

CONSTRUCTION SPECIFICATIONS

FOR

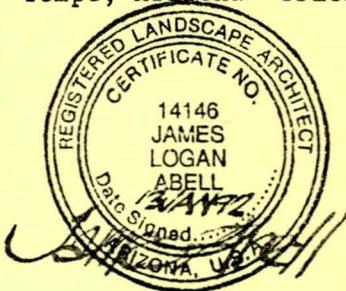
UPPER EAST FORK CAVE CREEK DETENTION BASIN NO. 4 LANDSCAPE

FCD CONTRACT NO. 91-04

Prepared By:

JAMES ABELL & ASSOCIATES
Two West Alameda Drive
Tempe, Arizona 85282

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



Prepared for:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

and

Recommended By: Edward A. Raleigh Date: 1/15/92
Edward A. Raleigh, P.E., Chief
Engineering Division

Approved By: Stanley L. Smith, Jr. Date: 1-16-92
Stanley L. Smith, Jr., P.E.
Acting Chief Engineer and General Manager

SUPPLEMENTARY TO MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION EDITION OF 1979 AND REVISIONS AND SUPPLEMENTS THERETO.

A460.501

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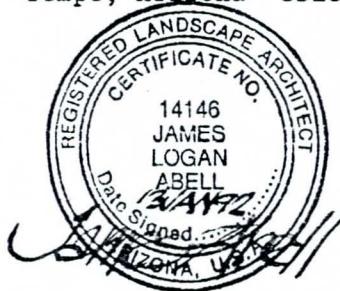
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ATTENTION

ALL PROSPECTIVE BIDDERS

A.R.S. Sec. 34-201(A)(3) requires that every bid be accompanied by a certified check, cashier's check or surety bond in the amount of not less than a full five percent (5%) value of the bid.

Bid bonds for less than the full five percent (5%) value of the bid amount as required by A.R.S. 34-201(A)(3) will not be accepted (such as the AIA Form of Bond). Those bids will therefore be considered nonresponsive.

Please take note and submit your bids accordingly.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FCD CONTRACT 91-04

UPPER EAST FORK CAVE CREEK DETENTION BASIN NO. 4 LANDSCAPE

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(Area to left reserved for Engineer's Seal)

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
INVITATION TO BID

BID OPENING DATE: February 13, 1992

LOCATION:

The majority of work for this project is within the boundaries of the Paradise Valley Community College (PVCC) Campus located on the Southeast corner of 32nd Street and Union Hills Drive.

PROPOSED WORK:

The work consists of providing all materials necessary to construct a complete and functioning watering system, planting trees, shrubs, groundcover, moving and replanting of boxed trees and memorial pines from designated storage areas, decomposed granite areas and paths, new signage, removal and relocation of existing signage, and other miscellaneous items of work.

BIDS:

SEALED BIDS for the proposed work will be received by the Flood Control District of Maricopa County, 2801 West Durango Street, Phoenix, Arizona 85009 until 2:00 p.m. (Phoenix time) on the above date and then publicly opened and read at 2801 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 Flood Control District and included in the Proposal Pamphlet. The Board of Directors 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 Flood Control District of Maricopa County 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, or national origin.

The bidder shall be required to certify that it has the appropriate "A" Contractor's license in the State of Arizona to perform 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 fifty (150) calendar days after date of Notice to Proceed.

MBE/WBE PARTICIPATION:

For this contract, goals of MBE twenty (20) percent and/or WBE five (5) percent are 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 January 29, 1992 at 1:00 p.m. in the Flood Control District Adobe conference room, 2801 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 Chief, 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 Flood Control District of Maricopa County, 2801 West Durango Street, Phoenix, Arizona 85009 upon payment of \$15.00 by check, payable to the FLOOD CONTROL DISTRICT of MARICOPA COUNTY. This payment will not be refunded. Mail orders for project documents must include an additional \$7.50 for first class U.S. postage and handling. The total \$22.50 will not be refunded. Regardless of circumstances, we cannot guarantee mail delivery. Each bid must be accompanied by a Bid Bond, cashier's or certified check or postal money order equal to 5 percent (5%) of the bid, made payable to the FLOOD CONTROL DISTRICT OF MARICOPA COUNTY as a guarantee that if the work is awarded to the bidder, the bidder will within ten (10) days of receipt of the Proposal Acceptance, enter into proper contract and bond condition for the faithful performance of the work, otherwise, said amount may be forfeited to the said BOARD OF DIRECTORS as liquidated damages.

All bids are to be marked in accordance with Section 102.9 of the Uniform Standard Specifications and addressed to the Chief Engineer and General Manager, Flood Control District of Maricopa County, 2801 West Durango Street, Phoenix, Arizona 85009.

As provided for in the Agenda Information Form authorizing the Invitation to Bid.

PRINCIPLE ITEMS AND APPROXIMATE QUANTITIES

<u>QUANTITY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>
2,520	SY	Stabilized Decomposed Granite
32,275	SY	Decomposed Granite (Gold) General Groundcover Areas (1 1/2" Thick)
2,300	SY	Decomposed Granite (Red) Perimeter Walk (2" Thick)
2,610	SY	Decomposed Granite Maintenance Drive (3"-5" Thick)
56	EA	Trees (24" Box)
333	EA	Trees (15 Gal)
435	EA	Shrubs (5 Gal)
451	EA	Shrubs (1 Gal)
20	EA	Transportation and Replanting Boxed Native Desert Trees (48" Box)
11,534	EA	Groundcover (1 Gal)
35	AC	Pre-Emergent Weed Control
4,765	LF	2 1/2" Sched 40 PVC Pressure Main
23,945	LF	Class 200 PVC Emitter Tube
2,198	EA	6 Port Emitter and Riser Assembly
1	EA	Intersection Signage
2	EA	Driveway Entrance Signage
1	LS	Electric

PROPOSAL

TO THE BOARD OF DIRECTORS
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
PHOENIX, ARIZONA

Gentlemen:

The following Proposal is made for constructing Upper East Fork Cave Creek Detention Basin No. 4 Landscape in the County of Maricopa, State of Arizona.

The following Proposal is made on behalf of

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 Directors 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 in which it relates, or in any portion of the profits thereof.

The Undersigned certifies that the approved Plans, Supplementary General Conditions, Special Provisions, Forms of Contract, Bonds, and Sureties authorized by the Board of Directors 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, Supplementary General Conditions, or conditions to be overcome, be pled. On the basis of the Plans, Construction Specifications, Special Provisions, Supplementary General Conditions, 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 or Architect.

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 150 calendar days from the effective date specified in the Notice to Proceed, with the exception of the planting which must be completed within 90 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 Directors, 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, 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 five (5) percent of the total bid, which 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 Flood Control District of Maricopa County 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 and has included their provisions in the proposal:

Addendum No. _____ Dated _____
Addendum No. _____ Dated _____

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

BIDDING SCHEDULE

MUST BE LEGIBLY WRITTEN IN INK OR TYPED

PROJECT: Upper East Fork Cave Creek Detention Basin No. 4 Landscape

CONTRACT: FCD 91-04

ITEM NO.	DESCRIPTION	APPROXIMATE QUANTITY	UNIT	UNIT COST (IN WRITING) AND /100 DOLLARS	UNIT COST (NUMBERS)	EXTENDED AMOUNT
220.1	Plain Riprap	810	SY			
220.2	Grouted Riprap	180	SY			
314	Stabilized Decomposed Granite	2,520	SY			
350	Removal and Relocation of Existing Sign	3	EA			
430.1	Decomposed Granite (Gold) General Ground-cover Areas (1 1/2" Thick)	32,275	SY			
430.2	Decomposed Granite (Red) Perimeter Walk (2" Thick)	2,300	SY			
430.3	Decomposed Granite Maintenance Drive (3" - 5" THICK)	2,610	SY			
430.4	Trees (24" Box)	56	EA			
430.5	Trees (15 Gal)	333	EA			
430.6	Shrubs (5 Gal)	435	EA			
430.7	Shrubs (1 Gal)	451	EA			
430.8	Transportation and Replanting Boxed Native Desert Trees (48" Box)	12	EA			
430.9	Transportation and Replanting Boxed Native Desert Trees (42" Box)	6	EA			
430.10	Transportation and Replanting Boxed Native Desert Trees (36" Box)	2	EA			
430.11	Replanting Boxed Memorial Pines	19	EA			

BIDDING SCHEDULE

MUST BE LEGIBLY WRITTEN IN INK OR TYPED

PROJECT: Upper East Fork Cave Creek Detention Basin No. 4 Landscape

CONTRACT: FCD 91-04

ITEM NO.	DESCRIPTION	APPROXIMATE QUANTITY	UNIT	UNIT COST (IN WRITING) AND /100 DOLLARS	UNIT COST (NUMBERS)	EXTENDED AMOUNT
430.12	Groundcover (1 Gal)	11,534	EA			
430.13	Brick Header	670	LF			
430.14	Root Collar	15	EA			
431.1	Subgrade Preparation	1	LS			
431.2	Pre-Emergent Weed Control	35	AC			
440.1	4" Sched 40 PVC Sleeve	180	LF			
440.2	2 1/2" Sched 40 PVC Pressure Main	4,765	LF			
440.3	Class 200 PVC Emitter Tube	23,945	LF			
440.4	1" PRS Valve, 'Y' Filter and Box	22	EA			
440.5	6 Port Emitter & Riser Assembly	2,198	EA			
440.6	Control and Common Wire	56,860	LF			
440.7	2" Gate Valve and Box	2	EA			
440.8	Asphalt Pavement Replacement for Sleeves	60	LF			
516.1	Intersection Signage	1	EA			
516.2	Driveway Entrance Signage	2	EA			

SUBCONTRACTOR LISTING

As required in Section 102.6 of the Supplementary General Conditions, the following is a listing of Subcontractors and material suppliers that are to be used in the event the undersigned should enter into contract with the Owner. This is not an exhaustive or inclusive list.

(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 the Flood Control District of Maricopa County as Obligee, in the sum of five percent (5%) of the total amount of the bid of Principal, submitted by him to the Flood Control District of Maricopa County, for the work described below, for the payment of which sum, well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, and administrators, successors and assigns, jointly and severally, firmly by these presents, and in conformance with A.R.S. Sec. 34-201(A)(3).

WHEREAS, the said Principal is herewith submitting its proposal for FCD Contract No. 91-04, Upper East Fork Cave Creek Detention Basin No. 4 Landscape.

NOW, THEREFORE, if the Flood Control District of Maricopa County shall accept the proposal of the Principal and the Principal shall enter into a contract with the Flood Control District of Maricopa County in accordance with the terms of such proposal and give such Bonds and Certificates of Insurance as specified in the Standard Specifications with good and sufficient Surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter into such contract and give such Bond and Certificates of Insurance, if the Principal shall pay to the Flood Control District of Maricopa County the sum of money set forth above as liquidated damages for failure of the Principal to enter into the contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this _____ day of _____, A.D., 1992.

Principal

Title

Witness:

Surety

Title

Witness:

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 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 in the Maricopa County Highway Department building, 2901 West Durango Street, Phoenix, telephone 506-8656. 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 will provide a written report to the Procurement Officer through the Owner's representative.

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 five (5) calendar days prior to the bid submittal date, 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.

Reasonable "good faith" efforts expected could include but are not limited to:

1. Written notification to MBEs and WBEs that their participation in the contract is solicited.
2. Selection of portions of the proposed work which can be performed by MBE and WBE firms with a provision providing that they are generally competitive.

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 may 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 "good faith efforts" documentation submittal.

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.

Documentation to support bidder's "good faith" efforts should include:

1. Names and dates of advertisement of each newspaper, trade paper, and minority focus paper in which a request for MBE and WBE participation for this project was placed by the bidder.
2. Names, addresses and telephone numbers; and dates of notification of 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.
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. 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. The names of MBEs and WBEs who were selected as subcontractors, the portion of work to be performed and reason for selection.

6. A description of the efforts made to assist MBEs and WBEs whose bids were rejected to be more competitive in their subcontracting bids. These efforts could include assistance in meeting bonding or insurance requirements.

7. The date bidder requested assistance written, in person, or by telephone, from the MBO.

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.

S A M P L E
COMPLETED AFFIDAVIT MUST BE SUBMITTED WITHIN SEVEN CALENDAR DAYS FOLLOWING BID OPENING
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
MINORITY/WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM
Actual Minority/Women-owned Participation Affidavit

<hr/> <p>Name of Prime Contractor</p>	<hr/> <p>FCD 91-04 Project Number</p>			
<hr/> <p>Contact Person</p>	<hr/> <p>Total Amount of Contract</p>			
<hr/> <p>Street No.</p>				
<hr/> <p>City State Zip</p>				
<hr/> <p><u>Minority/Women-owned Firm</u></p>	<hr/> <p><u>Principal</u></p>	<hr/> <p><u>Address</u></p>	<hr/> <p><u>Type of Work</u></p>	<hr/> <p><u>Subcontract Amount</u></p>
<hr/>				
<hr/>				

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

Signature

Title

Date

STATE OF ARIZONA)
) ss
County of Maricopa)

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, %: 20% MBE 5% WBE

Total Cumulative MBE/WBE _____

Participation on This Contract, %: _____

MBE/WBE subcontract payment made
during this reporting period (yes or no): _____

cc: Minority Business Office
Maricopa County Highway Building
2901 West Durango Street
Phoenix, Arizona 85009

FCD Contract No. 91-04

CONTRACT AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 1992, by and between FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, hereinafter called the OWNER, acting by and through its BOARD OF DIRECTORS, and

_____ hereinafter called the CONTRACTOR.

WITNESSTH: That the said CONTRACTOR, for and in the consideration of the sum of _____ to be paid to him by the OWNER, 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 Chief Engineer and General Manager, a project for the Flood Control District of Maricopa County, designated as FCD Contract 91-04; Upper East Fork Cave Creek Detention Basin No. 4 Landscape, 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 Construction Specifications on file with the Flood Control District of Maricopa County, 2801 West Durango Street, Phoenix, Arizona, and such modifications of the same and other directions that may be made by the Flood Control District of Maricopa County as provided herein.

ARTICLE II - CONTRACT DOCUMENTS: The Construction Specifications (Invitation to Bid, Plans, Standard Specifications and Details, Supplementary General Conditions, Special Provisions, Addenda, if any, 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 faithful 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 OWNER, through its Engineer and to its satisfaction, the OWNER 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 OWNER hereby gives notice that pursuant to A.R.S. Sec. 38-511(A) this contract may be cancelled 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 OWNER 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 Chief Engineer and General Manager of the OWNER is received by all of the parties to the contract. In addition, the OWNER 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 OWNER 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 OWNER 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 OWNER. 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 regulation. 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 OWNER shall conduct itself in accordance with the provisions of the Maricopa County Procurement Code.

ARTICLE VIII - MBE/WBE PROGRAM: Flood Control District of Maricopa County 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 Flood Control District of Maricopa County without being discriminated against on the grounds of race, religion, sex, age, 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, religion, color, sex, national origin, age, or handicap 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.

PARTY OF THE FIRST PART

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
PARTY OF THE SECOND PART

BY: _____
Printed Name

BY: _____
CHAIRMAN, BOARD OF DIRECTORS

BY: _____
Signature

DATE: _____

Title
DATE: _____

Tax Identification Number

RECOMMENDED BY:

CHIEF ENGINEER AND GENERAL MANAGER
FLOOD CONTROL DISTRICT OF
MARICOPA COUNTY

ATTEST:

CLERK OF THE BOARD

DATE: _____

LEGAL REVIEW

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

BY: _____
GENERAL COUNSEL, FLOOD CONTROL
DISTRICT OF MARICOPA COUNTY

DATE: _____

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 the Flood Control District of Maricopa County, in the County of Maricopa, State of Arizona (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 Flood Control District of Maricopa County, dated the ____ day of _____, 1992, for FCD Contract 91-04; Upper East Fork Cave Creek Detention Basin No. 4 Landscape, 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 promptly pay all monies due to all persons supplying labor or materials to it or its subcontractors in the prosecution of the work provided for in said contract, then this 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 or any party which recovers judgement on this bond shall be entitled to such reasonable attorney's fees as may be fixed by the court or a judge thereof.

Witness our hands this _____ day of _____, 1992.

PRINCIPAL SEAL

BY: _____

AGENT OF RECORD, STATE OF ARIZONA

AGENT ADDRESS

SURETY SEAL

BY: _____

BOND NUMBER. _____

POWER OF ATTORNEY SEAL

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 the Flood Control District of Maricopa County, in the County of Maricopa, State of Arizona, 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 Flood Control District of Maricopa County, dated the ____ day of _____, 1992, for FCD Contract 91-04; Upper East Fork Cave Creek Detention Basin No. 4 Landscape, 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 _____, 1992.

AGENT OF RECORD, STATE OF ARIZONA

AGENT ADDRESS

BOND NUMBER

POWER OF ATTORNEY SEAL

BY: _____

PRINCIPAL SEAL

BY: _____

SURETY SEAL

BY: _____

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CERTIFICATE OF INSURANCE

CONTRACT FCD 91-04

PROJECT TITLE UEFCC Detention Basin No. 4 Landscape

NAME AND ADDRESS OF INSURANCE AGENCY	INSURANCE COMPANIES AFFORDING COVERAGES	
	Company Letter	A
	Company Letter	B
	Company Letter	C
	Company Letter	D
	Company Letter	E
	Company Letter	F
NAME AND ADDRESS OF INSURED	Company Letter	D
	Company Letter	E
	Company Letter	F
	Company Letter	G

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	EXPIRATION DATE	LIMITS OF LIABILITY IN \$1,000 MINIMUM each occurrence	
	COMMERCIAL GENERAL <input checked="" type="checkbox"/> 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 checked="" type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS HAZARD <input checked="" type="checkbox"/> UNDERGROUND HAZARD <input checked="" type="checkbox"/> INDEPENDENT CONTRACTORS <input checked="" type="checkbox"/> PERSONAL INJURY			BODILY INJURY per person PROPERTY DAMAGE each occurrence	<u>1,000</u> Combined Single Limit
	COMPREHENSIVE AUTO <input checked="" type="checkbox"/> 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	\$100
	<input checked="" type="checkbox"/> ENGINEERS PROFESSIONAL LIABILITY			EACH CLAIM AND ANNUAL AGGREGATE	
	<input checked="" type="checkbox"/> OTHER <u>The Flood Control District of Maricopa County, Maricopa County, and Paradise Valley Community College shall be named as additional insureds.</u>				

Except for Professional Liability Insurance and Workers' Compensation Insurance, the Flood Control District of Maricopa County is added as an additional insured in respect to liability arising in any manner out of the performance of any contract entered into between the insured and the Flood Control District 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 District without thirty (30) days written notice to the District. THIS CERTIFICATE IS NOT VALID UNLESS COUNTERSIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE INSURANCE COMPANY.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
 2801 West Durango Street
 Phoenix, Arizona 85009

DATE ISSUED _____

 AUTHORIZED REPRESENTATIVE

It is further agreed that:

The Contractor hereby agrees to indemnify and save harmless the Flood Control District of Maricopa County, Maricopa County, and Paradise Valley Community College or any of their 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. The Flood Control District of Maricopa County, Maricopa County, and Paradise Valley Community College 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 the Flood Control District of Maricopa County, Maricopa County, and Paradise Valley Community College. The above cost of damages incurred by the Flood Control District of Maricopa County, Maricopa County, Paradise Valley Community College 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

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CONTRACT FCD 91-04

SUPPLEMENTARY GENERAL CONDITIONS

SPECIFICATIONS:

Except as otherwise required in these Supplementary General Conditions and the Construction Special Provisions, construction of this project shall be in accordance with all applicable Maricopa Association of Governments (MAG) Uniform Standard Specifications and Uniform Standard Details, latest revision, together with Maricopa County Highway Department Supplements to the Uniform Standard Specifications.

PRECEDENCE OF CONTRACT DOCUMENTS

In case of a discrepancy or conflict, Project Plans will govern over the MAG Standard Specifications and Details. The Supplementary General Conditions and Construction Special Provisions will govern over the MAG Standard Specifications and Details and the Project Plans.

PAYMENT

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 material and work necessary for completion of this project are included in proposal items. Any work or material not specifically referred to in these items is considered incidental to the item and included in the unit price.

WORK STANDARDS

The Contractor shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor Regulations (29 CFR Part 5).

CONTRACT TIME:

The Contractor shall commence work within seven (7) calendar days after the date of the Notice to Proceed and complete all work within one hundred fifty (150) calendar days from the effective date specified in the Notice to Proceed. According to subsection 430.57 of the Construction Special Provisions, all planting shall be completed within (90) calendar days from the effective date specified in the Notice to Proceed. In the event the Contractor elects to work overtime, second shifts, weekends, or legal holidays, to complete the work that is not required by the Project Plans and these Supplementary General Conditions or Construction Special Provisions, the Contractor will be responsible to bear the additional costs that may be incurred by the Owner including engineering, inspections, testing, surveying

and construction administration all in accordance with Section 108.5. These costs will be deducted from the monies due to the Contractor for each Payment Request. The costs associated with these items shall be incidental to the unit price items in the bid schedule.

NEGOTIATION CLAUSE:

Recovery of damages related to expenses incurred by the Contractor for a delay for which the Owner 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 Owner. This provision shall not be construed to void any provisions in the contract which requires notice of delays, provides for arbitration or other procedure for settlement, or provides for liquidated damages.

WATER, LIGHT, POWER, HEAT, TELEPHONE:

All water for construction purposes, drinking water, lighting, temporary electric power, heat and telephone service shall be arranged for and provided for in the requirements of the work by the Contractor at its expense.

PROGRESS SCHEDULE:

The Contractor shall submit a proposed work progress schedule to the Engineer for review before starting work. Weekly updates shall be submitted to the Owner's Inspector at the weekly coordination meeting.

MATERIALS SOURCES:

Select Material, Aggregate Base, Mineral Aggregate, concrete, steel products and pipe shall be obtained from commercial sources. The Contractor shall pay all royalties, or any other charges or expenses, incurred in connection with the securing and hauling of the material. The Contractor will be required to furnish the Engineer with a list of its proposed commercial sources prior to use, and shall present certificates stating that the material produced from any commercial sources is in accordance with the Uniform Standard Specifications and these Supplementary General Conditions.

Subsection 101.2 - Definitions and Terms:

1. Change the definition of the phrase "Board of Supervisors" to being the Board of Directors acting under the authority of the laws of the State of Arizona and in their capacity of the Board of Directors of the FCDMC.
2. Change the definition of the phrase "Budget Project" to being a project financed by funds set aside in the annual budget or otherwise approved by the FCDMC Board of Directors.
3. Add to the definition of the phrase "Contract Documents", the phrase "Supplementary General Conditions".

4. Change the definition of the term "Engineer" to being the person appointed by the FCDMC Board of Directors to the office of Chief Engineer and General Manager of the FCDMC acting directly or through its authorized representative, the Chief of the FCDMC Construction and Operations Division.
5. Change the definition for the phrase "Notice of Award" to a letter from the FCDMC advising the Contractor that he is the successful bidder and the FCDMC has accepted its proposal.
6. Change the definition of the term "Owner" to the Flood Control District of Maricopa County, acting through it's legally constituted officials, officers, or employees.
7. Add the definition for Maricopa County Minority Business Office (MBO); the office responsible for administering the Maricopa County Minority and Women Owned Business Enterprise Program.
8. Add the definition for the Maricopa County Minority and Women Owned Business Enterprise Program as being the Program adopted by the Board of Supervisors effective January 1, 1992.

Subsection 102.5 - Preparation of Proposal: Proposals, including the Bidding Schedule, must be legibly written in ink or typed.

It shall be the responsibility of prospective bidders to determine, prior to submission of a bid, if any addenda have been issued by the Flood Control District. This may be accomplished by calling 602-506-1501. Any addendum issued, if not already bound into the Special Provisions, must be included as part of the Special Provisions and any quantities on the Bidding Schedule requiring change shall be adjusted by pen and ink, to the new figure.

Bids which do not include appropriate addenda and show appropriate changes to the Bidding Schedule shall be invalid.

The bidder's Arizona State Contractor's License number and the classification under which it proposes to perform the work shall be shown on the proposal. The two lowest bidders may be required to provide certification of prior satisfactory completion for similar construction and to furnish a copy of their license and the renewal certificate.

Subsection 102.6 - Subcontractors' List: A list of subcontractors proposed to be employed on the project shall be submitted with the bid, on the form provided in the Proposal.

Subsection 102.7 - Irregular Proposals: Add the following to the MAG Specifications:

(F) If bidder fails to complete and submit the Maricopa County Minority and Women-Owned Business Enterprises Assurances Affidavit.

Subsection 103.5 - Requirement of Contract Bonds: A statement from bidder's surety or sureties shall be included in the proposal certifying that if the bidder is awarded a contract it will provide a Performance Bond and a Labor and Materials Bond, each in the amount of 100% of the contract price on default of either performance of the Work or payment of laborers and suppliers. As required by law, the statement will be from a surety company or companies duly authorized to do business in the State of Arizona, or countersigned by an agent of the surety authorized to do business in the State of Arizona.

Subsection 103.6 - Contractor's Insurance: A statement from bidder's insurance carrier shall be included in the proposal certifying that it will furnish the specified kind and amounts of insurance to the bidder if it is awarded the contract. As required by law, the statement will be from an insurance carrier or carriers authorized to do business in the State of Arizona, or countersigned by an agent of the carrier authorized to do business in the State of Arizona.

Concurrently with the execution of the contract, the Contractor shall furnish a Certificate of Insurance using the included Certificate or one of equal wording, that names the additional insureds as set out in the Certificate. The Certificate shall also name the additional insureds as Certificate Holders. The types of insurance and the limits of liability shall be as indicated on the included form.

Subsection 103.6.1(D) - Contractor's Insurance: Add additional insureds as indicated on the included Certificate of Insurance.

Subsection 105.2.1 - Substitutes and "Or-Equal" Items: Whenever an item or 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:

A) "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, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed substitute items.

B) Substitute Items: If in Engineer's sole discretion an item does not qualify as an "or-equal" item under subparagraph 105.2.1 (A), it will be considered a proposed substitute item. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an

acceptable substitute therefor. 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 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 Owner 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 will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will 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 evaluating the proposed substitute. Engineer may require Contractor to furnish additional data about the proposed substitute.

C) Contractor's Expense: All data to be provided by Contractor in support of any proposed "or-equal" or substitute item will be at Contractor's expense.

105.2.2 - Substitute Construction Methods or Procedures: 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 Engineer. Contractor shall submit sufficient information to allow Engineer, in 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 Engineer will be similar to that provided in subparagraph 105.2.1(B).

105.2.3 - Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to subsections 105.2.1 and 105.2.2. Engineer will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized without Engineer's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any "or-equal" or substitute. Engineer will record time required by Engineer and Engineer's Consultants in evaluating

substitutes proposed or submitted by Contractor pursuant to subparagraphs 105.2.1(B) and 105.2.2 and in making changes in the Contract Documents (or in the provisions of any other direct contract with Owner for work on the project) occasioned thereby. Whether or not Engineer accepts a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer and Engineer's Consultants for evaluating each such proposed substitute item.

Subsection 105.6 - Cooperation with Utilities: An attempt has been made to determine the location of all underground utilities and drainage pipes, culverts, and structures; however, it shall be the Contractor's responsibility to cooperate with the pertinent utility companies so that any obstructing utility installation(s) may be adjusted. Should the Contractor's operations result in damage to any utility the location of which has been brought to its attention, he shall assume full responsibility for such damage.

The Contractor shall contact Arizona Blue Stake (telephone number 263-1100) a minimum of two (2) working days before beginning any underground work. In addition, Blue Stake notification(s) shall be maintained on a current basis.

The following phone numbers should put the Contractor in contact with the proper personnel:

Flood Control District.....	506-1501
US West Communications.....	831-4647
Salt River Project.....	236-2765
Location Staking (A.P.S., Mtn. Bell.....	263-1100
Maricopa County Highway Department.....	506-8600
Southwest Gas.....	484-5257

Subsection 105.8 - Construction Stakes, Lines, and Grades: Add the following to MAG:

1. The Engineer will set the project survey control line which the construction contractor will use to set line and grade for all construction. The control line shall consist of (1) alignment staking at an interval appropriate to the project requirements and (2) elevation controls, both of which shall be at frequent enough intervals to maintain a line of sight between staking. All other surveying required for the project shall be the contractor's responsibility. The Engineer will not set any construction stakes.
2. Before any construction work is started, the Engineer shall perform all base surveys and cross sections of existing conditions that may be required as a basis for quantity determination.

Subsection 107.2 - Permits: The Contractor shall be responsible for being aware of and obtaining all permits and licenses, pay all charges, fees, taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work. Permits for earth moving may be obtained from the Bureau of Air Pollution Control, Maricopa County Department of Health Services, 1845 East Roosevelt, Phoenix, Arizona, telephone number 258-6381.

Subsection 107.5.2 - Compliance with the Arizona Communication Standard: The Owner will provide the Contractor with Material Safety Data Sheets (MSDS) for any products known to exist on the site that are deemed health hazards. The Contractor will provide a copy of Owner-provided MSDS to all subcontractors.

The Contractor will provide the Owner and all subcontractors with MSDS for any products that have or are deemed health hazards that will be brought onto the site or created on the site by either the Contractor or by any subcontractors.

The Contractor will provide the Owner with a statement certifying that all personnel (Contractor and subcontractor) employed by the Contractor or by a subcontractor on the job site have received the required Hazard Communication Standard training.

Subsection 108.8 - Guarantee and Warrantee Provisions: This provision does not apply to the project plantings (trees, bushes, shrubs and ground cover). These items are covered by the "plant establishment period" set out in the Construction Special Provisions.

Subsection 108.9 - Failure to Complete on Time: The actual cost per calendar day incurred by the District for Consultant Administrative and Inspection Services on this project will be added to the daily charges as indicated by TABLE 108, LIQUIDATED DAMAGES, and will be deducted from monies due or to become due to the Contractor for each and every calendar day that work shall remain uncompleted after the time specified for the completion of the work in the proposal, or as adjusted by the Engineer. Nothing contained in this provision shall prohibit the District from deducting from monies due or to become due to the Contractor for any other costs incurred by the District directly attributable to the delay in completing this contract.

Subsection 109.1 - Measurement of Quantities: Measurement for payment shall be made for the actual work completed as determined by the Engineer. Payment will be made at the bid unit price, which price shall include the cost of all labor, materials, tools, equipment, transportation, permits, and incidentals required for performing the work as specified. Monthly Progress Payments of the agreed to value of the work accomplished shall be made by the District.

Measurements of placed materials and/or constructed items will be made after completion of the project to determine compliance with the specifications. Any deficiencies in thickness or width shall be corrected by the contractor before acceptance by the FCDMC.

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 prices bid for related items.

Subsection 109.2 - Scope of Payment:

In addition to the contained provisions, the work under this section shall consist of preparatory work and operations, including but not limited to, the movement of personnel, equipment, supplies and incidentals to the project site; the establishment of all offices, buildings and other facilities necessary for work on the project, and for all other work operations that must be performed and costs incurred prior to beginning work on the various items on the project site.

Mobilization will be measured for payment as a lump sum, a single complete unit or work.

Payment for mobilization, measured as provided above, will be made at the contract lump sum price, when so called for in the Bid Schedule, which shall be full compensation for supplying and furnishing all materials, facilities and services and performing all the work required. If payment for mobilization is not a separate bid item, then such costs shall be considered incidental.

Subsection 109.7 - Payment for Bond Issue and Budget Projects: Add the following to MAG.

1. Both progress and final pay estimates will be initially processed by the FCDMC's Construction and Operations Division on Tuesdays only, Tuesdays being the only day the Contractor may submit a pay estimate. Each pay estimate must include the required Maricopa County Minority/Women-Owned Business Enterprise Program Participation Report.

**CONSTRUCTION SPECIAL PROVISIONS
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY PROJECT
FOR THE
UPPER EAST FORK CAVE CREEK DETENTION BASIN N°4 LANDSCAPING
FCD N° 91-04**

LOCATION OF WORK

The majority of work for this project is within the boundaries of the Paradise Valley Community College (PVCC) Campus located on the Southeast corner of 32nd Street and Union Hills Drive.

PROPOSED WORK

The work consists of providing all materials necessary to construct a complete and functioning watering system, planting trees, shrubs, groundcover, moving and replanting of boxed trees and memorial pines from designated storage areas, decomposed granite areas and paths, new signage, removal and relocation of existing signage, and other miscellaneous items of work required for the completion of the project.

The work embraced herein and as shown on the plans for the construction of this project shall be done in accordance with the Maricopa Association of Governments (MAG) Uniform Standard Specifications for Public Works Construction, dated 1979, and the Construction Special Provisions contained herein. The latest published editions, including published revisions of the above described documents shall be included.

GENERAL

- A. Any damage to the existing PVCC irrigation system or property shall be replaced or repaired promptly at the Contractor's expense.
- B. The Contractor shall limit construction activities and ingress/egress of equipment and vehicles to the construction limits delineated on the drawings. The Contractor shall erect flagging to identify construction limits as directed by the Owner.
- C. The Contractor's employees or subcontractor's shall not utilize College campus facilities/courtyards and shall remain inside the construction limits designated.
- D. The Contractor shall utilize the staging area designated on the drawings for the evening and weekend storage of construction equipment and vehicles, and for daily parking of private vehicles.
- E. During construction, the Contractor shall protect-in-place plantings at the existing cactus garden located at the northwest corner of the College site and all other existing plantings and structures.
- F. Contractor shall locate and protect existing underground utilities. Responsibility for repair of damage to underground utilities due to landscape or watering system installation is included in this contract at no additional expense.
- G. The Contractor shall use the Field Engineer designated by the Owner as the primary point-of-contact during the entire duration of the project.
- H. The Contractor shall exercise extreme care in providing dust control, and shall strictly follow all governing agency requirements.
- I. The Contractor shall notify the Owner at least 72 hours in advance of any scheduled utility interruption to the College.

SECTION 220: RIPRAP CONSTRUCTION (is modified to add):

Subsection 220.1 - Description:

Depth of riprap shall be 6" inches. Type shall be D50 = 6".
Riprap shall be plain or grouted as indicated on the plans.

Subsection 220.8 Payment:

Riprap shall be measured by the square yard in place as established on the Bid Schedule for
BID ITEM 220.1 and 220.2 No additional payment will be made for thickened areas.

SECTION 314: STABILIZED DECOMPOSED GRANITE (SDG) (Add this Section to the MAG
Uniform Standard Specifications):

Subsection 314.1 - General:

Work in this Section consists of furnishing all labor, equipment, tools, materials, survey and layout, fine grading, subbase preparation, and performing all work necessary for the installation of stabilized decomposed granite at the locations and in accordance with details shown on the project plans and these Construction Special Provisions.

Subsection 314.2 - Description:

The stabilized decomposed granite is a blended mix of 1/4" minus Mission Red granite and stabilizer, the latter manufactured by Stabilizer, Inc., Phoenix, Arizona or equal as approved by the Engineer.

Stabilizer shall be blended with decomposed granite at an approved blending plant to create surface course material at a rate of 12 lbs. of stabilizer per one ton of decomposed granite. The blended material is subject to sampling and testing per MAG Specification Section 106.

<u>SIEVE SIZE</u>	<u>% PASSING</u>
3/8"	100
No.4	98
No.8	77
No.16	58
No.30	45
No.50	32
No.100	22
No.200	14.6

Submit sieve analysis for review by Engineer.

Subsection 314.3 - Base:

The existing finish grade is an acceptable base course for the SDG. The Contractor shall compact as required any disturbed areas to provide firm subbase to match existing adjacent soil at the direction of the Engineer.

Subsection 314.4 - Application of Stabilized Decomposed Granite:

The stabilized decomposed granite shall be delivered to the site already blended. Initial grading and leveling will leave a somewhat inconsistent surface which shall then be leveled with a gannon, light drag or similar piece of equipment. The surface course shall be watered so that the moisture permeates the full 2" depth. Compacting shall commence after the moisture has permeated the 2" depth and all standing water has filtered into the decomposed granite. Compaction shall be completed by the time that dry areas appear on the surface or at the direction of the Engineer. Finally, the surface course shall be compacted with four passes using a four ton double-drum steel roller, or similar to give a final minimum depth of 2".

The edges shall be flaired at a 4:1 slope as indicated on the drawings.

Re-making of surface in small areas where significant disturbances have occurred shall be hand raked, watered and hand tamped.

If re-making requires additional Stabilized decomposed granite, the repair shall be made as follows: Moisten and scarify the affected areas. Apply stabilized decomposed granite and grade. Water through full depth of repaired area and compact as directed by the Engineer.

The Contractor shall prepare a sample area of no less than 10 square yards of stabilized decomposed granite for the Engineer's approval. The sample area may be part of the area requiring stabilized decomposed granite and this sample, once approved, will be used by the Engineer to determine the acceptability of the remaining work under this item.

The stabilized decomposed granite shall be measured by the square yard compacted in place to the 5'-0" path width. The flaired edges shall be considered incidental to the work.

Subsection 314.5 - Payment:

The stabilized decomposed granite will be paid at the unit price bid per square yard as established on the Bid Schedule for BID ITEM 314. This shall be compensation in full for furnishing all labor, materials, equipment and installing complete in place as shown on the plans and as specified to the 5'-0" path width. The flaired edges shall be considered incidental to the work.

Subsection 350.3.1 Existing Signs (Add this Subsection to the MAG Uniform Standard Specifications):

Remove and relocate existing signs #1, #2, and #3 to areas designated on the plans. Exact location to be determined in the field by the Engineer. The Contractor shall excavate a trench at the new locations to accommodate the existing sign footing. After the sign is in place and plumb, the Contractor shall compact and backfill around the existing footing, and otherwise ensure that they have stable bearing and will not tip over.

Signs shall not be damaged during relocation. The Contractor shall repair at its own expense any damage to the signs during relocation or reinstallation.

Payment will be made at the unit price per sign as established on the Bid Schedule for BID ITEM 350.

SECTION 401 - TRAFFIC CONTROL (is modified to add):

Subsection 401.1 - Description: The Contractor shall schedule the work and the delivery of plants and materials so that at no time will entrances, parking lots, driveways, and normal traffic patterns be interrupted.

Subsection 401.7 - Payment: Payment to maintain normal traffic patterns as described above is considered incidental to the work.

SECTION 430 - LANDSCAPING AND PLANTING (is modified to add):

Subsection 430.1 - Description:

The Contractor shall be responsible for the preservation and protection of all trees, plants, monuments, structures and paved areas from damage due to this work. In the event damage does occur, all damage to inanimate items shall be completely repaired or replaced to the satisfaction of the Engineer, and all injury to living plants shall be repaired by the Owner or such persons as he may employ to accomplish this work. All the costs of such work shall be charged to and paid by the Contractor. Open ditches left exposed shall be flared and barricaded by the Contractor. Damage caused by the Contractor to asphalt, concrete or other building material surfaces shall be repaired or replaced by the Contractor at his expense. Contractor shall restore disturbed areas to original condition.

Protection and Repair of Underground Lines. The Contractor shall be responsible for requesting the proper utility company and Blue Stake to locate any underground electric, gas, water, storm drains, sanitary sewers, telephone, cable TV, and communication lines. The Contractor shall take whatever precautions are necessary to protect underground lines from damage, including the use of a trace device for electric current in conduit or water in pipes. In the event damage does occur, all damage shall be repaired by the Owner or such persons as he may employ to accomplish this work. All costs of such work shall be paid by the Contractor unless other arrangements have been made.

Subsection 430.4 - Decomposed Granite Area:

Paragraph two (2), sentence two (2), and sentence five (5) are deleted. Decomposed granite shall conform to cross sections as indicated on the drawings, and as follows:

General Groundcover Areas	1 1/2" Thick; Color "Desert Gold", 3/4" minus.
Perimeter Walk	2" Thick; Color "Mission Red", 1/4" minus. Compact per Subsection 314.4 of the Construction Special Provisions.
Maintenance Drive	3" to 5" thick; Color "Desert Gold", 3/4" minus. Compact per Subsection 314.4 of the Construction Special Provisions.

The decomposed granite shall be measured by the square yard compacted in place. The perimeter walk shall be measured to the 5'-0" path width, and the maintenance drive shall be measured to the 12'-0" drive width. The flaired edges shall be considered incidental to the work. Subbase preparation shall be considered incidental to the work.

The Contractor shall prepare for each of the (3) three areas above a sample area of no less than 10 square yards of decomposed granite for the Engineer's approval. The sample area may be part of the area requiring decomposed granite and this sample, once approved, will be used by the Engineer to determine the acceptability of the remaining work under this item.

Subsection 430.5 - Tree, Shrub and Groundcover Planting:

This work shall consist of transporting and planting boxed native desert trees, and containerized plants as specified and shown on the drawings.

Subsection 430.5.2 - Plant Inspection Prior to Delivery to Site:

Containerized plants shall be healthy, shapely, and well rooted, with roots showing no evidence of having been damaged, restricted, or deformed. Plants shall be vigorous and free of disease, insect pests, eggs, or larva.

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.

The Contractor shall be responsible for obtaining all permits to transport the existing box trees, and shall transport them in such a manner to avoid conflicts with existing overhead utilities.

Subsection 430.5.4 - Plant Location:

The Contractor shall give two day prior notice for plant location inspection by the Engineer.

Subsection 430.5.6 - Shrub and Tree Pits:

The minimum planting pit size for 1 gallon, 5 gallon, 15 gallon, and 24" box container plants shall be twice the width and 1 1/2 times the depth of the container size.

The side of the tree pit shall be vertical for the lower half and tapered for the upper half, slightly scarified, and the bottom shall be loosened to a minimum depth of 2 inches.

For containerized plants (excluding boxed salvage trees), backfill mixture shall consist of 1 part mulch and 2 parts soil by volume. Add, per 5 gallon, 15 gallon, and 24" boxed plant pits, 1/4 pound fertilizer, 1 pound of gypsum, 1/2 pound of soil sulphur. For one gallon plant pits, use 1/2 the amounts of fertilizer, gypsum, and sulphur. Planting backfill mix shall be thoroughly blended to homogeneous mixture prior to use in backfilling operations.

For boxed salvage trees, planting pits shall be 25% larger than box size and 25% deeper. Backfill mixture shall consist of 1 part mulch and 3 parts native soil by volume.

Prior to backfilling, tablets of slow release fertilizer shall be included. Fertilizer shall have IBDU (Isobutylidene - diurea), and shall bear the manufacturer's guaranteed statement of analysis. Slow release fertilizers shall contain a minimum percentage by weight of: 14 percent nitrogen, 3 percent available phosphoric acid, and 3 percent potash.

Subsection 430.5.7 - Planting requirements:

No planting will be allowed in soil that, in the opinion of the Engineer, is too wet, too dry or otherwise improperly conditioned.

Planting will be completed within 90 days from Notice to Proceed.

Containerized plants (excluding boxed salvage trees) shall be removed from containers just prior to planting. Cans shall be cut on at least two sides opposite each other so as to remove plants without damage to the rootball. Plants found to be root or pot bound will not be accepted.

Immediately after planting, tree stakes shall be installed. Stakes shall be driven vertically to 6" below the bottom of the plant pit and shall not be driven through the rootball of the plant. Provide two stake per tree. Shrubs shall not be staked. Provide root collars where indicated on the drawings.

Replanted boxed salvage trees shall be set in hole with desired orientation and tilt. Remove bottom of box prior to positioning. Once in place, cut bottom bands and remove top wood. Cut lower side bands. Backfill with mulch as described in Subsection 430.5.6. Pack tightly to contain root ball. Cut top side bands, remove braces. Pull sides out and pack as they come out to contain root ball. Complete backfilling with mulch / soil mix.

New plant material shall be pruned in the following manner. Dead and broken branches shall be removed. Trees and shrubs shall be pruned to reduce total amount of anticipated foliage by one fourth. Typical growth habit of individual plants shall be retained with as much height and spread as is practicable. Cuts shall be made with sharp instruments, and shall be flush with trunk or adjacent branch to insure elimination of stubs. "Headback" cuts at right angles to line of growth shall not be permitted. Trees shall not be poled or the leader removed. Trimmings shall be removed from the site.

Subsection 430.6 Header Installation:

Paragraph one (1), sentences two, three, and four (2, 3, & 4) are deleted. Brick for headers shall be solid patio pavers, modular size, nominal dimensions 3•5/8 x 2•2/3 x 8, as manufactured by Phoenix Brick Yard or equal. Provide standard color sample panel for selection of one color by Engineer. Provide velour texture.

Subsection 430.7 Clean Up:

Excess and waste material shall be removed daily. When planting in an area has been completed, they shall be cleared of all debris, spoil piles, and containers.

Subsection 430.8 - Plant Guarantee and Maintenance:

Maintenance operations shall begin immediately after each plant is planted and shall continue as required until final acceptance. Plants shall be kept in a healthy, growing condition by watering, pruning, spraying, weeding, and any other necessary operations of maintenance. Plant saucers and beds shall be kept free of weeds, grass, and other undesired vegetation. Plants shall be inspected at least once per week by the Contractor during the installation period and needed maintenance and replacement performed promptly.

For replanted boxed salvage trees, spray foliage with systemic insecticide for thrips and other sucking insects. Spray trunk with lindane for border type insects if sap bleeding occurs. Prune selectively to remove suckers and maintain trunk character.

Subsection 430.9 Plant Establishment Period:

This work shall consist of furnishing all materials and labor necessary to establish and/or replace plants and to assure maximum possible survival and vigorous growth of all trees, plants and relocated box trees from installation until final inspection 150 days after Notice to Proceed.

Periodic inspections shall be performed by the Engineer to determine if plant establishment is taking place. All dead and unhealthy stock shall be removed and replaced and any corrective measures as directed by Engineer (including removal of tree stakes or restaking trees) taken within 7 calendar days from the date of any such inspection. The Contractor shall notify the Engineer in writing when the work has been performed. Stock furnished for replacement shall be of the same size as species originally specified.

The survivability of a plant shall be determined by the Engineer.

The Contractor shall be responsible for irrigating the planted trees and shrubs as necessary to keep the soil reasonably moist throughout the root system during the Landscape Establishment Period as approved by the Engineer.

Pruning of trees during the Landscape Establishment Period shall be as directed and supervised by the Engineer.

Water shall be applied in a manner so as to prevent erosion or damage to basins around plants.

For replanted boxed salvage trees, soak well after planting. Water slowly over long period to penetrate down to bottom of root ball and settle all backfilling. Provide drip irrigation.

The period of establishment shall begin on the date that an inspection by the Engineer shows that all plants are in place and have been installed in accordance with the specifications and plans. Replacement of plants that were not supplied by the Contractor but were relocated under this contract and that die for any reason other than improper handling during transplanting and/or lack of proper care will not be required. Loss through Contractor negligence, however, shall require replacement in kind and size per the materials schedule and shall be at the Contractor's expense.

A preliminary inspection by the Contractor and the Engineer will be held 60 days from the date of the beginning of the plant establishment period to determine plant acceptability and the number of replacements. Alternate or substituted varieties of plants shall be used only if approved by the Engineer.

A final inspection of all plants will be held after the replacement planting has been completed. No additional plant establishment period will be required for replacement plants. The establishment period will end on the date of this inspection and said inspection will be considered final acceptance provided the Contractor has complied with the following requirements:

1. Dead, missing, and defective plant material shall have been replaced as directed by the Engineer. Otherwise, final acceptance will be delayed until such replacements have been satisfactorily accomplished.
2. Watering basins shall be free of weeds.
3. Stakes and guys shall be in good condition.
4. Remedial measures directed by the Engineer to ensure plant survival shall have been carried out.
5. Plant material shall have been fertilized as required prior to acceptance.

Subsection 430.10 Measurement and Payment:

After planting is completed, an inspection will be scheduled to determine the adequacy of the planting. Upon acceptance, such work may be included in progress payments.

The Unit prices established on the Bid Schedule shall be full compensation for furnishing all labor, materials, tools and equipment and for performing all work for BID ITEMS 430-1 thru 430.14 necessary to complete the landscaping operation to include planting of trees, shrubs, groundcover, placement of staking and tie wire, and application of fertilizer, organic soil conditioners, and soil sulfur. Water used in initial planting and maintenance during the plant establishment period is considered incidental to the work and shall be included in the above BID ITEMS.

SECTION 431 - SUBGRADE PREPARATION
(Add this Section to the MAG Uniform Standard Specifications):

Subsection 431.1 - General:

Existing Berms F, G, and L are at finished grade, and with the exception of fine grading, no further re-grading of these berms is required. These berms have an acceptable shape, slope, and appearance, and will be used by the Engineer as a standard to determine the acceptability of the re-grading for the remaining berms.

Berms A through E, H through K, and M through R are existing and shall be re-graded as shown on the drawings. The Contractor shall re-grade these berms to match the shape, slope, and appearance of Berms F, G, and L.

The Contractor shall re-shape the ends of the existing berms as shown on the drawings in preparation for the perimeter walk. The Contractor shall remove existing trees as indicated on the drawings.

Existing Berms A through R and all areas receiving landscaping shall be fine graded (+/- 0.10') to prepare these areas for landscaping treatment, and shall receive final top dressing when landscaping is complete.

The Contractor shall restore and recompact any disturbed areas within the landscape treatment areas as required to match that of existing adjacent undisturbed soil at the direction of the Engineer.

Cobbles and rocks larger than 6" in diameter, trash, weeds, and other debris shall be removed from the site.

Areas indicated on the plans shall receive an initial treatment of Pre-Emergent weed control, such as Dacthal, or equal, in accordance with manufacturer's recommendations. The Contractor shall submit a schedule of when this treatment will be done for approval by the Engineer

Subsection 431.2 - Measurement and Payment:

Removal of existing trees, re-grading of existing berms A through R (excepting F, G, and L) and re-shaping existing berm ends for the perimeter walk will be made as a Lump Sum for BID ITEM 431.1, Subgrade Preparation.

Fine grading and top dressing of landscaped areas and restoration and recompactation of disturbed areas is considered incidental to the work, and shall be included in BID ITEMS associated with Sections 314 and 430.

Pre-emergent weed control payment will be made at the unit price per acre as established on the Bid Schedule for BID ITEM 431.2.

The Contractor shall field verify existing conditions prior to the Bid to determine the extent of work required for re-grading of existing berms and the restoration and recompactation of disturbed areas.

The Contractor shall assume that soil will not be required to be imported or exported to and from the PVCC site in order to complete the re-grading of the existing berms.

SECTION 440 - SPRINKLER IRRIGATION SYSTEM INSTALLATION (is modified to add):

Subsection 440.1 - General:

The manufacturer's literature on the following materials and equipment to be furnished under this specification shall be submitted for approval with a guarantee for a period of one year from the date of acceptance thereof, either for beneficial use or final acceptance, whichever is earlier, against defective materials, design and workmanship:

- Control valves with integral pressure regulators
- Emitters and drip line
- Filters
- Flush end caps
- PVC pipe and fittings
- Gate valves
- Other components listed in specifications and on project drawings.

VARIATION IN ARRANGEMENT OF IRRIGATION EQUIPMENT from that indicated on drawings will be permitted. If such variation is made, the Contractor shall submit a shop drawing for approval in accordance with the SPECIAL CLAUSES. If any conflicts occur necessitating deviation from the construction documents, details of deviations, hydraulic calculation and reasons shall be submitted as soon as practicable for written approval of the Engineer. Hydraulic calculations shall include application rate per hour, layout for emitters (dripline) for design flow rate and pressure, and friction loss through pipe fittings, valves and accessories.

Upon completion of the installation of the irrigation system and appurtenances, all debris and surplus materials resulting from the work shall be removed.

The Contractor shall coordinate connection to existing Paradise Valley Community College watering system with Paradise Valley Community College Grounds Director. This includes, but is not limited to, temporary watering system shut down to permit extension of pressurized main.

Subsection 440.2 Trench Excavation and Backfill:

Do not trench within 6' - 0" of any existing plant or, where applies at large trees, underneath drip line of existing tree canopy.

Subsection 440.3 - Pipe Installation:

Pipe accessories shall be handled so as to insure delivery to the trench in sound, undamaged condition. The interior of pipe and accessories shall be thoroughly cleaned of foreign matter before being lowered into the trench and shall be kept clean during laying operations by plugging or other approved method. Before installation, the pipe shall be inspected for defects. Material found to be defective before or after laying shall be replaced with sound material at no additional cost to the District.

Plastic pipe shall be installed in accordance with the procedures recommended in ASTM D 2774 and as herein specified.

Connections between different types of pipe and accessories shall be made with transition fittings approved by the Engineer.

All plastic lines shall be installed in existing sleeves under paved areas, spillways and other structures. Additional sleeves where indicated on drawings shall be installed under future roadways, and at minor paving areas.

Sleeves located under area where future paving, asphaltic concrete, or concrete will be installed, shall be bedded with sand (a layer six inches (6") below the pipe and three (3") around the pipe). Compact approved backfill material in six inch (6") lifts to 95 percent of maximum density determined in accordance with AASHTO T 180, using manual or mechanical tamping devices.

Where any cutting or breaking of sidewalks and/or concrete is necessary, it shall be done and replaced by the Contractor as part of the contract cost. Permission to cut or break sidewalks and/or concrete shall be obtained from the Engineer prior to commencement of any cutting. If during the warranty period there is any settling or heaving of any paved areas as a result of the piping installation, the Contractor shall immediately restore the paved area to its original condition. The damaged paving shall be removed 24 inches beyond the edges of the damaged area. The trench backfill shall be re-excavated, the area re-backfilled and re-compacted in lifts, according to specifications, then the paving shall be replaced.

Subsection 440.4 - Valves, Equipment Boxes, and Special Equipment Installation:

Valves and equipment boxes shall be installed where shown or directed, and shall be set plumb. Equipment boxes shall be centered on the valves. Valves shall be located outside the area of roads and streets. Earth fill shall be carefully tamped around each equipment box to a distance of 4 feet on all sides of the box. Valves shall have the interiors cleaned of all foreign matter before installation. When equipment boxes are grouped together, allow at least 12 inches between boxes.

Flush end caps with equipment boxes shall be provided at dead ends of major feeder lines where indicated on the Drawings.

All material (hardware) used for mounting equipment boxes, equipment box covers and special equipment installation shall be in accordance with Section 771 of the Uniform Standard Specifications.

Subsection 440.6 - Automatic Control System Installation :

Connect control and common wire to one existing controller. Remove and/or abandon existing control and common wire in way of this installation. Reuse existing control wire where continuity is tested and established and existing wire matches size of wire detailed on the drawings.

Where wiring conduit is required to be replaced above grade at base of existing controller, replace existing conduit with fiberglass reinforced epoxy electrical conduit and as required by the governing electrical code. Size conduit to allow 24 control and one common wire to pass.

Install one cylindrical equipment box for every 500 feet or 90 degree change in pipe direction. Gravel sump shall be installed after compaction of all trenches. Box lids shall be labeled with the words, "low voltage electrical splice", Letter size to be no smaller than one inch and no greater than 1-1/2 inch, depth of branding to be no more than 1/8 inch and no less than 1/16 inch into pull box lid.

Electrical wiring for remote control valves. The electrical wiring shall be solid, single conductor, copper wire, type UF, size recommended by the Controller Manufacturer except that minimum wire size shall be N° 12. Common wire shall be different color from all others and be minimum wire size of N° 10. Regardless of the number of location of valves connected to a single controller station, separate control wires shall be run from the controller station to each valve to locations indicated on the drawings. Install a spare set of 2 control wires. Spare wires must be a different color.

Subsection 440.7 - Flushing and Testing: First paragraph (is modified to add):

Testing of plastic pipe shall not be done until all joints have had at least 24 hours to set and cure. During cold weather, 48 hours elapsed time shall be allowed for set prior to testing. No water under pressure shall come in contact with any joint during the specified curing period. In hot weather, water shall not be permitted to stand in pipes until after backfilling is completed. Water used in testing shall be drained from pipes after completion of testing. Revise third paragraph to read: (B) Coverage Test. When the emitter (dripline) system is complete the entire system shall be adjusted to demonstrate the water coverage is complete and adequate and that the system conforms to the manufacturer's requirements in accordance with the plans and specifications. All deficiencies and inadequacies resulting from defective or inadequate materials and/or workmanship shall be corrected at no additional cost to the Owner. In the event any modifications to the system or deviation from the approved plans and specifications are directed, an adjustment in contract price will be made.

Subsection 440.8 - Payment:

Payment will be made at the unit prices as established on the Bid Schedule for BID ITEMS 440.1 - 440.8.

Section 516 Signage (Add this Section to the MAG Uniform Standard Specifications).

Subsection 516.1 - General:

Work in this section consists of furnishing all labor, equipment, tools, staining materials, survey and layout, reader panels, letters, and performing all work necessary for the complete installation of masonry entrance signage.

Subsection 516.2 - Reverse Pan Channel Letters:

Provide 20 gauge steel, clean metal, 10" high letter, 1" deep reveal. Clip mount letter to masonry surface with 1/2" long N° 8 screw. Provide plastic sheath in masonry to accept fastener. Secure letter to clip with 1/2" long N° 8 screw through side of letter. Four clips per letter typical except two clips per "I".

Subsection 516.3 - Reader Panel:

Zip change lettering system as provided by ADCRAFT (968-3600) or equal, including, but not limited to, the following: 8" high letter panel system, internal illumination with high output lamps, 3/16" thick lexan sign face (one side), plexiglas tracks: 1/8" thick x 3/4" deep top track and 1/8" thick x 1/4" thick bottom track, 3/16" thick plexiglas cover, 1 1/2" x 1 1/2" x 3/16" angle iron frame, and 20 gauge steel, clean metal box.

Subsection 516.4 - Logo Sign:

Provide 16 gauge steel, clean metal sign with 1" deep reveal similar to Reverse Pan Channel Letters. Clip mount to masonry surface similar to Reverse Pan Channel Letters.

Subsection 516.5 - Color Stain (Masonry):

Provide stain application to masonry, two coats (Dunn Edwards Okon W.2 or equal), with one clear two-part aliphatic urethane/polyester overcoat (Dunn Edwards Ultrashield clear or equal). Two stain color surfaces are required as indicated on drawings. Mask surfaces to provide clean color edges. Stain mix shall consist of two to six parts Okon W-2 with one part acrylic masonry paint depending on desired opacity of finish stain color. Submit samples of color and opacity. Final color and opacity to be selected by Engineer.

Subsection 516.6 - Paint (Reverse Pan Letters, Logo and Reader Panel Box):

Provide polyester electro-static powder coat. One color required on all surfaces except two colors required for logo sign. Color selections by Engineer. Engineer will supply logo artwork. (Facsimile as indicated on the Drawings).

Subsection 516.7 - Materials:

Concrete, masonry, mortar, grout, reinforcing, and staining shall be as specified in MAG or as modified in the Construction Special Provisions.

Subsection 516.8 - Submittals:

The Contractor shall provide complete manufacturers submittals including shop drawings showing installation details of the reader panel, logo and the channel letters for approval by the Engineer.

Subsection 516.9 - Payment:

Signage shall be paid at the unit prices as established on the Bid Schedule for BID ITEMS 516.1 - 516.5.

SECTION 725 - PORTLAND CEMENT CONCRETE (is modified to add):

Concrete for sign foundations and brick headers shall be class A with minimum 3,000 psi compressive strength at 28 days.

SECTION 727 STEEL REINFORCEMENT (is modified to add):

Steel reinforcing for sign foundations and walls shall conform to ASTM A 615 - S1 for grade 40 (fy = 40KSI)

Lap bar reinforcing where indicated on drawings minimum 40 bar diameters.

Provide #9 gauge horizontal joint type reinforcing at 16" on center vertical spacing.

SECTION 757 - SPRINKLER IRRIGATION SYSTEM:

Subsection 757.2.2 - Plastic Pipe:

Plastic pipe to conform to ASTM D 1785, schedule 40 for pipe with solvent welded joints and schedule 80 for pipe with threaded joints, or to ASTM D 2241, Type 1, grade 1, schedule 40 PVC for pressure lines and 200 psi for other lines for pipe with solvent welded joints. Pipe and fittings shall bear the seal of approval (nsf mark) of the National Sanitation Foundation's Standard for plastic pipe and fittings for potable water service. Plastic pipe stored on the construction site shall be protected from sunlight and from dirt entering pipe.

Subsection 757.2.3 - Pipe Fittings and Couplings (is modified to add):

(B) Use of pipe dope or solvents on threaded joints will not be permitted. Fittings shall conform to ASTM D 2464 or D 2466.

(D) Polyethylene pipe shall have compression joints.

Subsection 757.2.5 - Polyethylene pipe: (is modified to add):

(A) 1/2" I.D. (.574" to .600") wall thickness .050" to .62"

Melting point - .065 grams per 10 minutes

Plastic Recovery - 30%

Tensile strength at break - 1665 pounds per square inch

Elongation - 65%

Brittleness at 76°C - zero failures from 10 samples

Stress crack in 100% igepol solution - zero failures from 10 samples

(B) Polyethylene pipe (dripline) shall have a maximum length of 200 feet if the line dead ends. Maximum flow (gpm) shall not exceed the manufacturer's recommendations for pipe size indicated.

Subsection 757.3.2 - Gate Valves (is modified to add):

Valve connections shall be as required for the piping in which they are installed. Valves shall have a clear waterway equal to the full nominal diameter of the valve, and shall be opened by turning counterclockwise. The operating nut or shell shall have an arrow, cast in the metal, indicating the direction of the opening. Gate valves shall be designed for the working pressure of not less than 200 psi.

Subsection 757.3.2 - Gate Valves (is revised to read): Valves smaller than 3 inches shall be all bronze and shall conform to Fed. Spec. WW-V-54, Type I.

Subsection 757.3.4 - Electric Remote Control Valves (is revised to read): The remote control valves shall be an electrical actuated valve constructed of corrosion-resistant materials. The valve shall have an internal manual operation which allows the opening and closing of the valve without electrical power, or external bleed of water. The valve shall have a self-cleaning screen and a removable housing cover for easy inline maintenance.

Materials: body - glass reinforced nylon.
diaphragm - reinforced nylon with O-ring and stainless steel pressure plate

Performance: 1" - valve - min. 20 gpm max. 200 gpm
(FLOWRATES)

The solenoid actuator shall be 24 volt A.C. 2-way type. Inrush and holding current shall be no more than 300 mA and 200 mA respectively. The solenoid shall require approximately 1/3 the inrush current as standard 24 volt A.C. solenoids.

Materials: Plunger and core - stainless steel
Housing - glass reinforced nylon, epoxy potted
Spring - stainless steel

Performance: min. operating voltage at 150 psi shall be 20 volts
Inrush Current (amps) .104
Holding Current (amps) .104

Subsection 757.3.7 - Valve Box: (is revised to read): Boxes shall be plastic. Plastic boxes shall be a standard catalog product of a manufacturer regularly engaged in the manufacture of valve boxes. Boxes shall have boltable covers, bolts shall be stainless steel. Plastic shall be rigid combination of polyolefin and fibrous inorganic materials having the following physical properties:

ASTM Test	Method	Properties
Tensile Strength (2.0 in Min.)	D-638	3,400 psi
Impact Strength, Izod	D-256	0.5 ft - lb/in
Shore-D Hardness	D-2240	63
Deflection Temp. @ 66 psi stress	D-648	230 degrees F.
Specific Gravity	D-792	1.15

Install one box for each type of valve installed as per details. No box extensions will be accepted. Gravel sump shall be installed after compaction of all trenches. Final portion of gravel shall be placed inside valve box after valve box is backfilled and compacted. Controller letter and station number are to be branded on the lid of each valve box. Letter and number size to be no smaller than one inch and no greater in size than 1-1/2 inch, depth of branding to be no more than 1/8 inch and no less than 1/16 inch into valve box lid. Splice boxes shall be labeled with the words "low voltage electrical splice" in the same manner.

Valve materials - Thermoplastic body, glass filled Polysulfone

Temperature - Max. operating temperature:
 200 degrees F. under pressure
 250 degrees F. under pressurized

Pressures - Max. operating pressure 100 psi
 proof pressure 150 psi, minimum

Subsection 757.3.8 - Pull Boxes (is modified to add):

Pull boxes shall be plastic and installed in locations not subjected to vehicular traffic. Pull boxes will be installed every 200 feet, next to quick coupler boxes. Pull boxes shall have locking or boltable covers. The plastic shall be rigid combination of polyolefin and fibrous inorganic materials having the following properties.

ASTM Test	Method	Properties
Tensile Strength (2.0 in Min.)	D-638	3,400 psi
Impact Strength, Izod	D-256	0.5 ft - lb/in
Shore-D Hardness	D-2240	63
Deflection Temp. @ 66 psi stress	D-648	230 degrees F.
Specific Gravity	D-792	1.15

Install one pull box for every 200 feet or 90 degree change in pipe direction. Gravel sump shall be installed after compaction of all trenches. Box lids shall be labeled with the words, "low voltage electrical splice", Letter size to be no smaller than one inch and no greater than 1 - 1/2 inch, depth of branding to be no more than 1/8 inch and no less than 1/16 inch into pull box lid.

All conduit openings in pull boxes shall be sealed with expandable foam sealer. Label all wiring in pull boxes and controller with plastic identification tags as approved by the Engineer.

Subsection 757.3.9 - Irrigation Filter - Lateral Line (is added):

Irrigation Filter (lateral line) shall be a WYE type with a 150/mesh screen or smaller. The filter shall be constructed of brass, threaded at both ends and come with a "ball" type flush valve connection.

Subsection 757.5 - (is modified to add):

Emitters (Drip Line). Emitters shall be independent pressure compensating plastic in-line emitters, (Drip Line) capable of providing a consistent discharge rate of one or one half gallon per hour (gph) at 3 to 60 pounds per square inch (psi), located as indicated on the emitter schedule. The emitter shall be constructed of heat resistant plastic and have an operating range of 3 to 60 pounds per square inch.

Subsection 775.6 Concrete Block (is modified to add):

Masonry units shall conform to ASTM C - 90 for Grade N - 1 (fm - 1500 psi no special inspection required) units with the following modifications:

Subsection 775.6.2. Water Repellent Masonry Stain and Vandal-Resistant Coat (is modified to add):

Provide Ultrashield Clear (two-part aliphatic urethane /polyester) over two coats of Okon W-2 stain, as distributed by Dunn-Edwards Corporation or equal. Certify that applicator has minimum two years experience in waterproofing/ dampproofing applications. Apply in accordance with manufacturer's instructions for flood coat with a minimum 3 to 5 inch run-down. Mask adjacent surfaces. Prevent runoff into adjacent soil. Clean spillage and overspray as recommended by the manufacturer. Provide two colors where indicated on the Drawings.

SECTION 795 - LANDSCAPE MATERIAL (is modified to add):

Subsection 795.3 - Fertilizer:

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 useable analysis of fertilizer shall be as follows:

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

Subsection 795.4 - Organic Soil Conditioners:

Mulch shall be 5% minimum nitrogen stabilized composted forest product, consisting of composted ground, shredded, or shavings of fir or pine bark. The mulch shall have a minimum pH of 7.0 and shall not exceed a pH of 7.5.

Subsection 795.5 - Chemical Soil Conditioner (is modified to add):

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.

Subsection 795.8.2 - Tree Stakes:

Tree stakes shall be 2 inches minimum diameter, manufactured from lodge pole pine and shall be pressure treated with a copper sulphate preservative. Provide quantity of stakes as shown on the details.

Subsection 795.8.3 - Tie Wires:

Tree tie wires shall be double strand twisted 12 gauge galvanized steel wire, looped around tree trunk through a 12 inch length of 2 ply reinforced garden hose as shown in the drawings.

Subsection 795.8.4 - Decomposed Granite: Revise to Read:

Decomposed granite shall be as specified in Subsection 430.4 of the Construction Special Provisions. Stabilized decomposed granite shall be as specified in Section 314 of the Construction Special Provisions.

Subsection 795.8.5 - Water for Plantings:

Water used in the installation of plantings shall be clear and free from injurious oil, salt, acid, alkali, or any other toxic substances. It shall be the responsibility of the Contractor to make necessary arrangements for use of available water supplies.

Subsection 795.8.6 Root Collar: Deep Root Corp. Root Control Products or equal. 24" deep universal barrier (UB24-2). Sheet material assembly with joiners provided of same manufacturer. Five panels required for 38" diameter at each 24" box tree scheduled to receive root control.

SECTION 801: ELECTRICAL:

SUBSECTION 801.1 - GENERAL

The work under this section shall include all electrical work as shown on the plans, and as described below:

Complete electrical system to provide power to Reader Panels and Luminaries for three (3) new signs located on the college campus perimeter.

SUBSECTION 801.2 - DRAWINGS

The drawings are generally diagrammatic and indicate the manner, method and nature of the installation. The Specifications denote the style and quality of material and workmanship. Where a conflict exists between the Drawings and Specifications, promptly notify the Engineer. The Engineer will make the proper interpretation and his decision will be final.

Any items not mentioned in these specifications or not indicated on the plans but which are necessary for successful and efficient operation of the work shall be held to be implied and shall be furnished and installed as part of the contract.

SUBSECTION 801.3 - STANDARD MATERIAL AND WORKMANSHIP

All materials shall be new and shall conform to UL Standards in every case where such a standard has been established and shall bear UL label. All work shall be performed in a workmanship manner in accordance with the best accepted standards and shall present a neat mechanical appearance when completed.

Ratings of all electrical equipment shall be in accordance with National Electrical Manufacturers Association. (NEMA).

SUBSECTION 801.4 - PAYMENT

Payment for complete electrical system, in place and operational for all three (3) signs shall be at the lump sum price established on the Bid Schedule for BID ITEM 801.

END