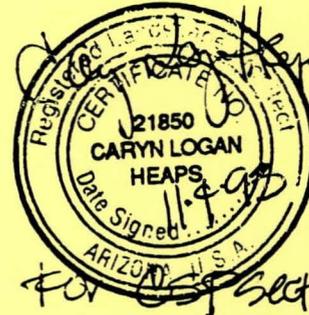
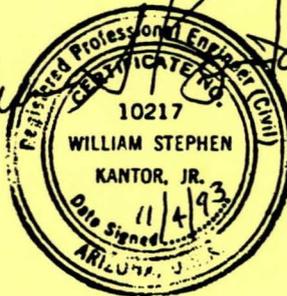


MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION  
2901 WEST DURANGO STREET  
PHOENIX, ARIZONA 85009

CONSTRUCTION SPECIFICATIONS  
MARICOPA COUNTY PROJECT

FOR  
UNIVERSITY DRIVE RECONSTRUCTION  
FROM  
HIGLEY ROAD  
TO  
POWER ROAD (BUSH HWY.)  
WORK ORDER NO. 68828

Property of  
Flood Control District of MC Library  
Please Return to  
2801 W. Durango  
Phoenix, AZ 85009



for sections  
4 30 & 795 only.

Issued For  
Public Bidding by: [Signature]  
For D.E. Sagramoso, P.E.  
Transportation Director

Date: 11-4-93

SUPPLEMENTARY TO MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, EDITION OF 1992 AND REVISIONS AND SUPPLEMENTS THERETO.

A901.505

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION  
2901 WEST DURANGO STREET  
PHOENIX, ARIZONA 85009

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FOR

UNIVERSITY DRIVE RECONSTRUCTION

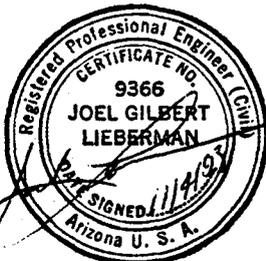
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**ATTENTION**  
**ALL PROSPECTIVE BIDDERS**

A.R.S. Sec. 34-201 now requires that construction bid proposals be accompanied by a certified check, cashiers check or surety bond for ten percent (10%) of the total amount of the bid.

All bonds must 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 (State) Department of Insurance.

Bonds (bid, payment and performance) executed by an individual surety or sureties are not in compliance with the Arizona Revised Statutes.

Bids received containing bid bonds not in compliance with the Arizona Revised Statutes will be considered as being non-responsive. The use of County-supplied bond forms is encouraged, but is not mandatory.

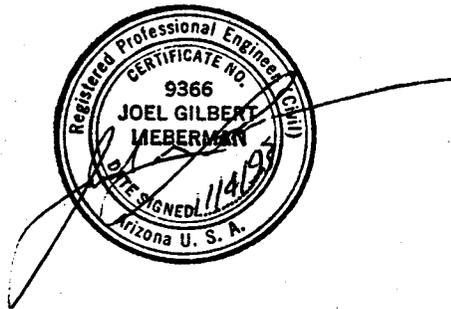
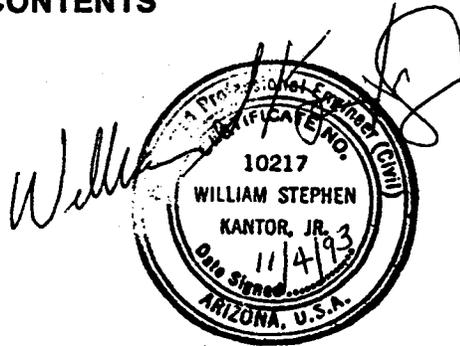
Please submit your bids accordingly.

**MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION  
MCDOT WORK ORDER NO. 68828**

**UNIVERSITY DRIVE FROM HIGLEY ROAD TO POWER ROAD**

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**MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION  
INVITATION TO BID**

**BID OPENING DATE:** November 24, 1993

**LOCATION:**

This project is located on University Drive from Higley Road to Power Road (Bush Highway) in a County Island within the City of Mesa, along the south line of Section 13 and 14 of Township 1 North, Range 6E of the Salt and Gila Base and Meridian.

**PROPOSED WORK:**

The work consists of the reconstruction of approximately 2 miles of roadway to a standard 68 foot pavement with curb and gutters. The roadway includes new and replacement of existing sidewalk, handicap ramps, and traffic signal modifications at 56th Street, Recker Road and 64th Street. Storm drain improvements include over 9,900 linear feet of storm drain ranging in size from 72" to 24" in diameter, 52 catch basins and excavation (95,000 CY) of a detention pond between 62nd and 64th Streets and other miscellaneous items of work required for the completion of the project.

**BIDS:**

SEALED BIDS for the proposed work will be received by the Maricopa County Department of Transportation, 2901 West Durango Street, Phoenix, Arizona 85009 until 2:00 p.m. (Phoenix time) on the above date and then publicly opened and read at 2901 West Durango Street, Phoenix, Arizona 85009. No bids will be received after the time specified for bid opening. All bids must be submitted on proposal forms furnished by the Maricopa County Department of Transportation and included in the Proposal Pamphlet. The Board of Supervisors reserves the right to reject any and all bids and to waive any informality in any bid received.

**ELIGIBILITY OF CONTRACTOR:**

It is the policy of the Maricopa County Department of Transportation to endeavor to ensure in every way possible that minority and women-owned business enterprises have every opportunity to participate in providing professional services, purchased goods, and contractual services without being discriminated against on the grounds of race, religion, sex, age, handicap, or national origin.

The bidder shall be required to certify that the bidder and any proposed subcontractors are appropriately licensed as Contractors in the State of Arizona for performing the before-mentioned type of work. Verification shall be on the form provided herein.

The bidder may be required to furnish an affidavit as evidence of previous satisfactory performance in the above-mentioned type of work.

**CONTRACT TIME:**

All work on this Contract is to be completed within **one hundred eighty (180)** calendar days after date of Notice to Proceed.

**MBE/WBE PARTICIPATION:**

For this contract, a combined M/WBE goal of **twelve (12%)** percent is established for Minority/Women-Owned Business Enterprises. Instructions and required forms are included in the Minority and Women-Owned Business Enterprise Program Contracting Requirements section. The Maricopa County Minority and Women-Owned Business Enterprise Program, effective January 1, 1992, is incorporated by reference.

**PRE-BID CONFERENCE:**

A pre-bid conference will be held on **November 17, 1993 at 11:00 a.m.** in the Maricopa County Department of Transportation conference room, 2901 West Durango Street, Phoenix, Arizona 85009. It is in the best interest of prospective bidders to attend the Pre-Bid Conference.

Questions or items for clarification may be addressed to the Manager, Contracting Branch, in writing, at least ten (10) days prior to bid opening date. Where appropriate, any answers or clarifications affecting the cost may be addressed to all bidders in an addendum. Under no circumstances will verbal interpretations or clarifications be given to individual contractors.

**PROJECT PLANS, SPECIAL PROVISIONS AND CONTRACT DOCUMENTS:**

Plans and Construction Specifications may be obtained from the Maricopa County Department Transportation, 2901 West Durango Street, Phoenix, Arizona 85009 upon payment by check, payable to the TREASURER OF MARICOPA COUNTY. **This payment will not be refunded.**

<u>Reduced Plans (11' x 17')</u>	
Pickup at 2901 West Durango Street	<u>\$ 48.00</u>
or with	
Mail out (additional \$7.50)	<u>\$ 55.50</u>

**Full size plans** are available by calling 506-8609 or 506-8790 at least **one full working day in advance**, as follows:

<u>Full Size Plans (24" x 36")</u>	
Pickup at 2901 West Durango Street	<u>\$ 90.00</u>
or with	
Mail out (additional \$15.00)	<u>\$105.00</u>

<u>Cross Sections (full size - 24 hour notice required)</u>	
Pickup at 2901 West Durango Street	<u>\$ 15.00</u>
or with	
Mail out (additional \$5.00 )	<u>\$ 20.00</u>
(no charge if mailed out with full size plans)	

We cannot guarantee mail delivery.

Each bid must be accompanied by a Surety Bond, cashier's or certified check or postal money order equal to **ten percent (10%)** of the bid, made payable to the TREASURER OF MARICOPA COUNTY as a guarantee that if the work is awarded to the bidder, the bidder will within ten (10) days from the date of Notice of Award, enter into proper contract and bond condition for the faithful performance of the work, otherwise, said amount may be forfeited to the BOARD OF SUPERVISORS as liquidated damages.

All bids are to be marked in accordance with Section 102.9 of the Uniform Standard Specifications.

\*\*\*\*\*

**PRINCIPLE ITEMS AND APPROXIMATE QUANTITIES**

<u>QUANTITY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>
1	Allowance	Community Relations
95,000	CY	Detention Basin Excavation
58,000	TON	Aggregate Base Course and Select Material
18,000	TON	Asphalt Concrete
20,500	LF	Curb and Gutter (various)
3,300	SF	Concrete Sidewalk Ramps
8,200	SF	Concrete Valley Gutter
1	LS	Miscellaneous Removal
4,500	LF	PVC Conduit (various)
31	EA	Pull Boxes (various)
27	EA	Pole Foundations (various)
N/A	Various	Landscaping (various)
45,500	LF	Traffic Striping (various)
52	EA	Catch Basins (various)
12,400	LF	Storm Drain (various)
31	EA	Storm Drain Manholes (various)
400	LF	Slotted Drain (various)

## ADMINISTRATIVE REQUIREMENTS

### 1 REFERENCE DOCUMENTS

The work described in the construction specifications and shown on the plans and drawings for this project, shall be performed in accordance with the Maricopa County Association of Governments 1992 issue of the Uniform Standard Specifications for public works construction, and all revisions thereto, the Maricopa County Highway Department Supplements to the Uniform Standard Specifications, dated August 3, 1981 and all subsequent revisions thereto, and the construction specifications, attached hereto.

In the event of a conflict between the plans, the construction specifications, the Maricopa Association of Governments Uniform Standard Specifications, the Maricopa County Highway Department Supplements to the Uniform Standard Specifications or subsequent revisions thereto, exist, the order of precedence shall be as follows: the project plans, the construction specifications, the Maricopa County Highway Department Supplements to the Uniform Standard Specifications and all revisions thereto, and the Maricopa County Association of Governments 1992 issue of the Uniform Standard Specifications for Public Works and all revisions thereto.

### 2. ADDENDA (SECTION 102)

It shall be the responsibility of the prospective bidder to determine, prior to the submittal of its bid, if any addenda to the construction specifications have been issued by Maricopa County Department of Transportation. All addenda issued, if not already bound in the construction specifications, shall be submitted by bidder with its bid and noted in the proposal section of the construction specifications. Any quantity adjustment, required as a result of the addendum, shall be reflected on the bidding schedule in pen and ink.

Bids which do not reflect the appropriate changes on the bidding schedule, do not have all issued addenda attached and noted in the proposal section of the Contract, will be rejected by the **COUNTY**.

Prospective bidders may call Maricopa county Department of Transportation in order to ascertain if addenda have been issued for this project.

### 3. PROPOSAL PREPARATION (SECTION 102.5)

**CONTRACTOR** shall submit the entire construction specifications document intact and shall complete and submit the following documents with its bid:

3.1 No Collusion Affidavit - form must be filled out, signed and notarized.

- 3.2 Verification of License - form must be filled out, dated and signed.
- 3.3 MBE/WBE Assurance Affidavit - select one of two options, sign and notarize form.
- 3.4 Proposal - appropriate sections of the form must be filled out, addenda listed, if any, and signed.
- 3.5 Bidding Schedule - must include unit costs, amounts per bid item, and total bid amount. Addenda, if any, must be listed. All notations in the bidding schedule must be legible and in pen or ink.
- 3.6 Surety Bond - proposals must be accompanied by a certified check, cashiers check, or a surety bond for an amount equal to ten percent (10%) of the total amount bid.
- 3.7 All addenda issued by the **COUNTY** for the specific project must be included with the bid.

Other forms - execution of the Contract, submittal of the Performance/Payment Bond and the Certificate of Insurance is not required at the time of bid submittal. These documents must be submitted to the **COUNTY** by the successful bidder at time of contract execution.

**CONTRACTOR** may be required to provide proof of satisfactory completion of similar public works projects.

#### 4. PRE-CONSTRUCTION CONFERENCE

After execution of the Contract by both parties and prior to the commencement of the work, the **ENGINEER** will schedule a pre-construction conference at the facilities of the Maricopa County Department of Transportation located at 2901 West Durango Street, Phoenix, AZ 85009. **CONTRACTOR** shall be represented at a minimum by a company official with signature authority on behalf of its organization.

**CONTRACTOR** shall submit to the **ENGINEER** during the pre-construction conference the following documents:

- 4.1 List of all subcontractors
- 4.2 List of all material sources
- 4.3 Mix design composition
- 4.4 Manufacturer's certification for all materials
- 4.5 Material data safety sheets
- 4.6 Preliminary work schedule
- 4.7 Preliminary traffic plan
- 4.8 Shop drawings

- 4.9 Emergency telephone numbers
- 4.10 Signing authority letter
- 4.11 Name and telephone number of the certified safety professional

The pre-construction conference will cover topics such as critical elements of the work schedule, payment application and the processing of invoices. Representatives of the utilities with facilities in the construction area will coordinate their activities with the **CONTRACTOR**. Additionally, a scheduled start date for the work will be determined.

5. **PERMITS (SECTION 107.2)**

It is **CONTRACTOR'S** responsibility to obtain all permits and licenses, pay all fees, charges, and taxes and prepare all required notices for the lawful execution of the work. Permits for earth moving may be obtained from Air Pollution Control, Maricopa County Department of Environmental Management, 2406 South 24th Street, Suite E-214, Phoenix, Arizona 85034, Telephone Number 506-6700.

6. **CONSTRUCTION SCHEDULE (SECTION 108.4)**

**CONTRACTOR** shall be solely responsible for the planning, scheduling and execution of the work to assure timely completion of the project.

**CONTRACTOR** shall submit its construction schedule to the **COUNTY** in form of a preliminary and, after acceptance by the **ENGINEER**, a final format incorporating the various phases of construction and in accordance with section 401 of the construction specifications.

6.1 The preliminary schedule shall be submitted to the **COUNTY** in triplicate for review and approval at the pre-construction conference. The schedule shall be a schematic (arrow) or precedence diagram, reflecting the work stages and all activities required for the successful completion of the project. The schedule shall show enough detail to allow day to day monitoring of **CONTRACTOR'S** operation and shall include major milestone dates for the work.

6.2 **CONTRACTOR** shall submit the final schedule to the **COUNTY** in triplicate no later than ten (10) calendar days after **ENGINEER'S** approval of the preliminary schedule. The final schedule shall include a complete critical path schedule and shall include a detailed network diagram, acceptable to the **ENGINEER**, with the following elements:

- 6.2.1 CONTRACTOR'S** final schedule shall be time scaled in calendar days and all activities shall be recorded from the initial start dates to their completion dates. Unless specific approval was given by the **ENGINEER**, the individual activities shall not exceed fifteen (15) calendar days in length. The plot size and scale shall be acceptable to the **ENGINEER**.
- 6.2.2** The schedule shall reflect the order and the individual categories for each activity described in section 6.2.7, below. Critical activities shall be highlighted by use of color or any other method acceptable to the **ENGINEER**.
- 6.2.3** The schedule shall include, in addition to all construction activities, such tasks as mobilization, demobilization, submittal and approval of material samples and shop drawings, procurement of major material and equipment items, fabrication of special items and the installation and testing of such items. The schedule shall also reflect coordination activities with other projects.
- 6.2.4** Activities shall show sufficient detail to allow the reviewer to easily follow the sequence of the work, for example, forming, reinforcing and placement of concrete on the specific calendar days such activities are scheduled.
- 6.2.5** The diagram shall show each activity, the preceding and the following activity, the activity description, the total float time, and the duration of the activity in working days.
- 6.2.6** Activity descriptions on the diagram shall be job-specific and not of a generic nature.
- 6.2.7** In addition to the diagram, **CONTRACTOR** shall submit a schedule report of the network outlining the following data for each activity:
- preceding and following event and activity numbers
  - activity description
  - activity duration
  - earliest commencement date
  - earliest completion date
  - latest commencement date
  - latest completion date
  - total float times
  - responsible party for specific activity

- 6.3 CONTRACTOR** shall update its schedule as mandated by the following events or as requested by the **ENGINEER**.

- 6.3.1** **CONTRACTOR** shall submit to the **COUNTY** on the tenth (10th) working day of each month a construction progress report (three originals and three copies) describing all completed or in progress activities and the level of completions of all activities to date in connection with this project. Detailed information shall be given for all negative float time. If the **ENGINEER** determines that any or all parts of the network diagram requires revision, **CONTRACTOR** shall furnish the **COUNTY** with the requested revisions within ten (10) calendar days of such request.
- 6.3.2** The monthly report shall be accompanied by a brief description of the job progress, problems encountered, current and anticipated delaying factors and the potential impact on the project schedule, and a description of corrective measures taken or proposed. It shall also include any departures from earlier schedules, including but not limited to, logical sequence or logical ties, constraints, changes in scheduled activities and the duration of such changes, addition or deletion of event numbers, activity numbers and activity descriptions. **CONTRACTOR** shall outline the reason for the departure from the original schedule. All changes to the milestone events require the **ENGINEER'S** prior approval.
- 6.3.3** All costs and expenses incurred by **CONTRACTOR** during the preparation of all schedules and/or reports described in Section 6, above, and all revisions thereto, are considered an overhead item and therefore not reimbursable as a separate pay item.
- 6.3.4** In addition to allowances for various activities in connection with the work, **CONTRACTOR** shall base the schedule on normal weather conditions and shall incorporate the following factors:
- procurement and shipping times for material
  - concrete curing time
  - reasonable allowances for relocation of utilities
- 6.3.5** The **ENGINEER'S** review and approval of the schedule shall not constitute an acceptance of responsibility by the **COUNTY** for the content of the schedule and shall not relieve **CONTRACTOR** of its obligations to commit all its resources to meet the schedule setforth in the construction specifications. The **ENGINEER'S** approval of the schedule shall not constitute a basis for additional time to complete the work specified in the scope of work nor shall it serve as basis for additional compensation.

7. **PAYMENT**

7.1 The "COMPLETE-IN-PLACE" rate shall include but not necessarily be limited to all labor, material and equipment costs for preparation, installation, construction, modification, alteration or adjustment of the items, which shall include all costs for salaries and wages, all payroll additives to cover employee benefits, allowances for vacation and sick leave, company portion of employee insurance, social and retirement benefits, all payroll taxes, contributions and benefits imposed by any applicable law or regulation and any other direct or indirect payroll-related costs. The rate shall also include but not necessarily be limited to all costs for indirect charges or overhead, mileage, travel time, subsistence, materials, freight charges for material to **CONTRACTOR'S** facility or project site, equipment rental, consumables, tools, insurance to the levels specified in Section 103.6, , **CONTRACTOR'S INSURANCE**, all applicable taxes, as well as the **CONTRACTOR'S** fee and profit. This rate shall further include all site clean-up costs and hauling of construction debris to disposal sites designated by the **ENGINEER**.

7.2 Payment will be made for only those items listed in the proposal and will not be made in accordance with the measurement and payment provisions of the Standard Specifications where this differs from the items listed in the proposal. All materials and work necessary for completion of this project are included in proposal items. Any work or materials not specifically referred to in these items are considered incidental to the item and are included in the unit price.

**Payment shall not be made for unused materials.**

7.3 It is the responsibility of the bidders to contact all municipalities in the area to determine if they will charge the **CONTRACTOR** sales taxes or any other fees for work on this project. Any such taxes or fees shall be paid by the **CONTRACTOR**.

8. **PAYMENT FOR BOND ISSUES AND BUDGET PROJECTS (SECTION 109.7)**

Add the following paragraph:

The **COUNTY** will accept securities in a form and from a financial institution acceptable to the **COUNTY**, in accordance with the Arizona Revised statutes, Section 34-221, as amended, in lieu of ten percent (10%) retainage on pay estimates, if requested by **CONTRACTOR**.

All other provisions of section 109.7 of the Uniform Standard Specifications for public works construction shall remain in full force and effect.

9. **MATERIALS SOURCES**

All materials not specifically noted as provided by the COUNTY or other participating agency shall be obtained from commercial sources. CONTRACTOR shall pay all royalties or any other charges or expenses incurred in connection with the securing and hauling of the material. CONTRACTOR shall provide the ENGINEER with a list of proposed commercial sources prior to utilization of such sources and shall present satisfactory evidence that the material obtained from the commercial sources meets the specifications of this project.

(END OF SECTION)

## SUPPLEMENTARY GENERAL PROVISIONS

### 1. DEFINITION OF TERMS (SUBSECTION 101.2)

- 1.1 Add the definition "Maricopa County Minority Business Office (MBO)"; the office responsible for administering the Maricopa County Minority and Woman-Owned Business Enterprise Program.
- 1.2 Add the definition "Maricopa County Minority and Woman-Owned Business Enterprise Program, (MBE/WBE)" as being the program adopted by the Board of Supervisors, effective January 1, 1992.
- 1.3 Add the definition "**COUNTY**" as being the Maricopa County Department of Transportation, acting through its legally constituted officials, officers, or designated employees.
- 1.4 Add the definition "Americans With Disabilities Act of 1990 (ADA)" as the act that makes is unlawful to discriminate in employment and/or service provision, against a qualified individual with a disability.

### 2. COORDINATION OF PLANS AND SPECIFICATIONS

**CONTRACTOR** shall perform the work under this Contract in accordance with the intent of the drawings and construction specifications and shall not take advantage of any error or omission in the drawings and/or construction specifications. In the event **CONTRACTOR** discovers an error or omission in the drawings and/or construction specifications, **CONTRACTOR** shall promptly advise the **ENGINEER** of such an error or omission. If **CONTRACTOR** fails to notify the **ENGINEER** of an error or omission in the drawings and/or construction specifications, which **CONTRACTOR** has discovered or should have discovered through the exercise of reasonable diligence, any additional work required as the result of such errors or omissions, shall be compensated by the **COUNTY** on a force account basis and such compensation shall be the exclusive compensation to **CONTRACTOR** for any costs, expenses or damages resulting directly or indirectly from the correction of such errors and omissions.

### 3. INSURANCE ( SECTION 103.6)

**CONTRACTOR** shall provide and maintain, with insurers acceptable to the **COUNTY**, until all obligations under this Contract are satisfied, the following insurance coverages:

- 3.1** Comprehensive General Liability insurance with a combined single limit of FIVE MILLION DOLLARS (\$ 5,000,000) each occurrence. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, contractor's protective, products and completed operations. The policy shall also include coverage for hazards commonly referred to as XCU. Said policy shall contain a severability of interest provision. The products and completed operations coverage shall extend for two (2) years past acceptance, cancellation, or termination of the services.

In addition to the Certificate(s) of Insurance, **CONTRACTOR** shall furnish to the **COUNTY** an Endorsement specifying the separate project aggregate and XCU coverage, signed by an Underwriter or an authorized representative of the insurance company.

- 3.2** Comprehensive Automobile Liability insurance with a combined single limit for bodily injury and property damage of FIVE MILLION DOLLARS (\$ 5,000,000) each occurrence with respect to **CONTRACTOR'S** vehicles whether owned, hired, or non-owned, assigned to or used in the performance of the work.
- 3.3** Worker's Compensation insurance to cover obligations by federal or state statutes having jurisdiction of **CONTRACTOR'S** employees engaged in the performance of the work, and Employer's Liability insurance with a limit of ONE MILLION DOLLARS (\$ 1,000,000) each accident.
- 3.4** The policies required by Sections 3.1 and 3.2, above, shall be endorsed to include Maricopa County, all of its officers, agents, employees, elected officials, and representatives, and such insurance shall be primary insurance and insurance carried by the **COUNTY** shall not be contributory insurance.

The Certificate of Insurance furnished by **CONTRACTOR** shall reflect the precise language of the added insured clause stated on the sample certificate.

- 3.5** **CONTRACTOR** and its insurers providing the required coverages shall waive all rights of recovery against the **COUNTY**, all of its officers, agents, employees, elected officials, representatives.
- 3.6** Concurrent with the execution of the contract, **CONTRACTOR** shall furnish the **COUNTY** with certificates of insurance issued by **CONTRACTOR'S** insurer, in a form acceptable to the **COUNTY**, as evidence that the policies and endorsements provide the required coverages and limits and comply with the requirements of this section 1 and are in full force and effect. Such

certificates shall provide for not less than thirty (30) days notice of cancellation, termination or alteration. Such notices shall be sent directly to the **COUNTY** and addressed as follows:

Maricopa County Department of Transportation  
Manager, Contracting Branch  
2901 West Durango Street  
Phoenix, AZ 85009

The **COUNTY'S** failure to request Certificates of Insurance or maintain current certificates on file, shall not relieve **CONTRACTOR** of its obligation to maintain the coverages specified in this Section 1.

The **COUNTY** reserves the right to request and receive certified copies of any and or all of the above policies and/or endorsements. The **COUNTY** shall not be obligated, however, to review such policies and/or endorsements or to advise **CONTRACTOR** of any deficiencies in such policies and/or endorsements, and such receipt shall not relieve **CONTRACTOR** from or shall be deemed a waiver of the **COUNTY'S** right to insist on strict fulfillment of **CONTRACTOR'S** obligation of the requirements of this Section 3.

- 3.7 The stipulation of insurance coverage in this Section 1 shall not be construed to limit or waive any liabilities or other obligations of **CONTRACTOR** or the **COUNTY** or any other parties in connection with this Contract or the work performed.

#### 4. **INDEMNIFICATION (SECTION 103.6.2)**

- 4.1 Pursuant to Section 103.6.2 of the Maricopa Association of Governments (MAG) Standard Specifications, **CONTRACTOR** shall indemnify and save harmless the **COUNTY**, all of its officers, agents, employees, elected officials, representatives, insurers, and any jurisdiction or agencies issuing permits for any work included in this project, their officers and employees (hereinafter collectively referred to as "**INDEMNITEE(S)**") from any and all loss, cost, damage, and expense of any kind and description, including but not limited to, attorneys' fees and litigation expenses that may be incurred by any **INDEMNITEE** on account of a) any loss of or damage to any property of the **COUNTY**, any other participating agency or any third party, or b) any injury or death of any person, including but not limited to, employees of the **COUNTY**, **CONTRACTOR**, and subcontractors, which arises out of or results from, in whole or in part, any act, omission, fault, mistake, or negligence of **CONTRACTOR**, its employees, agents, representatives, or subcontractors, their employees, agents, or representatives, in connection with or in any way related to the work under this Contract.

4.2 **CONTRACTOR'S** obligation under this Section 2 shall apply, without limitation, to: a) those liability-causing events in which **CONTRACTOR**, its employees, agents, representatives, or subcontractors, their employees, agents, or representatives, are negligent; b) the condition of the equipment, tools, and material used and/or the methods utilized in, or the manner of, performing the work; c) any claims under workers compensation, unemployment compensation, unemployment disability compensation, or similar such laws and obligations applicable to employees of **CONTRACTOR** and/or its subcontractors; d) any valid claim made by any **INDEMNITEE** against **CONTRACTOR** for enforcement of any indemnity under this Contract.

4.3 **CONTRACTOR** shall defend each **INDEMNITEE** against all claims, demands, suits, actions, and proceedings for which **CONTRACTOR** has, or potentially has, indemnification responsibility under this Section 2. The **COUNTY** shall have the right, at its sole discretion, on its own behalf or on behalf of any other **INDEMNITEE**, to participate in such defense to whatever extent the **COUNTY** deems necessary to protect its own interest or that of other **INDEMNITEE**, and **CONTRACTOR** shall cooperate fully with the **COUNTY** in any such participation.

## 5. **NEGOTIATION CLAUSE**

Recovery of expenses incurred by **CONTRACTOR** for a delay for which the **COUNTY** is responsible, and which is unreasonable under the circumstances and which was not contemplated by the parties, shall be negotiated between **CONTRACTOR** and the **COUNTY**. This provision shall not be construed to void any provisions of the Contract which required notice of delays, provides for arbitration or other procedures for settlement, or provides for the assessment of liquidated damages.

## 6. **SUBSTITUTES AND "OR EQUAL" ITEMS (SUBSECTION 105.2.1)**

6.1 Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the specification or description is intended to establish the type, function and quantity required. Unless the specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment of other suppliers may be accepted by **ENGINEER** under the following circumstances:

6.1.1 "Or-Equal": If in **ENGINEER'S** sole discretion an item of material or equipment proposed by **CONTRACTOR** is functionally equal to that named and sufficiently similar so that no change in related work will be required, it may be considered by **ENGINEER** as an "or-equal" item, in which case review and approval of the proposed item may,

at **ENGINEER'S** sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed substitute items.

**6.1.2** Substitute Items: If in the **ENGINEER'S** opinion an item does not qualify as an "or-equal" item under 6.1.1., it will be considered a proposed substitute item. **CONTRACTOR** shall submit sufficient information, as provided below, to allow the **ENGINEER** to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefore. The procedure for review by the **ENGINEER** will include the following as supplemented in the Special Provisions and as **ENGINEER** may decide is appropriate under the circumstances. Requests for review of proposed substitute items of material or equipment will not be accepted by **ENGINEER** from anyone other than **CONTRACTOR**. If **CONTRACTOR** wishes to furnish or use a substitute item of material or equipment, **CONTRACTOR** shall first make written application to the **ENGINEER** for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice **CONTRACTOR'S** achievement of completion on time, whether or not acceptance of the substitute for use in the work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with **COUNTY** for work on the project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified shall be identified in the application and available maintenance, repair and replacement services shall be indicated. The application shall also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by the **ENGINEER** in evaluation the proposed substitute. The **ENGINEER** may require **CONTRACTOR** to furnish additional data about the proposed substitute.

**6.1.3** All data provided by **CONTRACTOR** in support of any proposed "or-equal" or substitute item will be at **CONTRACTOR'S** sole expense.

**7. SUBSTITUTE CONSTRUCTION METHODS OR PROCEDURES (SUBSECTION 105.2.2)**

**7.1** If a specific means, method, technique, sequence or procedure of construction is shown or indicated and expressly required by the Contract Documents, **CONTRACTOR** may furnish or utilize a substitute means, method, technique, sequence or procedure of construction acceptable to the **ENGINEER**. **CONTRACTOR** shall submit sufficient information to allow the **ENGINEER** at the **ENGINEER'S** sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by the **ENGINEER** will be similar to that outlined in Section 6.1.2, above.

**8. ENGINEERS EVALUATION (SUBSECTION 105.2.3)**

**8.1** The **ENGINEER** will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to sections 6.1 and 7.1, above. The **ENGINEER** will be the sole judge of acceptability. No "or-equal" or substitute shall be ordered, installed or utilized without the **ENGINEER'S** prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. The **COUNTY** may require **CONTRACTOR** to furnish at **CONTRACTOR'S** expense a special performance guarantee or other surety with respect to any "or-equal" or substitute. The **ENGINEER** will record time required by the **ENGINEER** and the **COUNTY'S** consultants in evaluating substitutes proposed or submitted by **CONTRACTOR** pursuant to 6.1.2 and 7.1, above and in making changes in the Contract Documents occasioned thereby. Whether or not **ENGINEER** accepts a substitute item so proposed or submitted by **CONTRACTOR**, **CONTRACTOR** shall reimburse the **COUNTY** for cost incurred for the evaluation of the proposed substitute item by the **ENGINEERS** and/or **COUNTY'S** consultant.

**9. GUARANTEE AND WARRANTY PROVISIONS (SECTION 108.8)**

The first paragraph of the guarantee and warranty provisions of the MAG Standard Specifications shall be deleted in its entirety and replaced with the following paragraphs:

**CONTRACTOR** warrants that the work performed and materials used shall be free of defects for the period of one (1) year from the date of final acceptance of the work, excluding ordinary wear and tear or unusual abuse and neglect. Additionally, **CONTRACTOR** warrants that all corrections made under the warranty provisions of Section 108.8 of the MAG Standard Specifications shall be free of defects in workmanship or material for a period of one (1) year, commencing on the day of final acceptance of the corrections by the **ENGINEER**.

Failure by the **ENGINEER** to reject defective workmanship and/or material during construction, shall not be construed as an acceptance of said workmanship and/or material and **CONTRACTOR** shall correct such workmanship and/or material at the request of the **COUNTY** at any time prior to final acceptance of the work or for a one (1) year period thereafter.

All other provisions of Section 108.8 of the MAG Standard Specifications shall remain in full force and effect.

## **10. VALUE ENGINEERING**

**10.1 Purpose** - This clause defines a Construction Incentive Change Order Proposal ("CICOP") and establishes the policy and procedure for the application of CICOP's in the Maricopa County construction process.

**10.2 Definition** - A CICOP is a defined, written proposal for a change order during construction and shall be initiated, developed and identified by **CONTRACTOR**. The CICOP shall result in gross capital savings and a net capital cost reduction, shall not increase the total maintenance cost of the project and shall meet the following requirements:

**10.2.1** Any and all time extensions for the project shall be agreed upon by both parties at the time the CICOP is approved. The **COUNTY'S** determination shall be binding upon the **CONTRACTOR** and shall not be subject to challenge.

**10.2.2** The CICOP shall not alter the initially intended function, quality and safety standards of the project.

**10.2.3** The CICOP shall not change the overall scope of the work, which would require a re-bidding of the project.

**10.2.4** The CICOP shall not conflict with any contract provisions regarding proprietary and restrictive specifications for bids in connection with MAG Standard Specifications and details, or any other applicable specifications.

**10.2.5** The CICOP shall not cause undue interruption of the contract work schedule.

**10.2.6** The proposed changes in connection with the CICOP shall comply with all federal, state and local regulations, mandates and permits.

**10.2.7** **CONTRACTOR** may submit a preliminary CICOP, which shall address all components required for a final CICOP, in summary form. The **COUNTY** will review the preliminary CICOP and inform **CONTRACTOR** in writing if the **COUNTY** wishes to implement the CICOP. **CONTRACTOR** would then be instructed to prepare a detailed CICOP.

**10.3** Applicability - All Maricopa County construction contracts.

**10.4** Content - The CICOP shall contain pertinent information and support documentation to allow comprehensive review by the appropriate contracting agency. At a minimum, the CICOP shall include the following information:

**10.4.1** Name and title of individuals associated with the design and preparation of the CICOP.

**10.4.2** Detailed scope description with signed plans and specifications. A comparison summary of present design, proposed changes and detailed description of the advantages and disadvantages for each change proposed.

**10.4.3** Comprehensive procedure and schedule outlining implementation of CICOP, including all required contract amendments and the absolute latest approval date for the CICOP.

**10.4.4** Estimated cost summary which shall include but not necessarily be limited to the following:

**10.4.4.1** Project cost with and without CICOP, which shall include the following items:

**10.4.4.1.1** Quantities of materials and equipment.

**10.4.4.1.2** Unit prices for materials and equipment.

**10.4.4.1.3** Hourly rates and total labor hours required for installation.

- 10.4.4.1.4** Overhead and fee percentage of **CONTRACTOR** and all subcontractors of any tier involved in the performance of the work outlined in the CICOP.
- 10.4.4.2** Operations and maintenance cost prior to and after implementation of CICOP.
- 10.4.4.3** Implementation cost of the CICOP not covered in section 10.4.4.1, above.
- 10.4.4.4** **CONTRACTOR'S** cost of the savings, based on the formula specified below.
- 10.4.4.5** Other pertinent data, as may be required by the **COUNTY** to prepare and execute a change order to the Contract.
- 10.4.4.6** If the **CONTRACTOR** fails to notify the **COUNTY** of all required changes for the CICOP during the initial CICOP approval stage, **CONTRACTOR** shall absorb all costs connected with the implementation of changes of which the **COUNTY** was not made aware of. If conditions occur, which could not be foreseen by any prudent **CONTRACTOR**, the **COUNTY** may enter into negotiations with **CONTRACTOR** and make the necessary cost adjustments to the Contract.
- 10.4.4.7** All CICOP'S become public record when submitted to the **COUNTY** for review and approval. Propriety information may be protected by the **CONTRACTOR**.
- 10.4.4.8** For CICOP'S accepted by the **COUNTY**, processing procedure for change orders shall be used.
- 10.4.4.9** If a CICOP is rejected by the **COUNTY**, **CONTRACTOR** may not appeal such a rejection.

**10.5** Sharing Provisions - Upon acceptance and implementation of a CICOP, **CONTRACTOR** will share the net capital savings derived from the implementation of the CICOP, in accordance with the formula outlined below:

**10.5.1** Initial construction cost minus revised construction cost minus CICOP development cost and CICOP implementation cost equals net capital savings.

**10.5.1.1** The CICOP implementation cost shall include the **CONTRACTOR'S** actual cost and fee for reviewing and redesigning the CICOP, documented to the satisfaction of the **COUNTY**.

**10.5.1.2** CICOP development cost shall include **CONTRACTOR'S** cost directly associated with the preparation of the CICOP package, documented to the satisfaction of the **COUNTY**.

**10.5.2** Sharing Formula - Cumulative Net Capital Savings, calculated in accordance with the formula outlined in Section 10.5.1, above, shall be shared with the **CONTRACTOR** on an equal 50/50 percentage basis.

**11. NON-DISCRIMINATION**

**CONTRACTOR**, in connection with any activity under this Contract, shall not discriminate against any person on the grounds of race, color, religion, sex, national origin, age, handicap, political affiliation or belief. **CONTRACTOR** shall include a clause to this effect in all subcontracts. **CONTRACTOR** shall also comply with all applicable provisions of the Americans with Disabilities Act of 1990.

## PROPOSAL

TO THE BOARD OF SUPERVISORS  
MARICOPA COUNTY  
PHOENIX, ARIZONA

Gentlemen:

The following Proposal is made for constructing Work Order No. 68828, University Drive, Higley Road to Power Road, in the County of Maricopa, State of Arizona.

The following Proposal is made on behalf of

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and no others. Evidence of authority to submit the Proposal is herewith furnished. The Proposal is in all respects fair and is made without collusion on the part of any person, firm, or corporation mentioned above, and no member or employee of the Board of Supervisors is personally or financially interested, directly or indirectly, in the Proposal, or in any purchase or sale of any materials or supplies for the work to which it relates, or in any portion of the profits thereof.

The Undersigned certifies that the approved Plans, Construction Specifications, Forms of Contract, Bonds, and Sureties authorized by the Board of Supervisors and constituting essential parts of this Proposal, have been carefully examined and also that the site of the work has been personally inspected.

The Undersigned declares that the amount and nature of the work to be done is understood and that at no time will misunderstanding of the Plans, Construction Specifications, Special Provisions, or conditions to be overcome, be pled. On the basis of the Plans, Construction Specifications, Special Provisions, the Forms of Contract, Bonds, and Sureties proposed for use, the Undersigned proposes to furnish all the necessary machinery, equipment, tools, apparatus, and other means of construction, to do all the work and to furnish all the materials in the manner specified and to finish the entire project within the time hereinafter proposed and to accept, as full compensation therefore, the sum of various products obtained by multiplying each unit price, herein bid for the work or materials, by the quantity thereof actually incorporated in the complete project, as determined by the Engineer.

The Undersigned understands that the quantities mentioned herein are approximate only and are subject to increase or decrease and hereby proposes to perform all quantities of work, as either increased or decreased, in accordance with the provisions of the Specifications, at the unit price bid in the Bidding Schedule.

The Undersigned further proposes to perform all extra work that may be required on the basis provided in the Specifications and to give such work personal attention and to secure economical performance.

The Undersigned further proposes to execute the Contract Agreement and furnish satisfactory Bonds and Sureties within ten (10) days of receipt of Notice of Proposal acceptance, **TIME BEING OF THE ESSENCE**. The Undersigned further proposes to begin work as specified in the Contract attached hereto, and to complete the work within **180 calendar days** from the effective date specified in the Notice to Proceed, and maintain at all times a Payment and Performance Bond, approved by the Board of Supervisors, each in an amount equal to one hundred percent of the contract amount. This Bond shall serve not only to guarantee the completion of the work on the part of the Undersigned, but also to guarantee the excellence of both workmanship and material and the payment of all obligations incurred, said Bonds and Sureties to be in full force and effect until the work is finally accepted and the provisions of the Plans, Construction Specifications, and Special Provisions fulfilled.

A Proposal Guaranty in the amount and character named in the Invitation to Bid is enclosed amounting to not less than **ten (10) percent** of the total bid. The Proposal Guaranty is submitted as a guaranty of the good faith of the Bidder and the Bidder will enter into written contract, as provided, to do the work, if successful in securing the award thereof; and it is hereby agreed that if at any time other than as provided in the Proposal requirements and conditions the Undersigned should withdraw its Proposal, if the Proposal is accepted and there should be failure on the part of the Undersigned to execute the Contract and furnish satisfactory Bonds and Sureties as herein provided, the County of Maricopa in either of such events, shall be entitled and is hereby given the right to retain the said Proposal Guaranty as liquidated damages.

The Undersigned acknowledges receipt of the following addenda, had attached these to the bid package, and has included their provisions in the proposal:

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

The Undersigned has enclosed the required bid security to this Proposal.

**BIDDING SCHEDULE**  
**UNIVERSITY DRIVE RECONSTRUCTION**  
**FROM**  
**HIGLEY ROAD TO POWER ROAD (BUSH HIGHWAY)**

WORK ORDER NO. 68828

ITEM #	UNIT	DESCRIPTION	Quantity	UNIT Price	Amount
107.01100	L.S.	N.P.D.E.S.	1		
107.09200	Allowance	Community Relations	1	\$30,000.00	\$30,000.00
110.01000	L.S.	Mobilization	1		
205.00000	C.Y.	Detention Basin Excavation	95,000		
205.03000	C.Y.	Roadway Excavation	23,419		
225.09000	1000GAL	Watering	3,500		
301.02000	MILE	Subgrade Preparation	1.971		
310.07100	TON	Aggregate Base Course ( 4" )	18,018		
310.07200	TON	Select Material Type "A"	42,475		
315.07000	TON	Bituminous Prime Coat (Contingent Item)	128		
321.02100	TON	A.C. Pavement C-3/4 ( 2 - 1/2 " )	11,624		

CONTRACTOR \_\_\_\_\_

**BIDDING SCHEDULE**  
**UNIVERSITY DRIVE RECONSTRUCTION**  
**FROM**  
**HIGLEY ROAD TO POWER ROAD (BUSH HIGHWAY)**

WORK ORDER NO. 68828

ITEM #	UNIT	DESCRIPTION	Quantity	UNIT Price	Amount
321.03100	TON.	A.C. Pavement D-1/2 ( 1 - 1/2 " )	6,930		
329.07000	TON	Bituminous Tack Coat	16		
333.07100	TON	Fog Seal for Asphalt concrete	32		
333.72000	TON	Sand Blotter (Contingent Item)	60		
336.04200	S.Y.	Pavement Replacement, Std. Det. 200	56		
336.08100	L.F.	Pavement Sawcut	5630		
340.02057	S.F.	Conc. S/W Ramp, Std. Det. 233, Type C	1942		
340.02058	S.F.	Conc. S/W Ramp, Std. Det 234, Type D (Mod)	108		
340.01125	L.F.	Conc. C & G Std. Det. 220, Type "A", H=6"	20781		
340.01227	L.F.	Roll Curb & Gutter, Std. Det. 220, Type "C"	186		
340.32055	S.F.	Conc. S/W Ramp, Mesa Det. M-44 , Type "A"	8724		

CONTRACTOR \_\_\_\_\_

**BIDDING SCHEDULE**  
**UNIVERSITY DRIVE RECONSTRUCTION**  
**FROM**  
**HIGLEY ROAD TO POWER ROAD (BUSH HIGHWAY)**

WORK ORDER NO. 68828

ITEM #	UNIT	DESCRIPTION	Quantity	UNIT Price	Amount
340.06950	S.F.	Concrete Sidewalk, Std. Det. 230	25039		
340.07950	S.F.	Concrete Valley Gutter, Std. Det. 240	7622		
340.09350	S.F.	Concrete Driveway w/5' Wings, Std. Det. 250	6765		
340.09950	S.F.	Concrete Driveway Connection, Std. Det. 250	1489		
345.03402	EA.	Reset Sewer MH Cone and Cover Elevation	9		
345.03405	EA.	Adjust Sewer Manhole Cover Elevation	10		
345.09000	EA.	Adj. Valve B and C , Std. Det.391,Type A	6		
350.00011	EA.	Modification and Abandon Dry Wells	5		
350.01100	L.S.	Removal of Existing Improvements	1		
350.04500	S.Y.	Removal of Existing Pavement	68,346		
401.00000	L.S.	Traffic Control	1		

CONTRACTOR \_\_\_\_\_

**BIDDING SCHEDULE**  
**UNIVERSITY DRIVE RECONSTRUCTION**  
**FROM**  
**HIGLEY ROAD TO POWER ROAD (BUSH HIGHWAY)**

WORK ORDER NO. 68828

ITEM #	UNIT	DESCRIPTION	Quantity	UNIT Price	Amount
401.01100	MH.	Uniformed Off-Duty Sheriff's Deputy	280	\$21.00	\$5,880.00
402.01210	EA.	2" P V C Conduit, Schedule 40	1176		
402.01310	L.F.	3" P V C Conduit, Schedule 40	3,321		
403.01300	EA.	# 3 - 1/2 - Pull Box	16		
403.01500	EA.	# 5 - Pull Box	12		
403.01700	EA.	# 7 - Pull Box	3		
404.00101	EA.	Pole Foundation, Type "A-14"	9		
404.00201	EA.	Pole Foundation, Type "Q"	12		
404.00301	EA.	Pole Foundation, Type "SB"	5		
404.00401	EA.	Pole Foundation, Type "P"	1		
405.00010	EA.	Survey Marker, Std. 120-2, Type "D"	3		

CONTRACTOR \_\_\_\_\_

**BIDDING SCHEDULE**  
**UNIVERSITY DRIVE RECONSTRUCTION**  
**FROM**  
**HIGLEY ROAD TO POWER ROAD (BUSH HIGHWAY)**

WORK ORDER NO. 68828

ITEM #	UNIT	DESCRIPTION	Quantity	UNIT Price	Amount
405.01010	EA.	Survey Marker, Std. 120-2, Type "E"	4		
406.01000	EA.	Loop Detector 6' X 6'	16		
406.02000	EA.	Loop Detector 6' X 20'	6		
406.03000	EA.	Loop Detector 6' X 40'	8		
430.00000	L.S.	Detention Basin Landscaping	1		
430.00013	EA.	Plant Saguaro	21		
430.00014	EA.	Plant Palo Verde	2		
430.00017	EA.	Plant Palm	7		
430.00021	EA.	Plant Tree	8		
430.00022	EA.	Remove Tree	8		
430.00023	EA.	Remove Saguaro	21		

CONTRACTOR \_\_\_\_\_

**BIDDING SCHEDULE**  
**UNIVERSITY DRIVE RECONSTRUCTION**  
**FROM**  
**HIGLEY ROAD TO POWER ROAD (BUSH HIGHWAY)**

WORK ORDER NO. 68828

ITEM #	UNIT	DESCRIPTION	Quantity	UNIT Price	Amount
430.00024	EA.	Remove Palo Verde	2		
430.00027	EA.	Remove Palm	7		
430.00032	EA.	Remove Cactus	88		
430.00031	EA.	Plant Cactus	88		
450.01304	L.F.	4" White Thermoplastic Traffic Stripe	12,947		
450.01404	L.F.	4" Yellow Thermoplastic Traffic Stripe	27715		
450.01504	L.F.	White Preformed Pvmt. Marking Tape, Type 1	4802		
450.02000	EA.	Arrows	20		
450.02010	EA.	Reflectorized Raised Pavement Marker	2,196		
450.02020	EA.	Non-Reflectorized Raised Pavement Marker	140		
505.06114	EA.	Catch Basin, Std. Det. 533, Type "D" L=6'	1		

CONTRACTOR \_\_\_\_\_

**BIDDING SCHEDULE**  
**UNIVERSITY DRIVE RECONSTRUCTION**  
**FROM**  
**HIGLEY ROAD TO POWER ROAD (BUSH HIGHWAY)**

WORK ORDER NO. 68828

ITEM #	UNIT	DESCRIPTION	Quantity	UNIT Price	Amount
505.06125	EA.	Catch Basin, Std. Det. 533, Type "D", L=10'	21		
505.06126	EA.	Catch Basin, Std. Det. 533, Type "D", L=10' Dbl.	1		
505.06135	EA.	Catch Basin, Std. Det. 533, Type "D", L=17'	13		
505.06136	EA.	Catch Basin, Std. Det. 533, Type "D", L=17' Dbl.	5		
505.26113	EA.	Catch Basin, C.O.P. Std. P-1570, Type "N"	8		
505.26123	EA.	Catch Basin, C.O.P. Std. P-1570, Type "N" Dbl.	2		
505.26134	EA.	Catch Basin C.O.P. Std. P-1572, Type "Q" Triple	1		
618.00700	EA.	Pipe Plug, Std. Det. 427	7		
618.02230	L.F.	30" Storm Drain, RGRCP, Class II	115		
618.02236	L.F.	36" Storm Drain, RGRCP, Class II	65		
618.02242	L.F.	34" X 53" H.E. Storm Drain, RGRCP, Class II	52		

CONTRACTOR \_\_\_\_\_

**BIDDING SCHEDULE**  
**UNIVERSITY DRIVE RECONSTRUCTION**  
**FROM**

**HIGLEY ROAD TO POWER ROAD (BUSH HIGHWAY)**

WORK ORDER NO. 68828

ITEM #	UNIT	DESCRIPTION	Quantity	UNIT Price	Amount
618.02318	L.F.	18" Connector Pipe, RGRCP, Class III	379		
618.02324	L.F.	24" Connector Pipe, RGRCP, Class III	999		
618.02342	L.F.	42" Storm Drain, RGRCP, Class III	159		
618.02348	L.F.	48" Storm Drain, RGRCP, Class III	98		
618.02372	L.F.	72" Storm Drain, RGRCP, Class III	2544		
618.02412	L.F.	12" Storm Drain, RGRCP, Class IV	210		
618.02418	L.F.	18" Connector Pipe, RGRCP, Class IV	910		
618.02424	L.F.	24" Storm Drain, RGRCP, Class IV	2120		
618.02436	L.F.	36" Storm Drain, RGRCP, Class IV	118		
618.02442	L.F.	42" Storm Drain, RGRCP, Class IV	835		
618.02448	L.F.	48" Storm Drain, RGRCP, Class IV	98		

CONTRACTOR \_\_\_\_\_

**BIDDING SCHEDULE**  
**UNIVERSITY DRIVE RECONSTRUCTION**  
**FROM**  
**HIGLEY ROAD TO POWER ROAD (BUSH HIGHWAY)**

WORK ORDER NO. 68828

ITEM #	UNIT	DESCRIPTION	Quantity	UNIT Price	Amount
618.02454	L.F.	54" Storm Drain, RGRCP, Class IV	2664		
618.02518	L.F.	18" Connector Pipe, RGRCP, Class V	227		
618.02524	L.F.	24" Storm Drain, RGRCP, Class V	691		
618.02536	L.F.	36" Storm Drain, RGRCP, Class V	120		
618.02542	L.F.	42" Storm Drain, RGRCP, Class V	162		
621.41730	LF.	Slotted Drain 30" Pipe 14 Gauge	250		
621.41736	LF.	Slotted Drain 36" Pipe 14 Gauge	150		
623.01212	EA.	Conc. Hdwl, Std. Det. 501, Type "U", 12" Pipe	2		
623.01224	EA.	Conc. Hdwl, Std. Det. 501, Type "U", 24" Pipe	1		
623.01236	EA.	Conc. Hdwl, Std. Det. 501, Type "U", 36" Pipe	1		
623.01242	EA.	Conc. Hdwl, Std. Det. 501, Type "U", 38"X53" Pipe	1		

CONTRACTOR \_\_\_\_\_



IF BY AN INDIVIDUAL:

\_\_\_\_\_  
(NAME - TITLE)

\_\_\_\_\_  
(ADDRESS)

DATE \_\_\_\_\_  
(Phone)

IF BY A FIRM OR PARTNERSHIP:

\_\_\_\_\_  
(FIRM NAME)

\_\_\_\_\_  
(FIRM ADDRESS)

BY: \_\_\_\_\_  
(NAME - TITLE)

DATE \_\_\_\_\_  
(Phone)

**\*\* Name and Address of Each Member:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

**\*\* The name and post office address of each member of the firm or partnership must be shown.**

IF BY A CORPORATION:

\_\_\_\_\_  
(CORPORATE NAME)

\_\_\_\_\_  
(CORPORATION ADDRESS)

BY: \_\_\_\_\_

DATE \_\_\_\_\_  
(Phone)

TITLE \_\_\_\_\_

\* Incorporated under the Laws of \_\_\_\_\_

**Names and Addresses of Officers:**

\_\_\_\_\_  
(PRESIDENT)

\_\_\_\_\_  
(ADDRESS)

\_\_\_\_\_  
(SECRETARY)

\_\_\_\_\_  
(ADDRESS)

\_\_\_\_\_  
(TREASURER)

\_\_\_\_\_  
(ADDRESS)

\* The name of the State under which the laws of the Corporation was chartered and names, title, and business address of the President, Secretary, and Treasurer must be shown.

## SUBCONTRACTOR LISTING

The following is a listing of material suppliers and/or subcontractors which will be used by **CONTRACTOR** in the event the undersigned enters into a **CONTRACT** with the **COUNTY**. No changes of the subcontractors and material suppliers named herein shall be made without the prior written approval of the **COUNTY**.

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(Signature) \_\_\_\_\_

**SURETY BOND**

KNOW ALL MEN BY THESE PRESENTS:

That we, \_\_\_\_\_, as Principal, (hereinafter called the Principal), and the \_\_\_\_\_, a corporation duly organized under the laws of the State of \_\_\_\_\_, as Surety, (hereinafter called the Surety), are held and firmly bound unto Maricopa County (hereinafter called the Obligee), in the sum of **ten percent (10%)** of the total amount of the bid of Principal, submitted by him to the Obligee, for the work described below, for the payment of which sum, well and truly to be made, the said Principal and the said Surety, bind themselves, their heirs, executors, and administrators, successors and assigns, jointly and severally, firmly by these presents, and in conformance with the Arizona Revised Statutes.

WHEREAS, the said Principal is herewith submitting its proposal for Work Order No. 78828, University Drive, Higley Road to Power Road

NOW, THEREFORE, if the Obligee shall accept the proposal of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of the proposal and give the Bonds and Certificates of Insurance as specified in the Standard Specifications with good and sufficient Surety for the faithful performance of the contract and for the prompt payment of labor and material furnished in the prosecution of the contract, or in the event of the failure of the Principal to enter into the contract and give such Bonds and Certificates of Insurance, if the Principal pays to the Obligee the difference not to exceed the penalty of the bond between the amount specified in the proposal and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by the proposal then this obligation is void. Otherwise it remains in full force and effect, provided however, that this bond is executed pursuant to the provisions of Section 34-201, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of the section to the extent as if it were copied at length herein.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, A.D., 19\_\_.

\_\_\_\_\_  
Agent of Record, State of Arizona

\_\_\_\_\_  
Principal Seal

\_\_\_\_\_  
Agent Address

By: \_\_\_\_\_

Bond Number \_\_\_\_\_

\_\_\_\_\_  
Surety Seal

By: \_\_\_\_\_

\_\_\_\_\_  
Power of Attorney Seal

By: \_\_\_\_\_



**VERIFICATION OF LICENSE**

Pursuant to A.R.S. Sec. 32-1169, I hereby state that I hold a current contractor's license, duly issued by the office of the Registrar of Contractors for the State of Arizona, said license has not been revoked, that the license number, classification, and expiration date is: \_\_\_\_\_; that my privilege license number (as required by A.R.S. Sec. 42-1305) is: \_\_\_\_\_; and that, if any exemption to the above licensing requirements is claimed;

(1) The basis for the claimed exemption is: \_\_\_\_\_  
\_\_\_\_\_ and;

(2) The names(s) and license number(s) of any general, mechanical, electrical, or plumbing contractor(s) to be employed on the work are:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

IT IS UNDERSTOOD THAT THE FILING OF AN APPLICATION CONTAINING FALSE OR INCORRECT INFORMATION CONCERNING AN APPLICANT'S CONTRACTOR'S LICENSE OR PRIVILEGE LICENSE WITH THE INTENT TO VOID SUCH LICENSING REQUIREMENTS IS UNSWORN FALSIFICATION PUNISHABLE ACCORDING TO A.R.S. SEC. 13-2704.

DATE: \_\_\_\_\_ SIGNATURE OF LICENSEE: \_\_\_\_\_

COMPANY: \_\_\_\_\_

**MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM  
CONTRACTING REQUIREMENTS**

**A.** The following conditions will apply in the calculation of the percentage attainment:

1. All MBE/WBE firms used in attainment of the goal must be certified with the Maricopa County Minority Business Office (MBO). The MBO is located at 100 West Clarendon, Suite 1420, Phoenix, Arizona 85013, telephone 506-8653. In addition, only those firms certified at least five (5) calendar days prior to the bid opening will be considered in the attainment of the goal.
2. Prime contractor subcontracts to MBE or WBE:  
The MBE/WBE amount to be applied to the goal will be based on that portion (dollar value) of the contract that the MBE/WBE performs. For example, if a prime contractor subcontracts work amounting to \$100,000 of a contract for which the total project cost is \$1,000,000, the MBE/WBE participation will be credited as 10 percent.
3. Prime Minority Contractor:  
An MBE/WBE prime contractor will be credited with the MBE/WBE participation for that portion of the contract which they themselves perform plus that portions subcontracted to other MBE/WBE firms. For example, if an MBE/WBE prime contractor proposes to perform 50 percent of a project quoted at \$1,000,000 and subcontracts 25 percent to an MBE firm and 25 percent to a non-MBE/WBE firm, MBE/WBE participation will be credited as 75 Percent, or \$750,000.
4. Minority-Non-Minority Joint Venture:  
A joint venture consisting of MBE/WBE participation and non-MBE/WBE business enterprises, functioning as a prime contractor, will be credited with minority participation on the basis of the percentage of profit accruing to the MBE/WBE firm. For example, if a MBE/WBE and non-MBE/WBE joint venture proposes to perform 50 percent of a \$1,000,000 project and 50 percent of the joint venture profits (\$500,000) are to accrue to the MBE/WBE partner in the joint venture, MBE/WBE participation will be credited at 25 percent or \$250,000.
5. Lower Tier Non-MBE/WBE Participation:  
MBE/WBE subcontractors proposing to further subcontract to non-MBE/WBE contractors shall not have that portion of subcontracting activity considered when determining the percentage of MBE/WBE participation.
6. MBE/WBE Suppliers:  
Any MBE/WBE supplier that manufactures or substantially alters the material or product it supplies will have that portion of activity considered when determining the percentage of MBE/WBE participation.
7. MBE/WBE Trucking:  
Credit for trucking by MBEs or WBEs will be the amount to be paid when the MBE or WBE trucker will perform the trucking with his/her trucks, tractors, and employees or when a MBE or WBE trucking broker has signed agreements with MBE and WBE truckers.

**B. Required forms:**

Two Affidavits are included as part of this section. The first form, the "MBE/WBE Assurances Affidavit", must be completed and submitted with the bid. **FAILURE TO DO SO SHALL BE CAUSE FOR REJECTION OF THE BID.**

A SAMPLE of the second affidavit, the "Actual MBE/WBE Participation Affidavit", is provided for information purposes. This form with actual information must be returned by the first and second low bidders by 4:00 p.m. on the seventh calendar day after bid opening. The Affidavit will list the MBE/WBE participation by MBE/WBE firm name and the related dollar value of the MBE/WBE contract. The information in this Affidavit is binding on the contractor, to the extent that any amounts may be increased and not decreased, and that if any listed MBE/WBE's are unable to enter into a subcontract with contractor, the contractor must provide a written report to the Procurement Officer through the Owner's representative in accordance with instructions provided elsewhere (substitution of subcontractors or subconsultants) in this document.

**C. Good Faith Efforts:**

Bids which fail to meet MBE or WBE minimum goals at levels which equal or exceed established goals may be considered nonresponsive unless good faith efforts can be determined. Only MBE and WBE firms certified by Maricopa County prior to the bid opening and which will perform a commercially useful function will be counted toward meeting the participation goals. Any portion of the work that a proposed MBE or WBE firm will subcontract to other than another certified firm, regardless of tier, will not be counted toward the applicable goals.

The apparent first and second low bidder who do not fulfill the established MBE and WBE goals must demonstrate, through detailed and comprehensive documentation, that "good faith" efforts have been made to solicit, assist and utilize MBE and WBE firms to meet participation goals.

The County Minority Business Office (MBO) will assist prime contractors in identifying possible qualified and interested MBE and WBE subcontractors to meet designated MBE and WBE goals. A M/WBE directory will be made available which contractors must utilize in identifying MBE and WBE firms. It will be the responsibility of the prime contractors to obtain the MBE and WBE firms necessary to meet the MBE and WBE goals.

**FAILURE TO CONTACT THE MBO FOR ASSISTANCE** in complying with these goals may result in not having implemented "good faith" efforts. Contact may be in writing, by telephone, or in person. If by phone or in person, name of MBO person spoken to should be obtained and written within the "CONTRACTOR CERTIFICATE OF GOOD FAITH" submittal form.

**FAILURE TO IMPLEMENT "GOOD FAITH" EFFORTS IN ACCORDANCE WITH THE MARICOPA COUNTY MINORITY BUSINESS ENTERPRISE PROGRAM TO THE SATISFACTION OF MARICOPA COUNTY, COULD RESULT IN THE REJECTION OF THE BID.**

If information submitted by a prime contractor indicates that established MBE and WBE goals have not been met, the contractor must be required to provide sufficient documentation to demonstrate that he/she has complied with MBE and WBE requirements or good faith efforts. Good faith efforts will be determined by both quality and intensity of these efforts. Documentation provided to the Minority Business Office (MBO) must include:

1. The date bidder requested assistance in writing, in person, or by telephone from the MBO. The bidder should request assistance from the MBO office in order for a determination to be made. As Maricopa County M/WBE listings are updated frequently, bidders shall contact the MBO to ensure that they have the most recent edition.
2. Names, addresses and telephone numbers; and dates of notification of Maricopa County certified MBEs and WBEs solicited by direct mail for this project; and dates and methods used for follow up of initial solicitations to determine with certainty whether MBEs or WBEs were interested in subcontracting. **(SEE NOTE)**
3. Items of work for which bidder requested sub bids, or materials to be supplied by MBEs and WBEs; information furnished to interested MBEs and WBEs such as specifications and requirements of the work; plans; and any breakdown of items of work into economically feasible units to facilitate MBE and WBE participation.
4. Names of MBEs and WBEs who submitted bids for any of the work indicated above and were not accepted by the prime contractor. An explanation of why MBEs or WBEs contacted were not awarded subcontracts. If price was the reason for rejection of the bid, the price bid of rejected MBEs or WBEs and price bid of the selected subcontractor shall be submitted. Since utilization of available MBEs and WBEs is the program objective, price differences will not automatically be considered as cause for rejection of MBE and WBE bids.
5. Documentation of written notices or telephone calls to a reasonable number of M/WBEs soliciting their participation in sufficient time to allow M/WBEs to participate effectively. All M/WBEs listed on the Maricopa County Certification list which provide applicable goods and services for subject procurement/project should be contacted.

**NOTE: THE ABOVE GOOD FAITH EFFORTS MUST HAVE BEEN CONDUCTED DURING THE BIDDING PERIOD AND PRIOR TO THE BID OPENING WITH SUBSTANTIAL TIME IN ORDER TO ALLOW FOR A RESPONSE FROM POTENTIAL M/WBE SUBCONTRACTORS. ORIGINAL CONTACT BY A PRIME CONTRACTOR JUST PRIOR TO OR ON THE BID OPENING WILL NOT BE CONSTRUED AS HAVING PROVIDED SUFFICIENT RESPONSE TIME FOR SUBMISSION OF SUBCONTRACT BIDS.**

The following efforts can also be utilized in demonstrating "Good Faith" in soliciting M/WBE participation:

1. A description of the efforts made to assist MWBEs whose bids were rejected to be more competitive in their subcontracting bids. These efforts could include assistance in meeting bonding or insurance requirements.
2. Names and dates of advertisement of each newspaper, trade paper, and minority focus paper in which a request for M/WBE participation for this project was placed by the bidder.

Contractors are encouraged to seek M/WBEs in the same geographical area in which the work is to be performed or goods provided. If the bidder cannot meet the established goals using M/WBEs from the geographical area, the bidder should expand its search to a reasonable wider geographical area.

The MBO will make the final decision as to whether good faith efforts were met, based on the information submitted.

The MBO will determine if good faith efforts were met based on the information submitted.

**D. Appeal Process for Bid Award:**

If the Owner is considering award of a contract to a bidder other than the low bidder because of failure to meet MBE and WBE participation goals or good faith efforts, the low bidder will be notified and give an opportunity to protest the decision. This protest will be made in accordance with the Maricopa County Procurement Code, Article 9, MCI-905, which is incorporated by reference.

**E. Contract Compliance:**

Failure of any bidder, contractor or subcontractor to comply with any of the requirements of the Maricopa County Minority and Women-Owned Business Program shall be a material breach of contract. During the term of an awarded contract, the prime contractor shall:

1. Fulfill the MBE and WBE participation commitments submitted with their bid;
2. Continue to make every effort to utilize MBEs and WBEs;
3. Require that their subcontractors make every effort to utilize MBEs and WBEs;
4. Maintain records necessary for monitoring their compliance with provisions contained in the M/WBE Program.

The primary responsibility for assuring contractor's compliance with these M/WBE contract requirements after award rests with the Owner's designated representative. The Owner's designated representative should ascertain that no one other than the approved MBE or WBE contractors or subcontractors are performing the work, and that MBE and WBE subcontractor substitutes

have been approved in advance. The prime contractor shall not perform any contract work items without prior approval by the Owner's designated representative.

The Owner's designated representative shall advise the Minority Business Office immediately of any circumstances where a contractor appears to be in violation of the MBE and WBE contract requirements. An investigation will be held by the MBO and a recommendation for corrective action shall be forwarded to the Owner's designated representative. Intentional noncompliance with the MBE and WBE requirements may result in withholding funds on the items already completed, in termination of the contract, and/or formal debarment from future contracts. The Maricopa County Minority Business Office (MBO) reserves the right to inspect all records of the contractor, MBEs and WBEs concerning this project.

The MBO will conduct MBE and WBE compliance reviews on a regular basis.

**F. Substitution of Subcontractors:**

The prime contractor shall request approval to replace an approved MBE or WBE subcontractor that is unable or unwilling to perform successfully on a contract with another MBE or WBE. This failure does not remove the contractor's responsibility for meeting the MBE and WBE participation goals on the contract. A written request for substitution must be made to the Owner's Procurement Officer, through the appropriate Owner's representative, of the Procurement Agency. The substitute MBE or WBE, obtained to perform an equal or greater dollar value of work, must be approved by the Owner's Procurement Officer, through the appropriate Owner's representative, prior to beginning of any work by the substitute MBE or WBE. The request for substitution must include, but is not limited to the following:

1. Reason for substitution.
2. Name, address, and telephone number of the approved MBE or WBE.
3. Name, address and telephone number of the MBE or WBE substitute.
4. Item, numbers, description of work and the proposed MBE and/or WBE dollar amount.
5. Good faith effort documentation if the substitute subcontractor is not an MBE or WBE.

**G. Requests for Pay:**

Each Request for Pay must be accompanied by a Maricopa County Minority/Women-Owned Business Enterprise Program MBE/WBE Participation Report in the form as provided in these documents.

The final pay request shall include a listing of total contract MBE/WBE participation. Line numbers and a description of actual work performed shall also be included. If, at the time of contract completion, the MBE and WBE commitments are not actually attained, the report is to provide an explanation of failure to comply. These reports shall be submitted within thirty (30) days of contract completion, prior to release of any remaining contract retention.

**MARICOPA COUNTY  
 MINORITY/WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM  
 MBE/WBE ASSURANCES AFFIDAVIT  
 NOTE: FAILURE TO COMPLETE AND SUBMIT THIS AFFIDAVIT WITH THE BID  
 PROPOSAL  
 SHALL BE CAUSE FOR REJECTION OF THE BID.**

The undersigned, fully cognizant of the Maricopa County MBE/WBE Program requirements and of the goal established, hereby certifies that in the preparation of this bid,

\_\_\_\_\_ (the entity submitting the bid)

(CHECK ONE)

\_\_\_\_\_ Will meet the **established** goal for participation by Minority/Women-Owned Business Enterprises.

\_\_\_\_\_ Will provide the necessary documentation to Minority Business Office to establish that a good faith effort was made.

The first and second low bidders will specify their MBE/WBE participation on the Actual Participation Affidavit or provide documentation of their good faith efforts not later than 4:00 p.m., the seventh calendar day following the bid opening. If participation is "None", the Affidavit will be completed and returned with "None" so stated therein, together with the documentation of bidder's good faith efforts to obtain the participation. This documentation will be reviewed by the MBO to determine whether in fact a comprehensive "good faith" effort has been implemented. The required affidavit shall be obtained by the apparent first and second low bidders from the Minority Business Office, 100 West Clarendon, Suite 1420, Phoenix, Arizona 85013, following the bid opening and verbal notification from the Procurement Officer of the Procurement Agency; a sample affidavit form for reference purposes follows.

\_\_\_\_\_ Name of Firm

\_\_\_\_\_ Signature

\_\_\_\_\_ Title

STATE OF ARIZONA     )  
                                   )ss  
 COUNTY OF MARICOPA    )

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 199\_\_, by \_\_\_\_\_.

\_\_\_\_\_ Notary Public

MARICOPA COUNTY  
MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM  
ACTUAL MBE/WBE PARTICIPATION AFFIDAVIT

(completed affidavit must be submitted within seven calendar days following bid opening)

\_\_\_\_\_  
Name of Prime Contractor

\_\_\_\_\_  
Project/Contract Number

\_\_\_\_\_  
Contact Person

\_\_\_\_\_  
Total Amount of Contract

\_\_\_\_\_  
Street No.

(THIS IS A SAMPLE FORM)

\_\_\_\_\_  
City State Zip

<u>Minority/Women-owned Firm</u>	<u>Principal</u>	<u>Address</u>	<u>Type of Work</u>	<u>Subcontract Amount</u>

The undersigned has entered into a formal agreement with the minority contractors/suppliers listed above in the execution of this contract with Maricopa County.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

STATE OF ARIZONA     )  
                              ) ss  
County of Maricopa    )

\_\_\_\_\_  
Date

Subscribed and sworn to before me

this \_\_\_\_\_ day of \_\_\_\_\_ by \_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**MARICOPA COUNTY  
MINORITY/WOMEN-OWNED BUSINESS ENTERPRISES PROGRAM**

**MBE/WBE PARTICIPATION REPORT  
(To be attached with Request for Pay)**

Date: \_\_\_\_\_  
Contractor: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Project: \_\_\_\_\_  
Contract Number: \_\_\_\_\_  
For Pay Period of: \_\_\_\_\_  
Subcontractor: \_\_\_\_\_  
Person to Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Type of Firm: \_\_\_\_\_  
Class of Work: \_\_\_\_\_  
Subcontract Amount: \_\_\_\_\_  
Amount Earned \_\_\_\_\_  
(Commission) This Period: \_\_\_\_\_  
Total Earned by This Subcontractor: \_\_\_\_\_  
Total MBE/WBE Contract Goal, %: \_\_\_\_\_  
Total Cumulative MBE/WBE \_\_\_\_\_  
Participation on This Contract, %: \_\_\_\_\_  
MBE/WBE subcontract payment made \_\_\_\_\_  
during this reporting period (yes or no): \_\_\_\_\_

cc: Minority Business Office  
100 West Clarendon, Suite 1420  
Phoenix, Arizona 85013

**PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS  
NONDISCRIMINATION IN EMPLOYMENT BY GOVERNMENT  
CONTRACTORS AND SUBCONTRACTORS**

During the performance of this contract, the contractor agrees as follows:

- A. The contractor will not discriminate against any employee or applicant for employment because of race, age, color, religion, sex, handicap, or national origin. The contractor will take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to their race, age, color, religion, sex, handicap, or national origin. Such action shall include but not be limited to the following: Employment, upgrading, demotion or transfer, recruitment or recruitment advertising, lay-off or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- B. The contractor will in all solicitations or advertisement for employees placed by or on behalf of the contractor state that all qualified applicants will receive consideration for employment without regard to race, age, color, religion, sex, handicap, or national origin.
- C. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided by the agency contracting officer advising the labor union or workers' representative of the contractor's commitments under this Executive Order and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. The contractor will furnish all information and reports required by the contracting agency and will permit access to his books, records and accounts by the contracting agency and the Civil Rights Division for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- E. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations or orders of the Arizona Civil Rights Division said noncompliance will be considered a material breach of the contract and this contract may be canceled, terminated or suspended in whole or in part, and the contractor may be declared ineligible for further government contracts until said contractor has been found to be in compliance with the provisions of this order and the rules and regulations of the Arizona Civil Rights Division, and such sanctions may be imposed and remedies invoked as provided in Part II of this order, and the rules and regulations of the Arizona Civil Rights Division.
- F. The contractor will include the provisions of paragraphs A through E in every subcontractor purchase order so that such provision will be binding upon each subcontractor or vendor. The contractor will take such action with respect in the subcontract or purchase order as the contracting agency

may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the State of Arizona to enter into such litigation to protect the interests of the State of Arizona.

- G. Each contractor having a contract containing the provisions prescribed in this section shall file and shall cause each of his subcontractors to file compliance reports with the contracting agency or the Civil Rights Division, as may be directed. Compliance reports shall be filed within such times and shall contain such information as the practices, policies, programs and employment policies, programs and employment statistics of the contractor and each subcontractor and shall be in such form as the Arizona Civil Rights Division may prescribe.
- H. Bidders or prospective contractors or subcontractors shall be required to state whether they have participated in any previous contract subject to the provisions of this order or any preceding similar Executive Order and in that event to submit on behalf of themselves and the proposed subcontractors compliance reports prior to, or as an initial part of negotiation of a contract.
- I. Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the compliance report shall include such information from such labor unions or agency practices and policies affecting compliance as the contracting agency or Civil Rights Division may prescribe; provided that, to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify the contracting agency as part of its compliance report and shall set forth what efforts he has made to obtain such information.
- J. The contracting agency or the Civil Rights Division shall require that the bidder or prospective contractor or subcontractor shall submit as part of his compliance report a statement in writing signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training with which the bidder or prospective contractor deals with supporting information to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex, handicap, or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this order or that it consents and agrees that recruitment employment and the terms and conditions of employment under the proposed contract shall be in accordance with the purpose and provisions of this order. In the event that the union or the agency shall refuse to execute such a statement, the compliance shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as the contracting agency or the Civil Rights Division may require.

## Part II - Enforcement

- A. Each contracting agency shall be primarily responsible for obtaining compliance with this Executive Order with respect to contracts entered into by such agency or its contractors. All contracting agencies shall comply with the rules of the Civil Rights Division in discharging their primary responsibility for securing compliance with the provisions of contracts and otherwise with the terms of this order and rules and regulations and orders of the Civil Rights Division issued pursuant to this order. They are directed to cooperate with the Civil Rights Division and to furnish the Division such information and assistance as it may require in the performance of the Division's functions under this order. They are further directed to appoint or designate from among the agency personnel compliance officers. It shall be the duty of such officers to first seek compliance with the objective of this order by conference, conciliation, mediation or persuasion.
- B. The Civil Rights Division may investigate the employment practices of any government contractor or subcontractor or initiate such investigation by appropriate contracting agency or determine whether or not the contractual provisions specified in this order have been violated. Such investigations shall be conducted in accordance with the procedures established by the Civil Rights Division and the investigating agencies shall report to the Civil Rights Division any action taken or recommended. The Civil Rights Division may receive and investigate or cause to be investigated complaints by employees or prospective employees of a government contractor or subcontractor which allege discrimination contrary to the contractual provisions specified in Part I of this order. If the investigation is conducted for the Civil Rights Division by a contracting agency, that agency shall report to the Civil Rights Division that action has been taken or is recommended with regard to such complaint.
- C. The Civil Rights Division shall use its best efforts directly and through contracting agencies, other interested state and local agencies, contractors and all other available instrumentalities to cause any labor union engaged in work under government contracts or any agency referring workers or providing or supervising apprenticeship or training for or in the course of such work to cooperate in the implementation of the purposes of this order.
- D. The Civil Rights Division or any agency, officer or employee in the executive branch of the government designated by rule, regulation or order of the Civil Rights Division may hold such hearings, public or private as the Division may deem advisable for compliance, enforcement or educational purposes. The Civil Rights Division may hold or cause to be held hearings in accordance with rules and regulations issued by the Civil Rights Division prior to imposing, ordering or recommending the imposition of penalties and sanctions under this order.
- E. No order for debarment of any contractor from further government contracts under this order shall be made without affording the contractor an opportunity for a hearing.

**F. Sanctions and Penalties.** In accordance with such rules, regulations or orders as the Civil Rights Division may issue or adopt, the Civil Rights Division or the appropriate contracting agency may publish or cause to be published the names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this order and with the rules, regulations and orders of the Civil Rights Division.

1. Contracts may be canceled in whole or in part, terminated, or suspended absolutely, or continuation of contracts may be conditioned upon a program for future compliance approved by the contracting agency or the Civil Rights Division; provided that any contracting agency shall refrain from entering into further contracts, extensions or other modifications of existing contracts with any noncomplying contractor until such contractor has established and will carry out personnel and employment policies in compliance with the provisions of this order.
2. Under rules and regulations prescribed by the Civil Rights Division, each contracting agency shall make reasonable efforts within a reasonable time limitation to secure compliance with the contract provisions of this order by methods of conference, conciliation, mediation and persuasion before proceedings shall be instituted under this order or before a contract shall be canceled or terminated in whole or in part under this order for failure of a contractor or subcontractor to comply with the contract provisions of this order.

## CONTRACT AGREEMENT

THIS AGREEMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_, by and between MARICOPA COUNTY, hereinafter called the COUNTY, acting by and through its BOARD OF SUPERVISORS, and

---

hereinafter called the CONTRACTOR.

WITNESSETH: That the said CONTRACTOR, for and in the consideration of the sum of \_\_\_\_\_ to be paid to him by the COUNTY, in the manner and at the times hereinafter provided, and of the other covenants and agreements herein contained, hereby agrees for himself, heirs, executors, administrators, successors, and assigns as follows:

**ARTICLE I - SCOPE OF WORK:** The CONTRACTOR shall construct, and complete in a workmanlike and substantial manner and to the satisfaction of the Department of Transportation Director, a project for the Maricopa County Department of Transportation, designated as Work Order No. 68828, University Drive, Higley Road to Power Road, and furnish at its own cost and expense all necessary machinery, equipment, tools, apparatus, materials, and labor to complete the work in the most substantial and workmanlike manner according to the Plans and Specifications on file with the Maricopa County Department of Transportation, and such modifications of the same and other directions that may be made by the Maricopa County Department of Transportation as provided herein.

**ARTICLE II - CONTRACT DOCUMENTS:** The Contract Documents (Invitation to Bid, Administrative Requirements, Supplementary General Provisions, Plans, Construction Specifications, Addenda, if any, Maricopa County Association of Governments (MAG) Standard Specifications and Uniform Standard Details, latest revisions thereto, General Site Regulations, Proposal, Affidavits, Performance Bond, Payment Bond, Certificates of Insurance, and Change Orders, if any,) are by this reference made a part of this Contract and shall have the same effect as though all of the same were fully inserted herein.

**ARTICLE III - TIME OF COMPLETION:** The CONTRACTOR further covenants and agrees at its own proper cost and expense, to do all work as aforesaid for the construction of said improvements and to completely construct the same and install the material therein, as called for by this agreement free and clear of all claims, liens, and charges whatsoever, in the manner and under the conditions specified within the time, or times, stated in the proposal pamphlet.

**ARTICLE IV - PAYMENTS:** For and in consideration of the satisfactory performance of the work herein embraced as set forth in the Contract Documents, which are a part hereof and in accordance with the directions of the COUNTY, through its Engineer and to its satisfaction, the COUNTY agrees to pay the said CONTRACTOR the amount earned, computed from actual quantities of work performed and accepted or materials furnished at the unit bid price on the Proposal made a part hereof, and to make such payment in accordance with the requirements of A.R.S. Sec. 34-221, as amended. The CONTRACTOR agrees to discharge its obligations and make payments to its subcontractors and suppliers in accordance with A.R.S. Sec. 32-1129.

**ARTICLE V - TERMINATION:** The **COUNTY** hereby gives notice that pursuant to A.R.S. Sec. 38-511(A) this contract may be canceled without penalty or further obligation within three years after execution if any person significantly involved in initiation, negotiation, securing, drafting or creating a contract on behalf of the **COUNTY** is, at any time while the contract or any extension of the contract is in effect, an employer agent of any other party to the contract in any capacity or a consultant to any other party of the contract with respect to the subject matter of the contract. Cancellation under this section shall be effective when written notice from the Transportation Director of the **COUNTY** is received by all of the parties to the contract. In addition, the **COUNTY** may recoup any fee for commission paid or due to any person significantly involved in initiation, negotiation, securing, drafting or creating the contract on behalf of the **COUNTY** from any other party to the contract arising as a result of the contract.

**ARTICLE VI - NEGOTIATION CLAUSE:** Recovery of damages related to expenses incurred by the **CONTRACTOR** for a delay for which the **COUNTY** is responsible, which is unreasonable under the circumstances and which was not within the contemplation of the parties to the contract, shall be negotiated between the **CONTRACTOR** and the **COUNTY**. This provision shall be construed so as to give full effect to any provision in the contract which requires notice of delays, provides for arbitration or other procedure for settlement or provides for liquidated damages.

**ARTICLE VII - COMPLIANCE WITH LAWS:** The **CONTRACTOR** is required to comply with all Federal, State and local ordinances and regulations. The **CONTRACTOR's** signature on this contract certifies compliance with the provisions of the I-9 requirements of the Immigration Reform Control Act of 1986 for all personnel that the **CONTRACTOR** and any subcontractors employ to complete this project. It is understood that the **COUNTY** shall conduct itself in accordance with the provisions of the Maricopa County Procurement Code.

**ARTICLE VIII - MBE/WBE PROGRAM:** The Maricopa County Department of Transportation will endeavor to ensure in every way possible that minority and women-owned business enterprises shall have every opportunity to participate in providing professional services, purchased goods, and contractual services to the Maricopa County Department of Transportation without being discriminated against on the grounds of race, age, color, religion, sex, handicap, or national origin. The Maricopa County Minority Business Program implemented January 1, 1992, is incorporated by reference.

**ARTICLE IX - ANTI-DISCRIMINATION PROVISION:** The **CONTRACTOR** agrees not to discriminate against any employee or applicant for employment because of race, age, color, religion, sex, handicap, or national origin, and further agrees not to engage in any unlawful employment practices. The **CONTRACTOR** further agrees to insert the foregoing provision in all subcontracts hereunder.

IN WITNESS WHEREOF: Five (5) identical counterparts of this Contract, each of which shall for all purposes be deemed an original thereof, have been duly executed by the parties hereinabove named, on the date and year first above written.

\_\_\_\_\_  
CONTRACTOR

BY: \_\_\_\_\_  
PRINTED NAME

BY: \_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
TITLE

DATE \_\_\_\_\_

\_\_\_\_\_  
TAX IDENTIFICATE NUMBER

RECOMMENDED BY:

\_\_\_\_\_  
TRANSPORTATION DIRECTOR

DATE \_\_\_\_\_

LEGAL REVIEW:

Approved as to form and within the powers and authority granted under the laws of the State of Arizona to Maricopa County.

BY: \_\_\_\_\_  
DEPUTY COUNTY ATTORNEY

DATE \_\_\_\_\_

CERTIFICATE OF INSURANCE APPROVED:

BY: \_\_\_\_\_

DATE \_\_\_\_\_

BY: \_\_\_\_\_  
CHAIRMAN, BOARD OF SUPERVISORS

DATE \_\_\_\_\_

ATTEST:

BY: \_\_\_\_\_  
CLERK OF THE BOARD

**STATUTORY PAYMENT BOND PURSUANT TO TITLE 34  
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES  
(Penalty of this bond must be 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), as Surety, are held and firmly bound unto Maricopa County (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 \_\_\_ day of \_\_\_\_\_, 1993, for Work Order No. 68828, University Drive, Higley Road to Power Road, 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 said 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, of the 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 it was copied at length in this Agreement.

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

Witness our hands this \_\_\_ day of \_\_\_\_\_, 1993.

\_\_\_\_\_  
PRINCIPAL SEAL

BY: \_\_\_\_\_

\_\_\_\_\_  
AGENT OF RECORD, STATE OF AZ

\_\_\_\_\_  
AGENT ADDRESS

\_\_\_\_\_  
SURETY SEAL

BOND NUMBER: \_\_\_\_\_

BY: \_\_\_\_\_

**STATUTORY PERFORMANCE BOND PURSUANT TO TITLE 34  
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES  
(Penalty of this bond must be 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), as Surety, are held and firmly bound unto Maricopa County, (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 Obligee, dated the \_\_\_ day of \_\_\_\_\_, 1993, for Work Order No. 68828, University Drive, Higley Road to Power Road, 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 said Principal shall faithfully perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said contract during the original term of said contract and any extension thereof, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety being hereby waived; then the above obligation shall be void, otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, of the Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of said Title, Chapter, and Article, to the extent as if it was copied at length herein.

The prevailing party in a suit on this bond shall be entitled to such reasonable attorney's fees as may be fixed by a judge of the court.

Witness our hands this \_\_\_ day of \_\_\_\_\_, 1993.

\_\_\_\_\_  
PRINCIPAL SEAL

BY: \_\_\_\_\_

\_\_\_\_\_  
AGENT OF RECORD, STATE OF AZ

\_\_\_\_\_  
AGENT ADDRESS

\_\_\_\_\_  
SURETY SEAL

\_\_\_\_\_  
BOND NUMBER:

BY: \_\_\_\_\_



# CERTIFICATE OF INSURANCE

COUNTY DEPARTMENT \_\_\_\_\_

PROJECT TITLE \_\_\_\_\_

NAME AND ADDRESS OF INSURANCE AGENCY	INSURANCE COMPANIES APPROXIMATE COVERAGES
	Company Letter <b>A</b>
	Company Letter <b>B</b>
NAME AND ADDRESS OF INSURED	Company Letter <b>C</b>
	Company Letter <b>D</b>
	Company Letter <b>E</b>
	Company Letter <b>F</b>
	Company Letter <b>G</b>

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE AND ARE IN FORCE AT THIS TIME.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EXPIRATION DATE	LIMITS OF LIABILITY IN \$1,000	
				MINIMUM	EACH OCCURRENCE
	<input checked="" type="checkbox"/> COMPREHENSIVE GENERAL LIABILITY FORM <input checked="" type="checkbox"/> PREMISES OPERATIONS <input checked="" type="checkbox"/> CONTRACTUAL <input checked="" type="checkbox"/> BROAD FORM PROPERTY DAMAGE <input checked="" type="checkbox"/> EXPLOSION & COLLAPSE <input type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS HAZARD <input type="checkbox"/> UNDERGROUND HAZARD <input checked="" type="checkbox"/> INDEPENDENT CONTRACTORS <input checked="" type="checkbox"/> PERSONAL INJURY			BODILY INJURY per person \$1,000 each occurrence \$5,000 PROPERTY DAMAGE \$1,000 OR BODILY INJURY AND PROPERTY DAMAGE Combined \$5,000	
	<input checked="" type="checkbox"/> COMPREHENSIVE AUTO LIABILITY & NON-OWNED			SAME AS ABOVE	
	<input type="checkbox"/> EXCESS LIABILITY			NECESSARY IF UNDERLYING NOT ABOVE MINIMUM	
	<input checked="" type="checkbox"/> WORKERS' COMPENSATION and EMPLOYERS' LIABILITY			STATUTORY each accident	\$1,000
	<input type="checkbox"/> OTHER				

Maricopa County is added as an insured in respect to liability arising in any manner out of the performance of the contract entered into between the named insured and Maricopa County or liability arising out of any services provided or duty performed by any party as required by statute, law, purchase order, or otherwise required. It is agreed that any insurance available to the named insured shall be primary of other sources that may be available. It is further agreed that no policy shall expire, be cancelled or materially changed to effect the coverage available to the County without thirty days written notice to the County. THIS CERTIFICATE IS NOT VALID UNLESS COUNTERSIGNED BY AN UNDERWRITER OF THE INSURANCE COMPANY OR AN AUTHORIZED REPRESENTATIVE OF THE INSURANCE COMPANY.

NAME AND ADDRESS OF CERTIFICATE HOLDER  
 Maricopa County Dept. of Trans.  
 2901 West Durango Street  
 Phoenix, Arizona 85009

DATE ISSUED \_\_\_\_\_ AUTHORIZED REPRESENTATIVE  
 7500-301 5/82

It is further agreed that:

The Contractor hereby agrees to indemnify and save harmless Maricopa County, or any of its departments, agencies, officers or employees, from and against all loss, expense, damage or claim of any nature whatsoever which is caused by any activity, condition or event arising out of the performance or nonperformance of any of the provisions of this Agreement. Maricopa County shall in all instances be indemnified against all liability, losses and damages of any nature for or on account of any injuries to or death of persons or damages to or destruction of property arising out of or in any way connected with the performance or nonperformance of this Agreement, except such injury or damage as shall have been occasioned by the negligence of Maricopa County. The above cost of damages incurred by Maricopa County or any of their departments, agencies, officers or employees, or others aforesaid shall include in the event of an action, court costs, expenses for litigation and reasonable attorney's fees.

\_\_\_\_\_  
Firm

\_\_\_\_\_  
Date

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Title

## GENERAL SITE REGULATIONS

### 1. SITE RESPONSIBILITY

- 1.1 **CONTRACTOR** and its subcontractors and their respective employees, agents, and representatives, when performing the work described in the Construction Specifications, shall comply with all rules and regulations set forth by the **COUNTY**, pertaining to the safety, loss control and shall perform the work in compliance with governmental laws and regulations pertaining to occupational health, and environmental protection, including any local sound control and noise level rules, regulations and ordinances which apply to any work performed pursuant to the contract..
- 1.2 **CONTRACTOR** is solely responsible for jobsite ("site") conditions during all phases of construction, beginning with **CONTRACTOR's** mobilization of equipment and/or personnel until the work has been accepted by the engineer and a certificate of completion has been issued by the **COUNTY**. **CONTRACTOR's** responsibility for the site during the period specified above, shall not be limited to **CONTRACTOR'S** working hours and shall include but not necessarily be limited to the following:
- \* Physical condition of the site;
  - \* Safety of **CONTRACTOR's** personnel at the site and all other persons entering the site or areas adjacent to the site;
  - \* Security of **CONTRACTOR's** equipment and material; and
  - \* Reasonable aesthetic appearance of the site.
- 1.3 **CONTRACTOR** shall insure that internal combustion equipment is operated with a muffler of a type recommended by the manufacturer.

### 2. COOPERATION WITH UTILITIES

- 2.1 **CONTRACTOR** is solely responsible for any damage to existing utilities resulting from **CONTRACTOR's** operations at the site.
- 2.2 An attempt has been made by the **COUNTY** to identify the location of all underground utilities located within the perimeter of the site and to design the location and elevation of all irrigation and drainage pipes, culverts and structures to avoid interference with existing utilities. It shall be the **CONTRACTOR's** responsibility to cooperate with the appropriate utility companies in order to facilitate requested adjustments of obstructing utilities. (Please refer to the Construction Specifications for specific telephone numbers and contact persons of utilities within the project area.)
- 2.3 **CONTRACTOR's** installation of conduits, brackets, piping or other material at the request and for the convenience of the utility, shall be paid by the utility unless specifically identified otherwise in the plans or the Construction

Specifications. **CONTRACTOR** shall make all required arrangements for such construction and payment with the utility. The **COUNTY** will not extend the performance period of the contract to accommodate construction performed for the convenience of the utility.

**3. REMOVAL OF EXISTING IMPROVEMENTS**

**3.1** If the work specified in the Construction Specifications requires the removal of existing improvements by the **CONTRACTOR**, **CONTRACTOR** shall perform such removal in a safe manner avoiding damage to improvements not designated for removal and dispose of all construction debris in a manner and in a location approved by the engineer. **CONTRACTOR** shall refer to Section 350 of the Construction Specifications for specific information.

**4. BORROW MATERIAL**

**4.1** If the use of borrow material is required during the performance of the work outlined in the Construction Specifications, **CONTRACTOR** shall assure that the borrow material used for the project, if the source is other than that recommended by the **COUNTY**, does not contain any substances which may be harmful to humans, animals, vegetation, ground and surface water, and the environment and which are regulated under the Hazardous Material Transportation Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act (RCRA), and the Comprehensive Environmental ReSponse, Compensation, and Liability Act (CERCLA).

**5. TRANSPORTATION OF CONSTRUCTION MATERIAL**

**5.1** **CONTRACTOR** shall cover dump trucks while transporting materials which may become airborne during transit. After dumping of such materials, **CONTRACTOR** shall either cover truck bed or take measures to remove all residues that may become airborne.

**6. OFF-SITE TRACKING OF SEDIMENTS**

**6.1** **CONTRACTOR** shall minimize off-site tracking of sediments by brushing or blowing off construction vehicles, or any other method deemed appropriate by **CONTRACTOR**, prior to exiting the construction site.

**7. HAZARDOUS MATERIAL HANDLING**

**7.1** **CONTRACTOR** shall furnish to the **COUNTY** Material Safety Data Sheets (MSDS) for all regulated and/or hazardous substances which **CONTRACTOR** plans to bring to the site and which may be harmful to humans, animals, vegetation, ground and surface water and the environment and which are regulated under the Hazardous Material

Transportation Act, the Toxic Substances Control Act, the Resources Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act.

**7.2** **CONTRACTOR** shall further furnish to the **COUNTY** prior to the start date of the work a list of all regulated and/or hazardous materials, identified above, which **CONTRACTOR** intends to bring to the site. The list shall contain the following information:

- \* Quantity of material
- \* Description of material
- \* Intended use of the material.

Additionally, **CONTRACTOR** shall furnish the **COUNTY** with Material Safety Data Sheets for all regulated and/or hazardous substances **CONTRACTOR** plans to bring to the site or use during the performance of the work.

**CONTRACTOR** shall immediately report spills of oil, gasoline, diesel, lubricants, chemicals and other hazardous material or regulated substances to the **COUNTY** and to all federal, state and local agencies having jurisdiction. Accidental spills shall be immediately contained, the spilled material and contaminated soil removed in accordance with the guidelines established on the Material Safety Data Sheets and in accordance with all applicable federal, state and local laws, mandates, regulations and ordinances. After completion of the clean-up activities, **CONTRACTOR** shall restore the spill area to preexisting conditions.

**7.3** The **COUNTY** will make reasonable effort to locate and identify potentially hazardous materials and/or underground storage tanks within the project area, prior to construction. In the event material is found by the **CONTRACTOR** or subcontractors of any tier, during the performance of the work, that is suspected to be hazardous, **CONTRACTOR** shall follow the following procedure:

1. Call '911' in a life threatening situation.
2. Stop work at the affected area and remove all personnel from that area.
3. Barricade the area and provide traffic control to prohibit unauthorized entry.
4. Notify the MCDOT Safety Office (506-8601) and the Engineer.
5. Notify the appropriate regulatory agency(ies) and emergency services.

The Engineer, in consultation with the appropriate regulatory agencies and emergency services, will determine the necessary remediation plan for the Site.

Remediation activities shall only be performed by a certified hazardous waste disposal remediation company, approved by the COUNTY.

**8. SITE CLEAN-UP**

**8.1 CONTRACTOR** shall be responsible for the safe and clean condition of the site during the entire period the site is under **THE CONTRACTOR'S** care, custody and control. **CONTRACTOR** shall dispose of construction debris on an as-needed basis in order to keep the site safe to **CONTRACTOR's** personnel and the general public. Construction debris shall be disposed of only in a manner or in a location approved by the Engineer.

**9. WATER, LIGHT, POWER, HEAT, AND TELEPHONES**

**9.1** All water for **CONTRACTOR'S** own use, drinking water, temporary electric power, heat, and telephone service shall be arranged for or provided by **CONTRACTOR**, at **CONTRACTOR's** sole expense.

**10. EXCAVATION OR DISPOSAL SITES**

**10.1 CONTRACTOR** shall contact the Maricopa County Flood Control District at 506-1501 for sources of sand, gravel or borrow material or to obtain information on the location of disposal sites for excess material to assure that the selected disposal site is not in conflict with any Flood Control District project or located in a floodplain.

**10.2 CONTRACTOR** shall obtain and submit to the Engineer during the pre-construction conference a copy of the response from Maricopa County's Flood Control District or the municipal floodplain manager having jurisdiction over the proposed excavation or disposal site or shall furnish to the engineer a floodplain use permit.

**11. TRAFFIC CONTROL**

**11.1** All traffic control shall conform to the Construction Specifications for this project and the request of the County Traffic Engineer or designated representative. Part IV of the "Manual On Uniform Traffic Control Devices For Streets And Highways" (U.S. Department of Transportation, Federal Highway Division) and all revisions thereto, the Traffic Manual from the City of Phoenix and all revisions thereto shall serve as a guideline in **CONTRACTOR's** preparation of a traffic control plan.

- 11.2** It shall be **CONTRACTOR's** responsibility to provide, erect and maintain all necessary signs, barricades, barriers, berms, lights, delineators, and any other required devices, uniformed officers, and flagman necessary to properly mark and control the construction area. Temporary traffic control devices shall be installed prior to the start of any work. It shall be the **CONTRACTOR's** responsibility to construct the required by pass roads in order to make road available to traffic. The **COUNTY's** approval of **CONTRACTOR's** traffic control method shall not relieve **CONTRACTOR** of its responsibility to protect the work, **CONTRACTOR's** personnel, or the general public.
- 11.3** **CONTRACTOR** shall provide and maintain all necessary signs, barricades and centerline vertical panels for five (5) working days beyond the concrete cure time or acceptance of the project by the **COUNTY**, whichever period is greater.
- 11.4** A road closure for the convenience of **CONTRACTOR** is not authorized, without the prior approval of the **COUNTY'S** Traffic Engineer. Traffic restrictions are not permitted on major or collector streets during peak traffic hours of 6:00 a.m. to 8:30 a.m. and 4:00 to 7:00 p.m. weekdays. During off-peak hours a minimum of two lanes (one in each direction) on streets four lanes or less and four lanes on streets with five or more lanes shall be available to traffic. Traffic lanes shall be a minimum of twelve feet (12') wide and be safe to vehicular traffic at an operating speed of twenty-five (25) miles per hour. Local access to residences shall be maintained at all times.
- 11.5** All advance warning construction signs shall be mounted on channels driven into the ground. Each mile and half-mile point of the project shall be signed with construction and speed limit signs, mounted on channels driven into the ground and placed in locations where removal during construction activities will be avoided.
- 11.6** **CONTRACTOR** shall refer to Section 401, Traffic Control, of the Construction Specifications for specific traffic control requirements for this project and shall submit to the **COUNTY** during the pre-construction conference its traffic control plan for each phase of construction, detailing the traffic flow pattern and the use and placement of temporary traffic controls, signs, barricades and other safety measures.

## **12. NPDES CONSTRUCTION PERMIT REQUIREMENTS**

If the **COUNTY** designates this project to be subject to the National Pollutant Discharge Elimination System (NPDES) stormwater requirements for construction sites under the Environmental Protection Agency (EPA) General Permit for Arizona, **CONTRACTOR** shall comply with the following provisions:

**12.1** Under the provisions of the EPA General Permit for Arizona, **CONTRACTOR** shall be designated as permittee, and shall take all necessary measures to assure compliance with the NPDES General Permit for Arizona as well as all other applicable federal, state and local laws, ordinances, statues, rules and regulations pertaining to stormwater discharge. As the permittee, **CONTRACTOR** is responsible for preparing, in a manner acceptable to the EPA, all documents required by this regulation, which shall include but not necessarily be limited to the following:

**12.1.1** Stormwater Pollution Prevention Plan (SWPPP) for the project, including Certification of Compliance form. **CONTRACTOR** shall be required to develop, implement, update and revise the SWPPP, as necessary, in order to assure compliance with the EPA permit requirements. The SWPPP shall be retained on the project site at all times during construction.

**12.1.2** Notice of Intent (NOI) to assure compliance with the NPDES General Permit for Arizona, including certification of signatures.

**12.1.3** Notice of Termination (NOT) of coverage under the NPDES General Permit for Arizona.

**12.2** Preliminary copies of the NOI and the SWPPP shall be submitted to the **COUNTY** during the pre-construction conference and shall be subject to review by the **COUNTY** prior to implementation.

**12.3** **CONTRACTOR** shall submit the completed and duly signed NOI forms no later than forty-eight (48) hours prior to the initial start of construction on the project to the following agencies:

**EPA STORMWATER NOTICE OF INTENT  
P.O. BOX 1215  
NEWINGTON, VA 22122**

A copy of the completed NOI form shall be submitted to the following address:

**STORMWATER COORDINATOR  
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
P.O. BOX 600  
PHOENIX, AZ 85001-0600**

(Local municipality, as applicable, where construction project is located)

- 12.4** Failure by **CONTRACTOR** or subcontractor of any tier to submit NOIs within the mandated time frame shall result in delay of the construction start date and no claims for extension of time will be granted for such a delay. A copy of the completed NOI shall be posted at the construction site.
- 12.5** **CONTRACTOR** shall perform inspections of all stormwater pollution control devices on the project on a monthly basis or following a rainfall of .50 inches or more during a 24 hour period at the project site, as required under the provisions of the NPDES General Permit for Arizona. **CONTRACTOR** shall prepare reports on such inspections and shall retain the reports for a period of three (3) years following the completion of the project. Inspection reports shall be submitted monthly to the **COUNTY** along with progress payment requests. Additionally, **CONTRACTOR** shall maintain all stormwater pollution control devices on the project in proper working order, which shall include cleaning and/or repair during the duration of the project.
- 12.6** **CONTRACTOR** shall use its best effort to assure that its employees and subcontractors of any tier and their employees shall at all times comply with all applicable laws, ordinances, statutes, rules and regulations set forth by all federal, state and local governments and the Environmental Protection Agency in connection with the NPDES Construction Permit requirements and laws and regulations pertaining to air, ground water and surface water quality.
- 12.7** Fines and penalties imposed by the EPA for **CONTRACTOR's** failure to comply with any or all of the requirements of the NPDES General Permit for Arizona, shall be borne by the **CONTRACTOR**.
- 12.8** Upon project completion, acceptance and demobilization, **CONTRACTOR** shall submit its completed, duly executed NOT form to the EPA at the address listed above, with a copy to the Arizona Department of Environmental Quality and the appropriate municipality, thereby mating all NPDES permit coverage for the project. **CONTRACTOR** shall then surrender to the **COUNTY** copies of the SWPPP, inspection information and all other documents prepared and maintained by **CONTRACTOR** in compliance with the NPDES General Permit. **CONTRACTOR** shall retain the originals of such documents for a period of three (3) years following the completion of the project and make such documents available for inspection by representatives of the Environmental Protection Agency, the Arizona Department of Environmental Quality, the **COUNTY** or municipality having jurisdiction, upon request.
- 12.9** The lump sum price for the SWPPP shall include all material, labor, and all other costs relating to the preparation, installation and maintenance of the SWPPP during project construction, including assuring proper operation of the pollution control devices installed, and all maintenance, cleaning, and disposal costs associated with clean-up and repair following storm events,

runoff or releases on the project. The lump sum price for the SWPPP shall be inclusive of all costs, and no additional claims shall be made by the **CONTRACTOR** under any other specification provision of these documents, including change conditions. **CONTRACTOR** shall be compensated for this bid item at a rate of 25% of the total bid item with the first progress payment, with the remaining 75% of the total bid item prorated over the entire length of the project.

- 12.10** Copies of all required forms and guidance for preparing the SWPPP are available in the "Drainage Design Manual For Maricopa County, Volume HI Erosion Control". The manual is available at the Flood Control District, 2801 West Durango, Phoenix, Arizona 85009.

**(END OF SECTION 12)**

SRP File or License # \_\_\_\_\_

### CONSTRUCTION CLEARANCE AGREEMENT

This CONSTRUCTION CLEARANCE AGREEMENT is made by and between \_\_\_\_\_ ("CONTRACTOR") and the SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT ("SRP"), an agricultural improvement district organized and existing under the laws of the State of Arizona.

The dates and times for the clearance period are from \_\_\_\_\_, 19\_\_ at \_\_:00 \_\_. M. through \_\_\_\_\_, 19\_\_ at \_\_:00 \_\_. M. for the SRP irrigation facilities located at \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The CONTRACTOR, having read both sides of this Construction Clearance Agreement, understands and agrees to all the terms and conditions contained herein.

Authorized CONTRACTOR Representative \_\_\_\_\_ Date \_\_\_\_\_  
Office Phone No.: \_\_\_\_\_ Emergency Phone No.: \_\_\_\_\_

SRP \_\_\_\_\_ Date \_\_\_\_\_

SRP Watermaster's phone number: 236- \_\_\_\_\_ Mobile: \_\_\_\_\_  
SRP Inspector's phone number: 236- \_\_\_\_\_ Mobile: \_\_\_\_\_  
SRP emergency phone number: 236-5296

## TERMS AND CONDITIONS

1. The CONTRACTOR warrants that it has the equipment, manpower and materials necessary to complete the work identified above and shall restore the affected SRP irrigation system to full operational condition during the clearance period. Time is of the essence.
2. Should the CONTRACTOR not complete the above work during the clearance period or should this Construction Clearance Agreement be terminated in accordance with Section 3 below, the CONTRACTOR, upon demand, shall pay SRP for all costs and expenses incurred in completing the work and/or restoring the irrigation facilities to full operational condition and for all direct and indirect damages incurred by SRP.
3. The CONTRACTOR shall comply with all applicable federal, state, and local laws, rules, regulations, and ordinances including, but not limited to, OSHA 29 CFR 1910.146 "Permit Required Confined Spaces", and OSHA 29 CFR 1910.147 "The Control of Hazardous Energy (Lockout/Tagout)", for any work inside irrigation pipelines, structures or other confined spaces as defined by the OSHA regulations. Failure to adhere to these laws, rules, regulations and ordinances will be sufficient grounds for SRP to terminate this Construction Clearance Agreement and subject CONTRACTOR, upon demand, to pay SRP for all costs as specified above.
4. It is the CONTRACTOR's responsibility to contact the SRP Watermaster and arrange for any further clearance time necessary to complete this project. The CONTRACTOR agrees that a dryup of SRP's facilities may take several weeks to schedule and may be impractical due to seasonal demands during certain times of the year. Any additional clearance time will be granted at the Watermaster's sole discretion. It is the CONTRACTOR's responsibility to protect the job site from water that may leak through SRP gates or from storm water and nuisance water that may enter the system uncontrolled, and CONTRACTOR shall relieve SRP for any such responsibility.

**NOTE: THIS CONSTRUCTION CLEARANCE AGREEMENT DOES NOT GUARANTEE DRY CONDITIONS.**

5. The CONTRACTOR shall release the United States of America ("USA"), the Salt River Valley Water Users' Association ("SRVWUA") and SRP from any damages, actions, costs, liabilities, and expenses, including attorneys' fees, arising from any delay by the USA, SRVWUA, or SRP in permitting the CONTRACTOR, or any of its contractors or subcontractors of any tier to perform any work required or permitted under this Construction Clearance Agreement or arising from the SRP's or the SRVWUA's failure to schedule a dry-up when requested. The CONTRACTOR shall indemnify, defend, and hold harmless the USA, SRVWUA, and SRP, and members of their governing bodies, directors, officers, employees, or agents from and against all damages, actions, costs, liabilities, and expenses, including attorneys' fees, arising out of any act, omission, or negligence of the CONTRACTOR or of any of its contractors or subcontractors of any tier.
6. Upon prior written approval from the SRP Watermaster, the CONTRACTOR may be allowed to supply alternative water deliveries to affected SRP customers.
7. Prior to any employee of the CONTRACTOR or of its contractors, or subcontractors of any tier entering any pipeline or structure that is in any way tied to the SRP irrigation system, the CONTRACTOR shall notify the SRP Watermaster of the time and location with as much prior notification as possible before the employee enters the facility.
8. The CONTRACTOR shall dispose of all materials removed from the site that are associated with the construction or modification of SRP's irrigation facilities in an SRP APPROVED LANDFILL.
9. This Construction Clearance Agreement constitutes the complete and entire agreement between the parties and supersedes any previous communications, representations, or agreements, whether verbal or written, with respect to the subject matter hereof. No change, addition, or modification shall be binding upon SRP unless in writing and signed by SRP. This Construction Clearance Agreement shall be governed by and construed under the laws of the State of Arizona.
10. The CONTRACTOR acknowledges that SRP, as required by OSHA 29 CFR 1910.146 (c)(8)(iii), has apprised the CONTRACTOR of the precautions and procedures that SRP has implemented for the protection of employees in or near permit spaces where CONTRACTOR personnel will be working.

**CONSTRUCTION SPECIFICATIONS**

**MARICOPA COUNTY PROJECT**

**FOR**

**University Drive Reconstruction**

**From**

**Higley Road**

**To**

**Power Road (Bush Hwy.)**

**WORK ORDER NO. 68828**

**LOCATION OF THE WORK:** This project is located on University Drive from Higley Road to Power Road (Bush Highway) in a County Island within the City of Mesa, along the south line of Section 13 and 14 of Township 1 North, Range 6E of the Salt and Gila Base and Meridian.

**PROPOSED WORK:** The work consists of the reconstruction of approximately 2 miles of roadway to a standard 68 foot pavement with curb and gutters. The roadway includes new and replacement of existing sidewalk, handicap ramps, and traffic signal modifications at 56th Street, Recker Road and 64th Street. Storm drain improvements include over 9900 linear feet of storm drain ranging in size from 72" to 24" in diameter and approximately 1700 LF of 18", 24" & 36" connector pipe, 52 catch basins and excavation (95,000 C.Y) of a detention pond between 62nd and 64th Streets and other miscellaneous items of work required for the completion of the project.

**CONTRACT TIME:** The Contractor shall complete all work on the project within 180 calendar days after the date of Notice to Proceed.

**SECTION 105 - CONTROL OF WORK**

**SECTION 105.1- AUTHORITY OF THE ENGINEER**

Add, the following paragraphs:

Right-of-way (R.O.W.) is being acquired at the following locations. The Contractor shall not perform work outside the existing R.O.W. shown on the plans until approved by the Engineer.

- The Southeast corner of 58th Street and University Drive Intersection
- The Southwest corner of Recker Rd. and University Drive Intersection

**General Comments:**

The County reserves the right to adjust design grades or the location of drainage structures prior to construction, if it should become necessary in the opinion of the Engineer, without additional cost to Maricopa County.

The cost of all work required under this contract, as shown on the plans, for which there are no specific items shown on the Bidding Schedule, shall be included in the bid price for related items.

**SECTION 105.6 - COOPERATION WITH UTILITIES:** When the Contractor's operations result in damage to any utility, the location of which has been brought to its attention, Contractor shall assume full responsibility for such damage.

**Utility Contracts:**

- US West Communications - Mr. Curt Sayer . 831-4777
- Southwest Gas - Switchboard . . . . . 942-8999
- Southwest Gas - Mr. Ron Morency . . . . . 484-5306
- Salt River Project - Line Engineering
  - South of Salt River - Mr. Larry Neil . . 236-2765
- Location Staking (APS, Mtn. Bell, SRP)
  - Blue Stake . . . . . 263-1100
- Maricopa Department of Transportation
  - Utility Coordinator . . . . . 506-8603

**NOTE:** Salt River Project (SRP) maintains energized aerial electrical power lines in the immediate vicinity of this project. Contractor shall not consider these lines insulated. Construction personnel working in proximity to these lines are exposed to an extreme hazard from electrical shock. Contractors, their employees, and all other construction personnel working on this project must be warned of the danger and instructed to take adequate protective measures, including maintaining a minimum ten (10) foot clearance between the lines and all construction equipment and personnel (see OSHA Std. 1926.550 (a) 15). As an additional safety precaution, Contractor shall call SRP at 236-8888 to arrange, if possible, to have the lines de-energized or relocated when the work reaches their immediate vicinity. The cost of such temporary arrangements shall be borne by the Contractor. SRP can often respond to such requests if two days advance notice is given, but some situations may require up to 60 days lead time for relocation or other arrangements.

**SECTION 105.8 - MARICOPA COUNTY STANDARDS FOR CONSTRUCTION STAKING:**

Maricopa County will furnish the necessary survey control for the Contractor's guidance. Staking shall consist of the following:

- a. Right-of-way lines at 100-foot intervals on even stations for clearing, fencing, and control of the Contractor's operations.
- b. Slope stakes will be offset from the edge of the pavement at 100-foot intervals.
- c. Blue tops in subgrade at centerline and edge of pavement at 100-foot intervals except on curves.
- d. Blue tops in aggregate base course at centerline, edge of pavement, and 1/4 points at 50-foot intervals. The Contractor must first have all his material in place and compacted within 0.2 feet  $\pm$  before the survey crew is called upon.
- e. Catch basins stakes will be offset at 10-feet and 15-feet to the center of the structure with cuts or fills shown to the top of grade.
- f. Grade and line stakes for all structures, pipe lines, culverts, and ditches.
- g. Straddle points for permanent monuments.

**SECTION 107.15 - COMMUNITY RELATIONS:** The Contractor shall provide a community relations program for this project. This shall include, but not necessarily be limited to the following:

- Printing and distribution of public notices.
- Providing media news releases after review by the Engineer.
- Providing telephone "Hot Line" 24-hour service.
- Attending other public meetings as required by the Engineer.
- Documenting existing property conditions prior to starting construction.
- Preparing, mailing and tabulating the results of a final evaluation questionnaire.
- Planning or otherwise participating in Dedication Ceremonies as directed by the Engineer.

The Contractor shall use these or other means to inform the local residents of necessary operations which create high noise levels, street closures, detour locations, haul routes and material delivery routes, hours of construction, and disruption of bus routes and other delivery/pick-up routes.

The Contractor shall provide and install advance information signs and project signs before beginning construction to inform the public of the forthcoming project, construction dates, and suggested alternate routes. Signs shall not be constructed or installed prior to approval by the Engineer of their designs, sizes and proposed locations. The Contractor shall maintain the signs as necessary and update the information as requested by the Engineer.

The Contractor shall furnish a private telephone line to be used solely for receiving incoming calls from local citizens with questions or complaints concerning construction operations or procedures. The Contractor shall publish this phone number and maintain a 24-hour answering service. The answering service shall be manned by Contractor personnel during all hours that there is any work being performed on this project. The Contractor shall maintain a log of incoming calls, responses, and action taken which shall be submitted to the Engineer weekly and on request.

The Contractor shall document existing property conditions prior to construction. Documentation shall be either 35mm photographs or video recorded tape. One (1) copy of the documentation package shall be provided to the Engineer within ten (10) calendar days of Notice to Proceed.

Disruption to utilities in service shall be avoided or minimized and safety shall be maintained at all times.

Prior to the start of the project, the Contractor shall notify, by letter, all businesses and residents within the limits of this project. This letter shall contain the following information:

- Contractor's name and phone number (day and night).
- Name of Contractor's Project Manager.
- Name of Contractor's Project Superintendent.
- Brief Description of Project.
- Construction Schedule, including anticipated work hours.
- Lane restrictions.
- Name of Maricopa County Department of Transportation Construction Manager.
- Name of Maricopa County Department of Transportation Engineer.

The Contractor shall furnish the Engineer a copy of this letter, along with a list of businesses and residents to whom the letter was sent.

The Contractor shall attend public meetings deemed necessary by the Engineer.

The County will pay, based upon time and material invoices, an amount not to exceed THIRTY THOUSAND DOLLARS (\$30,000.00) shown in the Bidding Schedule as COMMUNITY RELATIONS, for work performed in notifying and coordinating with the local population impacted by the project.

Work which is eligible for reimbursement includes: pre-construction meeting(s), weekly progress reports, and construction meetings with impacted businesses, residents, schools, churches, etc.; scheduling; newsletter, the preparation and distribution when necessary (at least bi-weekly); preparation and posting of temporary signs for local access; copy of documentation of existing conditions provided to the Engineer; and maintaining a 24 hour telephone "hot line" for complaints. The Contractor shall coordinate with the County to determine the population to be notified of meetings.

No payment will be made under this item for any calendar day during which there are substantial deficiencies in compliance, as determined by the Engineer.

The Contractor shall submit a Public Information and Notification Plan in such a manner that the public pre-construction meeting shall be held prior to start of construction. No payments shall be made to the Contractor for this item until the Engineer approves the plan.

Approximately 60 days prior to the completion of the project, a final evaluation questionnaire approved by the Engineer and containing return postage shall be distributed in a newsletter issue.

The Contractor shall submit a final report/evaluation of the public information and notification plan process performed for this project. The report shall be submitted before the Contractor receives final payment.

**107.2.1 - NPDES CONSTRUCTION PERMIT REQUIREMENTS:**

This project is subject to the National Pollutant Discharge Elimination System (NPDES) Stormwater requirements for construction sites under the Environmental Protection Agency (EPA) General Permit for Arizona.

**SECTION 110 - MOBILIZATION/DEMOBILIZATION:** The County shall compensate the Contractor for one-time, round trip mobilization/demobilization of Contractor's personnel, equipment, supplies and incidentals, establishment of offices, buildings and other facilities required for the performance of the work on the project, as well as preparatory work and operations prior to the commencement of the work on the project site.

Mobilization will be measured for payment by the lump sum as a single complete unit of work.

Payment for mobilization, measured as provided above, will be made at the contract lump sum price. Payment shall be made in equal one-third portions. The first payment shall be paid with the Contractor's initial billing. The second payment shall be made when the total payments to the Contractor for the bid items exclusive of payments for Mobilization/Demobilization equals one-half of the total bid by the Contractor exclusive of Mobilization/Demobilization. The remaining one-third shall be paid as part of the final payment due the Contractor.

When other contract items are adjusted as provided in Section 109, and if the costs applicable to such items of work include mobilization costs, such mobilization costs will be considered as recovered by the Contractor in the lump sum price paid for mobilization, and will be excluded from consideration in determining compensation under Section 109.

If the Contractor performs a second mobilization/demobilization of personnel, material and/or equipment at the Engineer's express written request the County shall compensate the Contractor for the expenses at the Contractor's actual costs. The Contractor shall provide all documentation for these costs as may be requested by the Engineer.

## **SECTION 215 - EARTHWORK FOR OPEN CHANNELS:**

### **215.1 DESCRIPTION:**

add the following paragraphs

Earthwork for Detention Ponds shall consist of clearing, excavation, fill, backfill, grading to the lines and elevation shown on the plans, disposal of excavated and/or removed material. The term Open Channel shall also apply to detention ponds for the other sections of this Section.

Other work: Earthwork for Detention Ponds shall also include the salvage, storage, placement of loose riprap as shown on the plans. Placement of the loose riprap on the slope west of 64th Street shall be done only after the seeding and gravel mulch has been placed. No additional payment shall be made for this work; it shall be incidental to Earthwork for Detention Pond and included in the unit price per cubic yard of excavation.

**SECTION 301 - SUBGRADE PREPARATION:** Subgrade Preparation shall also include the preparation of subgrades to the required line and grades for the tapered portions of the project and for those locations where aggregate base and/or select material courses are to be used for driveway turnouts in accordance with the plans or as directed by the Engineer. Shoulders shall be rolled and compacted to a minimum of 90 percent Proctor density.

Existing asphalt and other existing bituminous roadway surfacing materials may be used as fill if they are thoroughly broken up to a size not exceeding 4 inches to the satisfaction of the Engineer.

The earthwork quantities shown on the roadway plans include the existing asphalt in the quantities assuming that it will be crushed and included in the embankment and shall be placed at least two feet below subgrade elevation.

Any disposal area selected by the Contractor shall be approved by the Engineer prior to its use. Disposal of waste in approved areas shall be made in such a manner that natural drainage will not be blocked or diverted unless requested by the Engineer.

The earthwork quantities shown on the plans are approximate and were determined during the design process. They are included to aid the bidder in formulating his bid.

**SECTION 310 - UNTREATED BASE:** Select Material and Aggregate Base shall conform to the requirements of Section 702 of the Uniform Standard Specifications. Select Material and Aggregate Base shall be crushed in accordance with Section 702.2. Select Material shall be Type "A".

The Contractor will be required to furnish the Engineer certified weight tickets covering all of the Select Material and Aggregate Base placed on the project. Final pay quantities will be based upon the scale tickets accepted by the Engineer.

**SECTION 315 - BITUMINOUS PRIME COAT (CONTINGENT ITEM):** The bituminous material shall be Grade MC-70 or MC-250 liquid asphalt as determined by the Engineer. Prime coat shall be applied to the total width of the aggregate base material at the rate of 0.30 gallon per square yard unless otherwise specified by the Engineer. Prime Coat shall be allowed to penetrate for not less than 48 hours prior to beginning asphalt concrete paving.

**SECTION 321 - ASPHALTIC CONCRETE:** The bituminous material to be used shall be either AC-20 or AC-40 complying with Table 711-1 of the Uniform Standard Specifications as revised in 1986.

The mineral aggregate shall meet the grading requirements for the mix designations specified on the plans in accordance with Section 710 of the Uniform Standard Specifications.

In addition to pugmill type mixing plants, drum dryer mixers will be allowed in accordance with Standard Specification 710.9. The moisture content of the bituminous mixture immediately behind the paver shall not exceed three percent (3%). The proper proportioning of the material at the cold feed shall be determined by the Contractor and approved by the Engineer prior to the production of asphaltic concrete. Production shall not commence until calibration tests indicate that an acceptable product can be obtained.

The correct proportions of each aggregate size introduced into the mixer shall be drawn from the storage bins by an approved type of continuous feeder which shall supply the correct amount of aggregate in proportion to the bituminous material and shall be so arranged that the proportion of each aggregate size can be separately adjusted. The continuous feeder for the aggregate may be mechanically or electrically activated.

The plant shall be equipped with a sampling device to take representative composite samples of the cold feed. If tests indicate non-compliance with specifications, operation shall cease until proper corrections have been made.

The production of the plant shall be governed by the rate required to obtain a thorough and uniform mixture of the materials. Mixing shall continue until the uniformity of coating, when tested in accordance with the requirements of AASHTO T-195, is at least 95 percent.

**SECTION 329 - BITUMINOUS TACK COAT:** The tack coat shall be grade SS-1h (diluted). Tack coat shall be applied at the rate of 0.05 gallons per square yard.

Payment for Bituminous Tack Coat will be made by the ton of diluted mixture.

**SECTION 350 - REMOVAL OF EXISTING IMPROVEMENTS:** The work under this section shall consist of the removal and disposal of any obstacle to construction, unless specifically called out on the plans to be removed or relocated by other agencies.

Arrangements for disposal of all waste material shall be the responsibility of the Contractor, except that all usable pipe culvert removed shall be stockpiled within the right-of-way for salvage by the County.

If a Maricopa County Landfill is selected for disposition of road construction waste and/or debris, a Maricopa County Landfill Use Permit will be required. Application for permit can be made at the Maricopa County Landfill Office, located at 2901 West Durango Street, Phoenix, Arizona 85009 (Telephone Number 506-2661). Charges will be levied on a volume basis for each load delivered to the landfill in accordance with the current fee schedule. Landfill fee schedules are available at the above address.

Add the following Section:

**350.3.1 - MODIFICATION AND ABANDONMENT OF DRYWELLS:**

The Engineer shall locate and designate drywells in the detention pond to be modified or abandoned in accordance with the following:

- A. General:  
The Contractor shall comply with all requirements of the Arizona Department of Environmental Quality.
- B. Modifications:
  - 1) Modifications shall be performed by a driller holding a current Dry Well Driller's License issued by the Arizona Department of Environmental Quality.

C. Abandonment:

- 1) Abandonment shall be performed by a driller holding a current Dry Well Driller's License issued by the Arizona Department of Environmental Quality.
- 2) All drainage components such as stand pipes and screens shall be removed from the settling chamber.
- 3) The top of the dry well, including the upper settling chamber, shall be removed to a minimum of six feet below the current land surface or to the new invert of the basin, whichever is lower.
- 4) The remaining portions of the settling chamber shall be filled in with ABC slurry.
- 5) A cement grout plug shall be set from four feet below the land surface to a minimum of six feet below the land surface.
- 6) The remainder of the dry well shall be backfilled to the land surface with clean silt, clay or engineered material and mechanically compacted in accordance with MAG Section 601. A water settling procedure will not be accepted.
- 7) All fill must be placed in the well in such a manner as to eliminate any void space.
- 8) Fill materials containing hazardous substances shall not be used.

**SECTION 401 - TRAFFIC CONTROL:**

Traffic control shall comply with the guidance contained in part VI of the Manual on Uniform Traffic Control Devices for Streets and Highways (US DOT Federal Highway Administration) with current revisions, the current City of Phoenix barricade manual, these special provisions.

It shall be the Contractor's responsibility to provide, erect, maintain and remove all necessary signs, barricades, temporary paved travel lanes, barriers, sand berms, high level warning devices, lights, delineator, flagmen and other devices necessary to properly mark and control the construction areas for the safe and efficient movement of traffic. Temporary traffic control warning signs and devices shall be installed prior to the start of any work. The Contractor shall provide other adequate devices or measures deemed necessary by the Engineer or his representative.

Construction shall not commence or proceed without an approved Traffic Control Plan (TCP). At the time of the pre-job conference, the Contractor shall submit for review preliminary traffic control plans for each traffic set-up for the different anticipated phases of construction. The TCP shall show striping if used. Two weeks prior to any traffic disruption or changes, the Contractor's project supervisor shall submit for approval a detailed TCP plan for the next phase of work.

A full road closure of Major Streets including University Road, Higley Road, Recker Road and Power Road is not authorized and a minimum of two lanes of traffic shall be maintained open at all times. Traffic lanes shall be a minimum of twelve feet (12) in width and have a safe operating speed of twenty five (25) miles per hour. Travel lanes shall be separated from construction and flagmen shall not interrupt or stop traffic.

Traffic shall be maintained on pavement at all times. Pavement widening shall be required for storm drain installation. For all pavement lanes and matches required by construction (both longitudinal and transverse), the Contractor shall provide paved driveable travel lanes (in accordance with Section 321), utilizing two inches of C-¾ asphalt pavement on compacted subgrade.

At all locations where transverse pipe crossings are to be made for removal of existing pipe or new placement, work shall be done in segments and a suitable bypass shall be provided. Temporary bypasses shall be utilized during daylight hours only and pavement replacement shall be required overnight to restore traffic on the normal travel lanes. Traffic plates may be utilized for one day time period.

All advance warning construction signs shall use distance advisory criteria and be mounted on channels driven into the ground. Each mile and ½ mile point of the project shall be signed with construction and speed limit signs.

Off duty uniformed officers shall be required at all signalized intersections or as requested by the Engineer .

The "SPEED LIMIT 25" sign is used where traffic is maintained on unpaved shoulders, temporary detour roads, the existing pavement has been removed, or on traffic lanes that are severely restricted.

The Contractor shall maintain or relocate all existing signal indications, warning signs, STOP, YIELD and street name signs erect, clean and in full view of the intended traffic at all times. Portable signs should be used to supplement blocked or removed signs. All unnecessary traffic signs shall be covered or removed and stored.

The Contractor is responsible for the cost of replacing lost traffic warning signs. The Traffic Engineering Division, of MCDOT, will reset all disturbed signs to permanent locations when construction is completed.

Channelization, including "KEEP RIGHT" and "KEEP LEFT" signs, shall be provided whenever traffic is moved across the street center line, the existing center line is obliterated, or opposing traffic is maintained in other than the normal traffic lanes.

All temporary traffic control devices shall be ballasted with sandbags or other approved ballasts when necessary.

The Contractor shall appoint on a full time basis a traffic control specialist who shall provide and maintain necessary traffic control devices.

Rope, flagging, fencing and woven plastic tape may be required at open excavations and or used between barricades and channelizing devices to provide additional guidance and security.

The Contractor shall provide and maintain all necessary signs, barricades and center line vertical panels for five working days beyond any construction concrete cure time or acceptance of the project by the County, whichever is greater.

Access to all properties and emergency services shall be maintained at all times where possible. When local access cannot be maintained, the Contractor shall notify the property owner/resident at least 48 hours in advance of the access closure. In no case shall the access be restricted for more that four hours with out approval. Access shall not be closed for fire stations, hospitals, sheriff stations and schools. Contractor shall give 48 hours notification to the responsible affected person concerning all restrictions.

Temporary striping shall conform to ADOT Standard Specifications for Road and Bridge Construction sections 706 and 708. Reflective raised pavement markers on centerline and edgeline may be required and installed at 40 foot spacing. The cost of striping removal and temporary striping including pavement markers for temporary traffic control is not a separate item and shall be included in the cost for the item.

The final striping of the road shall not be commenced or installed until all shoulders have been dressed to cover the edge of pavement drop off and or the road segment is resigned with appropriate speed limits signs.

#### **SECTION 401.7 - PAYMENT:**

Payment for traffic control shall be made on a lump sum basis for the item which price shall be full compensation for the work, except that Payment for off-duty Sheriff Deputy shall be made at the current Contractor hourly rate, which is approximately \$21.00 per hour and shall be based on 280 man-hours. Payment for the deputies will be on a as-used basis. The Contractor shall submit documentation required by the Engineer to support payment for the item.

**SECTION 402 - ELECTRICAL CONDUIT:** The work under this section shall consist of furnishing and installing underground PVC conduit, including excavation, backfill, compaction and landscaping necessary to complete the work at the locations specified on the plans or as requested by the Engineer or his representative.

All PVC conduit and fittings shall be of the size indicated on the project plans and be rigid polyvinyl chloride (PVC) non-metallic type, conforming to the requirement of UL 651 for rigid non-metallic conduit. PVC conduit and fittings shall be Schedule 40 heavy wall and rated for use at 90 degrees centigrade.

All conduit and conduit fittings to be installed above ground shall be rigid metal type manufactured of galvanized steel conforming to the requirements of UL 6 for rigid metal conduit.

Conduit installed in protected areas such as behind curbs, in sidewalks, etc. that are not subject to any vehicular traffic shall be at a minimum depth of 24 inches below final grade. Conduits installed under roadways, driveways or any open areas where it is possible for vehicles to drive shall be at a minimum of 30 inches below final grade. When conduit cannot be installed at the minimum depth, it shall be completely encased in 3 inches of concrete.

Field PVC conduit bends shall be made without crimping or flattening, using the longest radius practical, but not less than specified by the National Electric Code, Article 347-13. Collapsed conduit, no matter how small, is not acceptable and shall be replaced at the Contractor's expense.

The number of bends between pull boxes or between a pull box and foundation shall not contain more than the equivalent of two (2) quarter bends (180 degrees, total), including the bends at the pull boxes or foundations, Article 347-14 of the National Electric Code. All conduit cuts shall be square and trimmed after cutting to remove all rough edges. All connections shall be of the solvent weld type or approved equal.

PVC conduit entering a pull box or foundation shall be fitted with a factory made 90 degree elbow with minimum sweep radius per the table below. Conduit shall enter pull boxes near the sides and ends and extend no more than 4 inches above the bottom of the pull box including the length of the conduit bell end.

<u>PVC Sizes</u>	<u>Radius</u>
1 in. ....	5.75 in.
1 1/2 in. ....	8.25 in.
2 in. ....	9.50 in.
2 1/2 in. ....	10.50 in.
3 in. ....	13.00 in.

Each run of conduit which terminates within a pull box shall be capped (not glued) with PVC caps.

Each run of conduit shall be installed containing a continuous run of one No. 8 AG bare copper wire to be used as a pull wire. The wire shall be at least two (2) feet longer than the run of conduit. Each run of the wire shall be spring coiled and inserted into the conduit so as to be recoverable at a later date. Nylon rope 1/4" in size shall be acceptable in lieu of No.8 AG bare copper pull wire and the extra length fastened to the inside of the cap.

The Contractor shall place warning tape in all open trenches in which conduit is placed. All warning tape shall be buried at a depth of 6 to 8 inches below final grade.

Conduit warning tape shall be 4 mil inert plastic film specially formulated for prolonged use underground and shall be a minimum of 3 inches wide. All tape shall be highly resistant to alkalis, acids and other destructive agents found in the soil.

The tape shall have a continuous printed message warning of the location of underground conduits. The message shall be in permanent ink formulated for prolonged underground use and shall bear the words "CAUTION - ELECTRIC LINE BURIED BELOW" in black letters on a yellow or red background.

Conduit will be measured by the lineal foot from the center of the pull boxes and the edge of foundations along the runs installed and accepted.

Conduit inside pull boxes and foundations will not be measured for payment.

Payment for this item will be made at the contract unit bid price for the item.

**SECTION 403 - PULL BOXES:** The work under this section shall consist of furnishing and installing all pull boxes, including excavation, backfill, compaction and landscaping necessary to complete the work at the locations specified on the plans or as requested by the Engineer or his representative.

Pull box sizes shall be as specified on the project plans and shall comply with the applicable MCDOT Standard Drawing No. S-201-1.

At the request of the Engineer, the Contractor shall furnish pull box drawings and specifications which specify steel reinforcement and concrete used.

Pull boxes shall be set on an 18 inch bed of one inch rock and adjusted so that they are level at curb or sidewalk grade. When no grade is established, pull boxes shall be set as requested by the Engineer.

A 1/2 inch felt expansion joint shall be installed on all sides of pull boxes set in concrete. Pull box covers shall be secured with the "L" bolts, nuts and washers before final acceptance of the project.

When signal interconnect "straight-through" pull boxes are called out, the conduit entering the pull box shall be curved gently in the ten feet adjacent to the pull box to bring the conduit ends up to the proper elevation inside the box. For the typical "straight-through" pull boxes, the conduit shall terminate two to four inches inside the box wall and be directly in line so as to facilitate a straight-through pull of cable. For traffic signal interconnect layout information see "straight-through" pull box installation detail MCDOT Standard Drawing No. S-209-2.

Pull boxes will be measured by the number of units of each type specified, complete in place, in accordance with the project plans and specifications.

Payment for this item shall be made at the contract unit bid price for the item.

**SECTION 404 - POLE FOUNDATIONS:** The work under this section shall consist of furnishing all materials and constructing foundations for traffic signals in accordance with the locations and details designated on the signal plans and these Special Provisions.

Payment for this item will be made at the contract unit bid price for the item. Concrete used for all foundations shall be in accordance with the requirements of MAG Class A concrete (28 day compressive strength of 3,000 psi).

Foundations shall include all conduit, conduit elbows, anchor bolts, rebar cages, grounding electrode, and forms required for construction of the foundation. When specified, reinforcing steel shall also be provided. The foundation's electrical conduit and conduit fittings shall be as specified in Section 402 of these specifications.

Anchor bolts and rebar cages shall be furnished by Maricopa County. The Contractor shall coordinate pickup with traffic signal operations (phone number 506-8660) located at the County Yard at 2901 West Durango, Phoenix (warehouse off Gibson Lane).

The foundations of the type specified shall be constructed in accordance with the details shown on the signal plan. Where obstructions prevent construction of the foundations at the signal plan location, the Contractor shall secure approval of the Traffic Engineer for relocation. Any change in location shall be documented on as-built signal plans.

Holes for pole foundations shall be augured against undisturbed earth. If the soil is not stable, a larger or deeper foundation than specified may be required as requested by the Engineer. Forms shall be used if a hole cannot be augured because of soil conditions. The form shall be of the dimensions approved by the Traffic Engineer and shall be rigid and securely braced. Foundation forming material shall extend no more than 10 inches below the foundation final grade and shall be removed after placement of concrete. Excavations shall be barricaded and covered to provide safe passage for pedestrian and vehicular traffic.

All foundations shall be set level with the existing sidewalk or curb. Where no curb or sidewalk exists, the foundations shall be set at the elevation requested by the Engineer. All exposed surfaces of the foundations shall receive a finish that is smooth, level and free of form marks. Anchor bolts shall be oriented in such a manner, that the bolt pattern sides are both parallel and perpendicular to the roadway centerline unless otherwise specified on the signal plan.

After excavations are completed and the anchor bolts and conduit are installed, the Contractor shall notify the Engineer to perform an inspection. Under no circumstances shall concrete be poured without the approval of the Engineer. Anchor bolts, rebar cages, and conduit shall be placed at the specified height and securely held in place during the pouring of the concrete. Before pouring concrete, the entire foundation hole shall be thoroughly moistened. The concrete shall be vibrated in place as poured.

All pole foundations shall set for a minimum of five (5) days prior to the installation of signal poles.

Foundations for traffic signals shall be measured as a unit for each type of foundation constructed.

Payment for all work under this section shall be made at the contract unit bid price for the item.

**SECTION 406 - LOOP DETECTION:** The work under this section shall consist of furnishing all materials and installing traffic signal detection loops in accordance with the traffic signal drawings, Arizona Department of Transportation Standard Specifications for Road and Bridge Construction and all revisions or supplements thereto and the requirements of these Special Provisions

Loop wire type shall be USE-XPLE AG No. 12 stranded.

Loop sealants shall be one of the following three sealant types; (1) hot applied rubberized asphalt, (2) one part elastomeric sealant, (3) two part elastomeric sealant (similar to WECO 701).

Detection shall not be installed until the road is striped or striping spotting is accepted.

The sawcut shall be 1/4-inch wide at a depth of 1 1/2 to 2 inches. The sawcut size shall be in accordance with the signal drawings. Diagonal corner cuts or 1 1/4-inch cored holes may be used at saw cut corners.

Each loop shall have its own sawcut home run from the loop to the under curb or edge of pavement conduit.

The sawcut shall be flushed clean of debris with a high pressure stream of water and completely dried by means of an air stream prior to installing loop wires.

After the sawed slot is dry and free of debris, the loop wire shall be wound in accordance with the requirements of the signal drawings.

Sawcut home run loop wires shall extend to the curb side pull box via under curb or roadside conduit stub-out as shown on signal drawings.

Wire pairs shall be identified as to which loop they are connected to.

Before and after sealing the sawcut, the Contractor shall perform an insulation resistance to ground test. The isolation resistance to ground shall be at least 50 megohms measured at a voltage between 400 and 500 volts D. C. Any loop detector sensor not meeting the above insulation test or fails to tune when connected to a loop detector amplifier unit, shall be replaced by the Contractor at no cost to the County.

Vehicular loop detectors will be measured as a unit for each type of detector furnished and installed.

Payment for all work under this section shall be made at the contract unit bid price for the item.

## **SECTION 430 - LANDSCAPING AND PLANTING**

### **430.1 DESCRIPTION:**

*Add the following paragraph:*

Items of work specifically included are: Fine grading of planting areas, and restoration to original condition, installation of mulches and seed, installation of new trees, tree protection, salvage and storage of existing trees on site, and decomposed granite installation.

## **430.2 GENERAL:**

*Delete final paragraph. Replace with:*

Treat areas to receive decomposed granite with a pre-emergence control (containing Isoraben at 20% minimum and Dryzalin at 60% minimum) as stated in seeding specifications. Side slopes shall not be treated with pre-emergence control without approval of the Engineer. Pre-emergent application rate shall be 5.0 lbs/acre of active ingredients.

*Add the following paragraphs:*

**Soils testing:** Testing has been completed and no additional amendments are needed. A copy of the soils report can be obtained from the Engineer.

**Protection:** Erect barriers and warning signs as necessary to prevent injury to the public and construction personnel. Protect features, plants and areas not marked for demolition. Erect fencing to delineate Contractor's area of use, and to protect existing plant materials.

**Fences and barricades:** Place fences and/or barricades as described herein. In general, fences and barricades are intended to alert those working on the Project that equipment and machinery are not to be stored or operated in the feeder root zone of existing trees. Place fences and barricades in a six foot square surrounding the tree which shall be located in the center of the square. Install posts six foot apart, one at each of four corners three foot deep. Fasten fencing to outside of posts with u-shaped fasteners 12" apart. Tree protection shall remain until all work is completed. Do not place trash, excess soil, or any other materials within 25' of tree drip line. No excessive pedestrian traffic shall be allowed within drip line of any tree.

**Damage done to existing tree crowns or root systems** shall be repaired immediately by tree surgeon acceptable to the Engineer. Roots exposed and/or damaged during demolition and/or grading operation shall be cut off cleanly inside the exposed or damaged area, dusted thoroughly with sulfur powder, and topsoil placed over the exposed root area immediately.

**Demolition and removal:** Items listed for salvage remain the property of the Engineer; items listed for demolition become the property of the Contractor. Remove and dispose of palms and trees as marked on the Detention Pond Landscape Plans.

**430.3 LAWN AREAS** *Delete this section and add the following:*

### **430.3 SEEDED AREAS**

In general, the seeded areas include the slopes of the basins.

### **430.3.1 Preparation**

Verify that rough and final grading is complete and accepted by Engineer.

All rills previously filled with gravel cover will require no further subgrade preparation.

On sites where equipment can safely operate, (generally slopes 3.5:1 or flatter), the seed bed shall be adequately loosened (4 to 6 inches deep). Disking or culti-packing or both may be necessary, as determined by the Engineer. On sites where equipment cannot safely operate, the seed bed shall be prepared by hand by scarifying to provide a roughened surface so that broadcast seed will stay in place.

Finish surface for both equipment and hand tilled areas shall be left in a roughened condition as approved by the Engineer. This is the surface that would normally result from the tillage operations. Rocks larger than 6 inches in diameter, trash, weeds, and other debris that will interfere with seeding or maintenance shall be removed or disposed of as requested by the Engineer.

Seed bed preparation shall be discontinued when soil moisture conditions are not suitable for the preparation of a satisfactory seed bed as determined by the Engineer.

### **430.3.2 Application**

The appropriate seed mix shall be dry-broadcast-applied in areas designated on the plans. All seeding operations shall be performed in such a manner that the seed is applied in the specified quantities uniformly on the designated areas. Preferable method is to mix seeds, fertilizer and dry sand in appropriate container and hand broadcast in two perpendicular passes, using sand as an indicator. Seeding shall be completed within two days after approval of the subgrade preparation is given.

The seeding mixture and the application rates are listed below. Seeding rates are specified in pure live seed quantities (pls). Any change to the seed mixture by substitution of any alternative species will require the approval of the Engineer.

Apply at the following rate of pounds of pure live seed per acre (pls/ac):

Aristida purpurea Purple Three-awn	3.0 pls/ac
Baileya multiradiata Desert Marigold	2.5 pls/ac
Erodium cicutarium Filaree	2.0 pls/ac
Plantago insularis Indian Wheat	3.5 pls/ac
Schismus barbatus Mediterranean Grass	1.0 pls/ac
Ambrosia deltoidea White Bursage	2.5 pls/ac
Atriplex lentiformis Quailbush	1.0 pls/ac
Atriplex polycarpa Desert Saltbush	.75 pls/ac
Encelia farinosa Brittlebush	2.5 pls/ac
Larrea divaricata Creosote	5.0 pls/ac
Sphaeralcea ambigua Desert Mallow	1.5 pls/ac

Note that the seed must be covered with gravel mulch within 48 hours after placement.

Reseeding: If, in the opinion of the Engineer, unplanted skips and areas are noted after hydroseeding, the Contractor shall be required to seed the unplanted areas with the originally specified mix at no additional cost to the County.

**430.3.3 - Gravel Installation:**

The work shall consist of the application of gravel mulch over the seeded slopes as shown on the drawings. Gravel from designated sources shall be excavated, selected, handled, and processed as necessary to meet the quality and grading requirements specified.

The gravel mulch shall be placed within 48-hours after surface has been seeded. The mulch shall be constructed to the full course thickness in one operation and in such a manner as to avoid serious displacement of the seed and fertilizer. The gravel mulch shall be delivered and placed in a manner that will ensure that the in-place mulch layer is reasonably homogeneous and the fractions uniformly distributed.

Hand placing of gravel cover shall be required to the extent necessary to prevent damage to the permanent works. The thickness of the gravel mulch shall be two inches (2"). All rills caused by erosion shall be filled with gravel before the slopes are roughened and covered with the gravel mulch.

The gravel mulch will be hand-raked and smoothed prior to being rolled. Hand roll with a water-filled standard sod roller in one pass.

#### **430.5.6 Shrub and Tree Pits:**

*Delete the entire section and replace with the following:*

Excavate container-grown and salvaged tree pits per details shown on Plans. Prior to planting, a percolation test shall be performed on all tree planting pits to determine adequate drainage. Fill pit half-full with water. Allow 24 hours to drain. If pit has not substantially drained, a caisson shall be installed. Each caisson shall have a four-foot (4') by 8-inch (8") diameter hole filled with 1-1/2 inch diameter crushed stone. Fill to bottom of pit. Adjust depth of caissons if ground water, caliche, or rock is encountered.

Preparing plant material for planting: remove canned stock carefully after cans have been cut on two (2) sides with acceptable cutter. Do not use spades to cut cans. Do not lift or handle container plants by tops, stems, or trunks at any time. Do not bind or handle any plant with wire or rope at any time so as to damage bark or break branches. Lift and handle plants only from bottom of ball.

Installing pit-planted materials: Scarify the sides and bottom of all plant pits immediately prior to the placement of plant and backfill mix. Remove all glazing caused by an auger or mechanical hole digger. For boxed material, break vertical bands and remove top and bottom of container. Carefully lower plant into pit with backhoe or other acceptable method and adjust elevation. Cut horizontal bands and remove sides. Prune away girdled roots and tease roothair masses. Add planting tablets. Carefully fill pit and compact by watering in to support rootball.

Backfill mixture shall consist of 1 part of organic soil conditioner mulch and 2 parts soil by volume. Add, per 5 gallon, 15 gallon, and 24" boxed plant pits, 4 cups organic soil conditioner, 1/4 pound of fertilizer, 1 pound of gypsum, and 1/2 pound of soil sulfur. For one gallon plant pits, use 1/2 the amounts of fertilizer, gypsum and sulphur. Planting backfill mix shall be thoroughly blended to homogenous mixture prior to use in backfilling operations.

Fill planting pit by flooding each eight inches (8") of backfill for balls greater than twenty-four (24") in diameter. Form plant well and/or pits so they conform to specified grades after full settlement has occurred. Water all plants again immediately after planting.

Surface drainage of planting areas: Provide proper surface drainage of planted areas. Any discrepancy in the Plans or Specifications, obstructions on the site, or prior work done by another party, which Contractor feels precludes establishing proper drainage, shall be brought to the attention of the Engineer in writing for correction and relief.

Staking: Stake trees to keep them plumb and straight for all given conditions through the Warranty/Guaranty Period. Staking shall be completed immediately after planting. Plants shall stand plumb after staking. Stake all trees per detail as shown on Plans, and coordinate review and acceptance of Engineer before planting commences.

*Add the following section:*

#### **430.5.7 PLANT SALVAGE**

Specimens to be protected in place are marked in location on plans. Maintain and protect these materials for duration of contract.

Specimens which are to be salvaged are shown on plans. Work includes digging, boxing, and maintaining these trees on site, replanting on site, and maintenance and warranty. Visit the site and inspect conditions as they exist prior to submitting bid. It is the intent of the drawings to show the general area where specimens are to remain or salvaged.

Warranty: Warranty that all plants protected in place and salvaged will be in a healthy and flourishing condition at end of warranty period. Replace, at no cost to County, and as soon as weather conditions permit, plants not in vigorous, thriving condition, as determined by the Engineer at the end of the warranty period. Plants shall be reasonably free of dead or dying branches and branch tips, and shall bear foliage of a normal color, density and size. Replacements shall be accomplished in the following manner: replace the rejected tree with one of the same species of equal caliper, height, and foliage spread. Contractor shall not be held responsible for plant failure due to neglect by the County, vandalism and other acts beyond its control. Contractor shall report such conditions to the County in writing.

Backfill mixture, Staking: as per section 430.5.6 above.

Pruning of Trees: Trees to be protected in place shall not be pruned unless limbs are damaged, or at the request of Engineer.

Large caliper (2" and above) trees to be salvaged shall have about 60% of original foliage removed by removing undergrowth at base of specimen and selecting major limbs to be retained and removing all others. Cuts should be made at shoulder rings. Pruning cuts should be made between the center ridges of these rings on the upper and lower sides of the branch. The cut shall not be flush or parallel to the trunk, but shall be out from it slightly, with lower edge of the cut farther away from the trunk than the top. If no shoulder rings are present at branch attachments, the cutting position shall be approximated by connecting a point bisecting the top angle of the crotch and a similar point bisecting the lower angle of attachment. Pruning should create a balanced look by removing approximately equal amounts of foliage from all sides of the tree.

Small caliper trees shall not be pruned except at the request of the Engineer.

**Determination of Box Size:** Box sizes are stated in six inch (6" ) increments consistent with nursery practice and refer to the length of the top of an individual box side. Professional judgement should be used, but the following size ranges generally apply. The largest of the calipers of multi-stem trees shall be used to determine box size.

Caliper	Box Size
0 - 6"	24" - 42"
6" - 12"	48" - 60"
12" - 18"	66" - 84"
18" or greater	90"+

**Materials for boxside construction:** the following are rough guidelines which shall be modified where required to meet the specific characteristics of each specimen and the respective need for upright lifting. Horizontal members: 1" material up to 60" box, 2" material for use over 60" box. Vertical Members: 1" material up to 48" box, 2" material for use over 48" size box. Use 3/4" x .025 steel strapping for bending material. Use 5/8" x .023 for smaller boxes.

**Digging and Side Boxing:** Employ methods required to ensure survival of plant specimens during boxing activity. Measure the top of the root ball to be exposed and mark the outline to facilitate digging. Before digging the trench, determine the direction the box is to be tipped during bottoming and orient the box accordingly. Begin digging a trench around the plant using the exposed root ball outline as the inside dimensions. Carefully cut roots flush with the side of the root ball as they are encountered. As the trench progresses, gradually cut the root ball inward to accommodate the taper of the box. When the trench reaches the depth of the box, place box sides in trench and check fit around root ball. Trim root ball as necessary. Attach box sides around root ball with nails. Secure box with banding. Pack dirt tightly into any space between box sides and root ball. Side panels shall be in place for 2 weeks prior to bottoming. Water plants regularly during this period.

**Placing Supporting Topwood:** Employ methods required to minimize movement of the plant and its root system and to reduce the loss of soil during transportation and handling. Cut 2x4 or 2x6 wood to fit the width of the box. Place wood on each side of trunk. Nail wood to blocks against to tree trunk and box sides. Place cross members and additional supporting wood as necessary based on size and orientation of tree. Nail 1" wood across top of root ball (at least two boards in each direction).

**Bottoming:** Employ methods to ensure survival of plant materials during boxing activity. To cut the remaining roots while minimizing the loss of soil from the bottom of the root ball, place stake a safe distance from trench in the direction the plant is to be tipped. Attach comealong at one end of chain. Wrap other end of chain around box and secure. Cinch chain until taut. Gradually undercut beneath root ball. Cut tap roots cleanly as encountered and dust ends thoroughly with sulfur powder. Frequently test tautness of chain. When possible, begin to tip over box in direction of stake. When box begins to tip, place safety brace against bottom of box to prevent box from falling in case of stake or chain failure. As box is tipped back, nail bottom strips to box sides. When tree is fully tipped and bottom is completely covered, nail bottom of box to side box bracing and/or corner bracing to secure, as required. Place banding materials underneath cross members, lower box down to its original orientation. Bring banding up along sides and over top of box. Tighten banding and secure with crimper.

**Removal and Transportation:** Employ methods required to ensure survival of plant material during removal and transportation. Following is the recommended procedure for moving plant materials to storage location. Determine equipment needed, based on accessibility, estimated weight of plant and distance to holding area. If using backhoe or front loader, place chain around box and secure to bucket of machine. Tilt bucket back and lift out of hole. If using crane, place two cables cross-wise around box and attach to hook. Ensure that chains or cables will not damage branches when plant is lifted. Lift out of hole.

**Maintenance:** Provide water to protected trees and boxed trees during construction. Soak boxed trees regularly, based on weather conditions and soil type. Check root ball after first two weeks for excessive runoff caused by cavities in soil and holes in box sides. Repack soil and repair box as necessary. Check for insect activity at least once per week, in season. Take appropriate measures if insect or other pest damage is discovered.

#### **430.8 PLANT GUARANTEE AND MAINTENANCE:**

*Add the following paragraph:*

Warrant the provisions of that newly-planted or salvaged trees, and seed materials planted under this Contract will be healthy and in flourishing condition of active growth for six months from date of Substantial Completion. This warranty will not be enforced if the plant dies due to vandalism; improper maintenance procedures carried out by the County involving over- or under-watering, over-fertilization, non-removal of braces causing girdling of trunks; fire, flood, or hail; or other similar circumstances beyond the control of the Contractor. Replace landscape materials and trees when they are no longer in a satisfactory condition as determined by Engineer for the duration of the warranty period. Replacements shall be made within seven days of notification from the Engineer. Remove dead plants within seven days of notification. Replacements shall be of the same kind and size as originally specified and shall be installed as described in the Special Provisions of this contract. Repairs and replacements shall be made at no cost to the County.

#### **450 PAVEMENT MARKINGS**

##### **450 - 1 STANDARD SPECIFICATIONS:**

Installation of roadway pavement markings in Maricopa County shall be done in accordance with the requirements of the following separate documents:

- (1) Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition
- (2) Arizona Department of Transportation Standard Specification for Road and Bridge Construction, Latest Edition

##### **450 - 2 INTENT AND PURPOSE:**

These construction specifications are intended to be complementary to above standard specification for MARKING ROADWAYS in Maricopa County. They shall provide a more detailed description and modify the construction specifications where indicated. In case of discrepancies or conflicts, apparent or real, the Contractor shall consult the Engineer.

**450 - 3      DESCRIPTION OF WORK:**

The Contractor shall furnish experienced supervision and labor, and all materials, equipment, tools, transportation and supplies required to complete the work in accordance with the plans, standard specifications and the Construction Specifications.

The work under this section shall consist of:

- (1)    Cleaning and preparing the pavement surface and laying out markings
- (2)    Applying white or yellow chlorinated rubber traffic paint and reflective glass beads
- (3)    Placing Raised Pavement Markers
- (4)    Applying TYPE I Preformed Pavement Marking Tape, Arrows, Legends, and Symbols
- (5)    Installing barrier markers on bridges, concrete and guardrail at the locations and in accordance with the details shown on the plans, the MUTCD, and the requirements of these specifications, or as directed by the Engineer.

**450 - 4      CONTROL OF WORK:**

No pavement marking, permanent or temporary, shall be applied to the project by the Contractor until a field inspection of the striping layout is completed and approved by the Engineer. Any pavement markings made by the Contractor PRIOR TO INSPECTION AND APPROVAL BY THE ENGINEER WILL BE REMOVED AND REINSTALLED at the expense of the Contractor.

In the event that the Contractor discovers conflict, error or omission to the plans during progress of the work, Contractor shall immediately notify the Engineer.

The Contractor shall remain responsible for maintaining traffic control during the progress of the work.

The Contractor shall have on the work site at all times a Superintendent fully knowledgeable and experienced in the work being performed. The Superintendent shall have full authority to execute requests of the Engineer without delay and to promptly supply such materials, equipment, tools, labor and incidentals as may be required.

**450 - 5 COORDINATION AND SEQUENCE OF WORK:**

**(A) STRIPING LIMITS:**

The Contractor shall verify the striping limits of the project prior to beginning work. The striping limits may exceed the construction project limits in order to match existing striping.

**(B) REMOVAL OF EXISTING MARKINGS:**

Any existing pavement marking required to be removed for this project shall be completed prior to layout and marking. Removal of existing pavement markings shall be done in accordance with Section 460. Removal of existing striping shall be consider incidental work and shall be included in unit price for installation of new pavement markings.

**(C) PRESERVATIVE SEAL:**

The Contractor shall obtain from the Project Inspector confirmation of the use of a preservative seal for this project or any scheduled use of a preservative seal within six (6) months of this project. If Project Inspector indicates that no preservative seal will be applied the pavement markings may be applied according to the contract schedule. Under no circumstances should Thermoplastic Paint be used on a project when a preservative seal is to be applied within six (6) months of completion of this project.

If the Project Inspector indicates that a preservative seal will be applied then sufficient drying time shall be allowed before any kind of pavement markings can be applied.

If a preservative seal is applied to the project after the paint, tape or raised pavement markers have been installed, then all pavement markings affected by the seal shall be REMOVED AND REINSTALLED AT THE CONTRACTOR'S EXPENSE.

**450 - 6 MATERIALS:**

**(A) TRAFFIC PAINT:**

**(1) SPECIFICATIONS:**

Reference the Technical Specifications on 250 Low VOC Chlorinated Rubber Traffic Paint in the Appendix.

**(2) TESTING:**

The Contractor shall provide proof that all the materials used meets the required specifications.

At the request of the Engineer the Contractor shall supply samples of the 250 Low VOC Chlorinated Rubber Traffic Paint to the County for testing purposes. Any testing of samples will be at the Contractor's expense.

**(3) PERFORMANCE:**

The paint shall not bleed, curl, or discolor when being applied to the roadway surface. If bleeding, curl or discolor occurs, the unsatisfactory areas shall be given additional coat (s) of paint to correct the problem. If this does not correct the problem the Engineer shall make the final decision on the method of correction. The method of correction will be at the expense of the Contractor.

**(B) RAISED PAVEMENT MARKERS:**

Raised Pavement Markers shall conform to ADOT specification, Section 706 - Standard Specifications for Road and Bridge Construction, latest edition, EXCEPT all reflectorized RPM's shall be non-adhesive with an abrasive surface.

**(C) TYPE I - PREFORMED PLASTIC PAVEMENT MARKING TAPE:**

Type I - Preformed Plastic Pavement Marking Tape shall conform to ADOT specification, Section 706 - Standard Specifications for Road and Bridge Construction, latest edition.

**450 - 7 CONSTRUCTION REQUIREMENTS:**

**(A) METHODS AND EQUIPMENT:**

The methods and equipment used for this work shall be in accordance with Sections 705, 706, 707, and 708 of the ADOT Standard Specifications for Road and Bridge Construction, latest edition.

**(B) CLEANING AND PREPARING THE PAVEMENT SURFACE:**

Before applying any paint, tape, or raised pavement markers to the roadway surface, the surface shall be free of dirt, grease, oils, acids, laitance or other foreign matter which would reduce the bond between the pavement markings and the road.

Areas which cannot otherwise be satisfactorily cleaned shall be scrubbed with a bio-degradable chemical called Citrus Solv Plus or equivalent.

After a thorough cleaning, the surface shall be rinsed with water and completely dried before applying any paint, tape, or raised pavement markers.

**(C) FIELD LAYOUT AND MARKING:**

The Contractor shall establish a string line or another method when laying out the striping in the field.

The Contractor shall properly spot mark the project at five foot intervals in conformance with the striping design shown on the plans.

Upon completion the Contractor shall notify the Engineer that the project is ready for inspection.

After the Contractor has notified the Engineer that the entire project has been spot marked, the County shall have three (3) working days to inspect the project and to notify the Contractor of acceptance or identify unsatisfactory work.

The Contractor shall be aware that the No Passing Zone (s), NPZ (s) shown on the striping plans are subject to change upon field inspection by the Engineer or will be laid out in the field by the Engineer at the time of field inspection.

**(D) TOLERANCES:**

New pavement striping shall not vary more than 1/2 - inch (1.27 centimeters in fifty feet (15 meters) from the specified striping design.

Existing pavement markings to be repainted , shall be repainted so as to completely cover the existing markings within one quarter (1/4) inch and be within a longitudinal tolerance of six (6) inches at the end of each stripe. This standard applies to re-striping bleeding or discoloring areas or if the Engineer determines that additional coats of paint are needed.

If the existing pavement markings are in tape or thermoplastic material, they shall be removed under Section 460 and reinstalled in traffic paint.

**(E) STANDARD MARKINGS:**

**(1) PAINTED MARKINGS:**

**(a) STRIPES:**

All measurements, on parallel lines, shall be measured from center of stripe to center of stripe or center of stripe to edge of asphalt.

Broken lines shall be fifteen feet long with a twenty-five foot gap between lines.

Dashed lines shall be three feet long with a nine foot gap between lines.

Center lines, lane lines, edge lines, median lines, no-passing zones and bike lanes shall be a four inch wide line.

Holding bars and squeeze bars shall be eight inches wide.

A Standard Left Turn Lane (LTL) shall be as indicated in these specifications unless otherwise specified on the plans or directed by the Engineer.

1. The LTL shall be one hundred sixty feet in length and fourteen feet wide.
2. The "V" holding bars shall be installed three feet wide.
3. The opening space preceding the LTL shall be one hundred feet long.

**(b) CURBED MEDIANS and ISLANDS:**

All curbed medians that are four feet to six feet in width shall be painted yellow across the "entire top" of the median and curb, from radius to radius, and continue down the vertical face of the curb. In addition painting shall be continued along the top of the curb and its vertical face for an additional twenty-five feet. If there is a decorative design in the median, paint shall not be applied over the design, (i.e. red brick).

All curbed medians that are over six feet wide shall be painted only along the top of the vertical curb and face from radius to radius. In addition, painting shall continued along the top of the curb and its vertical face for an additional twenty-five feet (25').

All curbed medians shall be painted in yellow traffic paint. All islands shall be painted white as designated on the plans. Tape or thermoplastic material shall not be used.

**(c) NON-CURBED MEDIANS:**

Apply a four inch (4") yellow line one foot (1') off the edge along all non-curbed median.

Raised pavement markers shall be installed four inches (4") to the outside of the yellow median line.

**(d) BIKE LANE LEGENDS AND SYMBOLS:**

All bike lane legends and symbols shall be painted as shown on the plans or as requested by the Engineer.

**(2) TYPE 1 - PREFORMED PLASTIC PAVEMENT MARKING TAPE MARKINGS:**

**(a) CROSSWALKS AND STOPBARS:**

All standard crosswalk lines shall be twelve inches (12") wide and spaced ten feet (10') apart.

Measurement for crosswalk lines shall be from inside the line to inside the line, not center to center.

High visibility crosswalk lines shall be twelve inches (12") wide and spaced fifteen feet (15') apart. High visibility crosswalks shall include diagonal lines.

The diagonal lines shall be installed at a 45° angle going from lower left to upper right (i.e. //). The diagonal lines shall be twenty-four inches (24") wide and spaced six feet (6') to eight feet (8') apart. Measurement between the diagonal lines shall be from center of stripe to center of stripe.

School crosswalk lines shall be "yellow", twelve inches (12") wide and spaced fifteen feet (15') apart.

Stop bars and crosswalk\stop bar combinations shall be twenty-four inches (24") wide.

**(b) ARROWS:**

Arrows shall be constructed according to ADOT Signing and Marking Standard, Drawing No.4-M-1.16.

**(c) STANDARD SIZE LEGENDS AND SYMBOLS:**

All STANDARD lane legends and symbols shall be applied in tape as shown on the plans or as requested by the Engineer.

**(3) RAISED PAVEMENT MARKER PLACEMENT:**

All RPM shall be secured to the pavement with a hot flexible marker adhesive. Epoxy shall not be used except when approved by the Engineer.

**(a) REFLECTIVE PAVEMENT MARKERS:**

When installing reflective RPMs next to a solid stripe, the RPM shall be placed four inches (4") to the outside or inside of the stripe, as specified on the plans.

When installing reflective RPMs between broken lines, the RPM shall be centered in the middle of the twenty-five foot (25') gap.

**(b) NON-REFLECTIVE PAVEMENT MARKERS:**

White non-reflective buttons shall be installed on white stripes and yellow non-reflective buttons shall be installed on yellow stripes. All non-reflective buttons shall be installed according to the striping plans.

**(4) BARRIER MARKERS FOR BRIDGES, CONCRETE AND GUARDRAIL:**

**(a) BRIDGES AND CONCRETE:**

When installing bridge or concrete markers, use Stimsonite No. P/N 965Y for yellow and P/N 965W for white, when called for on the plans.

Placement in the field should be according to ADOT Signing and Marking Standard, Drawing No. 4-M-10.02.

The Contractor shall secure the barrier marker using manufactures specifications.

**(b) GUARDRAIL:**

When installing guardrail markers Contractor shall use ADOT standards and install them according to ADOT Signing and Marking Standard, Drawing No. 4-M-10.03.

The Contractor shall secure the barrier marker using manufactures specifications.

**(F) INSPECTION OF WORK:**

The County requires two field inspections of the pavement markings. The first inspection shall be made after the spot marking is completed. The second inspection shall be made after all markings have been installed.

Inspection and approval of spot markings shall not relieve the Contractor from obtaining a final inspection.

Final inspection of the striping will be by made the Engineer to assure that Section 450 and 460 of these Special Provisions have been met.

If it is determined by the Engineer upon final inspection that more than one coat of paint is required, the additional cost(s) shall be added to the expense of the Contractor. If the paint has to be applied in more than one (1) coat, each pervious coat (s) of paint shall be thoroughly dry before each new coat (s) is applied.

**450-6 METHOD OF MEASUREMENT AND BASIS OF PAYMENT:**

**(A) PAINTED STRIPES:**

Painted stripes shall be measured by the linear foot along the centerline of the stripe. Skips in dashed lines shall not be included in the measurement. Painted medians and curbing shall be measured by the linear foot along the curbing. All paint quantities shall be based on a four inch line or the appropriate multiple of a four inch wide line.

Painted stripes will be paid for at the contract unit bid price per linear foot, COMPLETE IN PLACE.

**(B) PAINTED BIKE LEGEND AND SYMBOLS:**

Painted bike legends and symbols will be measured by each unit applied.

Painted bike legends and symbols will be paid for at the contract unit bid price each, COMPLETE IN PLACE.

**(C) RAISED PAVEMENT MARKERS:**

Raised Pavement Markers will be measured by each unit furnished and installed.

Raised Pavement Markers will be paid for at the unit bid price each, COMPLETE IN PLACE.

**(D) TYPE I - PREFORMED PLASTIC TAPE CROSSWALKS AND STOP BARS:**

Type I - Preformed Plastic Tape will be measured by the linear foot along the centerline of all lines. All tape quantities will be based on a four inch line or the appropriate multiple of a four inch wide line.

Type I - Preformed Plastic Tape lines for crosswalks and stop bars will be paid for at the unit bid price per linear foot, COMPLETE IN PLACE.

**(E) ARROWS AND STANDARD LEGENDS AND SYMBOLS:**

Arrows, and Standard Legends and Symbols will be measured by each unit applied.

Arrows, and Standard Legends and Symbols will be paid for at the unit bid price each, COMPLETE IN PLACE.

**(F) BARRIER MARKERS ON BRIDGES, CONCRETE, AND GUARDRAIL:**

Barrier Markers on bridges, concrete and guardrail will be measured by each unit furnished and installed.

Barrier Markers on bridges, concrete and guardrail will be paid at the unit bid price each, COMPLETE IN PLACE.

**460 PAVEMENT MARKING REMOVAL AND INCIDENTAL TRAFFIC CONTROL DEVICES:**

**460 - 1 STANDARD SPECIFICATIONS:**

Removal of roadway pavement markings in Maricopa County shall be done in accordance with the requirements of the following separate documents:

- (1) Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition
- (2) Arizona Department of Transportation Standard Specification for Road and Bridge Construction, 1990.

**460 - 2 INTENT AND PURPOSE:**

These construction specifications are to intended to be complementary to above standard specification for REMOVAL OF PAVEMENT MARKINGS AND INCIDENTAL TRAFFIC CONTROL DEVICES in Maricopa County. They are intended to provide a more detailed description and to modify the construction specifications where indicated. In case of discrepancies or conflicts, apparent or real, the Contractor shall consult the Engineer.

**460 - 3 DESCRIPTION OF WORK:**

The Contractor shall furnish experienced supervision and labor, and all materials, equipment, tools, transportation and supplies required to complete the work in accordance with the plans, standard specifications and these construction specifications.

The work under this section shall consist of the removal of all conflicting pavement markings and associated traffic control devices; including:

- (1) Removal of Traffic Paint
- (2) Removal of Thermoplastic Painted Markings
- (3) Removal of Preformed Pavement Marking Tape Markings
- (4) Removal of Raised Pavement Markers
- (5) Removal of Barrier Markers on bridges, concrete and guardrail
- (6) Any other traffic control devices deemed necessary by the Engineer for public safety
- (7) Cleaning and preparing the pavement surface in accordance with Section 450 for installation of new pavement markings.

at the locations and in accordance with the details shown on the plans, the MUTCD, and the requirements of these specifications, or as requested by the Engineer.

**460 - 4 CONTROL OF WORK:**

It shall be the Contractor's responsibility to determine what type of pavement markings currently exist on this project and to determine which method of removal under this Section is appropriate

**OVERPAINTING** of existing traffic pavement markings by slurry seal, black paint or any kind of stain IS NOT ALLOWED.

In the event that the Contractor discovers a conflict, error or omission on the plans during progress of the work, he shall immediately notify the Engineer.

The Contractor shall remain responsible for maintaining traffic control during the progress of the work.

Any damage caused by pavement marking removal shall be repaired by the Contractor at the Contractor's expense. The method of repair or correction shall be approved by the Engineer before the work begins.

The Contractor shall have on the work site at all times a Superintendent fully knowledgeable and experienced in the work being performed. The Superintendent shall have the full authority to execute orders or requests of the Engineer without delay and to promptly supply such materials, equipment, tools, labor and incidentals as may be required.

**460 - 5 COORDINATION AND SEQUENCE OF WORK:**

**(A) EXTENT OF REMOVAL:**

The Contractor shall be responsible for verifying the striping removal limits of the project prior to beginning work. The striping removal limits may exceed the construction project limits, or new striping limits in order to match existing striping.

Existing pavement markings shall be removed to the fullest extent possible from the pavement by one of the methods identified as appropriate in this Section, unless another method is approved by the Engineer prior to beginning the work.

**(B) PREPARATION OF PAVEMENT FOR INSTALLATION OF PAVEMENT MARKINGS:**

Any existing pavement marking required to be removed for this project shall be completed **PRIOR** to layout and marking of new pavement markings.

**460 - 6      METHODS OF REMOVAL:**

**(A)    TRAFFIC PAINT MARKINGS:**

- (1)    SANDBLASTING:**
- (2)    TURBO-BLASTER (Using the steel shot method):**
- (3)    CHIP SEAL:**

When using this method, the entire roadway surface, edge of asphalt to edge of asphalt, shall be covered.

**(4)    ASPHALTIC OVERLAY:**

The asphaltic overlay thickness and dimensions shall meet County specifications.

**(B)    THERMOPLASTIC MARKINGS:**

- (1)    GRINDING FOLLOWED BY SANDBLASTING:**
- (2)    CHIP SEAL:**

The application of this method depends on the length of time the Thermoplastic Marking has been down on the roadway surface. The use a chip seal before grinding\sandblasting is at the discretion of the Contractor.

- (a)    If the chip seal does not adhere to the existing thermoplastic markings, the Contractor shall grind\sandblast off the thermoplastic markings and chip seal over the exposed area. The Contractor shall bear all costs for this work.**
- (b)    When applying chip seal, the entire roadway surface, edge of asphalt to edge of asphalt, shall be covered.**
- (c)    Chip seal shall not be applied to portland cement surface**

**(3) ASPHALTIC OVERLAY:**

The asphaltic overlay thickness and dimensions shall meet County specifications.

**(C) PREFORMED PLASTIC MARKINGS:**

**(1) GRINDING:**

**(2) CHIP SEAL:**

The application of this method depends on the length of time the tape has been down on the roadway surface. The use a chip seal before grinding is at the discretion of the Contractor.

(a) If the chip seal does not adhere to the existing Tape Markings, then the Contractor shall grind off the Tape Markings and chip seal over the exposed area. The Contractor shall bear all costs for this work.

(b) When applying chip seal, the entire roadway surface, edge of asphalt to edge of asphalt, shall be covered.

(c) Chip seal shall not be applied to portland cement surface

**(3) ASPHALTIC OVERLAY:**

The asphaltic overlay thickness and dimensions shall meet County specifications.

**(D) RAISED PAVEMENT MARKERS:**

**(1) HAMMER AND CHISEL:**

**(2) BLADE:**

**(E) BARRIER MARKERS FOR BRIDGES, CONCRETE AND GUARDRAIL:**

**(1) HAMMER AND CHISEL:**

**(2) ANY METHOD APPROVED BY THE ENGINEER:**

**460 - 6 METHOD OF MEASUREMENT AND BASIS OF PAYMENT:**

No measurement or payment shall be made for removal of existing striping. Removal of existing striping shall be consider incidental work and shall be included in unit bid price for installation of new pavement markings.

**SECTION 505 - CONCRETE STRUCTURES:** The concrete shall conform to Section 725 and the reinforcing steel shall conform to Section 727 of the Uniform Standard Specifications.

Payment for all work under this section shall be made at the contract unit prices bid for the item.

Catch Basins with aprons will include the cost of the apron as incidental to the cost of the catch basin and shall be included in the contract unit price for catch basins.

**SECTION 623 - HEADWALL:** The work under this section shall consist of constructing headwalls of the types and at the locations shown on the plans.

Steel reinforcement shall conform to Section 727 of the Uniform Standard Specifications.

Portland Cement Concrete shall conform to Section 725 of the Uniform Standard Specifications.

Measurement for headwalls to be paid for by the square foot shall be the product of the length times the height of the exposed face of the wall and footing excluding the area of the pipe opening

Payment for this item will be made at the contract unit bid price for the item. Payment for access barriers will not be made separately. They are incidental to the cost of headwalls and shall be included in the contract unit bid price for headwalls.

**SECTION 625 - MANHOLE CONSTRUCTION AND DROP SEWER CONNECTIONS**

**SECTION 625.1 DESCRIPTION:**

Add the following sentence to this subsection:

The Contractor may submit plans and specifications for alternate manhole materials and construction methods for the Engineer's consideration and approval.

**710.2.5 - JOB MIX FORMULA:**

Add the following to this section:

The following job mix formula shall apply for Modified MAG D-1/2 Mix designation:

<u>SIEVE SIZE</u>	PERCENT PASSING	JOB MIX TOLERANCE
1"	100	-----
3/4"	97-100	-----
1/2"	88	+/- 7%
3/8"	78	+/- 7%
#4	58	+/- 7%
#8	45	+/- 5%
#30	25	+/- 5%
#200	5	+/- 2%

Percent Asphalt Cement: 4.9 +/- 0.4%  
Asphalt Cement: AR-4000 or AC-20  
Temperature: Mixing and Placing 280 F +/- 25 F

Type II Portland Cement or equal will be added by dry weight of the mineral aggregate, 1.5%.

Gradation above shall supersede that in Section 710.3.

**SECTION 710.7 - BATCH MIXING**

Add the following paragraph to Subsection 710.7.5 Mixing:

If the results obtained indicate that uniform proportions of the aggregate from the bins or uniform and correct amounts of asphalt are not being delivered, the Engineer shall order that operations cease until proper corrections have been made.

## **SECTION 738 - HIGH DENSITY POLYETHYLENE PIPE & FITTINGS FOR STORM DRAIN & SANITARY SEWER**

### **SECTION 738.1 - GENERAL**

Add the following paragraph to this subsection:

HDPE pipe manufactured in accordance with AASHTO M 294 Type S is acceptable. The Contractor shall submit documentation acceptable to the Engineer showing that the minimum pipe stiffness per AASHTO M-294 is at least equal to the required Ring Stiffness Constant for each size pipe. Pipe sizes larger than those presently listed in AASHTO M-294 but otherwise meeting the AASHTO specification shall be acceptable.

### **SECTION 738.2.1 - BASE MATERIAL COMPOSITION**

Add the following paragraph to this subsection:

Base materials for pipe manufactured in accordance with AASHTO M-294 shall fully comply with that specification.

### **SECTION 738.3.2 - THERMAL WELD TYPE**

Change this subsection to read as follows:

Thermal welded joints shall not be used. All joints shall be gasket type as recommended by the pipe manufacturer and approved by the Engineer.

### **SECTION 738.5 - CERTIFICATION**

Change this subsection to read as follows:

The manufacturer shall furnish an affidavit (certification) that all materials delivered shall comply with the requirements of either ASTM F-894 or AASHTO M-294, Type S as appropriate.

### **SECTION 738.8 - MARKINGS**

Change this subsection to read as follows:

Markings on pipe shall comply with ASTM F-894 or AASHTO M-294, as appropriate.

**SECTION 795 - LANDSCAPE MATERIAL**

**795.5 - CHEMICAL SOIL CONDITIONER:**

Add the following paragraphs:

Gypsum shall be agricultural gypsum, composed of calcium sulfate. Gypsum shall be 90 percent pure, free of any toxic materials, and at least 95 percent by weight shall pass a 4-mesh sieve.

Soil Sulfur: Soil sulfur shall be grained agricultural sulphur containing 99.5% sulfur.

Where fertilizer is furnished from bulk storage, the Contractor shall furnish a supplier's certification of analysis and weight. Fertilizer shall be a hard prill type fertilizer, which is uniform in composition, pelleted, dry, and free flowing. Guaranteed usable analysis of fertilizer shall be as follows:

Ammoniacal nitrogen (N)16.0%  
Available phosphoric acid (P2O3)8.0%  
Water soluble potash (K2O)4.0%  
Sulfur (S)18.0%  
Iron (Fe, chelated)1.5%  
Maganese (MN, chelated)0.1%  
Zinc (ZN, chelated)0.1%

Planting Tablets: Shall be Gro-Power Planting Tablets, as manufactured by Gro Power, P.O. Box 4907, El Monte, CA 91734-0907, or approved equal. Local Representative is Ewing Irrigation, 926-7877.

Organic Soil Conditioner: Shall be Gro-Power Plus, also available from Ewing Irrigation, and mulch shall comply with Section - 795.4.

### **795.5.7.1 - GENERAL**

Add the following paragraph:

Quality and size of plants shall be in accordance with rules and grading adopted by the American Association of Nurserymen, Inc., the Arizona Nursery Association, and included in the American Standard for Nursery Stock. Plant materials shall be grown in nurseries which have been inspected by the State Department of Agriculture and have complied with the regulations thereof. Inspection Certificates shall be submitted to the Engineer. The Contractor shall obtain clearance from the County Agricultural Commissioner, as required by law, before planting plants delivered from outside the county in which they are to be planted. Evidence that such clearance has been obtained shall be filed with the Engineer.

Seed shall be labeled in accordance with Arizona State Laws and the U.S. Department of Agriculture Rules and Regulations under the Federal Seed act in effect on the date of invitations for bids. Bag tag figures will be evidence of purity and germination. No seed will be accepted with a date of test of more than nine (9) months prior to the date of delivery to the site.

Seed shall be certified to be the latest season's crop and shall be delivered in original sealed packages bearing the producer's guaranteed analysis for percentages of mixtures of pure live seed. Seed shall be labelled in conformance with U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act and applicable state seed laws. Seed that has become wet, moldy, or otherwise damaged will not be acceptable.

### **795.8 MISCELLANEOUS MATERIAL:**

Add the following paragraphs:

#### **795.8.2 - TREE STAKES**

Delete paragraph, substitute the following:

Tree stakes shall be eight-foot long Lodgepole Pine stakes, copper naphthenate treated, 2" diameter.

**795.8.4 DECOMPOSED GRANITE:**

The decomposed granite shall be 1/2" minus; "desert gold in color" and a minimum depth of 1 - 1/2 inches. *Paragraph two (2), sentence two (2) is deleted.*

**795.8.5 GRAVEL MULCH:**

Gravel mulch will be graded material and shall be free of chemicals harmful to plant growth, debris, fines, and soil particles. Gravel mulch will consist of a combination of crushed and rounded material with a minimum of 50 percent by weight crushed material. Crushed rock shall have at least three (3) fractured faces. A sample must be approved by the Engineer prior to delivery to site.

The percentage wear of the material to be used as gravel mulch will be determined by the test procedure of ASTM Standard C 131, Grading B. The percentage of wear of the material shall not exceed 40 after 500 revolutions. The aggregates shall be well-graded when tested in accordance with ASTM C 136 and C 117. The percentage composition by weight shall be with the following limits:

<u>Size of Opening</u>	<u>Percentage Passing Sieve</u>
2 inches	90 - 100%
3/4 inches	0 - 15
No. 4	0 - 5

Gravel mulch color shall be natural desert. Color shall be approved by the Engineer prior to delivery to site

**795.8.6 TREE PROTECTION MATERIALS:**

Wood Post for Barricades: Construction grade Douglas Fir, 4" x 4", by 8' long.

Fencing for Barricades: 8'-0" high galvanized chain link fence.

**795.8.7 PRE-EMERGENT CONTROL:**

Pre-emergent control shall contain a mixture of Isoxabin at 20% minimum and Oryzalin at 60% minimum.