time, including prior to or following City Council's approval of this Contract, should funds not be appropriated by the City through its Council or staff, in order to complete the Project. In the event that funds are not appropriated to meet or complete this Contract, then City shall immediately provide notice to Contractor of such non-allocation and terminate the Contract. City shall incur no resulting liabilities or penalties for termination under this Section.

This Contract may be terminated pursuant to A.R.S. § 38-511.

6.4. DEFAULT PROVISIONS

Contractor shall be deemed in default under this Contract upon the occurrence of any of the following events:

- 6.4.1. Contractor provides material that does not meet the specifications of the Contract and fails to cure such non-performance within ten (10) days after written notice from City;

- 6.4.2. Contractor fails to adequately perform the services set forth in the plans and specifications of and fails to cure such non-performance within ten (10) days after written notice from City;
- 6.4.3. Contractor fails to complete the work required or furnish the materials required within the time stipulated in the Contract and fails to cure such non-performance within ten (10) days after written notice from City;
- 6.4.4. Contractor fails to make progress in the performance of the Contract and/or gives City reason to believe that Contractor will not or cannot perform the requirements of the Contract and fails to cure such non-performance within ten (10) days after written notice from City;
- 6.4.5. Contractor fails to perform any other term or condition of this Contract and fails to cure such non-performance within ten (10) days after written notice from City.

In the case of default, City may terminate the Contract, in whole or in part, and/or may resort to any other remedy as provided by law. City may also perform any test or analysis on materials for compliance with the specifications of the Contract. Contractor shall pay the actual expense of testing if the results of any test or analysis indicate a material to be non-compliant with the specifications.

6.5. WARRANTY

Contractor warrants to City that the construction, including all materials and equipment furnished as part of the construction, shall be new, unless otherwise specified in the Specifications and Contract; of good quality; in conformance with the Specifications; and free of defects in materials and workmanship. Contractor's warranty obligation excludes defects caused by abuse, alterations, or unreasonable failure to maintain the construction by persons other than Contractor, Subcontractors, or others under Contractor's control. Nothing in this warranty shall limit any manufacturer's warranty which provides City with greater warranty rights than set forth herein. Contractor will provide City with all manufacturers' warranties and operation and maintenance manuals upon substantial completion of the work. Contractor's warranty shall be for one (1) year and will commence for all portions of the work upon final acceptance of the entire work as determined by City under the Contract. All statutory or other warranties, express or implied, related to latent defects will remain in force and are not limited by this provision.

6.6. OWNERSHIP OF DOCUMENTS / INFRINGEMENT OF PATENT OR COPYRIGHT

All work products (electronically or manually generated) including, but not limited to, plans, specifications, cost estimates, tracings, studies, design analyses,

original mylar drawings, computer aided drafting and design (CADD) file diskettes which reflect all final drawings, and other related products which are prepared in the performance of this Contract, are the property of City and are to be delivered to City before the final payment is made to Contractor. City shall retain ownership of these original drawings, however, if approved in writing by City, Contractor may retain the original drawings and supply City with reproducible mylar copies. Contractor shall endorse by their professional seal all plans and special provisions furnished by them.

In the event these documents are used for another project without further consultation with Contractor, City agrees to indemnify and hold Contractor harmless from any claim arising from the reuse of the documents. City shall remove Contractor's seal and title block from such documents.

Contractor agrees to save, keep, hold harmless, and fully indemnify City, and any of its officers, officials, employees, and agents, from any and all damages, costs, or expenses, in law or equity, that may at any time arise out of any infringement of the patent right, copyright, or trademark of any person, persons, or entity in consequence of use by City, or by any of its officers, officials, employees, or agents, of materials supplied by Contractor, and of which Contractor is not a patentee or signee or lawfully entitled to sell the same.

Contractor agrees to indemnify and hold harmless City and its officers, officials, employees, and agents from any and all license, royalty, and proprietary fees or costs, including legal costs, which may arise out of City's purchase and use of goods supplied by Contractor.

It is expressly agreed by Contractor that these covenants are irrevocable and perpetual.

6.7. COMPLIANCE WITH STATE AND FEDERAL LAWS

6.7.1. Specially Designated Nationals and Blocked Persons List. Contractor represents and warrants to City that neither Contractor nor any affiliate or representative of Contractor (i) is listed on the Specially Designated Nationals and Blocked Persons List maintained by the Office of Foreign Asset Control, Department of the Treasury (OFAC) pursuant to Executive Order No. 13224, 66 Fed. Reg. 49079 ("Order"); (ii) is listed on any other list of terrorists or terrorist organizations maintained pursuant to the Order, the rules and regulations of OFAC or any other applicable requirements contained in any enabling legislation or other related Order(s); (iii) is engaged in activities prohibited in the Order; or (iv) has been convicted, pleaded *nolo contendere*, indicted, arraigned, or custodially detained on charges involving money laundering or predicate crimes to money laundering. In addition, Contractor certifies that it does not have a scrutinized business operation in either Iran or Sudan.

- 6.7.2. **Employment Laws.** Contractor agrees and covenants that it will comply with any and all applicable governmental restrictions, regulations, and rules of duly constituted authorities having jurisdiction insofar as the performance of the work and services pursuant to the Contract, and all applicable safety and employment laws, rules, and regulations, including, but not limited to, the Fair Labor Standards Act, the Walsh-Healey Act, and the Legal Arizona Workers Act (LAWA), and all amendments thereto, along with all attendant laws, rules, and regulations. Contractor acknowledges that a breach of this warranty is a material breach of this Contract and that Contractor is subject to penalties for violation(s) of this provision, including termination of this Contract. City retains the right to inspect the documents of any and all contractors, subcontractors, and sub-subcontractors performing work and/or services relating to the Contract to ensure compliance with this warranty. Any and all costs associated with City inspection are the sole responsibility of Contractor. Contractor hereby agrees to indemnify, defend, and hold City harmless for, from, and against all losses and liabilities arising from any and all violations thereof.
- 6.7.3. **Equal Opportunity.** City is an equal opportunity, affirmative action employer. Contractor hereby covenants that it shall not discriminate unlawfully against any employee or applicant for employment, nor shall it deny the benefits of this Contract, to any person on the basis of race, color, creed, religion, ancestry, national origin, physical or mental disability, age, sex, gender, sexual orientation, gender identity, marital status, or veteran status, with regard to discharging obligations under this Contract. Contractor covenants and agrees that it will comply in all respects with the applicable provisions of Executive Order 11246, Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, the Age Discrimination in Employment Act, the Vietnam Era Veterans' Readjustment Assistance Act, the Rehabilitation Act, and any other applicable state and federal statutes governing equal opportunity. Contractor agrees to post hereinafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting for the provisions of this clause.
- 6.7.4. **Federal Employer Sanctions Law.** Contractor understands and acknowledges the applicability of the Federal Employment Eligibility Verification Requirements ("Requirements"), including, but not limited to, Executive Order 12989, Federal Acquisition Regulation E-Verify clause (73 F.R. 67704), and 8 U.S.C. § 1324, *et seq.*, as amended from time to time. Contractor warrants current compliance with these and all Federal immigration laws and regulations that relate to their employees, on behalf of the Contractor and all of its subcontractors, including the use of E-Verify to confirm the employment eligibility of all persons hired during a Contract term and current employees performing under the Contract

within the United States. Should the Requirements conflict with any applicable state laws or regulations as referenced in 6.7.2., the Requirements shall prevail.

Contractor further agrees to include the provisions of this section in any and all subcontracts hereunder. Any violation of such provisions shall constitute a material breach of this Contract.

6.8. JURISDICTION

This Contract will be deemed to be made under, and will be construed in accordance with and governed by, the laws of the State of Arizona, without regard to the conflicts or choice of law provisions. An action to enforce any provision of this Contract or to obtain any remedy with respect hereto will be brought in the Superior Court of Arizona in and for Maricopa County, and for this purpose, each party hereby expressly and irrevocably consents to the jurisdiction and venue of such court.

6.9. DISPUTE RESOLUTION

The parties may mutually agree to submit any dispute arising under this Contract to binding arbitration, conducted by a sole arbitrator mutually agreed upon by the parties, to hear and render a decision to resolve said dispute. The arbitration shall be held in Tempe, Arizona, subject to the laws of the State of Arizona. Each party shall bear its own costs and attorney's fees. A decision shall be made by the arbitrator within seven (7) calendar days of the arbitration hearing.

6.10. SUCCESSORS AND ASSIGNS

This Contract shall not be assignable except at the written consent of City, and it shall extend to and be binding upon the heirs, executors, administrators, successors, and assigns of the parties hereto.

6.11. NON-WAIVER

The failure of either party to enforce any of the provisions of this Contract, or to require performance by the other party of any of the provisions of this Contract, will not be construed as a waiver of such provisions, nor will it affect the validity of this Contract or any part thereof or the right of either party to thereafter enforce each provision.

6.12. SURVIVAL

All warranties, representations, and indemnifications by Contractor will survive the completion or termination of this Contract.

6.13. SEVERABILITY

If any provision of this Contract or the application thereof to any person or circumstance is held invalid, illegal or unenforceable to any extent, the remainder of this Contract and the application thereof will not be affected and will be enforceable to the fullest extent permitted by law.

6.14. INTEGRATION

This Contract contains the full agreement of the parties hereto. Any prior or contemporaneous written or oral agreement between the parties regarding the subject matter hereof is merged and superseded hereby.

6.15. TIME IS OF THE ESSENCE

Time of each of the terms, covenants, and conditions of this Contract is hereby expressly made of the essence.

6.16. THIRD PARTY BENEFICIARY

This Contract will not be construed to give any rights or benefits in the Contract to anyone other than City and Contractor. All duties and responsibilities undertaken pursuant to this Contract will be for the sole and exclusive benefit of City and Contractor and not for the benefit of any other party.

6.17. CONFLICT OF INTEREST

Contractor agrees to disclose any financial or economic interest with the project property, or any property affected by the project, existing prior to the execution of this Contract. Further, Contractor agrees to disclose any financial or economic interest with the project property, or any property affected by the project, if Contractor gains such interest during the course of this Contract.

Contractor's gains of financial or economic interest in the project during the course of this Contract may be grounds for terminating this Contract. Any decision to terminate the Contract shall be at the sole discretion of City.

Contractor shall not engage the services, on this Contract, of any present or former City employee who was involved as a decision maker in the selection or approval processes, or who negotiated or approved billings or Contract modifications for this Contract.

6.18. COOPERATION AND FURTHER DOCUMENTATION

Contractor agrees to provide City such duly executed documents as may be reasonably requested by City to implement the intent of this Contract.

This Contract shall be in full force and effect only when it has been approved by the City Council of the City of Tempe, Arizona, and when executed by the duly authorized City officials and the duly authorized agent of Contractor.

Each proposed subcontractor for this project must be approved by City before that subcontractor may work on the project. For the approval process, Contractor shall obtain from each subcontractor, and submit to City, a completed Labor Standards Certification form (see the Exhibits section).

Contractor also shall provide City with a complete copy of each executed subcontract and purchase order for this project.

6.19. UNAUTHORIZED FIREARMS & EXPLOSIVES

No person conducting business on City property shall carry a firearm or explosive of any type. This requirement shall also apply to persons who maintain a concealed weapons permit.

6.20. NOTICES TO CITY ENGINEER

All notices to the City relating to this Contract should be sent to the following individual, who is also the administrator of this Contract.

Traffic Control Cabinets & Hardware Replacement
Andy Goh, City Engineer
City of Tempe Engineering Division
31 E. Fifth Street, Garden Level
Tempe, Arizona 85281
480-350-8200

6.21. NOTICES TO CONTRACTOR

(To be completed by successful bidder)

Company Name: _____

Address: _____

Phone: _____

Fax: _____

6.22. GIS DATA DISCLAIMER

THE CITY OF TEMPE DOES NOT WARRANT THE ACCURACY, COMPLETENESS, CONDITION, SUITABILITY, PERFORMANCE, OR CURRENCY OF THE GIS DATA PROVIDED UNDER THIS CONTRACT. AREAS DEPICTED BY GIS DATA ARE APPROXIMATE, AND NOT GUARANTEED TO BE ACCURATE TO STANDARDS FOR MAPPING, SURVEYING, OR ENGINEERING. THIS DATA IS FOR ILLUSTRATIVE PURPOSES ONLY AND SHOULD NOT BE RELIED UPON FOR SITE-SPECIFIC PURPOSES. THE DATA HEREIN IS SUBJECT TO CONSTANT CHANGE AND MAY NOT BE COMPLETE, ACCURATE, OR UP-TO-DATE. THE CITY OF TEMPE IN NO WAY ASSUMES LIABILITY OR RESPONSIBILITY FOR ANY INCORRECT DATA OR ANY INFORMATION PROVIDED HEREIN. THE CONTRACTOR ACKNOWLEDGES AND AGREES THAT THE CITY OF TEMPE ASSUMES NO LIABILITY FOR DAMAGES INCURRED DIRECTLY OR INDIRECTLY RESULTING FROM INCOMPLETE, INCORRECT, OR MISSING INFORMATION; INCLUDING ANY DIRECT, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED OR UNDER ANY THEORY OF LIABILITY, WHETHER IN TORT, CONTRACT, STRICT LIABILITY, OR OTHERWISE. **BY WAY OF THE SIGNATURE ON THIS CONTRACT, THE CONTRACTOR ASSUMES ALL LIABILITY FOR ANY AND ALL DEPENDENCE AND/OR RELIANCE UPON THIS INFORMATION AND ASSUMES ALL RESPONSIBILITY RELATING THERETO. ANY AND ALL EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PURPOSE ARE SPECIFICALLY AND EXPRESSLY DISCLAIMED.** CONTRACTOR SHOULD NOT RELY UPON THE GIS DATA WITHOUT PROPER FIELD VERIFICATION FOR ANY PURPOSE.

6.23. AMENDMENT OF CONTRACT

No supplement, modification or amendment of any term of this Contract will be deemed binding or effective unless in writing and signed by the parties hereto and in conformation with provisions of this Contract except as expressly provided herein to the contrary.

6.24. LABOR

Contractor agrees and covenants to use only licensed contractors and subcontractor(s) in the making and/or installation of any and all repairs, alterations, improvements, or other work of Contractor on the Project. Contractor shall be liable to City for any losses and liabilities associated with any violation of this provision, and the Contract shall immediately be terminated upon any violation by Contractor.

6.25. NON-APPROPRIATION OF FUNDS OR NON-FUNDING

City's performance under this Contract depends upon the appropriation of grant funds by the Federal Highway Administration. If the funds necessary for City's performance under this Contract are not appropriated or are otherwise made unavailable to the City, City may provide written notice to Contractor and cancel this Contract without further obligation of City. The parties understand and agree that funding and appropriations are beyond the control of the City.

6.26. PUBLIC RECORDS

The City is a public entity subject to the provisions of the Arizona Public Records Law, A.R.S. § 39-121, *et seq.* ("Law"). Some or all of the information contained within the Contract and related documents constitutes a public record that the City may be required to disclose to other persons or entities. In the event of receipt of a public records request by the City, Contractor must provide verification that its document falls under the exception to the Law in order to contest disclosure of said document. In the event of Contractor contesting disclosure, said document shall be submitted to a court of competent jurisdiction for an *in camera* review and determination, at Contractor's sole expense.

6.27. COUNTERPARTS

This Contract may be executed in one or more counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument, and it shall not be necessary that any single counterpart bear the signature of all parties.

6.28. RECORD RETENTION

Contractor agrees to retain all records relating to the Contract pursuant to A.R.S. § 35-214, as amended from time to time. Contractor agrees to make those records available at all reasonable times for inspection and audit by City during the term of the Contract and for a period of five (5) years after the completion of the Contract. The records shall be provided at City Public Works Department, Engineering Division, Tempe, Arizona, or another location designated by City upon reasonable notice to Contractor.

6.29. DRUG-FREE WORKPLACE

The Contractor is hereby advised that the City has adopted a policy establishing a drug-free workplace for itself and as a requirement for sellers/Contractors doing business with the City to ensure the safety and health of employees working on City license agreements, contracts, and/or projects. The Contractor agrees to require a drug-free workplace for all employees working under this Contract.

Specifically, all employees of the Contractor who are performing work under this Contract shall be notified, in writing, by the Contractor that they are prohibited from the manufacture, distribution, dispensation, possession, or unlawful use of a controlled substance in the work place or work site. Any violation of this section constitutes a material breach of this Contract.

7. FEDERAL PROVISIONS

The FEDERAL PROVISIONS section in this Invitation for Bids / Contract has two components:

- **FORM FHWA-1273 (REV. MAY 1, 2012)** – “Required Contract Provisions: Federal-Aid Construction Contracts.” Form FHWA-1273 consists of Parts I–XI, below.
- **ADDITIONAL FEDERAL PROVISIONS (NOT PART OF FORM FHWA-1273)**. The Additional Federal Provisions consist of Parts XII–XVIII, below.

Federal Provisions That Must Be Inserted (in Full) in Subcontracts at Every Tier –

- (1) Form FHWA-1273 (Rev. May 1, 2012), which is Parts I–XI of these FEDERAL PROVISIONS. **Note:** The subcontractor must *initial and date* each page of Form FHWA-1273 in the subcontract.
- (2) The provisions in “Part XV. Disadvantaged Business Enterprises” of these FEDERAL PROVISIONS.
- (3) The Exhibit titled “Prompt Payment and Return of Retention Requirements.”
- (4) The Wage Determination in the EXHIBITS to this Invitation for Bids / Contract, as modified by any Addenda.

Federal Provisions That Must Be Inserted in Purchase Orders / Rental Agreements / Equipment Leases at Every Tier –

- (1) A statement that expressly incorporates Form FHWA-1273 (Rev. May 1, 2012) into the purchase order / rental agreement / equipment lease, by reference. For example: *“The provisions in Form FHWA-1273 (Rev. May 1, 2012) apply to this purchase order / rental agreement / equipment lease.”*
- (2) The provisions in “Part XV. Disadvantaged Business Enterprises” of these FEDERAL PROVISIONS.
- (3) The Exhibit titled “Prompt Payment and Return of Retention Requirements.”

FORM FHWA-1273 (REV. MAY 1, 2012)

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General**
 - II. Nondiscrimination**
 - III. Nonsegregated Facilities**
 - IV. Davis-Bacon and Related Act Provisions**
 - V. Contract Work Hours and Safety Standards Act Provisions**
 - VI. Subletting or Assigning the Contract**
 - VII. Safety: Accident Prevention**
 - VIII. False Statements Concerning Highway Projects**
 - IX. Implementation of Clean Air Act and Federal Water Pollution Control Act**
 - X. Compliance with Governmentwide Suspension and Debarment Requirements**
 - XI. Certification Regarding Use of Contract Funds for Lobbying**
-

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

“It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training.”

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: “An Equal Opportunity Employer.” All such

advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

- a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
- b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).
- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

- a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
- b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
- c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.
- d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even

though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

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

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and

Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as

may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on

the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

- a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or

subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards

and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project.

18 U.S.C. 1020 reads as follows:

“Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both.”

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in

addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with

which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--
Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.
2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR
LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the

required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

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

ADDITIONAL FEDERAL PROVISIONS (NOT PART OF FORM FHWA-1273)

- XII. Energy Conservation**
- XIII. Buy America**
- XIV. Statement of No Collusion in Bidding**
- XV. Disadvantaged Business Enterprises**
- XVI. On-the-Job Training**
- XVII. Changed Conditions**
- XVIII. Access to Records; Records Retention**

XII. ENERGY CONSERVATION

In accordance with 49 CFR 18.36(i)(13), Contractor and every Subcontractor on this Project shall comply with the mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163, 89 Stat. 871).

XIII. BUY AMERICA

This Project is subject to FHWA's "Buy America" regulations in 23 CFR § 635.410.

If steel or iron materials are to be permanently incorporated in this Project, all manufacturing processes for these materials, including application of a coating, must occur in the United States.

Manufacturing is any process that modifies the chemical content, physical shape or size, or final finish of a product. Manufacturing begins with the initial melting and mixing, and continues through the bending and coating stages. If a domestic product is taken out of the U.S. for any process, it becomes a foreign-source material. Coating includes all processes that protect or enhance the value of the material to which the coating is applied.

The requirements of this section do not prevent a minimal use of foreign steel and iron materials in this Project, if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract cost or \$2,500, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the steel and iron products as they are delivered to the Project.

A contractor or subcontractor asserting permissible minimal use of foreign steel and iron materials must retain documentation of the quantities and costs of those materials.

XIV. STATEMENT OF NO COLLUSION IN BIDDING

Every bidder must submit the form titled "AFFIDAVIT OF NO COLLUSION IN BIDDING" with its bid. The affidavit form is in the Exhibits section.

In accordance with 23 CFR § 635.112(f), a bidder for this Project must submit, with its bid, a sworn statement that no one associated with the bidder has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the Project.

XV. DISADVANTAGED BUSINESS ENTERPRISES

1.0 Policy

The Arizona Department of Transportation (hereinafter the Department or ADOT) has established a Disadvantaged Business Enterprise (DBE) program in accordance with the regulations of the U.S. Department of Transportation (USDOT), 49 CFR Part 26. The Department has received Federal financial assistance from the U.S. Department of Transportation and as a condition of receiving this assistance, the Department has signed an assurance that it will comply with 49 CFR Part 26. The Department has awarded the City of Tempe a portion of the Federal financial assistance it has received from USDOT, and as part of the award, the City of Tempe is required to comply with the Department's DBE program and 49 CFR Part 26. In this Part XV. DISADVANTAGED BUSINESS ENTERPRISES, "LPA / Sub-recipient Procurement Office" means the City of Tempe Public Works Department, Engineering Division.

It is the policy of the Department to ensure that DBEs, as defined in 49 CFR Part 26, have an equal opportunity to receive and participate in USDOT-assisted contracts. It is also the policy of the Department:

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

Local Public Agencies (LPA) and or Sub-recipients of Federal financial assistance will administer and manage the contracts from advertising, consultant selection, negotiation, contract execution, processing payment reports and contract modifications, audits, DBE compliance (e.g., reporting and monitoring) through contract closeout.

2.0 Assurances of Non-Discrimination

The contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, sex or national origin in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the state deems appropriate. The contractor, subrecipient, or subcontractor shall ensure that all subcontract agreements contain this non-discrimination assurance.

3.0 Definitions

(A) Disadvantaged Business Enterprise (DBE): a for-profit small business concern which meets both of the following requirements:

- (1) Is at least 51 percent owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51 percent of the stock is owned by one or more such individuals; and,
- (2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

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

- (1) Any individual who is found to be a socially and economically disadvantaged individual on a case-by-case basis.
- (2) Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:
 - (i) "Black Americans," which includes persons having origins in any of the Black racial groups of Africa;
 - (ii) "Hispanic Americans," which includes persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
 - (iii) "Native Americans," which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;

(iv) "Asian-Pacific Americans," which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia, or Hong Kong;

(v) "Subcontinent Asian Americans," which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;

(vi) "Women;"

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

(C) Joint Venture: an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

(D) Non-DBE: any firm that is not a DBE.

(E) RACE-CONSCIOUS: a measure or program is one that is focused specifically on assisting only DBEs, including women-owned DBEs.

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

4.0 Working with DBEs

The Department works with DBEs and assists them in their efforts to participate in the highway construction program. All bidders should contact the Department's Business Engagement and Compliance Office at the address shown below for assistance in their efforts to use DBEs in the construction program of the Department:

Arizona Department of Transportation
Business Engagement and Compliance Office
1135 N. 22nd Avenue (second floor), Mail Drop 154A
Phoenix, AZ 85009
Phone (602) 712-7761
FAX (602) 712-8429

5.0 Applicability

The Department has established an overall annual goal for DBE participation on Federal-aid contracts. The Department intends for the goal to be met with a combination of race conscious efforts and race neutral efforts. Race conscious participation occurs where the contractor uses a percentage of DBEs, as defined herein, to meet the contract-specified goal. Race neutral efforts are those that are, or can be, used to assist all small businesses or increase opportunities for all small businesses. The regulation, 49 CFR 26, defines race neutral as when a DBE wins a prime contract, is awarded a subcontract on a project without DBE goals, and is awarded a subcontract from a prime contractor that did not consider the firm's DBE status.

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

6.0 Certification

Certification as a DBE shall be predicated on:

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

Applications for certification may be filed with the Department at any time. Both hardcopy submission and online submission is available.

For hardcopy submissions, applications for certification are available at the Department's Business Engagement and Compliance Office, 1135 N. 22nd Avenue (second floor), mail drop 154A, Phoenix, Arizona 85009, phone (602) 712-7761. Hardcopy applications may also be obtained through the internet at www.azdbe.org. Hardcopy applications must be filed through the Department's Business Engagement and Compliance Office at the above address.

For online submissions, the online application process may be accessed through the internet at www.azdbe.org.

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

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

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

7.0 General

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

Each contractor shall also designate a full time employee who shall be responsible for the administration of the contractor's DBE program.

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

8.0 DBE Subcontractor Payment Reporting

The Department is required to collect data on DBE and non-DBE participation to report to Department of Transportation (DOT) on Federal-aid projects. LPA / Sub-recipient Procurement Office will notify the contractor that such record keeping is required by the Department for tracking DBE participation.

The contractor shall submit a report on a monthly basis indicating the amounts earned by and paid to all DBEs and non-DBEs working on the project. In addition, the contractor shall require that all DBE and non-DBE subcontractors verify receipt of payment.

The contractor shall provide all such required information for the current month by the 5th of the following month. The required information shall be submitted electronically through the Department's web-based payment tracking system (<https://arizonalpa.dbesystem.com>).

9.0 Goals

The minimum goal for participation by DBEs on this project is as follows: 2.55%.

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

10.0 Crediting DBE Participation Toward Meeting Goals

10.01 General Requirements

Only the value of the work actually performed by the DBE can be credited toward DBE participation. Credit towards the contractor's DBE goal is given only after the DBE has been paid for the work performed.

The contractor bears the responsibility to determine whether the DBE possesses the proper contractor's license(s) to perform the work. If a DBE cannot complete its work due to failure to obtain or maintain its licensing, the contractor bears the responsibility to immediately request approval to replace the DBE with another DBE and notify the Engineer (City of Tempe Project Manager) and the Department's Business Engagement and Compliance Office.

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

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

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

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

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

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

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

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

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

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

All DBE and non-DBE subcontracting activity must be reported by the contractor and counted toward participation. This includes lower-tier subcontracting regardless of whether or not the DBE is under contract with another DBE.

DBE prime contractors must meet the DBE participation goal or demonstrate good faith efforts. This is determined by counting the work the DBE has committed to performing with its own forces, as well as the work that it has committed to be performed by DBE subcontractors and DBE suppliers.

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

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

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

10.02 Police Officers

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

10.03 Commercially Useful Function

As a prime contractor, a DBE shall perform a significant portion of the contract work with its own work force in accordance with normal industry practices and *Arizona Department of Transportation Standard Specifications for Road and Bridge Construction (2008)*, Subsection 108.01 - Subletting of Contract.

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

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

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

When a DBE is presumed not to be performing a commercially useful function as provided above, the DBE may present evidence to rebut this presumption. Decisions on commercially useful function matters are subject to review by DOT, but are not administratively appealable to U.S. DOT.

10.04 Trucking

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

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

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

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

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

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

10.05 Materials and Supplies

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

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

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

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

11.0 Joint Checks

11.01 Requirements

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

1. The DBE subcontractor must be independent from the prime contractor and the supplier, and must perform a commercially useful function. The DBE subcontractor must be responsible for negotiating the price of the material, determining quality and quantity, ordering the materials, installing (where applicable), and paying for the material. The DBE subcontractor may not be utilized as an extra participant in a transaction, contract, or project in order to obtain the appearance of DBE participation.
2. The use of joint checks will be allowed only if the prime contractor, DBE subcontractor, and material supplier establish that the use of joint checks in similar transactions is a commonly recognized business practice in the industry, particularly with respect to similar transactions in which DBE's do not participate.
3. A material or supply contract may not bear an excessive ratio relative to the DBE subcontractor's normal capacity.
4. There may not be any exclusive arrangement between one prime and one DBE in the use of joint checks that may bring into question whether the DBE is independent of the prime contractor.
5. Any arrangement for joint checks must be in writing, and for a specific term (for example, one year, or a specified number of months) that does not exceed a reasonable time to establish a suitable credit line with the supplier.

6. The prime contractor may act solely as the payer of the joint check, and may not have responsibility for establishing the terms of the agreement between the DBE subcontractor and the supplier.

7. The DBE must be responsible for receiving the check from the prime contractor and delivering the check to the supplier.

8. The prime contractor cannot require the DBE subcontractor to use a specific supplier, and the prime contractor may not participate in the negotiation of unit prices between the DBE subcontractor and the supplier.

11.02 Procedure and Compliance

1. LPA / Sub-recipient Procurement Office must approve the agreement for the use of joint checks in writing.

2. After obtaining authorization for the use of joint checks, the prime contractor, the DBE, and the supplier must retain documentation to allow for efficient monitoring of the agreement.

3. Copies of canceled checks must be submitted with the payment information for the period in which the joint check was issued. Certificates of payment must indicate whether or not joint checks were used.

4. The prime contractor, DBE, and supplier each have an independent duty to report to the LPA / Sub-recipient Procurement Office in the case of any change from the approved joint check arrangement.

5. Any failure to comply will be considered by the LPA / Sub-recipient Procurement Office to be a material breach of this contract and will subject the prime contractor, DBE, and supplier to contract remedies and, in the case of serious violations, a potential for termination of the contract, reduction or loss of prequalification, debarment, or other remedies which may prevent future participation by the offending party.

12.0 Submission with Bids

All bidders are required to certify in their bid proposal on the "Disadvantaged Business Enterprise Assurances" certificate (i.e., on ADOT form "BECO 302S"; see the Exhibits section of this Invitation for Bids) either:

(1) The established goal for DBE participation has been met and arrangements have been made at the time of bid with certified DBEs or

(2) The bidder has been unable to meet the goal prior to the submission of the bid and has made good faith efforts to do so.

BIDS SUBMITTED WITH ALTERED, INCOMPLETE, OR UNSIGNED CERTIFICATES WILL BE CONSIDERED NON-RESPONSIVE.

Certifications on forms other than those furnished by the LPA / Sub-recipient Procurement Office will be considered non-responsive.

13.0 Bidder Meeting DBE Goal

13.01 General

If the bidder indicates in the bid that it has met or exceeded the DBE goal, the DBE Intended Participation Affidavit, its attachments, and a written confirmation from each DBE that it is participating in the contract as provided on the affidavit shall be submitted as follows:

(1) The DBE Intended Participation Affidavit, its attachments, and the confirmations (i.e., ADOT forms "BECO 304S" and "BECO 305S") must be received by the LPA / Sub-recipient Procurement Office no later than 4:00 P.M. on the fifth working day following the bid opening. Copies of this affidavit and the attachments can be found in the Exhibits section of this Invitation for Bids, or on the Internet at http://www.azdot.gov/inside_adot/CRO/LPA_SubRec.asp. This affidavit and its attachments shall indicate that the bidder has met or exceeded the DBE goal if this was indicated on the submittal with the bid.

(2) The affidavit and attachments must be accurate and complete in every detail and must be signed by an officer of the contractor(s).

(3) The DBE Intended Participation affidavit (ADOT form "BECO 305S") must be submitted listing the DBEs used and the creditable amounts.

(4) A separate DBE Intended Participation affidavit attachment (ADOT form "BECO 304S") must be submitted for each DBE used to meet the goal of the project. The bidder shall indicate each DBE's name, the bid items the DBE will perform, and proposed subcontract amount. All partial items must be explained. If not, the DBE will be considered to be responsible for the entire item.

(5) A written confirmation from each DBE used to meet the goal indicating that it is participating in the contract, as provided on the affidavit, must also be submitted at this time (this confirmation is part of ADOT form "BECO 304S").

(6) A bidder must determine DBE credit in accordance with Section 10 above, entitled "Crediting DBE Participation Toward Meeting Goals." The affidavit will be reviewed by the LPA / Sub-recipient Procurement Office.

(7) Only those DBE firms certified by the Arizona Unified Certification Program (AZUCP) at the time of the bid opening will be considered it shall be the bidder's responsibility to ascertain the certification status of designated DBEs.

(8) The bidder bears the risk of late delivery by the postal service or a delivery service. Late-filed affidavits will not be accepted.

13.02 Failure to Comply

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

14.0 Documented Good Faith Effort

14.01 General

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

Failure to demonstrate good faith efforts to the satisfaction of ADOT will result in the rejection of the bid.

The apparent low bidder who cannot meet the DBE goal at the time bids are opened must submit its documentation of good faith effort to the Department's Business Engagement and Compliance Office. The bidder's documentation must be received by the LPA / Sub-recipient Procurement Office by 4:00 P.M. on the fifth working day after the bids are opened. Bidders are encouraged to review Appendix A of 49 CFR Part 26.

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

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

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

(1) Soliciting through all reasonable and available means (e.g., attendance at pre-bid meeting, advertising, written notices, and other means) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow-up initial solicitations.

(2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(4) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to the DBE subcontractors and suppliers, and to select those portions of work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided from the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform work. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. However, prime contractors are not required to accept higher quotes from DBEs if the price difference is excessive or unreasonable. Documentation, such as copies of all other bids or quotes, must be submitted.

(5) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations or associations and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal.

(6) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

(7) Making efforts to assist interested DBEs in obtaining necessary equipment supplies, materials, or related assistance or services.

(8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

In determining whether a bidder has made good faith efforts, the LPA / Sub-recipient Procurement Office will take into account the ability of other bidders to meet the DBE goal. The bidder will not be considered to have made good faith efforts if the bidder failed to contact the LPA / Sub-recipient Procurement Office and the Department's Business Engagement and Compliance Office prior to the letting, either in writing, by e-mail, or by telephone, to inform the LPA / Sub-recipient Procurement Office and the Department's Business Engagement and Compliance Office of the firm's difficulty in meeting the DBE goals on a given project, and to request assistance. If the bidder contacts the LPA / Sub-recipient Procurement Office and the Department's Business Engagement and Compliance Office by telephone, the contact must be documented in a telephone log indicating the date and time of call, and name of the person to which he spoke. The telephone number for the ADOT Office is (602) 712-7761. The contact must be made in sufficient time to allow the Department's Business Engagement and Compliance Office to provide assistance.

The LPA / Sub-recipient Procurement Office will analyze the submittal to determine if in fact good faith efforts have been demonstrated consistent with ADOT procedures and the Federal regulations, 49 CFR 26, Appendix A and will forward their recommendation to the Department's Business Engagement and Compliance Office for determination.

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

Any interested party may protest the State Engineer's decision to the Transportation Board, pursuant to the requirements of *Arizona Department of Transportation Standard Specifications for Road and Bridge Construction* (2008), Subsection 103.10.

14.02 Failure to Comply

If the apparent low bidder fails to submit the required information by the stated time and in the manner herein specified, or if the submitted information reveals a failure to meet the

requirements of the specifications, the apparent low bidder shall be ineligible to receive award of the contract and the bid will be rejected. The proposal guarantee (bid bond) shall be forfeited if no submission is made or if the State Transportation Board finds the submission was made in bad faith.

15.0 Rejection of Low Bid

If, for any reason, the bid of the apparent low bidder is rejected, there will be a new apparent low bidder. The Department will notify the new apparent low bidder, and this bidder shall submit its subsequent detailed submission as set forth in paragraph 12 or 13 above.

16.0 Time Is of the Essence

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

17.0 Contract Performance

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

The Department reserves the right to inspect all records of the contractor and all records of the DBEs concerning this contract.

The contractor shall provide to the Engineer (City of Tempe Project Manager), at the pre-construction conference, copies of completed and signed subcontracts purchase orders, invoices, etc., with the appropriate DBEs.

Within five working days of the preconstruction conference, the contractor shall also provide electronic copies of signed subcontract agreements to the LPA / Sub-recipient Procurement Office through the Department's web-based payment tracking system (<https://arizonalpa.dbesystem.com>). As part of this submittal, contractors shall be required to log into the system and enter the name, contact information, and subcontract amounts for all subcontractors and vendors performing on the project as verification that scopes of services and commitments made through the DBE Intended Participation Affidavits are being met.

Subcontract agreements shall include all required assurances, including Form FHWA-1273, and the prompt payment and return of retention requirements specified in *Arizona Department of Transportation Standard Specifications for Road and Bridge Construction* (2008), Subsection 109.06(B). Each page of each required attachment must be dated and initialed by the DBE in order for the subcontract to be considered valid. Contractors executing agreements with subcontractors, DBE or non-DBE, that materially modify federal regulation and state statutes, or prompt payment and retention requirements, through subcontract terms and conditions will be

found in breach of contract which may result in termination of the contract, or any other such remedy as the Engineer (City of Tempe Project Manager) deems appropriate. Use of a DBE named on the DBE Intended Participation Affidavit is a condition of award. Substitution will not be allowed without written evidence from the prime contractor and DBE that the DBE is unable or unwilling to perform. Contractors may not terminate a DBE subcontract for convenience, in whole or in part, except to the extent that the Department has eliminated items of work subcontracted to the DBE. All terminations, substitutions, and reductions in scope must be approved by the Department's Business Engagement and Compliance Office.

18.0 Non-Performance by DBEs

In the event a DBE is unable or unwilling to fulfill its agreement with the contractor, the contractor will immediately notify the Engineer (City of Tempe Project Manager) and provide all facts surrounding the matter. Such failure on the part of a DBE will not relieve the contractor of responsibility for meeting the DBE goal on the contract. The contractor shall immediately make reasonable good faith efforts to obtain another certified DBE to perform an equal or greater dollar value of work to the extent needed to meet the DBE goal. The substitute DBE's name, description of work, and dollar value of work shall be submitted to the Engineer (City of Tempe Project Manager) and the Department's Business Engagement and Compliance Office. Approval of the Department's Business Engagement and Compliance Office must be obtained prior to the substitute DBE beginning work. In the event a prime contractor is unable, after a substantial good faith effort, to obtain another certified DBE, the Department's Business Engagement and Compliance Office may lower the DBE goal on the project. However, the Department's Business Engagement and Compliance Office must approve this in writing prior to a Non-DBE starting the work which had been subcontracted to the DBE.

19.0 Compliance

The contractor's achievement of the goal is measured by actual payments made to the DBEs. The contractor shall submit at the completion of the project the "Certification of Payments to DBE Firms" affidavit (ADOT form "BECO 306S") for each DBE firm working on the project. This affidavit shall be signed by the prime contract and the relevant DBE, and submitted to the Department's Business Engagement and Compliance Office. At that time, a copy of each completed affidavit shall also be submitted to the Engineer (City of Tempe Project Manager).

Acceptance and final payment to the contractor, in accordance with *Arizona Department of Transportation Standard Specifications for Road and Bridge Construction* (2008), Subsections 105.20 and 109.09, will not be made until all "Certification of Payments to DBE Firms" affidavits are received and deemed acceptable by the Engineer (City of Tempe Project Manager) and the LPA / Sub-recipient Procurement Office.

20.0 Sanctions

If the Department determines that the contractor has failed to make sufficient reasonable efforts to meet contract DBE goals, or to otherwise carry out these DBE special provisions, such failure

shall constitute a breach of contract and may result in termination of the contract, or any other such remedy as the Engineer (City of Tempe Project Manager) deems appropriate.

If the Engineer (City of Tempe Project Manager) determines that such failure is not cause to terminate the contract, an amount equal to the value of the DBE goal that was not obtained will be deducted from the payment due the contractor. However, if the failure is the first by the contractor, and the Engineer (City of Tempe Project Manager) determines the failure was an unintentional error or oversight, the amount to be deducted may be reduced up to one-half (1/2) of the value of the unobtained DBE goal as determined by the Department's Business Engagement and Compliance Office. In addition to any other sanctions, willful failure of the contractor or a DBE to comply with this contract or with the Federal DBE regulations may result in disqualification from further contracting, subcontracting, or other participation in ADOT projects.

XVI. ON THE JOB TRAINING

The contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

There is no on-the-job training requirement for this project; however, the contractor shall make every possible effort to provide additional trainees with training and shall see that all trainees are afforded every opportunity to participate in as much training as is practically possible to provide. Due to turnover and attrition of trainees in any one trainee slot, it is expected that continuous trainee replacements may be necessary during the contract work period.

In the event that a contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Highways Division for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be

responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor shall satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records shall document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Highways Division and the Federal Highway Administration. The Highways Division and the Federal Highway Administration will approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, Apprenticeship programs registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Bureau of Apprenticeship and Training will also be considered acceptable provided they are being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Specifically, union apprenticeship programs and Associated Builders and Contractor's apprenticeship programs may be used. Additionally, in-house training programs may be approved on a case-by-case basis. Approval or acceptance of a training program shall be obtained from the Highways Division prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training may be permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Acceptance of training in such lower level management positions shall be on a case-by-case basis, and approval shall be obtained from the Highways Division prior to commencing work. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Federal Highway Administration. Some off site training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for off site training indicated above may only be made to the contractor where he contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the off site training period.

No payment will be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. However, when such training opportunities are suspended or interrupted under the contract which the trainee was designated, the contractor may continue training under other ADOT contracts regardless of their funding, except that no reimbursement for such training shall be made on non-federal aid contracts, under this training special provision. It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent of the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program will apply to all trainees being trained for the same classification who are covered by this Training Special Provision. The contractor shall furnish the trainee a copy of the program he will follow in providing the training.

The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The contractor shall provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

The contractor shall submit a weekly training report to the Engineer. The report shall be prepared on forms obtained from the Civil Rights Office, 1135 N. 22nd Avenue (second floor), mail drop 154A, Phoenix, Arizona 85009, phone (602) 712-7761.

At the preconstruction conference, the contractor shall submit a schedule which will indicate each trainee's name, sex, race/ethnicity, the program in which the trainee is enrolled, the approximate number of hours each trainee will be trained in each phase of the work, the crafts to which the trainees belong and the estimated period of time that they will be employed as trainees. A supplemental schedule shall be submitted to the Engineer when a revision in the original schedule is necessary. At the time each trainee is scheduled to begin work, the contractor shall submit to the Engineer each trainee's name, sex, and race/ethnicity. The contractor must also submit proof that the trainee is enrolled in an approved training program.

At the conclusion of the project or at the end of each calendar year for multi-year projects, the contractor must submit to the Affirmative Action Office and to the project office, the same

information described hereinbefore for each trainee that worked on the project. Additionally, the contractor must indicate if the trainee graduated from the program, was terminated due to cause, or was transferred to another project to continue his/her training.

If, at the preconstruction conference, the contractor does not provide a schedule containing the specified information, the Engineer will notify the contractor of the infraction. Failure to provide the schedule within 15 calendar days from the date of notification shall be considered as willful non-compliance. The Engineer will cause to be withheld from the contractor's monthly payments additional retainage in the amounts specified below. The amount withheld from the monthly payment shall be held until an acceptable schedule or supplemental schedule has been submitted.

The Engineer will monitor the use of trainees based on the contractor's schedule, supplemental schedules, and weekly training report. If the use of trainees is not in conformance with the schedule or supplemental information, the Engineer will cause to be withheld from the contractor's monthly payments additional retainage in the amounts specified below. Conformance with the schedule will be considered acceptable when the cumulative number of trainee hours earned to date under the Item 9230001 - PROVIDE ON-THE-JOB TRAINING is at least 90 percent of that shown on the schedule, for the work performed to date.

Additional Retainage

First and Second monthly payments following infraction	\$1,000.00 each month
Third monthly payment and thereafter	\$5,000.00 each month

The amount withheld from the monthly payment shall be held until an acceptable schedule or supplemental schedule has been submitted and until conformance with the schedule has been determined.

If, at the completion of the contract, the Department is holding additional retainage in accordance with this specification, the retainage will become the property of the Department, not as penalty but as liquidated damages.

XVII. CHANGED CONDITIONS

In accordance with 23 CFR § 635.109(a), the following provisions apply to this Project.

(1) Differing Site Conditions

(i) 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.

(ii) Upon written notification, the Tempe construction project manager 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 Tempe construction project manager will notify the contractor of the determination whether or not an adjustment of the contract is warranted.

(iii) No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.

(iv) No contract adjustment will be allowed under this clause for any effects caused on unchanged work.

(2) Suspensions of Work Ordered by the Tempe Project Manager

(i) If the performance of all or any portion of the work is suspended or delayed by the Tempe construction project manager 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 Tempe construction project manager in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

(ii) Upon receipt, the Tempe construction project manager will evaluate the contractor's request. If the Tempe construction project manager 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 Tempe construction project manager will make an adjustment (excluding profit) and modify the contract in writing accordingly. The contractor will be notified of the Tempe Project Manager's determination whether or not an adjustment of the contract is warranted.

(iii) No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.

(iv) 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.

(3) Significant Changes in the Character of Work

(i) The Tempe construction project manager 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.

Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.

(ii) 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 Tempe construction project manager may determine to be fair and equitable.

(iii) 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 elsewhere in the contract.

(iv) 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 allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

XVIII. ACCESS TO RECORDS; RECORDS RETENTION

In accordance with 49 CFR 18.36(i)(10), Contractor and every Subcontractor on this Project shall provide access to the City of Tempe, the Arizona Department of Transportation, the Federal Highway Administration, the Comptroller General of the United States, or any of their duly authorized representatives, to any of Contractor's or Subcontractor's books, documents, papers, and records that are directly pertinent to the Contract for this Project, for the purposes of making audit, examination, excerpts, and transcriptions.

In accordance with 49 CFR 18.36(i)(11), Contractor and every Subcontractor on this Project shall maintain all required records for a minimum of three years, after the grant has been formally closed; i.e., after the City of Tempe makes final payments and all other pending matters on this Project are closed.

8. EXHIBITS

The parties agree that all references to this Contract include all exhibits designated in and attached to this Contract, such exhibits being incorporated into and made an integral part of this Contract for all purposes.

- 8.1. BIDDER'S CHECK SHEET**
- 8.2. COMPETITIVE SEALED BID FORMS**
- 8.3. BIDDER'S PROJECT REFERENCES**
- 8.4. BIDDER'S LIST OF PROPOSED SUBCONTRACTORS**
- 8.5. COMPETITIVE SEALED BID CERTIFICATION FORM**
- 8.6. CERTIFICATION BY THE CONTRACTOR AUTHORIZING EMPLOYEES TO SIGN BINDING AGREEMENTS**
- 8.7. PERFORMANCE BOND FORM**
- 8.8. PAYMENT BOND FORM**
- 8.9. UNCONDITIONAL WAIVER AND RELEASE FOR CONTRACTOR'S PAYMENT AND SETTLEMENT OF CLAIMS**
- 8.10. PROMPT PAYMENT AND RETURN OF RETENTION REQUIREMENTS**
- 8.11. AFFIDAVIT DEMONSTRATING LAWFUL PRESENCE IN THE UNITED STATES**
- 8.12. AFFIDAVIT OF NO COLLUSION IN BIDDING**
- 8.13. AFFIDAVIT – DISADVANTAGED BUSINESS ENTERPRISE ASSURANCES**
- 8.14. AGENCY BIDDERS LIST**
- 8.15. DBE INTENDED PARTICIPATION AFFIDAVIT SUMMARY SHEET**
- 8.16. DBE INTENDED PARTICIPATION CERTIFICATION AND CONFIRMATION OF PARTICIPATION – ATTACHMENT**
- 8.17. CERTIFICATION OF PAYMENTS**
- 8.18. LABOR STANDARDS CERTIFICATION FORM**
- 8.19. WAGE DETERMINATION**

[CONTRACT SIGNATURE PAGE FOLLOWS THIS LIST OF EXHIBITS]

CONTRACT SIGNATURE PAGE

IN WITNESS WHEREOF, this Contract has been duly executed by the parties below and entered into this _____ day of _____, 2014.

CITY OF TEMPE, an Arizona municipal corporation

By: _____
Name

Its: _____
Title

ATTEST:

City Clerk

Recommended By:

APPROVED AS TO FORM:

Deputy Public Works Director/City Engineer

City Attorney

Contractor warrants that the person who is signing this Contract on behalf of Contractor is authorized to do so and to execute all other documents necessary to carry out the terms of this Contract.

CONTRACTOR:

ROADWAY ELECTRIC, LLC. _____
Company Name

By: _____
Signature

Printed Name

Its: _____
Title

City Transaction Privilege
License (Sales Tax) Permit No.

(Corporate Seal)

Witness [IF CONTRACTOR IS INDIVIDUAL]

8.1.
BIDDER'S CHECK SHEET

This check sheet lists the items a bidder must include with its sealed bid.

	Included
Competitive Sealed Bid Forms (Confirm receipt of Addenda) Exhibit 8.2	<input type="checkbox"/>
10% Bid Guarantee (see Invitation for Bids section 4.3)	<input type="checkbox"/>
EMOD and Loss Ratio Information (see Invitation for Bids section 4.6.2)	<input type="checkbox"/> Separate Envelope
Bidder's Project References..... Exhibit 8.3	<input type="checkbox"/>
Bidder's List of Proposed Subcontractors Exhibit 8.4	<input type="checkbox"/> Separate Envelope
Competitive Sealed Bid Certification Form Exhibit 8.5	<input type="checkbox"/>
Affidavit Demonstrating Lawful Presence in the United States (see Invitation for Bids Section 4.6.1)..... Exhibit 8.11	<input type="checkbox"/>
Affidavit of No Collusion in Bidding Exhibit 8.12	<input type="checkbox"/>
Affidavit – Disadvantaged Business Enterprise Assurances Exhibit 8.13	<input type="checkbox"/>

8.2.

COMPETITIVE SEALED BID FORMS

Place: Tempe, Arizona

Date: November 19, 2013

Mayor and City Council
City of Tempe
Tempe, Arizona 85281

In compliance with your Invitation for Bids and all conditions of the Contract, Roadway Electric, LLC., a corporation or limited liability corporation organized under the laws of the State of Arizona; a partnership consisting of _____; or an individual trading as _____, of the City of Phoenix, and the County of Maricopa, hereby proposes and agrees to furnish any and all plans, materials, labor, construction equipment, service, and transportation (all applicable taxes included) for **TRAFFIC CONTROL CABINETS AND HARDWARE REPLACEMENT, PROJECT NO. 6905701, FEDERAL AID PROJECT NO. CM-TMP-0(228)D, ADOT TRACS NO. 0000 MA TMP SZ051 01C**, and to install the material therein for City in a good and workmanlike and substantial manner and to the satisfaction of City or its properly authorized agents and strictly pursuant to and in conformity with the Contract and other documents that may be made by City or their properly authorized agents, as provided herein, at the following prices:

City of Tempe



Project No. 6905701

Traffic Control Cabinets and Hardware Replacement

ROADWAY ELECTRIC, LLC

Base Bid

Item No.	Item Name	Quantity	Unit	Unit Cost	Total Cost
1	Procure & Install Traffic Contoll Cabinets	46	EA	\$13,550.00	\$623,300.00
2	Traffic Control (Barricades) Allowance	1	LS	\$15,000.00	\$15,000.00
3	Traffic Control (Police Officers) Allowance	1	LS	\$15,000.00	\$15,000.00
				<i>Total Base Bid:</i>	<i>\$653,300.00</i>

The undersigned hereby declares that Contractor has visited the site and has carefully examined the Contract related to the work covered by the above bid.

The undersigned understands that, when it is in the best interests of the City of Tempe, the City may cancel this solicitation, or may reject any and all bids in whole or in part, or may waive any informalities in the bids received.

Contractor's performance shall not start until after receiving the Notice to Proceed, and the work will be completed within two hundred ten (210) consecutive calendar days after the Notice to Proceed date.

The undersigned hereby acknowledges receipt of the following Addenda: none

and Contractor's bid has been adjusted to reflect any changes.

Respectfully submitted,

By: _____
Signature

Printed Name

Its: _____
Title

41-2225951
Federal I.D. No./Social Security No.

[Corporate Seal])

For: Roadway Electric, LLC.
Company Name

Address: 2035 W. Mountain View Road

Phoenix, AZ 85021

Phone: 602-943-8300

Fax: 602-943-8305

8.5.

**COMPETITIVE SEALED BID
CERTIFICATION FORM**

TRAFFIC CONTROL CABINETS AND HARDWARE REPLACEMENT

PROJECT NO. 6905701

Bidder certifies that it is a: _____ proprietorship; _____ partnership; X ^(LLC) corporation; _____ other.

Arizona Sales Tax No. 20155716

Use Tax No. for Out-of-State Supplier N/A

City of Tempe Sales Tax No. 120325

Taxpayer's Federal Identification No. 41-2225951

Bidder certifies that it has read, understands, and will fully and faithfully comply with this Invitation for Bids, its attachments, and any referenced documents. Bidder also certifies that the bid was independently developed without consultation with any other Bidders or potential Bidders.

Company's Legal Name: Roadway Electric LLC

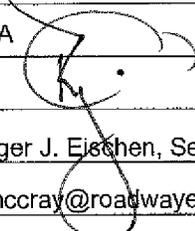
Address: 2035 W. Mountain View Road

City, State and Zip Code: Phoenix, AZ 85021

Telephone Number: (602) 943-8300

Company's Fax Number: (602) 943-8305

Company's Toll Free Number: N/A

Signature: 

Printed Name and Title: Roger J. Eischen, Senior Manager

E-Mail Address: Smccray@roadwayelectric.com

MAILING ADDRESSES

Purchase Order Address: (If different from above)

Name: Same

Address: _____

City, State and Zip Code: _____

Payment Address: (If different from above)

Name: Same

Address: _____

City, State and Zip Code: _____

8.6:

**CERTIFICATION BY THE CONTRACTOR AUTHORIZING
EMPLOYEES TO SIGN BINDING AGREEMENTS**

TRAFFIC CONTROL CABINETS AND HARDWARE REPLACEMENT

PROJECT NO. 6905701

The following employees in our organization are duly authorized to sign binding agreements for and on behalf of the Owner, Partner, or Corporation, including, but not limited to, Pay Requests, Change Orders, Required Certifications, etc.:

Type or Print Name

Signature

Contractor Name

Signed By

(Owner, Partner, or Principal of the Corporation)

Printed Name

Title

Date

8.7.

PERFORMANCE BOND FORM

(Bond Amount to Be Equal to 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

That _____ (hereinafter called the Principal), as Principal, and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ (hereinafter called the Surety), are held and firmly bound unto _____ (hereinafter called the Obligee) in the amount of _____ Dollars (\$ _____), for the payment whereof the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the 9th day of January, 2014, to complete Project No. 6905701, Federal Aid Project No. CM-TMP-0(228)D, ADOT TRACS No. 0000 MA TMP SZ051 01C, which Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, the condition of this obligation is such, that if the Principal faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of the Contract during the original term of the Contract and any extension of the Contract, with or without notice to the Surety, and during the life of any guaranty required under the Contract, and also performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of all duly authorized modifications of the Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, the above obligation is void. Otherwise it remains in full force and effect.

Provided, however, that this bond is executed pursuant to the provisions of title 34, chapter 2, article 2, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of title 34, chapter 2, article 2, Arizona Revised Statutes, to the extent as if it were copied at length in this agreement.

The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

DATED this _____ day of _____, 2014.

PRINCIPAL

SEAL

By: _____

*SURETY

SEAL

By: _____

AGENCY ADDRESS

*Surety hereby acknowledges it holds a certificate of authority to transact surety business in the State of Arizona, issued by the director of the department of insurance pursuant to Title 20, Chapter 2, Article 1, Arizona Revised Statutes.

PAYMENT BOND FORM

(Bond Amount to Be Equal to 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

That _____ (hereinafter called the Principal), as Principal, and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ (hereinafter called the Surety), are held and firmly bound unto _____ (hereinafter called the Obligee) in the amount of _____ Dollars (\$_____), for the payment whereof the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the 9th day of January, 2014, to complete Project No 6905701, Federal Aid Project No. CM-TMP-0(228)D, ADOT TRACS No. 0000 MA TMP SZ051 01C, which Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, the condition of this obligation is such, that if the Principal promptly pays all monies due to all persons supplying labor or materials to the Principal or the Principal's subcontractors in the prosecution of the work provided for in the Contract, this obligation is void. Otherwise it remains in full force and effect.

Provided, however, that this bond is executed pursuant to the provisions of title 34, chapter 2, article 2, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of title 34, chapter 2, article 2, Arizona Revised Statutes, to the same extent as if they were copied at length in this agreement.

The prevailing party in a suit on this bond shall recover as a part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

DATED this _____ day of _____, 2014.

PRINCIPAL

SEAL

By: _____

*SURETY

SEAL

By: _____

AGENCY ADDRESS

*Surety hereby acknowledges it holds a certificate of authority to transact surety business in the State of Arizona, issued by the director of the department of insurance pursuant to Title 20, Chapter 2, Article 1, Arizona Revised Statutes.

8.9.

**UNCONDITIONAL WAIVER AND RELEASE
FOR CONTRACTOR'S PAYMENT
AND SETTLEMENT OF CLAIMS**

Upon receipt of payment from the City of Tempe, the undersigned:

Contractor's Name: _____

Contractor's Address: _____

The undersigned has been paid and acknowledges having received final payment from the City of Tempe in the amount of \$ _____ [state dollar amount for final, total contract amount] for full and final payment of all work, services, equipment, labor, skill, and material furnished, delivered, and performed by the undersigned for the City or anyone in the construction [or other services] for TRAFFIC CONTROL CABINETS AND HARDWARE REPLACEMENT, PROJECT NO. 6905701, FEDERAL AID PROJECT NO. CM-TMP-0(228)D, ADOT TRACS NO. 0000 MA TMP SZ051 01C, located at various intersections in Tempe, Arizona; and does hereby waive and release any and all rights to mechanic's liens, any state or federal statutory bond right, any private bond right, any claim for payment, and any and all rights under any applicable federal, state, or local laws related to claim or payment rights for persons in the undersigned's position held on the above-referenced project against the City of Tempe, for this value received. The undersigned further agrees to defend, indemnify, and hold harmless the City of Tempe against any and all liens, claims, suits, actions, damages, charges, and expenses whatsoever, which the City may incur, arising out of the failure of the undersigned to pay in full for all work, services, equipment, labor, skill, and material furnished with regard to the project.

The undersigned, in consideration of the payment acknowledged, hereby warrants that he/she has already paid or will pay using the monies received from this final payment to promptly pay in full all of his contractors, subcontractors, laborers, materialmen, and suppliers for all work, materials, equipment, or services provided to the above-referenced project.

Contractor Signature

Date

By (Print Name and Title)

Notice: This document waives rights unconditionally and states that you have been paid for giving up those rights. This document is enforceable against you if signed, even if you have not been paid. If you have not been paid in full, use a conditional release form.

[NOTARY SEAL TO FOLLOW]

STATE OF ARIZONA)
COUNTY OF MARICOPA)

On ____ day of _____, 2014, _____ personally appeared before me, and proved by lawful identification documents to be the person who signed the preceding document in my presence, and who affirmed to me that the contents therein are truthful and accurate to the best of his/her knowledge and belief.

Notary Seal

Notary Public

Printed Name

My Commission Expires:

8.10.

PROMPT PAYMENT AND RETURN OF RETENTION REQUIREMENTS

In accordance with ADOT Standard Specifications for Road and Bridge Construction (2008), Section 109(B), the Contractor shall make prompt partial payments to its subcontractors within seven days of receipt of payment from Tempe.

The Contractor also shall make prompt final payment to each of its subcontractors of all monies, including retention, due the subcontractor within 14 days after the subcontractor has satisfactorily completed all of its work.

If prompt partial payment, or prompt final payment including any retention, is not made within the time frames established above, Tempe will retain \$2,000 per subcontractor, per occurrence. Each additional month that payment is not made constitutes an additional occurrence. The amount withheld by Tempe will be released after the issue is resolved.

8.11.

AFFIDAVIT DEMONSTRATING LAWFUL PRESENCE IN THE UNITED STATES

A.R.S. § 1-501 and § 1-502 require any individual person or sole proprietor who applies to the City for a local public benefit (including the award of a contract) to demonstrate his or her lawful presence in the United States. An individual person or sole proprietor who submits a bid for this contract must complete this Affidavit and submit it with the bid, along with a copy of one of the documents listed below.

LAWFUL PRESENCE IN THE UNITED STATES CAN BE DEMONSTRATED BY PRESENTATION OF ONE (1) OF THE DOCUMENTS LISTED BELOW.

Please present the document indicated below to the City. If mailing the document, attach a copy of the document to this Affidavit. (If the document may not be copied, present the document in person to the City for review and signing of the affidavit.)

- _____ 1. An Arizona driver license issued after 1996.
Print first 4 numbers/letters from license: _____
- _____ 2. An Arizona non-operating identification License.
Print first 4 numbers/letters: _____
- _____ 3. A birth certificate or delayed birth certificate issued in any state, territory or possession of the United States.
Year of birth: _____; Place of birth: _____
- _____ 4. A United States Certificate of Birth abroad.
Year of birth: _____; Place of birth: _____
- _____ 5. A United States passport.
Print first 4 numbers/letters on Passport: _____
- _____ 6. A foreign passport with a United States Visa.
Print first 4 numbers/letters on Passport: _____
Print first 4 numbers/letters on Visa: _____
- _____ 7. An I-94 form with a photograph.
Print first 4 numbers on I-94: _____
- _____ 8. **A United States Citizenship and Immigration Services Employment Authorization Document (EAD).**
Print first 4 numbers/letters on EAD: _____
- _____ 9. **Refugee travel document.**
Date of Issuance: _____ Refugee Country: _____
- _____ 10. **A United States Certificate of Naturalization.**
Print first 4 digits of CIS Reg. No.: _____
- _____ 11. **A United States Certificate of Citizenship.**
Date of Issuance: _____ Place of Issuance: _____
- _____ 12. **A tribal Certificate of Indian Blood.**
Date of Issuance: _____ Name of Tribe: _____
- _____ 13. **A tribal or Bureau of Indian Affairs Affidavit of Birth.**
Year of Birth: _____ Place of Birth: _____

I DO SWEAR OR AFFIRM UNDER PENALTY OF LAW THAT I AM LAWFULLY PRESENT IN THE UNITED STATES AND THAT THE DOCUMENT I PRESENTED ABOVE AS VERIFICATION IS TRUE.

Signature

Business/Company (if applicable)

Print Name

Address

Date:

City, State, Zip Code

OFFICE USE ONLY: EMPLOYEE NAME: _____
EMPLOYEE NUMBER: _____

ALL VIOLATIONS OF FEDERAL IMMIGRATION LAW SHALL BE REPORTED TO 1-866-347-2423

Agency Name City of Tempe

8.13 AFFIDAVIT

BECO 392S RI/13

**DISADVANTAGED BUSINESS ENTERPRISE
ASSURANCES**

The undersigned, fully cognizant of the requirements and of the goal established, hereby certifies that in the preparation of this bid for federal aid project

Project Number 6905701

Project Name Traffic Control Cabinets and Hardware Replacement

Location Tempe, Arizona

(CHECK ONE)

The established goal for DBE participation will be met and agreements have been made with certified DBEs, or

The bidder has been unable to meet the goal prior to the submission of the bid and has made good faith efforts to do so.

THIS AFFIDAVIT MAY NOT BE REVISED OR CORRECTED AFTER SUBMISSION OF THE BID.

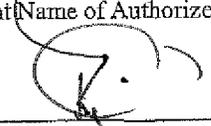
In accordance with the Special Provisions, the bidder shall specify its DBE participation on the "DBE Intended Participation Affidavit", or provide documentation of its good faith efforts, by 4:00 p.m. on the fifth working day following the bid opening. The apparent low bidder shall obtain the required affidavit from the Business Engagement and Compliance Office, 1135 N. 22nd Avenue (second floor), Phoenix, AZ, 85009, following the opening of bids.

Roadway Electric LLC

Print Name of Firm

Roger J. Eischen

Print Name of Authorized Officer of Firm


Signature of Authorized Officer of Firm

Senior Manager

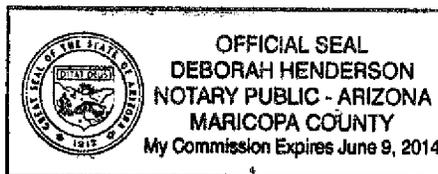
Title

Subscribed and sworn to before me this:

19th day of November 2013

My commission expires: June 9, 2014


Notary Public



Agency Name City of Tempe

6905701

DISADVANTAGED BUSINESS ENTERPRISE
INTENDED PARTICIPATION AFFIDAVIT - ATTACHMENT
INDIVIDUAL DBE

To be completed by the DBE subcontractor or supplier

ADOT Project# CM-TMP-0(228)D
DBE Civil Rights Vendor Registration # 20116377
Name of DBE Firm Fierro Contracting, Inc.

Directions:

The form must be signed by an authorized party appointed by the contractor(s).
This form must be submitted by 4:00 p.m. on or before the fifth working day after the bids are opened to the Sub-recipient Procurement Office.
A separate form must be submitted for each proposed DBE.
The DBE must be certified within the work category they will be performing.
This form must be filled out in its entirety. Leave no blank spaces, use N/A or enter "0" if section does not apply to your services.
(Attach additional sheets as necessary.)

1. The undersigned is prepared to perform the following scope(s) of work on the above referenced project.

COMPLETE THIS PORTION IF SCOPE OF WORK IS BID BY UNIT PRICE OR HOURLY RATE (Trucking, Hauling, Uniformed Officers, Etc.)			
Description/Scope of Work	Unit/Hourly Estimate	Unit/Hourly Price	Total Minimum Contract Amount
Procure and install Traffic Control Cabinets - partial	46	363.00	\$ 16,698.00
			\$
			\$
			\$
Total			\$ 16,698.00

COMPLETE THIS PORTION IF SCOPE OF WORK IS NOT BID BY UNIT PRICE OR HOURLY RATE (Trucking, Hauling, Uniformed Officers, Etc.)		
Description/Scope of Work	Total Bid Amount	
N/A	\$ 0.00	
	\$	
	\$	
	\$	
Total		\$ 0.00

2. The undersigned affirms that of the trucking/hauling work quoted above, the following applies:

Total Minimum Contract Amount \$ 16,698.00
Percentage Subcontracted to Non-DBE Trucking Firms 0 %
Brokerage Fee Charged to Non-DBE Trucking Firms 0 %
Percentage Subcontracted to DBE Trucking Firms 0 %

3. The undersigned affirms that the amount of fees and commissions for work quoted above are as follows:

Unit Price Bid \$ 0.00 Fees/Commissions Portion of Bid \$ 0.00

4. The undersigned will subcontract and/or award \$ 0.00 of work bid to a non-DBE firm.

5. The undersigned will subcontract and/or award \$ 0.00 of work to another certified DBE firm.

By signature below, the undersigned agrees to enter into a formal agreement/subcontract for the work cited herein should the prime contractor receive award of this contract from the Purchaser.

I, James R. Fierro confirm that Fierro Contracting, Inc.
(authorized party at DBE firm, print name and title) (name of DBE firm)

will be participating in the above project. My company will be performing the scope as described above.

for \$ 16,698.00
(total DBE credit dollar value)

James R. Fierro
(Authorized Signature)

11-19-13
Date

6905701

Agency Name City of Tempe

DISADVANTAGED BUSINESS ENTERPRISE
CONFIRMATION OF PARTICIPATION

To be completed by the DBE subcontractor or supplier.

ADOT Project # CM-TMP-0(228)D

Name of DBE Firm Fierro Contracting, Inc.

DBE Civil Rights Vendor Registration # 20116377

Directions:

This form must be submitted for each DBE used to meet the goal on the project.
The form must be signed by an owner/officer/authorized party.
This form must be submitted with the DBE Intended Participation Affidavit by 4:00 p.m. on or before the fifth working day after the bids are opened.

I, James R. Fierro confirm that
(authorized party at DBE firm)

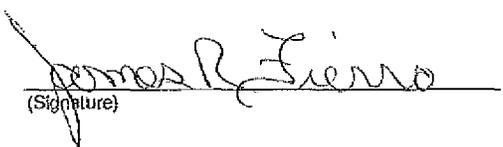
Fierro Contracting, Inc.
(name of DBE firm)

will be participating in the above project. My company will be performing

Procure & Install TC Cabinets-Partial
(general description of the work)

for \$16,698.00
(total DBE credit dollar value)

James R. Fierro
(Printed name)


(Signature)

11.19.13
(Date)

Agency Name _____

8.17 CERTIFICATION OF PAYMENTS

BECO 3668 R1/13

The undersigned prime contractor on Project # _____ hereby, certifies that full payment was made, to the firm indicated for material and/or work performed under this project's contract as follows:

DBE Vendor Registration # _____

Name of DBE Firm _____ was paid \$ _____

This certificate is made under Federal and State laws concerning false statement. Supporting documentation for this payment is subject to audit and should be retained for a minimum of three years from project acceptance date. In the event the DBE was not paid in accordance with affidavits submitted by the prime contractor, all documentation supporting the contractor's position should be submitted.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Prime Contractor

By: _____ Date: _____

Title: _____

The undersigned subcontractor/supplier/manufacturer for the above named project hereby certified that payments were received and/or justification by contractor is correct.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Subcontractor/Supplier/Manufacturer

By: _____ Date: _____

Title: _____

State of _____

County of _____

Subscribed and sworn to before me this _____ day of _____

X _____
Signature of Notary Public

SEAL My Commission Expires _____

8.18. LABOR STANDARDS CERTIFICATION

_____ ("Subcontractor") has been contracted by _____
(Subcontractor's Name) (Prime Contractor's Name)
 for _____ on the City of Tempe's _____ Project ("Project").
(Nature and General Scope of Work) (Project Name or Number)

The subcontract is for \$ _____ Subcontractor's work is expected to commence on _____
(Dollar Amount) (Month, Day, Year)

Certification by Subcontractor's Legally Authorized Representative

As a legally authorized representative of the Subcontractor, I certify that:

1. Subcontractor acknowledges that the Project is funded, in part, by the Federal Highway Administration (FHWA).
2. Subcontractor acknowledges that the following are physically present in its subcontract:
 - a. Form FHWA-1273 (Rev. May 1, 2012). Subcontractor must initial and date each page of Form FHWA-1273 (Rev. May 1, 2012) in the subcontract.
 - b. The Disadvantaged Business Enterprises provisions applicable to the Project (Part XV of the IFB / Contract section captioned FEDERAL PROVISIONS).
 - c. The Wage Determination applicable to the Project.
3. Subcontractor will insert the items listed in 2 a-c, above, in all lower-tier subcontracts for the Project, and will require lower-tier subcontractors to do the same in any subcontracts they enter.
4. Subcontractor, nor any person or firm that has a substantial interest in Subcontractor's firm, is debarred, suspended, or otherwise ineligible to be awarded federal contracts.
5. Subcontractor will not subcontract any part of the above-referenced subcontract to any person or firm that is debarred, suspended, or otherwise ineligible to be awarded federal contracts.
6. Subcontractor's legal name and contact information is:

Company Name _____
 Mailing Address _____
(Number & Street) (City, State, Zip code)
 Main Phone Number _____ Main Fax Number _____

7. Subcontractor's Federal Business Tax ID # _____ and Contractor License # _____
8. The Subcontractor is (✓ one): a Corporation, incorporated in the State of _____
 a Proprietorship a Partnership an LLC Other (specify): _____

9. The following are the Subcontractor's owner(s), partners, and officers (add lines or attach sheets if needed):

<small>(Full Name)</small>	<small>(Title)</small>	<small>(Address)</small>	<small>(Phone)</small>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

10. Yes No A representative of the Subcontractor attended the Project Preconstruction Conference that was held on _____ (date of Pre-Construction Conference).
11. I (Subcontractor's legally authorized representative, or Subcontractor's Appointee for supervision of payrolls) have reviewed the Wage Determination applicable to this project and have identified the following:

Construction Work Activities the Subcontractor Expects to Be Performing at the Project Job Site	Corresponding Work Classifications Listed in the Applicable Wage Determination
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

IMPORTANT: If no Work Classification is listed in the Wage Determination for a task or activity that the Subcontractor will be performing at the job site, please request a "Additional Classification & Wage Rate" form (SF-1444) from the Prime Contractor.

12. Fringe Benefit information.
 Yes No The Subcontractor's employees receive fringe benefits (medical, dental, 401K, training benefits).
 Yes No The Subcontractor is bound by a signed document such as a Union Agreement.
13. Truck Owner-Operator information.
 Yes No The Subcontractor is a Truck Owner-Operator (if Yes, additional documentation will be required).
14. The penalty for making a false statement in this Certification is prescribed in the U.S. Criminal Code, 18 U.S.C. § 1001.

Certification by
Subcontractor's Legally Authorized Representative

I hereby certify that I have reviewed the statements made in this Labor Standards Certification and that, to the best of my knowledge, these statements are true.

(SIGNATURE of Subcontractor's Legally Authorized Representative) (Date)

(PRINTED name) (Title)

Subscribed and sworn to before me this _____ day of _____, 200_____.

(Notary Public)  My Commission expires _____.

Subcontractor's Appointee for Supervision of Payrolls

The Subcontractor has designated and appointed _____ ("Appointee"),
(name of Subcontractor's Appointee for Supervision of Payrolls)

whose original signature appears in the Certification below, to supervise the payment of employees for the

Subcontractor, beginning on _____,
(Month, Day, Year)

The Appointee is in a position to have full knowledge of: (a) the facts set forth in the Subcontractor's payroll documents; (b) the Statement of Compliance referred to in 29 C.F.R. 5.5(a)(3)(ii)(B), which the Appointee is to execute with each payroll report; and (c) the Copeland "Anti-Kickback" Act (18 U.S.C. § 874, as implemented and supplemented by 29 C.F.R. part 3).

**Certification by
Subcontractor's Appointee for Supervision of Payrolls**

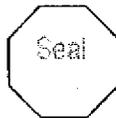
I hereby certify that I have reviewed the statements made in this Labor Standards Certification and that, to the best of my knowledge, these statements are true.

(SIGNATURE of Subcontractor's Appointee for Supervision of Payrolls) (Date)

(PRINTED name) (Title)

Subscribed and sworn to before me this _____ day of _____, 200_____.

(Notary Public)



My Commission expires _____.

NOTE: If the Subcontractor's Appointee for Supervision of Payrolls is changed, or a new Appointee is added, a new "Certification by Subcontractor's Appointee for Supervision of Payrolls" must accompany the first payroll for which the new appointee executes a Statement of Compliance.

CITY OF TEMPE
Public Works Department, Engineering Division
31 East 5th Street, West Garden Level • Tempe, Arizona 85281
Phone 480-350-8200 • Fax 480-350-8591

8.19 WAGE DETERMINATION

General Decision Number: AZ130018 09/20/2013 AZ18

Superseded General Decision Number: AZ20120023

State: Arizona

Construction Type: Heavy
 HEAVY CONSTRUCTION, Includes Water and Sewer Lines, Heavy
 Construction on Treatment Plant Sites and Pipeline Construction

County: Maricopa County in Arizona.

HEAVY CONSTRUCTION PROJECTS (DOES NOT INCLUDE DAM CONSTRUCTION)

Modification Number	Publication Date
0	01/04/2013
1	01/11/2013
2	04/19/2013
3	05/17/2013
4	06/14/2013
5	08/02/2013
6	08/23/2013
7	09/20/2013

BOIL0627-004 01/01/2013

	Rates	Fringes
BOILERMAKER.....	\$ 32.51	26.16

BRAZ0003-010 07/01/2010

	Rates	Fringes
BRICKLAYER.....	\$ 24.62	4.57

ELEC0640-006 09/01/2012

	Rates	Fringes
ELECTRICIAN.....	\$ 25.64	3%+7.71

* ELEC0769-002 05/01/2013

	Rates	Fringes
Line Construction:		
Lineman.....	\$ 40.42	20%+5.04

ENGI0428-008 07/29/2013

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 20.99	9.34
Group 2.....	\$ 24.26	9.34
Group 3.....	\$ 25.34	9.34
Group 4.....	\$ 26.37	9.34

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Small Self-Propelled Compactor (with blade), Bobcat/Skidsteer/Skid Loader, Oiler

GROUP 2: Self-Propelled Compactor (with blade), Grader/Blade (rough), Scraper, Tractor, Crane (less than 15 tons)

GROUP 3: Grade/Blade (Finish), Crawler-Type Tractor, Crane (over 15 tons & less than 100 ton), Tower Crane

GROUP 4: Crane (100 ton)

ENGI0428-015 02/01/2012

	Rates	Fringes
POWER EQUIPMENT OPERATOR: (PIPELINE)		
Group 1.....	\$ 36.20	15.01
Group 3.....	\$ 18.52	15.01

Group 1: Backhoe, Boring Machine, Boom Operator, Bulldozer, Trackhoe

Group 3: Oiler

IRON0075-009 01/01/2013

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 26.52	20.65
Zone 1: 0 to 50 miles from City Hall in Phoenix or Tucson		
Zone 2: 050 to 100 miles - Add \$4.00		
Zone 3: 100 to 150 miles - Add \$5.00		
Zone 4: 150 miles & over - Add \$6.50		

PAIN0086-002 04/01/2013

	Rates	Fringes
PAINTER (Brush Only).....	\$ 19.35	4.75

PLUM0469-004 07/01/2013

	Rates	Fringes
PLUMBER.....	\$ 39.55	17.05

SUAZ2012-006 05/17/2012

	Rates	Fringes
CARPENTER (Form Work Only).....	\$ 20.80	4.07
CARPENTER, Excludes Form Work....	\$ 21.98	5.38

CEMENT MASON/CONCRETE FINISHER....\$ 18.76	2.12
INSTALLER - SIGN.....\$ 25.42	0.00
IRONWORKER, REINFORCING.....\$ 20.66	13.59
LABORER: Asphalt Raker/Shoveler/Spreader.....\$ 15.76	4.42
LABORER: Common or General.....\$ 14.36	3.97
LABORER: Concrete Saw (Hand Held/Walk Behind).....\$ 17.00	4.55
LABORER: Fence Erection.....\$ 10.32	2.24
LABORER: Grade Checker.....\$ 18.14	4.55
LABORER: Landscape & Irrigation.....\$ 11.01	0.37
LABORER: Mason Tender - Brick...\$ 14.55	4.20
LABORER: Mason Tender - Cement/Concrete.....\$ 15.34	4.20
LABORER: Pipelayer.....\$ 14.94	3.51
LABORER: Power Tool Operator....\$ 16.57	4.20
LABORER: Railroad Construction Laborer.....\$ 16.80	4.20
OPERATOR: Backhoe/Excavator/Trackhoe.....\$ 19.37	3.59
OPERATOR: Bulldozer.....\$ 20.57	6.16
OPERATOR: Drill.....\$ 20.57	4.78
OPERATOR: Forklift.....\$ 20.38	4.75
OPERATOR: Grade Checker.....\$ 21.68	6.31
OPERATOR: Loader (Front End)....\$ 20.31	3.84
OPERATOR: Mechanic.....\$ 22.23	5.78
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....\$ 17.07	3.20
OPERATOR: Roller.....\$ 21.34	8.36
OPERATOR: Rotomill.....\$ 21.88	6.39
OPERATOR: Screed.....\$ 16.82	2.52
OPERATOR: Trencher.....\$ 14.21	0.94

OPERATOR: Broom/Sweeper.....\$ 15.40	2.45
PAINTER: Pavement Marking/Parking Lot Striping.....\$ 19.94	4.10
PAINTER: Roller and Spray.....\$ 20.65	4.45
PIPEFITTER.....\$ 23.97	6.78
TRUCK DRIVER: 3 Axle Truck.....\$ 27.53	1.16
TRUCK DRIVER: Dump Truck.....\$ 14.37	1.16
TRUCK DRIVER: Flatbed Truck.....\$ 12.50	1.48
TRUCK DRIVER: Hydroseeder.....\$ 17.32	0.00
TRUCK DRIVER: Water Truck.....\$ 16.46	3.42

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

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

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

Union Identifiers

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

Union prevailing wage rates will be updated to reflect any

changes in the collective bargaining agreements governing the rates.

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

Non-Union Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

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

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

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

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

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

END OF GENERAL DECISION

100% Design Technical Specifications

Traffic Control Cabinet and Hardware Replacement Project - RESCOPED

October 1, 2013

City of Tempe Project No: 6905701

ADOT TRACS No: 0000 MA TMP SZ051 01C

Fed Aid Seq No: CM-TMP-0(228)D

MAG Project No: TMP13 – 902



Expires 10/30/16

TECHNICAL SPECIFICATION

1. PROJECT DESCRIPTION

The project work consists of removing & salvaging existing traffic control cabinets, and furnishing, installing, integrating, and testing new NEMA TS 2 traffic control cabinets. These Specifications shall be considered the minimum design requirements. It is understood that the best general practice is to prevail where these Specifications describe portions of the work in general terms but not in complete detail.

Table 1 identifies the intersections included in this project.

Table 1: Traffic Control Cabinet & Hardware Replacement Project Intersections, Tempe, AZ

Tempe Intersection No.	Intersection Name	Power Meter attached to cabinet	Power Meter Base attached to cabinet	Change Cabinet Orientation
006	PRIEST & 202 FWY.			
008	CURRY & MILL		X	
013	PRIEST & RIO SALADO PKWY			
018	RURAL & RIO SALADO PKWY	X		
021	RIO SALADO PKWY & PACKARD	X		
022	PRICE & RIO SALADO PKWY			
038	UNIVERSITY & HARDY	X		Open to West
041	UNIVERSITY & ASH			
072	APACHE & MILL			
073	APACHE & FOREST		X	
074	APACHE & COLLEGE			
075	APACHE & MCALLISTER		X	
076	APACHE & RURAL	X		Open to North
083	BROADWAY & 48TH			
090	I-10 & BROADWAY (RAMP "K")		X	
094	BROADWAY & RURAL	X		
103	BROADWAY & PRICE (LOOP 101)			
105	PRIEST & FAIRMONT			
109	PRIEST & ALAMEDA			
116	MCCLINTOCK & DEL RIO			
121	SOUTHERN & HARDY			
122	SOUTHERN & ROOSEVELT			
123	KYRENE & SOUTHERN			
124	MILL & SOUTHERN			
127	RURAL & SOUTHERN			
Tempe	Intersection Name	Power Meter	Power Meter	Change

Intersection No.		attached to cabinet	Base attached to cabinet	Cabinet Orientation
135	SOUTHERN & PRICE (LOOP 101)			
140	PRIEST & US 60			
141	MILL & US 60			
142	RURAL & US 60			
144	MCCLINTOCK & US 60			
149	RURAL & SOUTHSHORE			
154	BASELINE & WENDLER			
162	BASELINE & MILL			
166	BASELINE & LAKESHORE			
181	GUADALUPE & MAPLE			
186	GUADALUPE & MCCLINTOCK			
203	ELLIOT & HARL			
204	ELLIOT & PRIEST			
220	ELLIOT & PRICE RD. (SR 101)			
221	PRIEST & AUTO DR.			
228	WARNER & HARL			
232	KYRENE & WARNER			Open to South
245	WARNER & PRICE (SR 101)			
250	BASELINE & AZ MILLS SOUTH			
251	PRIEST & AZ MILLS EAST			
252	PRIEST & DARROW			

2. TRAFFIC CONTROL CABINETS

The work under this section coincides with Bid Item 1 and shall consist of removing and salvaging existing cabinets; furnishing, installing, integrating, and testing the new traffic control cabinets, all incidental cables, connections, and mounting hardware, and various accessories, as required for fully functional and operational traffic control cabinets. This work includes all labor, incidental materials, transportation, and storage associated with the completion of the installation and meeting the requirements of the Technical Specification.

All equipment shall be new and in strict accordance with the details shown herein.

2.1 Material Requirements

At a minimum, each Cabinet Assembly (CA) shall meet the following requirements:

2.1.1-CA Shell

2.1.1.1 Basic Requirements:

- All applicable sections of the latest NEMA Standard Publication No. TS 2. Where differences occur, this Technical Specification shall govern.
- Each CA enclosure must be constructed, approved, and marked in accordance with the requirements for Type 1 Industrial Control Panel Enclosures contained in UL 508A, the Standard for Industrial Control Panels. Each CA enclosure must meet NEMA 3R rating requirements and be marked with a UL approval sticker.

2.1.1.2 Exterior Requirements:

- NEMA CA size 6 shall be supplied.
- Minimum cabinet size is: 52" H x 44" W x 24" D
- Material shall be 5052-H32 aluminum with minimum thickness of 0.125-inches
- The cabinet must not flex on its mount.
- A rain channel shall be incorporated into the design of the main door opening to prevent liquids from entering the enclosure.
- The size of the main door opening must be a minimum of 80 percent of the size of the front surface of the cabinet. A stiffener plate shall be welded across the inside of the main door to prevent flexing.
- The top of the cabinet shall incorporate a 1-inch slope toward the rear to prevent rain accumulation.
- Removable/reversible cabinet lifting "ears" shall be provided
- Cabinet shall be painted white with an anti-graffiti coating on the exterior. The exterior shall be degreased and primed with a spray applied iron phosphate coat-equivalent to a four-stage iron phosphate coat prior to painting. The final paint coat shall consist of a powder coat paint (TGIC or equivalent) applied with a minimum thickness of 2 mils.
- The main door and police door-in-door shall close against a weatherproof and dust-proof, closed-cell neoprene gasket seal. The gasket material for the main door shall be a minimum of 0.250 inches thick by 1.00 inch wide. The gasket

material for the police door shall be a minimum of 0.250 inches thick by 0.500 inches wide. The gaskets shall be permanently bonded to the cabinet.

- The lower section of the cabinet shall be equipped with a louvered air entrance. The air inlet shall be large enough to allow sufficient air flow per the rated fan capacity. Louvers must satisfy the NEMA rod entry test for 3R ventilated enclosures. A non-corrosive, vermin- and insect-proof, removable air filter shall be secured to the air entrance. The filter shall fit snugly against the main door wall. Air filter shall be a 16-inch x 12 inch x 1-inch disposable pleated filter.
- The handle on the main door of the cabinet shall be manufactured from cast aluminum or stainless steel.
- The main door hinge shall be a one-piece, continuous piano hinge with a stainless steel pin running the entire length of the door. The hinge shall be attached in such a manner that no rivets or bolts are exposed.
- The main door shall include a three point latching mechanism capable of holding the door open at approximately 90, 145, and 165 degrees under windy conditions.
- The main door shall be equipped with a Corbin tumbler lock number 1548-1 or approved equivalent. Minimum of two keys shall be supplied.
- The police door-in-door shall be provided with a treasury type lock Corbin No. R357SGS or approved equivalent. A minimum of one key shall be supplied.

2.1.1.3 Interior Requirements:

- Cabinet shall not be painted on the interior
- All seams shall have a continuous weld on the interior of the cabinet.
- Each cabinet shall be supplied with and installed a minimum of two removable shelves manufactured from 5052-H32 aluminum. Each shelf shall be a minimum of 10 inches deep.
- Each shelf shall have horizontal slots at the rear and vertical slots at the front of the turned down side flange. The shelf shall be installed by first inserting the rear edge of the shelf on the cabinet rear sidewall mounting studs, then lowering the shelf on the front sidewall mounting studs. Each shelf shall be held in place by a nylon tie-wrap inserted through holes on the front edge of the shelf and around the sidewall mounting studs.
- The front edge of each shelf shall have holes punched every 6 inches to accommodate tie-wrapping of cables/harnesses.
- A minimum 1.5 inch deep drawer shall be installed in the center of, and mounted directly beneath, the bottom controller support shelf. The drawer shall be manufactured from 5052-H32 aluminum, have a top cover (hinged at the rear) and be capable of storing documents and The drawer shall support up to 50 pounds when fully extended. Drawer dimensions shall make maximum use of the available depth offered by the bottom controller support shelf and be a minimum of 13 inches wide.
- A minimum of one set of vertical "C" channels shall be mounted on each interior wall of the cabinet for the purpose of mounting the cabinet components. The channels shall accommodate spring mounted nuts or studs. All mounting rails shall extend to within 7 inches of the top and bottom of the cabinet. Sidewall rail

spacing shall be 7.88 inches center-to-center. Rear wall rail spacing shall be 18.50 inches center-to-center.

- The interior ceiling of the cabinet shall incorporate an exhaust plenum with a vent screen. Perforations in the vent screen shall not exceed 0.125 inches in diameter.
- Four (4) Hilti KB3 SS304 1/2 X 3/4 LT (Item No. 00282558) Stainless Steel Long Thread Wedge Anchors or equivalent shall be provided for each CA.

2.1.2 CA Internals

2.1.2.1 Terminals and Facilities (TF):

❖ Hardware Mechanical:

- The TF panel shall be constructed from 5052-H32 brushed aluminum of 0.125 inches minimum thickness and installed so as to minimize flexing when plug-in components are installed.
- All load switch and flash transfer relay socket reference designators shall be silk-screen labeled on the front and rear of the TF to match drawing designations. Socket pins shall be marked for reference on the rear of the panel.
- 16-position TF shall be provided with a mounting mechanism which allows easy access to all wiring on the rear of the panel. Lowering of the TF can be accomplished without the use of hand tools. Complete removal can be accomplished by the use of simple hand tools.
- A maximum of eight load switch sockets may be positioned horizontally or stacked in two rows. TFs requiring more than eight load switch sockets shall be mounted in one horizontal row.
- All load switches shall be supported by a bracket, extending at least half the length of the load switch.
- The TF shall have all field wires contained on two rows of horizontally mounted terminal blocks. The upper row shall be wired for the pedestrian and overlap field terminations. The lower row shall be reserved for phase one through phase eight vehicle field terminations. As an alternate, a 16 position horizontal TF and field terminal configuration may be used.
- All field input/output (I/O) terminals shall be identified by permanent alphanumeric labels. All labels shall use standard nomenclature per the NEMA TS 2 specification.
- The TF shall contain at least one NEMA TS 2 flasher socket (silk screen labeled). The flasher shall be supported by a bracket, extending at least half its length.
- All logic-level, NEMA-controller and Malfunction Management Unit (MMU) input and output terminations on the TF shall be permanently labeled. Cabinet prints shall identify the function of each terminal position.
- At a minimum, three 20-position terminal blocks shall be provided at the top of the TF to provide access to the controller unit's programmable and non-programmable I/O. Terminal blocks for DC signal interfacing shall have a number 6-32 x 7/32 inch screw as minimum.
- Connecting cables shall be sleeved in a braided nylon mesh or poly-jacketed. The use of exposed tie-wraps or interwoven cables is unacceptable.

- All wiring shall be neat in appearance. All cabinet wiring shall be continuous from its point of origin to its termination point. Butt type connections/splices are not acceptable.
- All connecting cables and wire runs shall be secured by mechanical clamps. Stick-on type clamps are not acceptable.
- ❖ Hardware Electrical:
 - The TF shall be capable of eight Phases, four Pedestrians and four Overlaps.
 - Interoperability with an Econolite NEMA TS 2 Type ASC/3 Controller Unit (CU).
 - Interoperability with an NEMA TS 2 Type 16 MMU
 - The TF shall be provided in the following configuration:
 - Sixteen load switch sockets, six flash transfer relay sockets, one flasher socket, 2- BIU sockets, and one NEMA TS 2, Type-16 MMU.
 - All field output circuits shall be terminated on a non-fused barrier type terminal block with a minimum rating of 10 amps.
 - It shall be possible to flash either the yellow or red indication on any vehicle movement and to change from one color indication to the other by use of a screwdriver.
 - Field terminal blocks shall be wired to use four positions per vehicle or overlap phase (green, yellow, red and flash). It shall not be necessary to de-buss field terminal blocks for flash programming.
 - The flasher socket shall be capable of operating a 15-amp, 2-pole, NEMA TS 2 solid-state flasher.
 - One RC network shall be required for each 110 VAC relay coil or one wired in parallel with each group of three flash-transfer.
 - All TF wiring shall conform to the following wire sizes and colors:
 - Green/Walk load switch output - brown wire - 14 gauge
 - Yellow load switch output - yellow wire - 14 gauge
 - Red/Don't Walk load switch output - red wire - 14 gauge
 - MMU (other than AC power) - violet wire - 22 gauge
 - Controller I/O - blue wire - 22 gauge
 - AC Line (power panel to - black wire TF) - 8 / 10 gauge
 - AC Line (TF) - black wire - 10 gauge
 - AC Neutral (power panel to - white wire TF) - 8 / 10 gauge
 - AC Neutral (TF) - white wire - 10 gauge
 - Earth ground (power panel) - green wire - 8 gauge
 - Logic ground - gray wire - 22 gauge
 - Flash programming - Orange wire- 14 gauge
 - Flasher terminal - Black wire red or yellow field terminal - 14 gauge
 - All wiring, 14 AWG and smaller, shall conform to MIL-W-16878/1, type B/N, 600V, 19-strand tinned copper. The wire shall have a minimum of 0.010 inches thick PVC insulation with clear nylon jacket and rated to 221° F (105° C). All 12 AWG and larger wire shall have UL listed THHN/THWN 194° F (90° C), 600V, 0.020 inches thick PVC insulation and clear nylon jacketed.
 - All cables shall be of sufficient length to access any shelf position.

- The CA shall be equipped with a properly terminated SDLC hub with 6 connectors including: 1 for the CU, 1 for the MMU, 2 for the TF BIU's, 1 for the Detector Rack (DR) BIU, and 1 spare SDLC cable. Note, SDLC wiring shall conform to the latest NEMA TS 2 specification.
- All TF configurations shall be provided with BIU wiring assignments consistent with the latest NEMA TS 2 specification.
- The grounding system in the cabinet shall be divided into three separate circuits (AC Neutral (NG), Earth Ground (EG), and Logic Ground (LG)). These ground circuits shall be connected together at a single point as outlined in the NEMA TS 2 Cabinet Power Distribution (CPD) Standard.
- The TF shall incorporate a relay, designated as K1, to remove +24 VDC from the common side of the load switch socket pin 9, when the intersection is placed into any mechanical flash. The relay shall have a momentary pushbutton to apply power to the load switch inputs for ease of troubleshooting.
- All pedestrian push button field inputs shall operate at 12 VAC, and connect to the CU through the BIU's opto-isolators. If more than eight pedestrian inputs are required a four input 12 VAC opto-isolator card shall be added.
- All wire (size 16 AWG or smaller) at solder joints shall be hooked or looped around the eyelet or terminal block post prior to soldering to ensure circuit integrity. Lap joint soldering is not acceptable.

2.1.2.2 Cabinet Power Distribution Panel (CPD):

- The CPD shall be an integral part of the CA and be located on the lower right portion of the cabinet. The CPD panel shall be wired to provide a two stage filtering for the distribution of the AC power to the CA. The first stage of the filter shall suppress all high energy transients for the entire CA, including the load switches and flasher. The second stage shall filter the lower voltage transients for the remainder of the CA electrical equipment, including CU, MMU, Cabinet Power Supply (CPS) and some of the electrical outlets. The power components shall be equipped with a removable plastic front cover for technician protection. The design will allow a technician to access the main and auxiliary breakers without removing the protective front cover.
- The power panel portion of the TF shall include the following components:
 - All Breakers shall be, at minimum, a thermal magnetic type, UL listed for HACR service, with a minimum of 10,000 amp interrupting capacity.
 - A 30-amp main breaker. This breaker shall supply power to the CA.
 - A 10-amp Equipment breaker. This breaker shall supply power to the filtered outlets in the CA.
 - A 15-amp auxiliary breaker. This breaker shall supply power to the fan, light and GFI utility outlet.
 - A 35-amp luminaire breaker. This breaker shall supply power to the luminaire field wires.
 - An EDCO model SHA-1250 w/base or approved equivalent surge arrester.
 - A 50 amp, 125 VAC radio interference line filter.
 - A normally-open, 75-amp, Solid State Signal buss relay. The SSR shall be a Crydom Model # HA4875H or approved equal.

- A minimum 8-position neutral bus bar capable of connecting three #12 wires per position.
- A minimum 6-position ground bus bar capable of connecting three #12 wires per position.
- A NEMA type 5-15R GFI utility outlet.

2.1.2.3 Power Bus Assembly (PBA):

- The power bus assembly shall be manufactured from 0.090", 5052-H32 aluminum.
- All cabinet equipment requiring filtered power to operate shall be connected to the power bus assembly by a 12-pin Molex Robotic Type connector Model# 54332-1270, or approved equivalent, or hardwired directly to the supplied terminal blocks.
- The PBA shall have these power features wired to the two parallel twelve position terminal blocks:
 - Pin 1 shall be: Logic Ground (DC return)
 - Pin 2 shall be: + 24 VDC
 - Pin 3 shall be: + 12 VDC
 - Pin 5 shall be: Line Frequency
 - Pin 6 shall be: EG Earth Ground (Chassis)
 - Pin 7 shall be: 12 VAC
 - Pin 8 shall be: Flash control status (110 VAC)
 - Pin 9 shall be: EG Earth Ground (Chassis)
 - Pin 10 shall be: Filter AC Neutral
 - Pin 11 shall be: Filtered AC Line (equipment switched control)
 - Pin 12 shall be: Filtered AC Line (constant power, un-switched)
- Cabinet Power Supply (CPS)
- When plugged in to the PBA, through the 12 Molex connector, it shall be powered by the connector, and shall supply power to the PBA of:
 - Pin A shall be connected to pin C2: Filter AC Neutral
 - Pin B shall be connected to pin B1: Line Frequency
 - Pin C shall be connected to pin C3: Filtered AC Line (equipment switched control)
 - Pin D shall be connected to pin A3: + 12 VDC
 - Pin E shall be connected to pin A2: + 24 VDC
 - Pin G shall be connected to pin A1: Logic Ground (DC return)
 - Pin H shall be connected to pin C1: EG Earth Ground (Chassis)
 - Pin I shall be connected to pin B3: 12 VAC
 - Connector Shell shall be connected to pin Shell: EG Earth Ground (Chassis)
- The Power Bus Assembly shall house the following components:
 - Six power connectors.
 - Two terminal strips to hardwire the power connections.
- It shall provide filtered power for the controller, malfunction management unit, cabinet power supply, and all auxiliary equipment.

2.1.2.4 SDLC Hub Assembly:

- SDLC Bus connections shall be made via a Seven Connector Hub Panel with six foot long SDLC Cables.
- The SDLC Hub Assembly shall include eight D-Subminiature Female 15 pin (DB15) connectors that are wired in series.

2.1.3 Auxiliary CA Equipment

2.1.3.1 General

- The CA shall be provided with two thermostatically controlled (adjustable between 55-160 degrees Fahrenheit) ventilation fan in the top of the cabinet plenum. The fan plate shall be removable with the use of simple hand tools for serviceability. The fan shall be a ball bearing type fan and shall be capable of drawing a minimum of 100 cubic feet of air per minute. The Fan/Thermostat assembly shall be connected to the Power panel by means of a 4 position plug-in cable.
- An 18-24" LED light strip with protective lens shall be mounted on the inside top of the cabinet near the front edge. The output in lumens shall be greater than the light produced by a 20W fluorescent tube. The light strip shall be wired to a door activated switch mounted near the top of the door.
- Four NON-GFI protected outlets shall be installed on the left side of the cabinet just above the top shelf and shall be hardwired into the cabinet's filtered power.
- A re-sealable print pouch shall be mounted to the door of the cabinet. The pouch shall be of sufficient size to accommodate one complete set of folded cabinet prints.
- A minimum of two sets of complete and accurate cabinet drawings shall be supplied with each cabinet and 1 AutoCAD CD.

2.1.3.2 Detector Rack (DR)

- One 16-channel DR with one BIU
- DR shall be provided in the following configuration. This configuration shall be integrated on the top left side portion of the TF.
 - Shall support up to 16 channels of loop detection (either eight 2 channel detectors or four 4 channel detectors), two 2-channel preemption devices and one BIU.
- DR BIU mounting shall be an integral part of the DR.
- All BIU rack connectors shall have jumper address pins corresponding to the requirements of the TS 2 specification. The jumpers may be moved to change the address of any individual rack. The address pins shall control the BIU mode of operation. BIUs shall be capable of being interchanged with no additional programming.
- Each cabinet shall contain detector interface panels for the purpose of connecting Loop Interface Panel and DR. The panels shall be manufactured from FR4 G10 fiberglass, 0.062 inches thick, with a minimum of 2 oz. of copper for all traces.

- One 16-position interface panel shall be provided. The interface panel shall be secured to a mounting plate and attached to the left wall of the cabinet.
- Each interface panel shall allow for the connection of sixteen independent field loops. A ground bus terminal shall be provided between each loop pair terminal to provide a termination for the loop lead-in cable ground wire.
- Each interface panel shall provide a 10-position terminal block to terminate the field wires for up to two 2-channel preemption devices.
- Lightning protection device mounting holes shall be provided to accommodate an Edco SRA-16C, or Edco SRA-6, or Edco LCA-6, or a varistor lightning protection device.
- A cable consisting of 20 AWG twisted pair wires shall be provided to enable connection to and from the panel to a detector rack. The twisted pair wires shall be color coded; red and white wires.
- All termination points shall be identified by a unique number and silk screened on the panel.
- Each DR shall accommodate rack mountable preemption devices
- Each DR shall be powered by the cabinet power supply and be connected to the power bus assembly by means of a 12-pin Molex Robotic type connector Model# 54332-1270 or approved equivalent.
- Four Type A detector cards (2-channel) shall be provided with each cabinet.

2.1.3.3 Cabinet Test Switches and Police Panel

- All toggle type switches shall be heavy duty and rated 15 amps minimum. Single- or double-pole switches may be provided, as required.
- Any exposed terminals or switch solder points shall be covered with a non-flexible shield to prevent accidental contact.
- All switch functions must be permanently and clearly labeled.
- All wire routed to the police door-in-door and test switch push button panel shall be adequately protected against damage from repetitive opening and closing of the main door.
- All test switch panel wiring shall be connected to the TF via a 50-pin Molex Robotic type connector Model# 54332-5001, or approved equivalent.
- Wiring from the TF to the test switch panel shall be connected to the switch panel via a 30-pin Molex Robotic type connector Model# 54332-3070 or approved equivalent.

2.1.3.4 Test Switch Panel

- A Test Switch Panel shall be supplied with each CA. A test switch panel shall be mounted on the inside of the main door. The test switch panel shall provide, as a minimum, the following:
 - AUTO/FLASH Switch - When in the flash position, power shall be maintained to the controller and the intersection shall be placed in flash. The controller shall not be stop timed when in flash. Wired according to NEMA TS 2-2003 the MMU forces the controller to initiate the start-up sequence when exiting flash.

- STOP TIME RUN/STOP Switch - When STOP applied, the controller shall be stop timed in the current interval.
- CONTROL EQUIPMENT POWER ON/OFF - This switch shall control the controller and MMU.
- MANUAL/PHOTO Switch - In the MANUAL position, the photoelectric cell turns ON.

2.1.3.5 Police Panel

- A Police Panel shall be supplied with each CA. The police door switch panel shall contain the following:
 - SIGNALS ON/OFF Switch - In the OFF position, power shall be removed from signal heads in the intersection. The controller shall continue to operate. When in the OFF position, the MMU shall not conflict or require reset.
 - AUTO/FLASH Switch - When in the flash position, power shall be maintained to the controller and the intersection shall be placed in flash. The controller shall be stop timed when in flash. Wired according to NEMA TS 2-2003 the MMU forces the controller to initiate the start-up sequence when exiting flash.
 - AUTO/MANUAL Switch - Cabinet wiring shall include an AUTO/MANUAL switch and a coiled hand cord with police push button.

2.1.3.6 Controller Telemetry Interface Panel

- A telemetry interface harness and interface panel shall be supplied with each cabinet assembly.
- The harness shall be 6 feet long and shall consist of two twisted shielded pairs, 22 AWG wire with drain wire in an overall jacket, terminated to a 9-pin "D" type connector at one end. The pin out of the 9-pin connector shall be in exact accordance with the NEMA TS 2 Standard. The opposite end of the harness shall be terminated on a 10-position EDCO PCB-1B or approved equal lightning protection socket base.
- All terminal block designations and peripheral board-mounted components shall be labeled as to their number and function and shall correspond to the cabinet wiring diagrams.
- The following signals shall be accessible from the telemetry interface panel:
 - Local controller command lines 1 & 2
 - Local controller read back lines 1 & 2
 - Master controller command lines 1 & 2
 - Master controller read back lines 1 & 2
 - Earth grounds
- A socket mounted communication line transient protection device shall be supplied with the telemetry interface panel. The device shall be an EDCO model PC642C-008D or approved equivalent. The transient protection device shall be wired in series with the telemetry communication circuit.

- Communication line impedance shall be matched to the transmitter output impedance to minimize noise on the communication lines. The panel shall allow connection of a 620 ohm resistor across the command and read back lines, where necessary.

2.1.3.7 Auxiliary Devices

2.1.3.7.1 Load Switches

- Load switches shall be solid state and shall conform to the requirements of Section 6.2 of the NEMA TS 2 Standard.
- Signal load switches shall have a minimum rating of 10 amperes at 120 VAC for an incandescent lamp load.
- The front of the load switch shall be provided with three indicators to show the input signal from the controller to the load switch.
- Load switches shall be dedicated per phase. The use of load switches for other partial phases is not acceptable.
- Sixteen load switches shall be supplied with each cabinet.
- Eighteen red monitor load switch jumpers shall be supplied with each cabinet.

2.1.3.7.2 Flashers

- The flasher shall be solid state and shall conform to the requirements of section 6.3 of the NEMA TS 2 Standard.
- Flashing of field circuits for the purpose of intersection flash shall be accomplished by a separate flasher.
- The flasher shall be rated at 15 amperes, double pole with a nominal flash rate of 60 FPM.
- Flasher shall be EDI 810 or approved equivalent.
- One flasher shall be supplied with each cabinet.

2.1.3.7.3 Flash Transfer Relays

- All flash transfer relays shall meet the requirements of Section 6.4 of the NEMA TS 2 Standard.
- The coil of the flash transfer relay must be de-energized for flash operation.
- Four relays shall be supplied with each cabinet.

2.1.3.7.4 Bus Interface Units (BIU)

- All BIUs shall meet the requirements of Section 8 of the NEMA TS 2 Standard.
- Each Bus Interface Unit shall include power on, transmit and valid data indicators. All indicators shall be LEDs.
- Four Bus Interface Units shall be supplied with each cabinet.

2.1.3.7.5 Cabinet Power Supply (CPS)

- The cabinet power supply shall meet the requirements of Section 5.3.5 of the NEMA TS 2 Standard.

- The cabinet power supply shall provide LED indicators for the line frequency, 12 VDC, 12 VAC, and 24 VDC outputs.
- The cabinet power supply shall provide (on the front panel) jack plugs for access to the +24 VDC for test purposes.
- One cabinet power supply shall be supplied with each cabinet assembly and shall be wired directly to the Power Bus Assembly via a 12-pin Molex Robotic type connector Model# 54332-1270 or exact equivalent.

2.1.3.7.6 Lighting Panel

- One highway lighting panel shall be supplied with each cabinet assembly and shall be properly wired into the traffic control cabinet.

2.1.3.7.7 Documentation

- All cabinets shall include complete technical information, shop drawings, schematic diagrams, photographs, circuit diagrams, graphs, instruction manuals, and any other necessary documents to fully describe the proposed equipment.
- A list of serial numbers and manufacturing dates shall be provided with each cabinet.
- At the time of delivery, the supplier shall furnish two (2) copies of the programming and operation manuals and 2 copies of the repair documentation for the equipment.
- At the time of delivery, the supplier shall provide copies of cabinet manufacturer's testing procedures/results check list (hard copy and electronic).
- A permanent label with the serial number and date of manufacture shall be attached to each of the following components:
 - Bus Interface Unit (BIU)
 - Cabinet Power Supply
 - Loop Detector Unit
 - Cabinet Shell (on the inside of cabinet door)

2.2 Construction Requirements

The Contractor is responsible for removing the existing traffic control cabinet and hardware from the existing cabinet foundation. Salvaged and disassembled equipment removed from the project shall be delivered within 10 working days to the City of Tempe Traffic Operations Building at 945 W. Rio Salado Parkway. The Contractor shall coordinate the delivery with the Project Manager providing notification at least 2 working days prior to delivery.

The Contractor is responsible for coordination with the power company. For any cabinets listed in Table 8.1 as having "Meter attached to cabinet" or "Meter Base attached to cabinet" the Power Company will remove and remount the meter or meter base. Any fees associated with meter dismount/remount are the responsibility of the Contractor.

The Traffic Control Cabinet will be installed on an existing City of Tempe cabinet foundation, along with required mount, and shall be connected to all field hardware, power and wiring. XT-6 or equivalent mounting terminations shall be installed to connect TF terminal blocks to the field wires. For any locations listed in Table 8.1 as Change Orientation, the Contractor is responsible for mounting the Traffic Control Cabinet with the door opening in the direction

noted in the table; otherwise, the Traffic Control Cabinet will be mounted in the same orientation as the Existing Traffic Control Cabinet.

A commercial grade silicone sealer satisfactory to the City of Tempe is required to seal the cabinet base to the foundation

The wire and cabling shall conform to the City of Tempe Standards. All wires and cables shall be neatly installed and secured per common practices and standards.

The existing signal controller and malfunction management unit will be re-installed in the Traffic Control Cabinet. The Contractor shall verify field wiring by field testing connections. The Contractor shall correct any discrepancies within the cabinet including field wiring.

The installation schedule and sequencing must be approved by the Project Manager. Installation shall not occur between 7 and 9 am or between 4 and 7 pm Monday through Friday.

A Level II IMSA certified Technician/Electrician shall be on the Work Site at all times during traffic control cabinet installation within the City of Tempe.

A representative from the cabinet manufacturer shall be on site during field installation.

The City of Tempe will perform the following work at field installation:

- Turn off signal so the Contractor may replace the cabinet
- Remove existing controller, MMU and communications equipment
- When cabinet has been replaced, verify Contractor's field wiring
- Install existing controller, MMU and communications equipment in new cabinet
- Make final cable connections to the controller, MMU and communications equipment
- Turn on intersection
- Verify functionality of cabinet, including timing, vehicle detection, preemption, communications and field indications.

2.3 Testing Requirements

2.3.1 Prior to Installation

- The cabinet shall be assembled and tested by the Contractor to ensure proper component integration and operation.
- Each controller and cabinet assembly shall be tested as a complete entity under signal load for a minimum of 48 hours at Contractor's testing location. Up to 8 existing City of Tempe ASC/3 Controllers and MMUs will be provided to the Contractor for testing cabinet assembly.
- Each assembly shall be delivered with the attached FORM 1 check list, completed and signed by the Contractor, detailing the cabinet test performance.

2.3.2 Final Acceptance

Upon Field Installation the Contractor shall demonstrate to the Project Manager or Designee that the Traffic Control Cabinet is functioning properly in accordance to the City of Tempe check list as follows:

2.4 Method of Measurement

The Traffic Control Cabinet installation will be measured as each unit of furnished, installed and tested, complete in place. The installation shall include the Control Cabinet, and all incidental cables, connections and hardware and removal and salvage of existing unit.

2.5 Basis of Payment

The Traffic Control Cabinet will be paid as measured above. The contract unit price shall be full compensation for the Traffic Control Cabinet described and specified herein complete in place, and successfully complying with the test requirements.

3. TRAFFIC CONTROL (BARRICADES)

The work under this item coincides with Bid Item 2. To comply with the environmental clearance for this project, all vehicle movements and equipment to be used will take place on already paved surfaces with proper traffic control as required by the City of Tempe Traffic Barricade Manual.

3.1 Method of Measurement

Traffic Control (Barricades) will be measured as a single complete lump sum unit of work.

3.2 Basis of Payment

Traffic Control (Barricades) will be paid as measured above. The contract lump sum price will be paid upon complete submittal to and approval by the Project Manager and shall be full compensation for the item, completed as defined and described above.

4. TRAFFIC CONTROL (POLICE OFFICERS)

The work under this item coincides with Bid Item 3. A Uniformed Police Officer will be required on-site as required by the City of Tempe Traffic Barricade Manual.

4.1 Method of Measurement

Traffic Control (Police Officers) will be measured as a single complete lump sum unit of work.

4.2 Basis of Payment

Traffic Control (Police Officers) will be paid as measured above. The contract lump sum price will be paid upon complete submittal to and approval by the Project Manager and shall be full compensation for the item, completed as defined and described above.

5. WARRANTY

The Contractor shall warrant that all items furnished conform to the requirements of this contract and are free from defects in design, materials, and workmanship. The Contractor shall warrant the supplied equipment is in compliance with all applicable regulations and all State certification and requirements. The Contractor shall also warrant that all items furnished are in compliance with all applicable equipment manufacturer Construction Requirements required for obtaining manufacturer equipment warranty certification. The Contractor shall warrant that it has ownership and/or rights to all items, including intellectual property, provided pursuant to this contract.

All equipment and services shall be warranted for not less than one year following the date of acceptance. If the manufacturer provides a longer warranty period, the Contractor shall provide that warranty. The equipment warranty shall provide that in the event of a malfunction during the warranty period, the defective unit or units shall be replaced with a working unit within three working days for use while the warranted unit is being repaired, unless stated elsewhere in the contract documents. Warranties of fitness and merchantability shall be included.

A minimum of six months notice for end of life shall be given for any equipment furnished through this procurement.

The Contractor warrants that the materials supplied under this Contract are free of liens and shall remain free of liens.

See also Contract section 6.5, "WARRANTY."

FORM 1 – CONTRACTOR

TS 2 Controller Cabinet Operations Check List – Prior to Field Installation

Contractor to fill out and provide to the City of Tempe prior to Field Installation

Cabinet Serial Number: _____

Field Location for Installation: _____

Test Date: _____

Contractor Technician: _____

Check the box when task complete.

1. Checks to be made before installing Controller, MMU, BIU's, Loop Amps, load switches, flasher, all relays, display panel and electric power cord to cabinet.

a) AC-, chassis ground and logic ground is not tied together. (AC- and Chassis Ground shall be tied together in the disconnect only).

b) Check all terminal screws for tightness. Make sure all terminal lugs are secure.

2. Install display panel, power cord, controller, MMU, BIUs, loop amps, load switches, flasher, and relays. Did cabinet assembly run for 48-hours with no errors? _____ (initial to verify)

3. Panel Switches Test

3.1 Police Panel Switches:

The police panel contains three switches: AUTO/FLASH, SIGNALS ON/OFF and STOP TIME RUN/STOP and a MANUAL jack and cord.

The AUTO/FLASH switch has two positions, AUTO and FLASH. This switch shall permit the intersection to flash and allow the CU to cycle. Check that when in the FLASH position, this switch shall not remove power:

- a) from the CU
- b) from the MMU.
- c) from the BIU.
- d) from the detectors

Check that when in the AUTO position:

- a) the CU start up sequence is not initiated.

The SIGNALS switch has two positions: ON and OFF. Check that this switch:

- a) shall remove power from the CU when in the OFF position.
- b) shall remove power from the MMU when in the OFF position.
- c) shall not remove power from the CU when in the OFF position.

The STOP TIME switch has two positions: RUN and STOP. Check that this switch shall:

- a) stop time all rings in the controller when in the RUN position.

Plug in the cord into the MANUAL jack: Check that:

- a) when the cord is plugged in that it stop times all rings in the controller.
- b) when the button on the top of the cord is pressed that it advances to the next phase(s) in the cycle.

3.2 Technician Control Panel Switches:

The inside door panel contains three switches, AUTO/FLASH, CONTROL EQUIPMENT POWER ON/OFF, and MANUAL/PHOTO.

The AUTO/FLASH switch has two positions, AUTO and FLASH. This switch shall permit the intersection to flash and allow the CU to cycle. Check that when in the FLASH position, this switch shall not remove power:

- a) from the CU
- b) from the MMU.
- c) from the BIU.
- d) from the detectors

Check that when in the AUTO position:

- a) the CU start up sequence is not initiated.

The CONTROL EQUIPMENT POWER switch has two positions: ON and OFF. Check that this switch:

- a) shall remove power from the CU when in the OFF position.
- b) shall remove power from the MMU when in the OFF position.

4. MMU Test

- a) input conflicts between conflicting channels and channel to channel.
- b) verify that the MMU applies stop timing to the controller when in the conflict mode.
- c) measure CVM voltage and record here: _____

5. Light, Fan, AC Receptacle Test

- a) verify that the light works with the door switch
- b) check the thermostat for the fan. Turn it up and down to verify that it functions and operates and fan. Set at 100 degrees.
- c) check the GFI receptacle for the proper voltage. Test the GFI.
- d) check the non-GFI receptacles for proper voltage and that they are not tied to a GFI circuit.

6. Cabinet Prints

- a) verify that the proper cabinet print is redlined, if necessary, and installed in the cabinet. If the cabinet print had to be redlined, the person doing the redlining must sign and date the print.