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CONSTRUCTION SPECIFICATIONS

FOR

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

CONTRACT FCD 97-38

Broadway Road Collector Channel  
City of Mesa, Arizona



(Engineer's Seal)

Prepared By

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Recommended by: Michael A. Raleigh Date: 11/7/97  
Edward A. Raleigh, P.E., Manager  
Engineering Division

Issued for Public Bidding by: 115911 Date: 11/6/99  
Michael S. Ellegood, P.E.  
Chief Engineer and General Manager

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

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ATTENTION

ALL PROSPECTIVE BIDDERS

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

All bonds must be executed solely by a surety company or companies holding a Certificate of Authority to transact surety business in Arizona, issued by the Director of the (State) Department of Insurance.

Bonds (bid, payment and performance) executed by an individual surety or sureties are not in compliance with the Arizona Revised Statutes. Bids received containing bid bonds not in compliance with the Arizona Revised Statutes will be considered as being non-responsive. The use of District-supplied bond forms is required.

Please submit your bids accordingly.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CONTRACT FCD 97-38  
Broadway Road Collector Channel

TABLE OF CONTENTS

	<u>Page</u>
1. Invitation for Bids .....	1
2. Bid Form (Proposal) .....	4
3. Bidding Schedule .....	6
4. Subcontractor Listing .....	8
5. Surety Bond .....	9
6. No Collusion Affidavit .....	10
7. Verification of License .....	11
8. Minority and Women-Owned Business (MBE/WBE) Program .....	12
9. Contractor Certificate of Good Faith .....	16
10. MBE/WBE Assurances Affidavit .....	18
11. MBE/WBE Participation Affidavit, Sample .....	19
12. MBE/WBE Participation Report (Form) .....	20
13. Contract Agreement .....	21
14. Statutory Payment Bond .....	24
15. Statutory Performance Bond .....	25
16. Indemnification and Insurance Requirements .....	26
17. Certificate of Insurance .....	29
18. Supplementary General Conditions (SGC) .....	13 pages
19. Special Provisions (SP) .....	12 pages
20. Drawings: Broadway Road Collector Channel (Separate).....	15 Plan Sheets



(Area to left reserved  
for Engineer's Seal)

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

INVITATION FOR BID

**BID OPENING DATE:** December 4, 1997

**LOCATION:** City of Mesa. The Channel is at about 56th Street and south of Broadway Road along the west boundary of the Leisure World property. The Channel daylight into the East Maricopa Floodway.

**PROPOSED WORK:** The proposed work includes the reconstruction of 800 feet of the existing channel with a concrete lining to prevent erosion of the channel bed and bank.

**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. All bids are to be marked in accordance with Section 102.9 of the MAG 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. 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 the 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, disability, 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. Certification 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 (100) calendar days** after date of Notice to Proceed.

**MBE/WBE PARTICIPATION:**

For this contract, a goal of ten (10) percent MBE/WBE is established for Minority/Women-Owned Business Enterprises. Instructions and required forms are included in the Minority and Women-Owned Business Enterprise Program Contracting Requirements section. The Maricopa County Minority and Women-Owned Business Enterprise Program, effective January 1, 1992, is incorporated by reference.

**PRE-BID CONFERENCE:**

A Pre-Bid conference will be held on November 25, 1997 at 2:00 p.m. in the Flood Control District New River Conference Room, 2801 West Durango Street, Phoenix, Arizona. All potential contractors and subcontractors are encouraged to attend this pre-bid conference and be prepared at that time to submit in writing and discuss any comments concerning this solicitation.

Questions or items for clarification may be addressed to the Contract Manager, in writing, at least five (5) days prior to bid opening date. Questions received after this deadline may not be accepted. Responses to all questions submitted will be sent to all planholders by addenda. Verbal interpretations, unless specifically addressed by addendum, shall not be binding nor have any legal effect.

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

Plans and Construction Specifications may be obtained from the 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 executed on the District-supplied bond form, cashier's or certified check or postal money order equal to 10 percent (10%) 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.

\*\*\*\*\*

PRINCIPLE ITEMS AND APPROXIMATE QUANTITIES

QUANTITY	UNIT	DESCRIPTION
645	CY	Pneumatically placed Mortar (Shotcrete)
351	CY	Grouted Riprap (12" thick)
1,648	SY	Geocomposite Drain
180	CY	Special Drop Structure (Concrete)
170	LF	Steel Handrails

BID

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

Gentlemen:

The following Bid is made for the Broadway Road Collector Channel, FCD 97-38, in the County of Maricopa, State of Arizona.

The following Bid is made on behalf of

---

and no others. Evidence of authority to submit the bid is herewith furnished. The bid 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 bid, 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 the bid, have been carefully examined and also that the work site 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 Bid 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 **one hundred (100) 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 bid bond in the amount and character named in the Invitation to Bid, and amounting to not less than ten (10) percent of the total bid, is enclosed. The bid bond is submitted as a guaranty of good faith that the Bidder will enter into a written contract to do the work, as provided, if successful in securing the award thereof. It is therefore agreed that if the Undersigned withdraws its bid at any time except as herein provided or if the bid is accepted and the Undersigned fails to execute the Contract and furnish satisfactory Bonds and Sureties as herein provided, the Flood Control District of Maricopa County shall be entitled and is hereby given the right to retain the said Bid Bond as liquidated damages.

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

Addendum No. _____	Dated _____

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

BIDDING SCHEDULE

ITEM NO.	DESCRIPTION	UNIT	APPROX QTY.	UNIT COST NUMBERS	EXTENDED AMOUNT
105-1	Partnering	LS	1	\$4,000.00	\$4,000.00
107-1	NPDES/SWPPP Permits	LS	1	\$5,000.00	\$5,000.00
107-2	Project Sign Allowance	LS	1		
202-1	Mobilization	LS	1		
215-1	Earthwork for Open Channels	LS	1		
220-1	Grouted Riprap	CY	351		
340-1	Concrete Curb & Gutter	LF	16		
350-1	Removal of Existing Improvements	LS	1		
416-1	Permanent Barricades	EA	1		
505-1	Special Drop Structure	CY	180		
505-2	Concrete Headwalls	CY	9		
520-1	Steel Handrails	LF	170		
525-1	Pneumatically Placed Mortar (Shotcrete)	CY	645		
526-1	Geocomposite Drain System	SY	1,648		

**BID TOTAL** \_\_\_\_\_

**IF BY AN INDIVIDUAL:**

By: \_\_\_\_\_  
(Printed Name - Title)

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

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

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Telephone Number)

**IF BY A FIRM, PARTNERSHIP OR L.L.C. (LIMITED LIABILITY COMPANY)**

\_\_\_\_\_  
(Firm Name)

\_\_\_\_\_  
(Firm Address)

By: \_\_\_\_\_  
(Signature - Title)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Telephone Number)

**\*\* Name and Address of Each Member, or each Manager of L.L.C. per Operating Agreement**

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

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

**\*\* The Name and Post Office Address of each Member of the Firm or Partnership must be shown, or of each Manager of an L.L.C., also address of the registered office of the L.L.C.**

**IF BY A CORPORATION:**

\_\_\_\_\_  
(Corporate Name)

\_\_\_\_\_  
(Corporation Address)

\_\_\_\_\_  
(Printed Name - Title)

\_\_\_\_\_  
(Telephone Number)

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

**\* Incorporated under the Laws of the State of \_\_\_\_\_ . Names and Addresses of Officers:**

\_\_\_\_\_  
(President)

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

\_\_\_\_\_  
(Secretary)

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

\_\_\_\_\_  
(Treasurer)

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

**\* The Name of the State under which the Laws of the Corporation was Chartered and Name, Title, and Business Address of the President, Secretary, and Treasurer must be shown.**

**SUBCONTRACTOR LISTING**

As required in Section 102.6 of the Supplementary General Conditions, the following is a listing of Subcontractors and material suppliers (including any M/WBE participation) that are to be used in the event the undersigned should enter into contract with the Owner. Although this list will not be considered as final commitment on the part of the successful proposer, any Subcontractor changes from those listed must have Owner's written approval prior to commencement of Subcontractor work on site.

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

SURETY BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, \_\_\_\_\_, as Principal, (hereinafter called the Principal), and the \_\_\_\_\_, a corporation duly organized under the laws of the State of \_\_\_\_\_, as Surety, (hereinafter called the Surety), are held and firmly bound unto the Flood Control District of Maricopa County as Obligee, in the sum of **ten percent (10%)** 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 the Arizona Revised Statutes.

WHEREAS, the said Principal is herewith submitting its proposal for **Contract FCD 97-38, Broadway Road Collector Channel.**

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

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, A.D., 199\_\_.

\_\_\_\_\_  
Agency of Record, State of Arizona

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Agency Address and Phone Number

By: \_\_\_\_\_  
(Printed Name) (Signature)

\_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Surety

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

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

Title: \_\_\_\_\_

ATTACH SURETY POWER OF ATTORNEY

**AFFIDAVIT BY CONTRACTOR  
CERTIFYING THAT THERE WAS NO COLLUSION  
IN BIDDING FOR CONTRACT**

STATE OF \_\_\_\_\_ }  
County of \_\_\_\_\_ }SS

\_\_\_\_\_ being first duly sworn, deposes and says:

That he/she is \_\_\_\_\_ of \_\_\_\_\_ bidding on Contract FCD \_\_\_\_\_ for \_\_\_\_\_  
\_\_\_\_\_, in the County of Maricopa, State of Arizona.

That, in connection with the above-mentioned project, neither he/she, nor anyone associated with the aforesaid business, has, directly or indirectly, participated in any collusion, entered into any contract, combination, conspiracy or other act in restraint of trade or commerce in violation of the provisions of A.R.S. Section 34-251, Article 4, as amended.

\_\_\_\_\_  
(Signature of Affiant)

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

\_\_\_\_\_  
(Notary Public)

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

CERTIFICATION OF LICENSE

Pursuant to A.R.S. Section 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. Section 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 name(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. SECTION 13-2704.

\_\_\_\_\_  
Signature of Licensee

Date: \_\_\_\_\_

Company: \_\_\_\_\_

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

- A. The following conditions will apply in the calculations of the percentage attainment:
1. All M/WBE firms used in attainment of the goal must be certified with the Maricopa County Minority Business Office (MBO). The MBO is located at 2901 West Durango Street, Phoenix, Arizona 85009, telephone 506-4068. In addition, only those firms certified prior to the bid opening will be considered in the attainment of the goal.
  2. Prime contractor subcontracts to MBE or WBE:  
The M/WBE amount to be applied to the goal will be based on that portion (dollar value) of the contract that the M/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 M/WBE participation will be credited as 10 percent.
  3. Prime Minority Contractor:  
An M/WBE prime contractor will be credited with the M/WBE participation for that portion of the contract which they themselves perform plus that portion subcontracted to other M/WBE firms. For example, if an M/WBE prime contractor proposes to perform 50 percent of a project quoted as \$1,000,000 and subcontracts 25 percent to an MBE firm and 25 percent to a non-M/WBE firm, M/WBE participation will be credited as 75 percent, or \$750,000.
  4. Minority-Non Minority Joint Venture:  
A joint venture consisting of M/WBE participation and non-M/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 M/WBE firm. For example, if a M/WBE and non-M/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 M/WBE partner in the joint venture, M/WBE participation will be credited at 25 percent or \$250,000.
  5. Lower Tier Non-M/WBE Participation:  
M/WBE subcontractors proposing to further subcontract to non-M/WBE contractors shall not have that portion of subcontracting activity considered when determining the percentage of M/WBE participation.
  6. M/WBE Suppliers:  
Any M/WBE supplier that performs a commercially useful function, manufactures or substantially alters the material or product it supplies will have that portion of activity considered when determining the percentage of M/WBE participation.
  7. M/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 "M/WBE Assurances Affidavit", must be completed and submitted with the bid - **Failure to do so may be cause for rejection of the bid.**

A SAMPLE of the "Actual M/WBE Participation Affidavit", that must be completed and returned by the first and second bidders to the Minority Business Office by 4:00 p.m. on the seventh calendar day after bid opening, if M/WBE goals have been established, is provided for information purposes. A copy of the sample or the sample form itself may also be used. The affidavit will list the M/WBE participation by M/WBE firm name and the relative dollar value of the M/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 M/WBE's are unable to enter into a subcontract with contractor, the contractor **must** provide a written report to the Procurement Officer, through the Owner's representative in accordance with instructions provided elsewhere in this document.

C. Good Faith Efforts:

Bids which fail to meet MBE or WBE minimum goals at levels which equal or exceed established goals may be considered nonresponsive unless good faith efforts can be determined. Only MBE and WBE firms certified by Maricopa County prior to the bid 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 a certified firm, regardless of tier, will not be counted toward the applicable goals.

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

The County minority Business Office (MBO) will assist prime contractors in identifying possible qualified and interested MBE and WBE subcontractors to meet designated MBE and WBE goals. **A M/WBE listing will be furnished with the bidding documents**, which contractors must utilize in identifying M/WBE firms. It will be the responsibility of the prime contractors to obtain the MBE and WBE firms necessary to meet the MBE and WBE goals. **FAILURE TO CONTACT THE MBO FOR ASSISTANCE IN COMPLYING WITH THESE GOALS MAY RESULT IN NOT HAVING IMPLEMENTED "GOOD FAITH" EFFORTS.** Contact may be in writing, by telephone, or in person. If by phone or in person, name of MBO person spoken to should be obtained and written within the "CONTRACTOR CERTIFICATE OF GOOD FAITH" SUBMITTAL FORM (supplied if a contract has M/WBE goals).

**(The Minority Business Office is located at 2901 West Durango Street, Phoenix, Arizona. Telephone number is 506-4068.**

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

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

1. The date bidder requested assistance in writing, in person, or by telephone from the MBO. The bidder should request assistance from the MBO office in order for a determination to be made. **As Maricopa County M/WBE listings are updated frequently, bidders shall contact the MBO to ensure that they have the most recent edition.**
2. Names, addresses and telephone numbers; and dates of notification of Maricopa County certified MBEs and WBEs solicited by direct mail for this project; and dates and methods used for follow up of initial solicitations to determine with certainty whether MBEs or WBEs were interested in subcontracting.
3. Items of work for which bidder requested subbids, proposals or materials to be supplied by MBEs and WBEs; information furnished to interested MBEs and WBEs such as specifications and requirements of the work; plans; and any breakdown of items of work into economically feasible units to facilitate MBE and WBE participation.
4. Names of MBEs and WBEs who submitted bids for any of the work indicated above and were

not accepted by the prime contractor. An explanation of why MBEs or WBEs contacted will not be 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 a prime contractor's rejection of MBE and WBE bids.

5. Documentation of written notices or telephone calls to a reasonable number of M/WBEs soliciting their participation in sufficient time to allow M/WBEs to participate effectively. All M/WBEs listed on the Maricopa County Certification list which provide applicable goods and services for subject procurement/project should be contacted.

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

1. A description of the efforts made to assist 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.

2. 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.

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

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

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 given 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 MBE or WBE contract work items without prior approval by the Owner's Procurement Officer, through the Owner's designated representative.

The Owner's Procurement Office 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 Procurement Officer. 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 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 designated 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 designated 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 by the Flood Control District of Maricopa County.

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.

**CONTRACTOR CERTIFICATE OF GOOD FAITH\***

The intent of this certification is to document the good faith efforts implemented by the apparent low bidder in soliciting and utilizing M/WBE firms to meet the established M/WBE goals for County contracts. This certificate will assist Maricopa County in determining whether the apparent low bidder has implemented "good faith" efforts in accordance with the Maricopa County Minority Business Program. The burden of proof rests with the apparent low bidder.

**(NOTE: Prior to filling out this certificate it is important that contractors review the "good faith" efforts requirements in the M/WBE section of the project specification booklet).**

**Failure to implement "good faith" efforts to the satisfaction of Maricopa County may result in rejection of the proposal.**

I, \_\_\_\_\_, do hereby acknowledge that I am the \_\_\_\_\_ of \_\_\_\_\_ who has been identified as the selected contractor on Flood Control District Project/Contract FCD\_\_\_\_\_.

Provide a brief summary of why the established M/WBE goal for this project has not been met. (Attach additional sheets if necessary).

---

I hereby certify that I have made comprehensive "good faith" efforts to solicit and utilize County certified M/WBEs to meet the established M/WBE goal of this project as demonstrated by my responses to the following questions:

**A. IDENTIFYING SUBCONTRACTOR WORK ITEMS**

Contractors are encouraged to select portions of work to be subcontracted in a manner which will increase the likelihood of meeting the established M/WBE goal for the project. In selecting work to be performed, contractors will consider, where appropriate, breaking down the project into economically feasible units to facilitate M/WBE participation. Contractors are reminded that only M/WBE certified by the County can be used as participants towards meeting the project goals. A County M/WBE Certification listing will be provided to all contractors interested in submitting bids for projects. This listing is the only authorized source from which to select M/WBEs for project participation. Current copies of this listing may be obtained by calling the Minority Business Office at (602) 506-4068.

1. Which portions of the contract proposal, in terms of the nature of the work were selected to be subcontracted to M/WBE firms?

---

**B. NOTIFYING M/WBE FIRMS OR CONTRACTING OPPORTUNITIES**

1. Solicitations by mail/fax must be made to all M/WBE firms identified on the M/WBE Certification Listing that perform the type of work which is proposed for subcontracting. Following this initial solicitation, at least one follow-up telephone call must be made to any of the M/WBE firms who have not responded to the mailing.

2. In the spaces provided below, indicate which firms received written notification of work items to be subcontracted. In the appropriate space, also indicate when the M/WBE firms received subsequent telephone solicitations. Please attach additional sheets so that all firms contacted are listed and attach photo copies of all written/fax solicitations to M/WBEs to this documentation.

M/WBE Firm Contacted No.	Date	Name	Tel.
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3. Were the services of the County Minority Business Office used to assist the contractor in the

recruitment of M/WBEs or to assist in solving other problems? Yes\_\_\_\_\_ No\_\_\_\_\_

Contact was made by\_\_\_\_\_ Telephone\_\_\_\_\_

Written correspondence\_\_\_\_\_ Date contacted\_\_\_\_\_

Staff person contacted\_\_\_\_\_

**C. PROVIDING M/WBES WITH ASSISTANCE**

1. Explain any efforts undertaken to provide M/WBEs with information regarding project plans, specifications and requirements of the project:

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

2. Describe any efforts initiated to provide special assistance to M/WBE firms interested in participating in this project:

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

3. Describe any efforts undertaken to assist M/WBE firms in obtaining bonding, lines of credit, or insurance required by the County for this project:

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

4. Was solicitation for M/WBEs advertised in local papers, ethnic periodicals, or trade journals? If YES, please list the name of the periodical and dates advertised.

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

**D. SOLICITING QUOTES FROM M/WBE FIRMS**

Contractors must solicit quotes in good faith with interested M/WBE firms. Quotes and bids from interested M/WBEs must not be rejected by bidders without sound justification based upon a thorough investigation of the capabilities of the M/WBE firms.

1. Indicate in the space provided below, which M/WBE firms submitted quotes on the project proposal. Also provide a brief explanation of why any of these M/WBE quotes were rejected. If price was a determining factor, provide documentation showing the non-minority quotes. Please attach additional sheets if necessary.

**Name of M/WBE Firm**

**Explanation for rejecting quote**

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

\* To be included in contract documents or those procurements which have M/WBE contract goals.

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
MINORITY/WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM  
MBE/WBE ASSURANCES AFFIDAVIT**

**NOTE: FAILURE TO COMPLETE AND SUBMIT THIS AFFIDAVIT WITH THE BID PROPOSAL MAY BE CAUSE FOR REJECTION OF THE BID.**

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

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

**(CHECK ONE)**

- Will meet the **established** goal for participation by Minority/Women-Owned Business Enterprises.
- Will provide the necessary documentation to Minority Business Office to establish that a good faith effort was made.

The first and second low bidders will specify their MBE/WBE participation on the Actual Participation affidavit or provide documentation of their good faith efforts not later than 4:00 p.m., the seventh calendar day following the bid opening. If participation is "None", the documentation shall provide bidder's good faith efforts to obtain the participation. This documentation will be reviewed by the MBO to determine whether in fact a comprehensive "good faith" effort has been implemented. The required affidavit shall be obtained by the apparent first and second low bidders from the Minority Business Office, 2901 West Durango Street, Phoenix, Arizona 85009, Telephone 506-8656, following the bid opening and verbal notification from the Procurement Officer of the Procurement Agency; a SAMPLE affidavit form for reference purposes follows.

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

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

\_\_\_\_\_  
Title

STATE OF \_\_\_\_\_ )  
County of \_\_\_\_\_ )ss

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

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

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

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
 MINORITY/WOMEN OWNED BUSINESS ENTERPRISE PROGRAM  
**ACTUAL MBE/WBE PARTICIPATION AFFIDAVIT**

(NOTE: COMPLETED AFFIDAVIT MUST BE SUBMITTED WITHIN SEVEN CALENDAR DAYS FOLLOWING THE BID OPENING).

\_\_\_\_\_

Name of Contractor

Project/Contract Number FCD 97-38 Total Amount of Contract \_\_\_\_\_

Contract M/WBE Goal: 10 %

\_\_\_\_\_

Contact Person

\_\_\_\_\_

Street No.

\_\_\_\_\_

City State Zip

<u>Minority/Women Owned Firm</u>	<u>Principal</u>	<u>Address</u>	<u>Type of Work</u>	<u>Contract Percentage</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

SAMPLE

TOTALS (Dollars/Percentage) \_\_\_\_\_

The undersigned has entered into a formal agreement with the MBE/WBE subconsultants/subcontractors /suppliers listed above, in the execution of this contract with Maricopa County.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

STATE OF \_\_\_\_\_ }

}ss

County of \_\_\_\_\_ }

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ by \_\_\_\_\_  
 Notary Public

My commission Expires: \_\_\_\_\_

MARICOPA COUNTY  
MINORITY/WOMEN-OWNED BUSINESS ENTERPRISES PROGRAM

**D/M/WBE PARTICIPATION REPORT**  
**(To be attached with Each Request for Pay)**

---

Date: \_\_\_\_\_

General Contractor/Prime Consultant: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Fax Number: \_\_\_\_\_

Project Description: \_\_\_\_\_  
Contract Number: \_\_\_\_\_  
For Pay Period of (indicate dates): \_\_\_\_\_

D/M/WBE Subcontractor/Subconsultant Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_

Type of Firm: \_\_\_\_\_  
Type of Work performed for this project: \_\_\_\_\_

Total D/M/WBE Subcontract Amount: \$ \_\_\_\_\_

Amount Paid to this D/M/WBE  
Subcontractor this invoice: \$ \_\_\_\_\_

Total paid to this Subcontractor to date: \$ \_\_\_\_\_

Total D/M/WBE Contract Goal this project = \_\_\_\_%

Total D/M/WBE Participation  
on this contract to date = \_\_\_\_%

cc: Maricopa County Infrastructure  
Contracts and D/W/MBE Office  
2901 West Durango Street  
Phoenix, Arizona 85009

## CONTRACT AGREEMENT

THIS AGREEMENT, made and entered into this \_\_\_ day of \_\_\_\_, 1997 by and between the FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, hereinafter called the OWNER, acting by and through its BOARD OF DIRECTORS, and \_\_\_\_\_, hereinafter called the CONTRACTOR.

WITNESSETH: That the said CONTRACTOR, for and in the consideration of the sum of \_\_\_\_\_ (\$ ) to be paid to him by the 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 Contract FCD 97-38, Broadway Road Collector Channel, 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, i.e. 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 one hundred calendar days following notice to proceed.

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. Section 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. Section 34-221.

ARTICLE V - TERMINATION: The OWNER hereby gives notice that pursuant to A.R.S. Section 38-511(A) this contract may be canceled without penalty or further obligation within three years after execution if any person significantly involved in initiation, negotiation, securing, drafting or creating a contract on behalf of the OWNER is, at any time while the contract or any extension of the contract is in effect, an employee or 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: The OWNER 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 OWNER without being discriminated against on the grounds of race, religion, sex, age, disability, 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 disability 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

By \_\_\_\_\_  
(Printed Name) (Signature)

Title: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
Tax Identification Number

FLOOD CONTROL DISTRICT OF  
MARICOPA COUNTY  
PARTY OF THE SECOND PART

By: \_\_\_\_\_  
Chairman, Board of Directors Date

ATTEST:

\_\_\_\_\_  
Clerk of the Board Date

RECOMMENDED BY:

\_\_\_\_\_  
Chief Engineer and General Manager Date  
Flood Control District of Maricopa County

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.

By: \_\_\_\_\_  
District, General Counsel 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 \_\_\_\_\_ (\$ \_\_\_\_\_), for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Flood Control District of Maricopa County, dated the \_\_\_\_\_ day of \_\_\_\_\_, 1997 for **Contract FCD 97-38, Broadway Road Collector Channel** which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal promptly pays all monies due to all persons supplying labor or materials to the Principal or the Principal's Subcontractors in the prosecution of the work provided for in the contract, this obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of the Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if they were copied at length in this agreement.

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

Witness our hands this \_\_\_\_\_ day of \_\_\_\_\_, 1997.

\_\_\_\_\_  
Agency of Record, State of Arizona

\_\_\_\_\_  
Agency Address and Phone Number:  
\_\_\_\_\_  
\_\_\_\_\_

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

ATTACH SURETY POWER OF ATTORNEY

\_\_\_\_\_  
Principal

By: \_\_\_\_\_  
(Printed Name) (Signature)

Title: \_\_\_\_\_

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

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

Title: \_\_\_\_\_

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 \_\_\_\_\_ (\$ \_\_\_\_\_), for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Flood Control District of Maricopa County, dated the \_\_\_\_ day of \_\_\_\_\_, 1997, for Contract FCD 97-38, Broadway Road Collector Channel, which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

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

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of Title 34, Chapter 2, and Article 2, Arizona Revised Statutes, to the same extent as if they were copied at length in this agreement.

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

Witness our hands this \_\_\_\_\_ day of \_\_\_\_\_, 1997.

\_\_\_\_\_  
Agency of Record, State of Arizona

Agency Address and Phone Number:  
\_\_\_\_\_  
\_\_\_\_\_

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

ATTACH SURETY POWER OF ATTORNEY

\_\_\_\_\_  
Principal

By: \_\_\_\_\_  
(Printed Name) (Signature)

Title: \_\_\_\_\_

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

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

Title: \_\_\_\_\_

## INDEMNIFICATION

To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the Flood Control District, Maricopa County, City of Mesa, Arizona, their agents, representatives, officers, directors, officials, and employees from and against all claims, damages, losses and expenses (including but not limited to attorney fees, court costs, and the cost of appellate proceedings), relating to, arising out of, or resulting from the Contractor's work or services. The Contractor's duty to defend, hold harmless and indemnify the District, its agents, representatives, officers, directors, officials, and employees shall arise in connection with any claim, damage, loss or expense that is attributable to bodily injury, sickness, disease, death, or injury to, impairment, or destruction of property including loss of use resulting therefrom, caused in whole or in part by any act or omission by the Contractor, anyone the Contractor directly or indirectly employs, or anyone for whose acts the Contractor may be liable, regardless of whether it is caused in part by a party indemnified hereunder, including the District.

The amount and type of insurance coverage requirements set forth below will in no way be construed as limiting the scope of the indemnity in this paragraph.

**For all other hazards, liabilities, and exposures:** To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the District, its agents, representatives, officers, directors, officials, and employees from and against all claims, damages, losses and expenses (including but not limited to attorney fees, court costs, and the cost of appellate proceedings), relating to, arising out of or resulting from the Contractor's work or services. Contractor's duty to defend, hold harmless, and indemnify the District, its agents, representatives, officers, directors, officials, and employees shall arise in connection with any claim, damage, loss or expense that is attributable to bodily injury, sickness, disease, death, injury to, impairment or destruction of property including loss of use resulting therefrom, caused in whole or in part by any act or omission of the Contractor, anyone the Contractor directly or indirectly employs, or anyone for whose acts the Contractor may be liable, regardless of whether it is caused in part by a party indemnified hereunder, including the District.

The amount and type of insurance coverage requirements set forth below will in no way be construed as limiting the scope of the indemnity in this paragraph.

## INSURANCE REQUIREMENTS

Without limiting any of its obligations or liabilities, the Contractor, at the Contractor's own expense, shall purchase and maintain the hereafter stipulated minimum insurance with companies duly licensed, possessing a current A.M. Best, Inc. rating of B++6, or approved unlicensed to do business in the State of Arizona with policies and forms satisfactory to the County.

All insurance required herein shall be maintained in full force and effect until all work required to be performed under the terms of the Contract is satisfactorily completed and formally accepted; failure to do so may, at the sole discretion of the District, constitute a material breach of this Contract.

The Contractor's insurance shall be primary insurance as respects the District, and any insurance or self insurance maintained by the District shall not contribute to it.

Any failure to comply with the claim reporting provisions of the policies or any breach of the policy warranty shall not affect coverage afforded under the policies to protect the District.

The policies, except Workers' Compensation, shall contain a waiver of transfer rights of recovery (subrogation) against the District, its agents, representatives, directors, officers, and employees for any claims arising out of the Contractor's work or service.

The policies may provide coverage which contain deductibles or self insured retentions. Such deductible and/or self insured retentions shall not be applicable with respect to the coverage provided to the District

under such policies. The Contractor shall be solely responsible for the deductible and/or self insured retentions and the District, at its option, may require the Contractor to secure the payment of such deductible or self insured retentions by a surety bond or an irrevocable and unconditional letter of credit.

The District reserves the right to request and to receive, within 10 working days, certified copies of any or all of the above policies and/or endorsements. The District shall not be obligated, however, to review same or to advise the Contractor of any deficiencies in such policies and endorsements, and such receipt shall not relieve the Contractor from, or be deemed a waiver of the District's right to insist on, strict fulfillment of the Contractor's obligations under this Contract.

The insurance coverage, except Workers' Compensation and Professional Liability, required by this Contract shall name the District, its agents, representatives, officers, directors, officials, and employees as Additional Insureds.

**General Liability.** The Contractor shall maintain Commercial General Liability insurance with a limit of not less than \$2,000,000 for each occurrence with a \$2,000,000 Products and Completed Operations Limit and \$2,000,000 General Aggregate Limit, and include coverage for bodily injury, broad form property damage, personal injury, products/completed operations and blanket contractual covering, but not limited to, the liability assumed under the indemnification provisions of this Contract, which coverage will be at least as broad as the Insurance Service Office, Inc. Policy Form CG 00011093 or any replacements thereof. The coverage shall not exclude X, C, U.

Such policy shall contain a severability of interest provision, and shall not contain a sunset provision or commutation clause, nor any provision which would serve to limit third party action over claims.

The Commercial General liability additional insured endorsement will be at least as broad as the Insurance Service Office, Inc. Additional Insured, Form B, CG 20101093, or replacements thereof.

Any failure to comply with the reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the District.

If required by this contract, the Contractor subletting any part of the work awarded to the Contractor shall purchase and maintain, at all times during prosecution of the work under this Contract, an Owner's and Contractor's Protective Liability insurance policy for bodily injury and property damage, including death, which may arise in the prosecution of the work or Contractor's operations under this contract. Coverage shall be on an occurrence basis with a limit not less than \$1,000,000 per occurrence, and the policy shall be issued by the same insurance company that issues the Contractor's Commercial General Liability insurance.

**Automobile Liability.** The Contractor shall maintain Commercial/Business Automobile Liability insurance with a combined single limit for bodily injury and property damage of not less than \$2,000,000 each occurrence with respect to the Contractor's any owned, hired, and non-owned vehicles assigned to or used in performance of the Contractor's work or services. Coverage will be at least as broad as coverage code 1, "any auto" (Insurance Services Office, Inc. Policy Form CA 00011293, or any replacements thereof). Such insurance shall include coverage for loading and off-loading hazards. If hazardous substances, materials, or wastes are to be transported, MCS 90 endorsement shall be included and \$5,000,000 per accident limits for bodily injury and property damage shall apply.

**Workers' Compensation.** The Contractor shall carry Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Contractor's employees engaged in the performance of the work or services; and Employer's liability insurance of not less than \$100,000 for each accident, \$100,000 disease for each employee, and \$500,000 disease policy limit.

In case any work is subcontracted, the Contractor will require the subcontractor to provide Workers' Compensation and Employer's Liability to at least the same extent as required of the Contractor.

**Builders' Risk (Property) Insurance.** The Contractor shall purchase and maintain, on a replacement cost basis, Builders' Risk insurance in the amount of the initial Contract amount as well as subsequent modifications thereto for the entire work at the site. Such Builders' Risk insurance shall be maintained until final payment has been made or until no person or entity other than the District has an insurable interest in the property required to be covered, whichever is earlier. This insurance shall include interests of the District, the Contractor, and all subcontractors and sub-subcontractors in the work during the life of the Contract and course of construction, and shall continue until the work is completed and accepted by the District. For new construction projects, the Contractor agrees to assume full responsibility for loss or damage to the work being performed and to the structures under construction. For renovation construction projects, the Contractor agrees to assume responsibility for loss or damage to the work being performed at least up to the full Contract amount, unless otherwise required by the Contract documents or amendments thereto.

Builders' Risk insurance shall be on an all-risk policy form and shall also cover false work and temporary buildings and shall insure against risk of direct physical loss or damage from external causes including debris removal, demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's service and expenses required as a result of such insured loss and other "soft costs" as required by the Contract.

Builders' Risk insurance must provide coverage from the time any covered property becomes Contractor's control and/or responsibility, and continue without interruption during construction or renovation or installation, including any time during which the covered property is being transported to the construction installation site, and while on the construction or installation site awaiting installation. The policy will provide coverage while the covered premises or any part thereof are occupied. Builders' Risk insurance shall be primary and not contributory.

If the Contract requires testing of equipment or other similar operations, at the option of the District, the Contractor will be responsible for providing property insurance for these exposures under a Boiler Machinery insurance policy.

Required coverages may be modified by an amendment to the Contract documents.

### Certificates of Insurance

Prior to commencing work or services under this Contract, the Contractor shall furnish the District with Certificates of Insurance (included herein), or formal endorsements as required by the contract, issued by the Contractor's insurer(s), as evidence that policies providing the required coverages, conditions and limits required by this Contract are in full force and effect. Such certificates shall identify this Contract number and title.

**Subcontractor:** The Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. If a policy does expire during the life of the Contract, a renewal Certificate of the required coverage must be sent to the District at least fifteen (15) days prior to the expiration date.

In the event any insurance policy(ies) required by this Contract is(are) written on a "claims made" basis, coverage shall extend for two years past completion and acceptance of the work or services and as evidenced by annual Certificates of Insurance.

Insurance evidenced by this Certificate shall not expire, be canceled, or materially changed without fifteen (15) days prior written notice to the District. If a policy does expire during the life of the contract, a renewal Certificate must be sent to the District fifteen (15) days prior to the expiration date.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CERTIFICATE OF INSURANCE

CONTRACT FCD 97-38

PROJECT TITLE Broadway Road Collector Channel

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
NAME AND ADDRESS OF INURED	Company Letter	D
	Company Letter	E
	Company Letter	F

**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**

CO. LTR	TYPE OF INSURANCE	POLICY NUMBER	EFFECTIVE DATE (MM/DD/YY)	EXPIRATION DATE (MM/DD/YY)	LIMITS	
	<b>COMMERCIAL GENERAL</b> <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				GENERAL AGGREGATE PRODUCTS/COMPLETED OPERATIONS BODILY INJURY AND PROPERTY DAMAGE PERSONAL INJURY EACH OCCURRENCE	\$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000
	<b>COMPREHENSIVE AUTO</b> <input checked="" type="checkbox"/> LIABILITY & NON-OWNED <input type="checkbox"/> EXCESS LIABILITY				Each Occurrence	\$2,000,000
	<input checked="" type="checkbox"/> WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY each accident	\$100,000
	<input type="checkbox"/> ENGINEERS PROFESSIONAL LIABILITY				EACH CLAIM AND ANNUAL AGGREGATE	
	<input checked="" type="checkbox"/> OTHER	In addition to the Flood Control District, add Maricopa County and the City of Mesa, Arizona, as additional named insured.				

Except for Professional Liability Insurance and Workers' Compensation Insurance, the Flood Control District of Maricopa County is added as an additional insured on those types of policies described herein which are required to be furnished by this contract entered into between the insured and the Flood Control District. To the extent provided in this contract, insured shall hold harmless the Flood Control District of Maricopa County from liability arising out of any services provided or duty performed by insured as required by statute, law, purchase order or otherwise required, with the exception of liability for loss or damage resulting from the sole negligence of Flood Control District, its agents, employees or indemnities. 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 canceled, or materially changed to affect 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 _____
---	--

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
FCD CONTRACT 97-38  
FCD PROJECT No. 121010  
BROADWAY ROAD COLLECTOR CHANNEL**

**SUPPLEMENTARY GENERAL CONDITIONS**

**SPECIFICATIONS:**

Except as otherwise amended by 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.

**PRECEDENCE OF CONTRACT DOCUMENTS:**

This Contract and its designated documents, whether taken separately or together, are to be interpreted according to full intent, meaning, and spirit, and shall be deemed to mutually explain each other and to be descriptive of any materials to be furnished and the work to be performed under this Contract. In cases of any difference or discrepancy between the Contract documents, the order of precedence shall be (a) Addendum to the Invitation for Bid, (b) the Contract form, (c) Supplementary General Conditions, (d) Construction Special Provisions, (e) Project Plans, (f) MCDOT Supplements to the Uniform Standard Details, and (g) MAG Uniform Standard Specifications and Uniform Standard Details.

**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 Flood Control District of Maricopa County.
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 Flood Control District of Maricopa County 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 Flood Control District of Maricopa County Board of Directors to the office of Chief Engineer and General Manager of the Flood Control District of Maricopa County acting directly or through its authorized representative, the Chief of the Flood Control District of Maricopa County Construction and Maintenance Division.
5. Change the definition for the phrase "Notice of Award" to a letter from the Flood Control District of Maricopa County advising Contractor that it is the successful bidder and the Flood Control District of Maricopa County 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 Bid:**

Add the following:

Bids, including the Bidding Schedule, must be legibly written in ink or typed, with all prices given in numerals. In case of a conflict between the unit bid price and the extension, the unit bid price shall govern.

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, **shall be attached and included as part of the Specifications** and any quantities on the Bidding Schedule requiring change shall be adjusted to the new figure by pen and ink. **Bids which do not have appropriate addenda attached, show appropriate changes to the Bidding Schedule, and acknowledge receipt of addenda in the Proposal may 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. An "A" **General Engineering** License is required for this contract. 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:** Change as follows:

A list of subcontractors and suppliers (including any MBE/WBE participation) intended to be used on the project shall be submitted with the bid on the form provided in the Proposal. Although this list will not be considered as final commitment on the part of the successful proposer, any subcontractor changes from those listed must have Owner's written approval prior to work performed on site by a subcontractor.

**Subsection 102.7 - Irregular Proposals:**

Add the following:

- (F) If the Maricopa County Minority and Women-Owned Business Enterprises Assurances Affidavit is not completed and submitted.
- (G) If any addenda are not acknowledged and attached..
- (H) If Owner's bond forms are not used.
- (I) If the entire specifications document is not returned
- (J) If the statement from bidder's insurance carrier, as required by Subsection 103.6, is not included.

**Subsection 103.6 - Contractor's Insurance:**

Add the following:

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; and that it will execute the Certificate of Insurance included in the documents. 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, Contractor shall furnish a Certificate of Insurance, using the included Certificate, 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 the following:

Include additional insureds as indicated on the included Certificate of Insurance.

**Subsection 103.6.2 - Indemnification of the Contracting Agency Against Liability:**

Add the following:

Additionally, Contractor shall execute the Indemnification found in the Contract Documents.

**Subsection 104.1 - Work to be Done:**

Add the following sentence to 104.1.1:

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

Add the following sentence to 104.1.2:

No interruption of traffic will be permitted on Broadway Road east and/or west bound.

The Contractor shall notify City of Mesa at least 7 days in advance of any work activities to be done within their easement.

The Contractor shall notify the Leisure World Community Center of Arizona, 7 days in advance of starting any work. The Contractor shall inform the Leisure World, the anticipated starting and finish date of the construction. If for any reason the construction schedule changes, the Contractor shall notify Leisure World.

**Subsection 104.2.3 - Changes:**

The Owner may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

- (A) Drawings, designs, or specifications;
- (B) Method or manner of performance of the work;
- (C) Owner-furnished facilities, equipment, materials, services, or site;
- (D) Directing acceleration in the performance of the work.

Any other written or oral order from the Owner that causes a change shall be treated as a change order under this section provided that the Contractor gives the Owner written notification within two work days after receipt of such direction stating:

- (A) The date, nature, and circumstances of the conduct regarded as a change;
- (B) The particular elements of the contract performance for which the Contractor is seeking an equitable adjustment under this section, including any price or schedule adjustments;
- (C) The Contractor's estimate of the time by which the Owner must respond to the Contractor's notice to minimize cost, delay, or disruption of performance.

The Contractor shall diligently continue performance of this contract to the maximum extent possible in accordance with its provisions. Except as provided in this section, no order, statement, or conduct of the Owner shall be treated as a change or entitle the Contractor to an equitable adjustment. If any change under this section causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, the Owner shall make an equitable adjustment and modify the contract in writing.

The equitable adjustment shall not include increased costs or time extensions for delay resulting from the Contractor's failure to provide notice or to diligently continue performance. No proposal for the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

#### **Subsection 104.2.4 - Cost Estimates or Price Proposals**

The Contractor and any lower-tier subcontractors shall submit itemized cost estimates or price proposals for any owner-directed change order or Contractor-initiated claim.

Cost estimates or pricing proposals shall be itemized to include direct labor by man-hours, individual craft, hourly wage rate and verifiable labor burden. Other direct costs shall include rental and operator rates for rented or owned equipment, material trucking expenses and other costs clearly identified and directly allocable to contract performance. Material costs shall be itemized by item description, quantity(s) for each item, unit price per item, including applicable sales tax markup, and extended total price per item. The Contractor shall provide copies of material supplier quote sheets, invoices or purchase orders, as appropriate.

Lump sum cost estimates or price proposals shall be rejected and returned to the Contractor for itemization as described above. Failure of the Contractor to submit properly itemized cost estimates or price proposals shall not constitute an excusable delay and result in a change order being unilaterally priced as the Owner's fair estimated price.

#### **Subsection 104.2.6 - Value Engineering**

(a) **General.** The Contractor is encouraged to voluntarily develop, prepare, and submit value engineering change proposals (VECPs). The Contractor shall share in any instant contract savings realized from accepted VECPs, in accordance with paragraph (f) below. The Owner reserves the right to make alterations to the contract, in accordance with procedures elsewhere within this contract. Such alterations will not be eligible for inclusion in any VECP.

(b) **Definitions.**

**Contractor's development and implementation costs** means those costs the Contractor incurs on a VECP in developing, testing, preparing, and submitting the VECP as well as those costs incurred by the Contractor to make the changes required by the Owner's acceptance of the VECP.

**Owner costs** means those owner costs that result directly from developing, reviewing, evaluating, and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistical support. The term does not include the normal administrative costs of processing the VECP.

**Instant contract savings** means the estimated reduction in Contract cost of performance resulting from acceptance of the VECP, minus the allowable Contractor's development and implementation costs, minus subcontractors' development and implementation costs (see paragraph (g) below).

**Value engineering change proposal (VECP)** means a proposal that (1) requires a change to the contract; (2) results in reducing the contract price or estimated cost without impairing essential functions or characteristics; and (3) does not involve a change in deliverable end item quantities, schedule, or a change to the contract type.

(c) **VECP Preparation.** As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (7) below. If the proposed change affects contractually required schedule and cost reporting, it shall be revised to incorporate proposed VECP modifications. The VECP shall include the following:

- (1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effects of the change on the end item's performance. All design changes must be submitted on 24"x 36" standard drawing sheets along with supporting calculations. Each drawing sheet and at least the content sheet of the calculations shall be sealed by an Engineer registered in the State of Arizona.
- (2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revision.
- (3) A separate, detailed cost estimate for the affected portions of the existing contract requirements and the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (g) below.
- (4) A description and estimate of costs the Owner may incur implementing the VECP, such as test and evaluation and operating and support costs. This is an estimate based only on the Contractor's understanding of additional efforts to be expended by the Owner, should the VECP be accepted. The final cost will be determined by the Owner.
- (5) A prediction of any effects the proposed change would have on collateral costs to the agency, i.e., costs of operation or maintenance.
- (6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.
- (7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved and previous Owner actions, if known.

(d) **Submission.** The Contractor shall submit VECPs to the Owner's Engineer.

(e) **Owner Action.**

- (1) The Owner shall notify the Contractor of the status of the VECP within 15 calendar days after receipt from the Contractor. If additional time is required, the Owner shall notify the Contractor within the 15-day period and provide the reason for the delay and the expected date of the decision. The Owner will process VECPs expeditiously; however, it shall not be liable for any delay in acting upon a VECP.
- (2) If the VECP is not accepted, the Owner shall notify the Contractor in writing, explaining the reasons for rejection.
- (3) The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Owner.
- (4) Any VECP may be accepted, in whole or in part, by the Owner's award of a change order to this contract, citing this subsection. The Owner may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a change order incorporates a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The Owner's decision to accept or reject all or any part of any VECP shall be final and not subject to disputes or otherwise subject to litigation.

(f) **Cost Sharing.**

- (1) **Rates.** The Owner's share of savings is determined by subtracting the Owner's costs from instant contract savings and multiplying the result by 50 percent. The Contractor's share shall be the remaining 50 percent.
- (2) **Payment.** Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a change order to this contract to accept the VECP, reduce the contract price or estimated cost by the amount of instant contract savings, and provide the Contractor's share of savings by adding the amount calculated to the contract price.

- (G) **Subcontracts.** The Contractor may include an appropriate value engineering clause in any subcontract. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Owner under this contract, but shall exclude any value engineering incentive payments; provided that these payments shall not reduce the Owner's share of the savings resulting from the VECP.

**105.1 - Authority of Engineer:**

Add the following:

**105.1.1 - Engineer's Evaluation:** Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to subsections 105.3.1 and 106.4, but such time shall not exceed 20 calendar days. 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 105.3.1 and 106.4(B) 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.

**105.3 - Conformity with Plans and Specifications:**

Add the following :

**105.3.1 - 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 106.4(B).

**105.5.1 - Partnering:**

The Owner intends to encourage the foundation of a partnering relationship with the Contractor and its subcontractors. This partnering relationship will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient contract performance, intended to achieve completion within budget, on schedule, and in accordance with plans and specifications.

This partnering relationship will be bilateral in makeup. Any cost associated with effectuating partnering will be covered by the Bid Item. The partnering workshop shall be scheduled after award of the contract, and prior to the Notice to Proceed, and shall be facilitated by a third party competent in the fundamentals of partnering, and mutually acceptable to Contractor and owner. The Contractor shall be responsible for scheduling, coordinating, and hiring the third party facilitator and planning the partnering meetings. In order to achieve the desired partnering relationships, the Contractor will need to encourage attendance by its major subcontractors on the project. Follow-up workshops will be held periodically throughout the duration of the contract as agreed to by the Contractor and Owner.

An integral aspect of partnering is the resolution of disputes in a timely, professional, and non-adversarial manner. Alternative dispute resolution (ADR) methodologies will be encouraged in place of the more formal dispute resolution procedures. ADR will assist in promoting and maintaining and amicable working relationship to preserve the partnering relationship. ADR in this context is intended to be a voluntary, non-binding procedure available for use by the parties to this contract to resolve any dispute that may arise during performance.

Payment for Partnering will be made on the basis of invoices, and will be for a total amount not to exceed the amount shown in the bid schedule for the item.

**ITEM 105.1 - PARTNERING**

**Subsection 105.6 - Cooperation with Utilities:**

Add the following:

An attempt has been made to determine the location of all underground utilities and drainage pipes, culverts, and structures; however, it shall be Contractor's responsibility to cooperate with the pertinent utility companies so that any obstructing utility installation(s) may be adjusted. Should 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. 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 Contractor in contact with the proper personnel:

Flood Control District	506-1501	
City of Mesa	644-2251	
US West Communications	831-4647	
Location Staking (A.P.S. , U.S. West, S.R.P.)	263-1100	
Maricopa County Department of Transportation	506-8600	
Leisure World Community of Arizona	832-0003	(Mr. John Devner)

**Subsection 105.8 - Construction Stakes, Lines, and Grades:**

Add the following:

- A) Engineer will furnish the project survey control line together with a Bench Mark which the construction contractor will use to set line and grade for all construction. All other surveying required for the project shall be the contractor's responsibility. Engineer will not set any construction stakes.
- B) Before any construction work is started, Engineer shall perform all base surveys and cross sections of existing conditions that may be required as a basis for quantity determination.

**Subsection 106.1 - Source of Materials and Quality:**

Add the following:

Select Material, Aggregate Base, Mineral Aggregate, concrete, steel products and pipe shall be obtained from commercial sources. Contractor shall pay all royalties, or any other charges or expenses, incurred in connection with the securing and hauling of the material. Contractor will be required to furnish 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 106.4 - Trade Names and Substitutions:**

Replace with the following:

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

- 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 106.4 (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 Engineer will include the following and may be 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 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.

**Subsection 107.2 - Permits:**

Replace with the following:

Contractor shall obtain all permits and licenses, pay all charges, fees, taxes, and provide all notices necessary and incidental to the due and lawful prosecution of the work.

**Subsection 107.2 - Permits:**

Add the following:

**107.2.1 - NPDES Permit Requirements**

A) This project is subject to the National Pollutant Discharge Elimination System (NPDES) Storm water requirements for construction sites under the Environmental Protection Agency (EPA) General Permit for Arizona. Under provisions of that permit, the contractor shall be designated as permittee, and shall take all necessary measures to assure compliance with the NPDES General Permit for Arizona as well as all other applicable Federal, State and local laws, ordinances, statutes, rules and regulations pertaining to storm water discharge. As the permittee, the contractor is responsible for preparing, in a manner acceptable to the EPA, all documents required by this regulation, including but not necessarily limited to:

1. Storm water Pollution Prevention Plan (SWPPP) for the project, including certification of compliance form. Contractor shall be required to develop, implement, update and revise

the SWPPP, as necessary, in order to assure compliance with the EPA permit requirements. The SWPPP shall be retained on the project site at all times during construction.

2. Notice of Intent (NOI) to assure compliance with the NPDES General Permit for Arizona, including certification of signatures.
3. Notice of Termination (NOT) of coverage under NPDES General Permit for Arizona.

B) Preliminary copies of the NOI and the SWPPP shall be submitted to Owner during the preconstruction meeting and shall be subject to review by Owner prior to implementation.

C) Contractor shall submit the completed and duly signed NOI forms not less than forty-eight (48) hours prior to the initial start of construction on the project to the following agencies:

EPA Storm water Notice of Intent  
P.O. Box 1215  
Newington, VA 22122

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

Storm water Coordinator  
Arizona Department of Environmental Quality  
P.O. Box 600  
Phoenix, AZ 85001-0600

Failure by the contractor (or subcontractors of any tier) to submit NOI's within the mandated time frame shall result in delay of the construction start date, and no claim for extension of time will be granted for such delay. A copy of the completed NOI shall be posted at the construction site.

D) Inspections of all storm water pollution control devices on the project shall be performed by Contractor on a monthly basis and following each rainfall of 0.50 inches or more in a 24-hour period at the project site as required under provisions of the NPDES General Permit for Arizona. Contractor shall prepare reports on such inspections and retain the reports for a period of three years following the completion of the project. Inspection reports shall be submitted monthly to Owner along with progress payment requests. Additionally, contractor shall maintain all storm water pollution control devices on the project in proper working order, which shall include cleaning and/or repair during the duration of the project.

E) Contractor warrants that its employees and subcontractors of any tier and their employees shall at all times comply with all applicable laws, ordinances, statutes, rules and regulations set forth by all federal, state and local governments and the Environmental Protection Agency in connection with NPDES Permitting requirements and laws and regulations pertaining to air, groundwater and surface water quality.

Fines and penalties imposed by the EPA against Owner or the contractor, for contractor's failure to comply with any of the requirements of NPDES General Permit of Arizona, shall be borne by the contractor.

F) Upon project completion, acceptance and demobilization, contractor shall submit its completed, duly executed NOT form to the EPA, with a copy to the Arizona Department of Environmental Quality

(and the appropriate municipality), at the address listed in Section (B) above, thereby terminating all NPDES permit coverage for the project. Contractor shall then surrender to Owner copies of the SWPPP, inspection information and all other documents prepared and maintained by the contractor in compliance of the NPDES General Permit. Contractor shall retain the originals of such documents for a period of three (3) years following the completion of the project.

G) The Lump Sum price for the SWPPP shall include all material, labor, and all other costs relating to the preparation, installation and maintenance of the SWPPP during project construction, including assuring proper operation of the pollution control devices installed, and all maintenance, cleaning, and disposal costs associated with clean-up and repair following storm events, runoff or releases on the project. The Lump Sum price for the SWPPP shall be inclusive of all costs, and no additional claims shall be made by Contractor under any other specification provision of these documents, including Change Conditions. Payment for this bid item shall be upon final completion and acceptance of the project, as per Section 109.1.

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

Payment for NPDES/SWPPP permit requirements shall be made on the basis of lump sum for all work described in Subsection 107.2.1 for

**ITEM 107-1 - NPDES/SWPPP PERMITS**

**Subsection 107.5:**

Add the following:

The entire construction site shall be considered a "Hard Hat Area" and all personnel in the area will be required to wear a hard hat.

**Subsection 107.5.2 - Compliance with the Arizona Communication Standard:**

Add the following:

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

Contractor will provide 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 Contractor or by any subcontractors.

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

**Subsection 107.6.1 - Contractor's Marshaling Yard**

Add the following:

The Contractor may use the triangular parcel; owned by the District; bounded by Broadway Road (north), East Maricopa Floodway (south) and Broadway Road Collector Channel (east), to park and service equipment and store material for use on this project.

**Subsection 107.6.4 - Project Signs**

Contractor shall provide a project information sign at the beginning of the project informing the public of the forthcoming project, construction dates, and names of all agencies participating in the project. The sign shall be located at the Broadway Road at the vicinity of the project. The sign shall not be constructed or installed prior to the Engineer's approval of its design, size and proposed location. The Contractor shall maintain the sign as necessary, and update the information as requested by the Engineer. Payment shall be made according to the allowance in the Bidding Schedule in installments of 50% upon installation, and the remaining 50% upon final payment for the work.

**ITEM 107.2 - PROJECT SIGN ALLOWANCE**

**Subsection 107.10 - Contractor's Responsibility for Work:**

Add the following:

Contractor is advised that the work will be subject to flows of water of varying amounts. Owner assumes no responsibility for notifying Contractor of any anticipated flows, nor for any damages incurred by Contractor to its equipment or to any of the Contractor's work as a result of any flows of water.

**Subsection 108.1 - Notice to Proceed:**

Delete Paragraph (A) and replace with the following:

(A) Contractor shall commence work within seven (7) calendar days after the date of the Notice to Proceed and complete all work within One hundred (100) calendar days beginning the day following the effective date specified in the Notice to Proceed.

**Subsection 108.2 - Subletting of Contract:**

Add the following:

For this project, Contractor shall perform, with its own organization, work amounting to 50 percent or more of the total contract cost.

**Subsection 108.4 - Contractor's Construction Schedule:**

Delete in its entirety and replace with the following:

Contractor shall submit a proposed work schedule to the Engineer for review before starting work, using the Primavera or other program that is acceptable to the Engineer. Weekly updates shall be submitted to the District's Construction Coordinator at the weekly coordination meeting.

**Subsection 108.4.1 - Contractor's Billing Schedule:**

Add the following:

Contractor shall furnish the Engineer an Estimated Billing Schedule for the total project at the preconstruction conference, and thereafter at monthly intervals as agreed to between Contractor and Engineer.

**Subsection 108.5 - Limitation of Operations:**

Add the following:

Should Contractor elect to perform any work after regular working hours, on weekends, or legal holidays, "with or without written approval of Engineer", any charges incurred by Owner for inspection of the work, surveys or tests of materials will be deducted from monies due or to become due to Contractor.

**Subsection 108.9 - Failure to Complete on Time:**

Add the following:

The actual cost per calendar day incurred by Owner 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 Contractor for each and every calendar day that work shall remain incomplete after the time specified for the completion of the work in the proposal, or as adjusted by Engineer. Nothing contained in this provision shall prohibit Owner from deducting from monies due or to become due to Contractor for any other costs incurred by Owner directly attributable to the delay in completing this contract.

**Subsection 109.2 - Scope of Payment:**

Add the following:

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.

**Subsection 109.7 - Payment for Bond Issue and Budget Projects:**

Add the following.

(A) To third paragraph, add: Payment or release of retained funds shall be made to the contractor within thirty (30) days following final payment to the contractor (reference (B) following), and contractor furnishing to Engineer satisfactory receipts for all labor and material billed and waivers of liens from any and all persons and subcontractors holding claims against the work. Additionally, Contractor shall furnish a completed Certificate of Performance to Engineer evidencing it has satisfactorily discharged all its duties in connection with the work to be performed under this Contract. The form of Certificate of Performance shall be provided to Contractor by the Engineer.

(B) Delete second and third paragraphs and replace with: The final payment will be made to Contractor by Owner within thirty (30) days following receipt of Engineer's final estimate and receipt by Owner of Consent of Contractor's Surety to said final payment.

If payment will be longer than thirty (30) days as aforesaid, Owner will provide Contractor specific written findings for reasons justifying the delay in payment.



**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
FCD CONTRACT 97-38  
FCD PROJECT NO. 121010  
BROADWAY ROAD COLLECTOR CHANNEL**

**SPECIAL PROVISIONS**

**SECTION 201 - CLEARING AND GRUBBING**

Clearing and grubbing shall conform to Section 201 of the MAG Uniform Standard Specifications except as modified herein.

**Subsection 201.1 - Description**

Add the following to this subsection:

This work shall consist of clearing, grubbing, removing, and disposing of all trees, brush, stumps, roots, rubbish, debris, and other items not covered under contract items within the construction area. These items shall become the property of the Contractor and shall be disposed of off of the project right-of-way. Removal of miscellaneous structures and foundations is included under Section 350 - Removal of Existing Improvements of these Special Provisions.

**Subsection 201.5 - Payment, Clearing and Grubbing**

Replace this subsection with the following:

No payment will be made for clearing and grubbing. The cost of this item shall be included in the contract price bid for the construction or installation of related items to which such clearing and grubbing are incidental or appurtenant. Damages to existing facilities incurred during this work shall be repaired by the Contractor at no additional cost to the District.

**Subsection 201.6 - Measurement, Removal and Disposal of Trees**

Replace this subsection with the following:

No separate measurement will be made for the removal and disposal of trees.

**Subsection 201.7- Payment, Removal and Disposal of Trees**

Replace this subsection with the following:

No separate payment will be made for the removal and disposal of trees. The cost of this item shall be included in the contract price bid for the construction or installation of related items to which such clearing and grubbing are incidental or appurtenant.

**SECTION 202 - MOBILIZATION**

Add this section to the MAG Uniform Standard Specifications

**Subsection 202.1 - Description**

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 and operations that must be performed and costs incurred prior to beginning work on various items on the project site.

**Field Office:**

No field office will be required for this project.

**Subsection 202.1 - Payment**

Payment shall be made on the basis of the lump sum price bid and shall be full compensation for supplying and furnishing all materials, facilities, and services and performing all work involved as specified herein. The lump sum price bid shall not exceed three (3%) percent of the total project bid amount exclusive of mobilization.

**ITEM 202 -1 - MOBILIZATION**

**SECTION 211 - FILL CONSTRUCTION**

Fill construction shall conform to Section 211 of the MAG Uniform Standard Specifications and COP Supplement except as modified herein.

**Subsection 211.1 - Description**

Add the following:

Work under this item shall consist of filling to raise the grade for the maintenance access road along the west bank of the channel and to fill low areas along the channel.

**Subsection 211.3 - Compacting**

Fill construction shall conform to Section 211 of the MAG Uniform Standard Specifications and COP Supplement except as modified herein.

Compaction of exposed site soil, backfill, fill, and base course materials shall be accomplished to the following density criteria:

<u>Material</u>	<u>Minimum Percent Compaction (ASTM D698)</u>
Subgrade Soil:	
Below structural elements	95
Below Pavement	95
Within three (3) feet of existing perimeter walls	85
Backfill:	
Below channel lining	90
Restoration of channel bank	90
Against structures	90

Compaction of granular soil below the channel lining shall be accomplished at a moisture content between optimum minus 3 percent and optimum plus 3 percent.

On site undisturbed soils or compacted soils subsequently disturbed or removed by construction operations shall be replaced by materials compacted as specified above.

**Subsection 211.5 - Measurement**

Replace this Subsection with the following:

No measurement will be made for fill construction. The estimated quantity for fill is 750 cubic yards.

**Subsection 211.6 - Payment**

Replace this Subsection with the following:

No payment will be made for fill construction, the cost thereof shall be included in the price bid for the Channel Excavation to which such fill construction is considered incidental or appurtenant.

**SECTION 215 - EARTHWORK FOR OPEN CHANNELS**

Earthwork for open channels shall conform to Section 215 of the MAG Uniform Standard Specifications except as modified herein.

**Subsection 215.1 - Description**

Replace this subsection with the following:

Open channels for the purpose of this section shall mean open channels and exposed cuts. The work in this section consists of excavation, fill, grading, and disposal of excavated material for the construction of the channel. Excess material not used for fill construction shall be the property of the Contractor and shall be removed from the site or spread across the District's adjacent parcel west of the Broadway Road Channel. All material spread on the District's property shall be uniformly spread across the entire parcel in lifts not to exceed 8" and compacted to 85% optimum density. The approximate quantity of excavation is 4,600 CY.

**Subsection 215.7 - Measurement**

Replace this subsection with the following:

No measurement will be made for channel excavation.

**Subsection 215.8 - Payment**

Replace this subsection with the following:

Payment for excavation of material for the channel will be made on the basis of the lump sum price bid for the excavation and shall be full compensation for all construction equipment, labor, materials, surveying if necessary, and all incidentals necessary to accomplish the work in conformance to the plans.

**ITEM 215-1 - CHANNEL EXCAVATION**

*EARTH WORK FOR OPEN CHANNEL*

**SECTION 220 - RIPRAP CONSTRUCTION**

Riprap construction shall conform to Section 220 of the MAG Uniform Standard Specifications except as modified herein.

**Subsection 220.1 - Description**

Add the following:

The work shall consist of placing riprap with grout at the outlet of the channel in the invert and on the banks. The work shall be done in accordance with these specifications and in conformity with the lines and grades shown on the plans or established by the Engineer.

**Subsection 220.2 - Materials**

Add the following:

Rock used for riprap shall be sound and durable, free from shale seams, clay, grout, and any other objectionable coatings, cracks or other structural defects and shall have a specific gravity of at least 2.50. Control of gradation will be by visual inspection. No source of rock is designated. It shall be the Contractor's responsibility to negotiate for material, obtain the right-of-way and pay all applicable royalties and damages.

The source from which the rock will be obtained shall be selected at least 30 days in advance of the time when the rock will be required in the work. The acceptability of rock will be determined by the Engineer on the basis of visual inspection of samples of the rock furnished by the Contractor.

### Subsection 220.5 - Grouted Riprap

Add the following:

Excavate for placement of grouted riprap as indicated. Placement methods will minimize disturbance of the subgrade. Place stones into position following details indicated. Wash the stone free of fines or soil which would affect the grout bond. The concrete grout shall be placed by injection methods by pumping under low pressure, positive displacement methods, through a 2-inch maximum diameter hose to ensure complete penetration of the grout into the stone layer.

The grout shall be mixed in a concrete mixer in the manner specified for concrete, except that time of mixing shall be as long as is required to produce a satisfactory mixture, and the grout shall be used in the work within a period of 30 minutes after mixing. Retamping of the grout will not be permitted.

The operator shall be able to stop the flow of grout and will place grout in the voids and not on the surface rock. Clean and wash any spillage before the grout sets. A "pencil" vibrator will be used to make sure all voids are filled between and under rock. The intent is to fill all voids from the subgrade level through the rock layer. In all cases, grout must penetrate to subgrade. The pencil vibrator may be used to smooth the appearance of the surface.

The exposed surface of the completed grout layer shall be approximately <sup>4</sup>/<sub>2</sub> inches below the upper surface plane of riprap stone. Excess grout and grout splatter shall be removed from the exposed surfaces of the riprap without causing damage to the grouted riprap placement. After the grout has been placed, the portion of stone projecting above the grouted surface shall be cleaned by air-water blasting. Removal and cleanup of grout from the exposed surfaces of the riprap shall be done to the satisfaction of the Engineer. *add 4/13*

The Contractor shall submit a mix design of the grout at least 20 days prior to the placement. The grout mix shall be stiffened and other measures taken to retain the grout in steep locations.

The minimum 28-day compressive strength shall be 2,000 psi and the slump of grout mix shall be between 5 and 7 inches. The stone aggregate shall conform to the gradation requirements of Size Number 8 course aggregate (3/8 inch to No.8) as specified in ASTM C-33. A maximum of 30 percent of cementous material may be fly ash ( ASTM C-618, Type C or F).

Rock to be used for grouted riprap shall conform to the Riprap Gradation Table as specified herein.

Grouted Riprap Gradation Table	
Stone Size (in)	Percent Passing
12"	100
10"	70
8"	0

**Subsection 220.6 - Measurement**

Add the following:

Grouted riprap shall be measured by the cubic yard, in place, to the dimensions as shown on the plans.

**Subsection 220.7 - Payment**

Replace this subsection with the following:

Payment for grouted riprap shall be made on the basis of the price bid per cubic yard in place; within the limits of dimensions shown on the plans for bid items 220-1. Payment shall include labor, preparation of ground surfaces, excavation, riprap, weep holes, replacement of damaged areas, samples provided for the Engineer's approval and all other miscellaneous items required for riprap construction.

**ITEM 220-1 - GROUTED RIPRAP**

**SECTION 225 - WATERING**

Watering shall conform to Section 215 of the MAG Uniform Standard Specifications except as modified herein.

**Subsection 225.1 - Description**

Add the following:

The work under this section shall consist of furnishing and applying all water required for the control of dust, for the safety and convenience of the traveling public, and for the reduction of the dust nuisance to adjacent properties.

The Contractor shall obtain the necessary permits under the County Air Pollution Statues. It shall be the responsibility of the Contractor to keep the construction site moistened to prevent dust pollution to the air and adjacent properties.

**Subsection 225.5 - Payment**

No payment shall be made for the cost of watering. The cost of watering shall be included in the price bid for the construction operation to which such watering is incidental or appurtenant.

**SECTION 340 - CONCRETE CURB AND GUTTER**

Concrete curb and gutter, sidewalk shall conform to Section 340 of the MAG Uniform Standard Specifications except as modified herein.

**Subsection 340.1 - Description**

Add the following:

The work shall include the construction of concrete curb and gutter sections at the end of the paved maintenance road as identified in the plans.

**Subsection 340.6 - Payment**

Replace this subsection with the following:

Payment for concrete curb and gutter (MAG Det. 220 Type 'A') shall be made on the basis of the price bid per linear foot and shall be full compensation for all construction equipment, labor, materials, pavement removal and replacement if necessary, and all incidentals necessary to accomplish the work in conformance to the plans.

**ITEM 340-1 - CONCRETE CURB AND GUTTER**

**SECTION 350 - REMOVAL OF EXISTING IMPROVEMENTS**

Removal of existing improvements shall conform to Section 215 of the MAG Uniform Standard Specifications except as modified herein.

**Subsection 350.2 - Construction Methods**

Add the following:

All materials, unless designated on the plans, specified in these Special Provisions, or by the Engineer as to be salvaged, reused or relocated, shall become the property of the Contractor and shall be immediately removed from the job site.

**Subsection 350.3 - Miscellaneous Removal and Other Work**

The following items shall be added:

- (1) Removal of concrete slabs.
- (2) Removal of headwalls and aprons both inlet and outlet.
- (3) Removal of two 48 inch diameter CMP culverts.
- (4) Removal of grouted riprap.
- (5) Removal of fencing.

**Subsection 350.4 - Payment**

Replace this subsection with the following:

Payment for removal of miscellaneous items shall be made at the contract unit price per lump sum price bid for, and shall be full compensation for all labor, equipment, disposing of refuse and all other items that are incidental or appurtenant.

**ITEM 350-1 - REMOVAL OF EXISTING IMPROVEMENTS**

**SECTION 416 - PERMANENT BARRICADES:**

Add this Section to the MAG Uniform Standard Specifications.

**Subsection 416.1 - Description**

This work shall consist of providing a permanent barricade per detail placed in the location as depicted on the plans.

**Subsection 416.2 - Materials**

Posts shall be construction grade Douglas Fir free of heart centers. Posts shall be pressure treated after fabrication with oil borne pentachlorophenol, or coppernaphthenate, as provided in Section 779 of the MAG Uniform Standard Specifications. Post shall be placed at equal intervals as shown on the plans, except that the end posts may be closer to adjacent posts if directed by the Engineer.

The exposed portions of the wood posts and planks shall have a white wood primer, paint number 7, and two coats of white finish paint, paint number 8. The stripes shall have two coats of red finish paint, paint number 1. Materials and application shall be as specified in Section 530 and 790 of the MAG Standard Specifications.

**Subsection 416.3 - Measurement**

The barricade will be measured per barricade complete in place.

#### **Subsection 416.4 - Payment**

Payment will be made at the contract unit price per lump sum for furnishing material and installing a barricade complete in place, including excavation and backfill for posts and painting. Such payment shall be full compensation for furnishing all labor, tools, equipment, and accomplishing all work in conformity with the plans and specifications.

#### **BID ITEM 416-1- PERMANENT BARRICADES**

### **SECTION 505 - CONCRETE STRUCTURES:**

Concrete structures shall conform to Section 505 of the MAG Uniform Standard except as modified herein.

#### **Subsection 505.1- Description**

Add the following:

The work under this section shall consist of furnishing all labor, materials and equipment for the construction of a drop structure with wing walls, aprons, baffle blocks, stilling basin, footings, and retaining walls as located and indicated on the plans.

Concrete shall conform to the requirements of Section 725 of the MAG Uniform Standard Specifications, and mix designs shall additionally meet the requirements of Chapter 5, Section 5.3 of ACI STANDARD 318-89. The Contractor shall submit mix designs and certifications of conformance with the above requirements for the written approval of the Engineer. The Contractor shall submit a mix designs and certifications of conformance with the construction plan for any shotcrete work for approval at least 20 calendar days before beginning any shotcrete work.

Class "A" Concrete,  $f_c = 3,000$  psi, shall be used for all concrete structures and concrete channel lining.

The use of Class F fly ash will be permitted in all concrete mixes, subject to approval of mix design by Engineer.

Transit Concrete mixes used on the project must carry current certification from ADOT or Arizona Rock Products Association.

The reinforcing steel shall conform to Section 727, Grade 60, of the MAG Uniform Standard Specifications.

Weep holes shall be installed as shown on the plans.

Shop Drawings shall be submitted for the following:

1. Product Data: Admixtures and patching materials.
2. Placement Drawings: Reinforcing steel.

Do not backfill against walls until concrete has obtained 28-day compressive strength. Place backfill simultaneously on both sides of wall, where required, to prevent differential pressures.

#### **Subsection 505.5.4 - Placing Reinforcement**

Add this subsection:

The Contractor shall dowel the new channel lining into the existing box culvert at the beginning of the job. The dowels shall be size #6 bars @ 4' O.C. x 1'-8". The dowels shall be set in with epoxy that will develop a tensile strength of 13 kips.

#### **Subsection 505.6 - Placing Concrete**

Add the following:

Place concrete in accordance with ACI 301-89. Prior to placing concrete, remove loose soil and water from excavation and subgrade and debris and foreign material from forms. Obtain Engineer's approval of subgrade before placing reinforcing steel. Check reinforcing steel for proper placement and correct discrepancies. Before depositing new concrete on old concrete, clean surface using sandblast or bushhammer or other mechanical means to obtain a 1/4-inch rough profile. Maximum vertical drop to final placement shall be 6 feet, when not guided with chutes or other devices to prevent segregation caused by impact with reinforcing. Do not use aluminum pipe or aluminum conveying devices.

Steps performed in preparation for placing concrete shall meet requirements and recommendations of ACI 304R-89 and ACI 301-89, except as modified herein. Ends of chutes, piping, hopper gates, and other points of concrete discharge throughout the conveying, hoisting, pumping, and placing system shall be designed and arranged for concrete to pass without becoming segregated. Do not use chutes longer than 50 feet. The minimum slopes of chutes shall be angled to allow concrete to readily flow without segregation. Conveyor belts shall be approved by Engineer; wiped clean with device which does not allow mortar to adhere to belt; and conveyor belts and chutes covered.

Provide intermediate construction joints at maximum spacing of 30 feet. Should placement sequence result in cold joint, install water stop in joint.

Limit size of each placement to allow for strength gain and volume change caused by shrinkage. Minimum time between adjacent placements for construction of the spillway floor slab shall be seven (7) days.

Consolidate concrete with internal vibrators with minimum frequency of 8,000 cycles per minute and amplitude required to consolidate concrete in section being placed. Provide at least one standby vibrator in operable condition at placement site prior to placing concrete. Consolidation equipment and methods shall conform with the requirements of ACI 309R-87. Vibration consolidation shall not exceed a distance of 5 feet from point of placement. Vibrate concrete in vicinity of joints to obtain impervious concrete there.

When vibrating concrete, apply approved vibrator at points spaced not farther apart than vibrator's effective radius. Apply close enough to forms to vibrate surface effectively but not damage form surfaces. Vibrate until concrete becomes uniformly plastic. Vibrator must penetrate fresh placed concrete and into previous layer of fresh concrete below.

#### **Subsection 505.6.1 - Joints**

Add the following:

To new concrete wall horizontal construction joints, thoroughly clean and saturate joint with water. Cover horizontal wall surfaces with minimum 2 inches of Type C mortar, as specified in Section 776 of MAG, and immediately place concrete. Limit concrete lift placed immediately on top of mortar to

12 inches thick. Thoroughly vibrate to mix and consolidate mortar and concrete together.

To old concrete (greater than 60 days old), mechanically roughen existing concrete surfaces to a clean, rough surface using a "Blastrac" by Wheelabrator-Frye, Inc.; or "Porta-Shotblast" by Nelco Manufacturing Corp, to remove existing concrete surface, and provide a minimum roughness profile of 1/4-inch. Saturate surface with water for 24 hours, cover with 2 inches of mortar, and place mortar as specified for new concrete.

Construction joints shall be constructed as straight joints and made either vertical or horizontal. Concrete placement shall commence after the joint preparation is complete.

For construction joints, prior to placement of abutting concrete, clean contact surface by removing laitance and spillage from reinforcing steel and dowels. Then roughen surface to a minimum of 1/4-inch amplitude by either sandblasting after the concrete has fully cured, water blasting after the concrete has partially cured, or if the concrete is green, cutting the fresh concrete with high pressure water and hand tools.

#### **Subsection 505.8 - Curing**

Add the following:

Use one of the following methods as approved by Engineer.

Walls shall have only water curing procedures used. Method 1: Leave concrete forms in place and keep entire surfaces of forms and concrete wet for 10 days. Method 2: Cover with plastic and burlap and continuously sprinkle with water 100 percent of exposed surfaces for 10 days starting immediately after removal of forms.

Slabs shall use one of the following methods: Method 1: Protect surface by water ponding for 10 days; Method 2: Cover with burlap or cotton mats and keep continuously wet for 10 days; Method 3: Cover with 1-inch layer of wet sand, earth, or sawdust, and keep continuously wet for 10 days; or Method 4: Continuously sprinkle exposed surface for 10 days. Other agreed-upon methods that will keep moisture present and uniform at all times on surface of slabs. Curing compounds may be used.

#### **Subsection 505.9.6 - Finishing and Patching Surfaces**

Add the following new section:

When patching *defective* areas, remove *defective* concrete to a depth of sound concrete. Small shallow holes caused by air entrapment at surface of forms shall not be considered *defective* unless amount is greater than 1/2 inch in diameter or as stipulated by the Engineer. Obtain Engineer's approval of chipping work.

Cut out honeycombed and *defective* areas. Cut edges perpendicular to surface at least 1 inch deep. Do not feather edges. Patch with nonshrink grout as specified in Section 776. Finish surfaces to match adjacent concrete. Keep patches damp for minimum 7 days or spray with curing compound to minimize shrinking.

To patch form tie holes, fill with Category I grout as specified in Section 776. Use only enough water to dry pack. Compact grout using steel hammer and steel tool to drive grout to high density. Cure grout with water. Make sure color of patch after curing matches color of adjacent concrete.

**Subsection 505.10 - Payment**

Replace this subsection with the following:

Payment for the concrete structures shall be made at the contract unit price per cubic yard. Such payment shall be full compensation for the items complete in place, including costs of materials, labor, tools and equipment, concrete, rebar, dowels, epoxy, ties, form work, bracing, shoring, excavation, removal of obstructions, backfilling, compaction, testing, and performing all other work necessary to complete the items in accordance with the details shown on the plans, the requirements of the MAG Standard Specifications and Special Provisions.

**BID ITEM 505-1 - SPECIAL DROP STRUCTURE**

**BID ITEM 505-2 - CONCRETE HEADWALLS**

**SECTION 520 - STEEL HANDRAILS**

Steel handrails shall conform to Section 520 of the MAG Uniform Standard Specifications and COP Supplement except as modified herein.

**Subsection 520.1 - Description**

Add the following:

The work under this section shall include providing and erecting steel handrails as shown in the plans.

All steel handrails shall be painted in accordance with MAG Section 790. The paint color shall be a light brown in color as approved by the Engineer. A sample of the paint shall be submitted to the Engineer for approval at least 14 days prior to its use.

**Subsection 520.2 - Fabrication**

Add the following:

Safety railings shall be made of Schedule 40 steel pipe conforming to ASTM A53 or High Strength (HS) steel pipe conforming to ASTM A446, Grade D with coating conforming to ASTM F1234, Type B interior and Type B exterior with a minimum clear polymer coating thickness of 0.3 mils.

Pipe Posts and Pipe Rails for Safety Rails shall be Schedule 40 steel pipe of nominal 2-1/2 inch diameter (2-7/8" O.D.) conforming to ASTM A53; or HS steel pipe conforming to the above requirements with a nominal weight of 4.64lb/ft. Construction shall be continuous along the top of the concrete drop structure and wing walls. Rails shall be provided in 32 foot lengths or manufacturer's longest lengths (minimum of 24 foot lengths).

**Subsection 520.2 - Fabrication**

Add the following:

Jointing for Safety Railings shall be fabricated by one of the following methods:

- A. Flush-type rail fittings, welded and ground smooth with railing splice locks secured with 3/8 inch hexagonal-recessed-head setscrews.
- B. Mitered and welded joints made by fitting post to top rail and intermediate rail to post, mitering corners groove welding joints and grinding smooth. Railing splices shall be butted and reinforced by tight fitting interior sleeve not less than 6 inches long.

**Subsection 520.5 - Payment**

Payment for handrails shall be made on the basis of the price bid per linear foot. Payment shall be full

compensation for all labor, materials, equipment, welding, grouting, and painting, and all other items necessary to complete the work in place according to the plans and these Special Provisions.

**ITEM 520-1 - STEEL HANDRAILS**

**SECTION 525 - PNEUMATICALLY PLACED MORTAR (SHOTCRETE):**

Pneumatically placed mortar (shotcrete) shall conform to Section 525 of the MAG Uniform Standard Specifications except as modified herein.

**Subsection 525.1 - Description**

Add the following:

The work under this section shall consist of furnishing all material and pneumatically placing, by means of suitable equipment and competent operators, premixed concrete (wet mix process). The Contractor shall submit a mix design and construction plan for any shotcrete work for approval at least 20 calendars days before beginning any shotcrete work.

**Subsection 525.2 - Dry Mix Process**

Replace this subsection with the following:

Dry mix process is not an allowable process on this project.

**Subsection 525.6 - Surface Preparation**

Add the following:

Prior to placement of the shotcrete, the Contractor shall compact the existing banks as necessary to assure a firm subgrade. In areas where fill would be required to meet line and grade for the subgrade of the pneumatically placed mortar according to the plans, the mortar may be placed against the existing surface with the channel lining conforming to the existing surface without placing any fill as long as the nominal lining thickness is not compromised.

**Subsection 525.8 - Joints**

Add the following:

Construction joints shall be located at the end of the day's pour or when concrete placement stops for more than 45 minutes and between longitudinal paving strips. Longitudinal construction joints shall not be located less than 1-foot up the side slopes. Reinforcing steel shall be continuous through lining construction joints with the drop structure.

A sealed vertical expansion joint shall be provided between the lining and concrete box culvert at the beginning of the project and adjacent to the drop structure.

**Subsection 525.12 - Measurement and Payment**

Replace this subsection with following:

Measurement for shotcrete will be made according to the quantity of material placed measured from the subgrade to the finished grades shown on the plans. The Engineer will verify the quantities of mortar by a method which in his opinion is best suited to obtain an accurate determination.

Payment for the shotcrete will be paid for at the contract unit price per cubic yard in place; within the limits of the dimensions shown on the plans. Such payment shall be full compensation for furnishing all labor, tools, equipment, and accomplishing all work in conformity with the plans and specifications.

**BID ITEM - 525-1 - PNEUMATICALLY PLACED MORTAR (SHOTCRETE)**

STEEL REINFORCING.

**SECTION 526 - GEOCOMPOSITE DRAIN SYSTEM**

Add this section to the MAG Uniform Standard Specifications.

**Subsection 526-1 Description**

This work in this section shall consist of placing a geocomposite drain material underneath the shotcrete and along the walls of the drop structure facing the east embankment in accordance with the plans.

**Subsection 526-2 Placement**

The geocomposite shall be placed in a manner and at the location shown on the plans. The surface to receive the geocomposite shall be free of obstructions, depressions, and debris. The geocomposite shall be loosely laid and not placed in a stretched condition. All seams shall be overlapped or otherwise treated according to manufacturer's recommendation.

**Subsection 526.3 - Materials**

The Geocomposite Drain Material shall be of composite construction, consisting of a supporting structure of drainage core material and a geotextile filter fabric permanently bonded to each side of the core material. The geocomposite material shall be resistant to commonly encountered chemicals and hydrocarbons, and resistant to ultraviolet exposure.

The geocomposite drain material shall be Enkadrain 9812 or approved equivalent. The Contractor shall submit a sample of the geocomposite at least 20 days prior to placement.

The geotextile filter fabric shall be laminated onto or adhere to each side of the drainage core. The geotextile fabric shall meet the following minimum average roll values:

<u>PROPERTY</u>	<u>REQUIREMENT</u>	<u>TEST METHOD</u>
Weight, oz./sq. yd.	4.0	ASTM 3776
Grab tensile strength, lbs.	120	ASTM 4632
Grab elongation at break, %	50 min., 115 max.	ASTM 4632
Mullen burst strength, psi	250	ASTM 3786
Trapezoidal tear strength, lbs	45	ASTM 4533
Puncture strength, lbs	75	ASTM 4833
Permittivity, sec -1	1.4	ASTM 4491

The core material shall be minimum or 0.40 inches in thickness.

**Subsection 526.4 – Measurement**

The quantity of geocomposite drain shall be measured from six(6) inches below the bottom of the weep hole drains to the top of the lining and along the length of the channel. The measurement will be rounded to the nearest square yard. No measurement will be made for seams, overlaps, or anchoring that may be required.

**Subsection 526.5 – Payment**

Payment will be made for the geocomposite drain system on the basis of the price bid per square yard. Such payment shall be full compensation for furnishing all labor, tools, equipment, and accomplishing all work in conformity with the plans and specifications.

**BID ITEM 526-1- GEOCOMPOSITE DRAIN SYSTEM**