

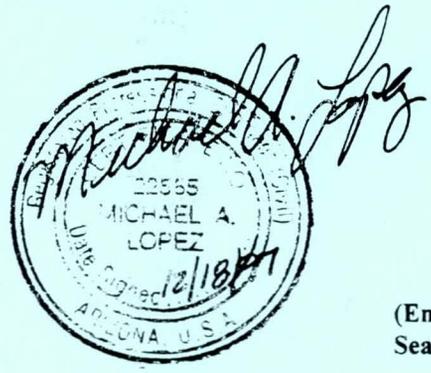
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CONSTRUCTION SPECIFICATIONS

FOR

C69.98.037.5

**CONTRACT FCD 97-34
Rittenhouse Channel, Phase II**



(Engineer's Seal)

Prepared For

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Recommended by: *Edward A. Raleigh* Date: *12/18/97*
Edward A. Raleigh, P.E., Manager
Engineering Division

Issued for Public Bidding by: *Michael S. Hegood* P.E. Date: *12-22-97*
for Michael S. Hegood, 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 THROUGH 1997.

CONSTRUCTION SPECIFICATIONS

FOR

CONTRACT FCD 97-34
Rittenhouse Channel, Phase II



(Engineer's
Seal)

Prepared For

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Recommended by:

Edward A. Raleigh

Date: 12/18/97

Edward A. Raleigh, P.E., Manager
Engineering Division

Issued for Public Bidding by:

Michael S. Ellegood

P.E. Date: 12-22-97

for

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 THROUGH 1997.

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 97-34
 Rittenhouse Channel, Phase II**

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(Area to left reserved
for Engineer's Seal)

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

INVITATION FOR BID

BID OPENING DATE: January 22, 1998

LOCATION: The Project is located within the City of Mesa and the Town of Queen Creek, Arizona

PROPOSED WORK:

The proposed work includes construction of an open channel along the north side of the railroad from Sossaman Road south to Queen Creek Road; and along the south side of Queen Creek Road from the railroad to east of Ellsworth Road past Queen Creek School. The channel in front of the Queen Creek School will be covered with a box culvert.

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 January 22, 1998 at which time they will be publicly opened and read. 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. Bids received after the time specified for bid opening will be rejected. 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:

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.

PRE-BID CONFERENCE:

A Pre-Bid Conference will be held on January 13, 1998 at 1:00 p.m. in the New River Conference Room at 2801 West Durango Street, Phoenix, Arizona. All contractors submitting bids are required to attend the pre-bid conference. Please be prepared at that time to submit in writing and discuss any comments concerning this solicitation.

QUESTIONS:

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.

CONTRACT TIME:

All work on this Contract is to be completed within two hundred ten (210) calendar days after date of Notice to Proceed.

MBE/WBE PARTICIPATION:

It is the policy of the Flood Control District of Maricopa County 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.

For this contract, a goal of ten percent (10%) 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.

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 \$30.00 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 \$37.50 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
185,506	CY	Earthwork for Open Channels
1,531	SY	Grouted Riprap, Type I
396	SY	Grouted Riprap, Type II
4,875	SF	Concrete Sidewalk
2,772	SY	Pavement
2,354	CY	Structural Concrete
12,007	SY	Gravel Mulch
3,814	SY	Shotcrete
1,210	LF	Irrigation Ditches (Concrete)
1,736	CY	4" ABC Maintenance Road
14,590	LF	4 Strand Barbless Wire Fence

BID

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

Gentlemen:

The following Bid is made for construction of the **Rittenhouse Channel, Phase II, FCD 97-34**, in the County of Maricopa, State of Arizona.

The following Bid is made on behalf of

R. E. Monks Construction Company

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 two hundred ten (210) 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. <u>1</u>	Dated <u>1-13-98</u>
Addendum No. <u>2</u>	Dated <u>1-20-98</u>
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____

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

Contract FCD 97-34

BID SCHEDULE

Rittenhouse Channel- Phase II

ITEM NO	DESCRIPTION	UNIT	APPROX. QTY	UNIT COST NUMBERS	EXTENDED AMOUNT
105	Partnering	LS	1	\$5,000.00	\$5,000.00
107-1	NPDES/SWPPP Permits	LS	1	10,000.00	10,000.00
107-2	Project Sign Allowance	LS	1	\$2,000.00	\$2,000.00
107-3	Ground Breaking Ceremony Allowance	LS	1	\$5,000.00	\$5,000.00
202-1	Mobilization	LS	1	35,000.00	35,000.00
215-1	Earthwork for Open Channels	CY	185,506	2.20	408,113.20
220-1	Grouted Rip-Rap (Downdrains)	SY	1,885	41.00	65,805.00
220-2	Grouted Rip-Rap, Type I	SY	7,573	31.00	235,724.00
220-3	Grouted Rip-Rap Type II (Drop Structure Basins)	SY	396	40.00	15,840.00
310-1	4" ABC Maintenance Road/ 2" ABC Driveway	CY	1,736	12.00	20,832.00
336-1	Pavement (4"AC/10"ABC)	SY	198	20.00	3,960.00
336-2	Pavement (3"AC/8"ABC)	SY	2,772	13.00	36,036.00
340-1	Concrete Sidewalk	SF	4,875	1.80	8,775.00
340-2	Concrete Curb & Gutter	LF	1,096	10.00	10,960.00
340-3	Concrete Ribbon Curb	LF	46	12.00	552.00
350-1	Remove Culvert	LF	322	25.00	8,050.00
350-2	Remove Headwalls	EA	3	500.00	1,500.00
350-3	Remove Catch Basin	EA	1	250.00	250.00
350-4	Remove Irrigation Line	LF	3,525	15.00	52,875.00
350-5	Remove Curb & Gutter	LF	80	3.25	260.00
350-6	Remove Chain Link Fence	LF	2,227	3.25	7,237.75
350-7	Relocate Hose Bib	EA	5	500.00	2,500.00
350-8	Remove Well Equipment	EA	1	8500.00	8,500.00

Contract FCD 97-34

BID SCHEDULE

Rittenhouse Channel- Phase II

ITEM NO	DESCRIPTION	UNIT	APPROX. QTY	UNIT COST NUMBERS	EXTENDED AMOUNT
415-1	Flexible Metal Guard Rail	LF	75	45.00	3,375.00
420-1	Chain Link Fence, 6'	LF	3,072	10.00	30,720.00
420-2	12' Chain Link Fence Gates (6' High Gates)	EA	6	750.00	4,500.00
420-3	14' Chain Link Fence Gates (6' High Gates)	EA	1	1000.00	1,000.00
420-4	Chain Link Fence, 4'	LF	257	15.00	3,855.00
420-5	Install Salvaged Rolling Gate	EA	1	1,365.00	1,365.00
420-6	Install Salvaged Double Gates	EA	5	500.00	2,500.00
421-1	4 Strand Barbless Wire Fence	LF	14,590	2.00	29,180.00
430-1	Gravel Mulch	SY	12,000 194,863	1.30	138,271.90
505-1	Structural Concrete (for Box Culverts and Wing Walls) MAG Class "AA"	CY	2,354	210.00	494,340.00
505-2	Structural Concrete (Channel, Drop Structures) MAG C	CY	250	350.00	87,500.00
505-3	Replace Irrigation Ditches (Concrete)	LF	1,210	12.00	14,520.00
505-4	Catch Basin	EA	2	1000.00	2,000.00
525-1	Pneumatically Placed Mortar (shotcrete)	SY	3,814	18.00	68,652.00
610-1	Waterline Relocation	LF	52	100.00	5,200.00
618-1	24" RGRCP Downdrain	LF	441	50.00	22,050.00
618-2	18" RGRCP	LF	1,231	35.00	43,085.00
618-3	24" RGRCP	LF	2,352	40.00	94,080.00
618-4	26" Irrigation Line Dip Section	EA	1	15,000.00	15,000.00
625-1	Pressure Manhole	EA	1	2,500.00	2,500.00
TOTAL BID AMOUNT WITTEN IN NUMBERS:					2,008,463.85
TOTAL AMOUNT WRITTEN IN WORDS:					Two Million Eight Thousand Four Hundred Sixty Three & 85/100

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)

R. E. Monks Construction Company
(Firm Name)

P.O. Box 17959, Fountain Hills, AZ 85269
(Firm Address)

By: [Signature] Vice President 1-22-98
(Signature - Title) (Date)

602-837-3684
(Telephone Number)

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

Robert E. Monks - President
Daniel B. Monks - Ex. Vice President
Richard D. Monks - Vice President

P.O. Box 17959, Fountain Hills, AZ 85269
P.O. Box 17959, Fountain Hills, AZ 85269
P.O. Box 17959, Fountain Hills, AZ 85269

** 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)

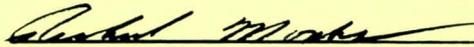
(Address)

* 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.

- Salt River Sand & Rock
- Brown & White
- Paradise Rebar
- Janus Concrete, Inc


(Signature)

SURETY BOND

KNOW ALL MEN BY THESE PRESENTS:

R. E. MONKS CONSTRUCTION COMPANY, LLC.

That we, 16646 East Laser Drive, * as Principal, (hereinafter called the Principal), and the UNITED STATES FIDELITY AND **, a corporation duly organized under the laws of the State of Maryland, as Surety, (hereinafter called the Surety), are held and firmly bound unto the Flood Control District of Maricopa County as Oblige, 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.

* Fountain Hills, Arizona 85268

WHEREAS, the said Principal is herewith submitting its proposal for Contract FCD-97-34, Rittenhouse Channel, Phase II.

** GUARANTY COMPANY, Baltimore, Maryland

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 22nd day of January, A.D., 1998.

HRH of Denver
Agency of Record, State of Arizona
455 Sherman Street, Suite 390
Denver, Colorado 80203-4404
Agency Address

Attest: Maribeth Kleser

By: Maribeth Kleser

Bond Number: Not Applicable

ATTACH SURETY POWER OF ATTORNEY

Contract FCD FCD 97-34

R. E. MONKS CONSTRUCTION COMPANY, LLC.
Principal

By: Richard D. Monks
(Printed Name) (Signature)

Title: Vice President

UNITED STATES FIDELITY AND GUARANTY
Surety COMPANY

By: Celeste Moore
Celeste Moore
Title: Attorney-in-Fact

United States Fidelity and Guaranty Company



Power of Attorney

No. 110335

Know all men by these presents: That **United States Fidelity and Guaranty Company**, a corporation organized and existing under the laws of the State of Maryland and having its principal office at the City of Baltimore, in the State of Maryland, does hereby constitute and appoint **Courtney T. Peterson, Leon B. Dartois, James S. Rosulek, J.R.Richards and Celeste Moore**

of the City of Denver , State of Colorado its true and lawful Attorneys-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety to, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof on behalf of the Company in its business of guaranteeing the fidelity of persons; guaranteeing the performance of contracts; and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, the said **United States Fidelity and Guaranty Company**, has caused this instrument to be sealed with its corporate seal, duly attested by the signatures of its Vice President and Assistant Secretary, this 2nd day of May , A.D. 19 97.



United States Fidelity and Guaranty Company,

(Signed) By [Signature] Vice President

(Signed) By [Signature] Assistant Secretary

State of Maryland)

SS:

Baltimore City)

On this 2nd day of May , A.D. 19 97 , before me personally came Gary A. Wilson, Vice President of **United States Fidelity and Guaranty Company**, and Thomas E. Huibregtse, Assistant Secretary of said Company, with both of whom I am personally acquainted, who being by me severally duly sworn, said, that they, the said Gary A. Wilson and Thomas E. Huibregtse were respectively the Vice President and the Assistant Secretary of the said **United States Fidelity and Guaranty Company**, the corporation described in and which executed the foregoing Power of Attorney; that they each knew the seal of said corporation; that the seal affixed to said Power of Attorney was such corporate seal, that it was so affixed by order of the Board of Directors of said corporation, and that they signed their names thereto by like order as Vice President and Assistant Secretary, respectively, of the Company.

My Commission expires the 1st day of August A.D. 19 98.



(Signed) By [Signature] Notary Public

This Power of Attorney is granted under and by authority of the following Resolutions adopted by the Board of Directors of the **United States Fidelity and Guaranty Company** on September 24, 1992:

Resolved, that in connection with the fidelity and surety insurance business of the Company, all bonds, undertakings, contracts and other instruments relating to said business may be signed, executed, and acknowledged by persons or entities appointed as Attorneys-in-Fact pursuant to a Power of Attorney issued in accordance with these resolutions. Said Powers) of Attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman, or the President, or an Executive Vice President, or a Senior Vice President, or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the foregoing officers and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and subject to any limitations set forth therein, any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is validly attached.

Resolved, That Attorney(s)-in-Fact shall have the power and authority, and, in any case, subject to the terms and limitations of the Power of Attorney issued to them, to execute and deliver on behalf of the Company and to attach the seal of the Company to any and all bonds and undertakings, and other writings obligatory in the nature thereof, and any such instrument executed by such Attorney(s)-in Fact shall be as binding upon the Company as if signed by an Executive Officer and sealed and attested to by the Secretary of the Company.

I, Thomas E. Huibregtse, an Assistant Secretary of the **United States Fidelity and Guaranty Company**, do hereby certify that the foregoing are true excerpts from the Resolutions of the said Company as adopted by its Board of Directors on September 24, 1992 and that these Resolutions are in full force and effect.

I, the undersigned Assistant Secretary of the **United States Fidelity and Guaranty Company**, do hereby certify that the foregoing Power of Attorney is in full force and effect and has not been revoked.

In Testimony Whereof, I have hereunto set my hand and the seal of the **United States Fidelity and Guaranty Company**, on this 22nd day of January , 19 98



[Signature]
Assistant Secretary

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: 72943 that my privilege license number (as required by A.R.S. Section 42-1305) is:

07560797-H; and that, if any exemption to the above licensing requirements is claimed;

(1) The basis for the claimed exemption is: Tangible personal property to be resold in ordinary course of business 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.

B. E. Monks
Signature of Licensee

Date: 1-22-98

Company: B. E. Monks Construction 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 506-8656. 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 is furnished herein**, 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 506-8656.

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.

R.E. Monks Construction Company
Name of Firm

By: [Signature]
Signature

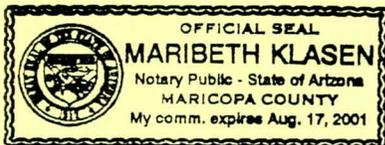
Vice President
Title

STATE OF AZ)
County of Maricopa))ss

Subscribed and sworn to before me this 22nd day of Jan, 1998.

[Signature]
Notary Public

My Commission Expires: 3-17-2001



**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).

R.E. Monks Construction, L.L.C.

Name of Contractor

Project/Contract Number 97-34
 Contract MBE/WBE Goal: 10 %

Total Amount of Contract \$ 2,0008,463.85

Bill Kelton

Contact Person

16646 E. Laser Dr.
 Street No.

Ftn Hills AZ 85268
 City State Zip

Minority/Women Owned Firm	Principal	Address	Type of Work	Contract Percentage
<u>Janus Concrete, Inc</u>	<u>Alexander Orosco</u>	<u>PO Box 90397, Phx AZ 85066</u>	<u>Curb/Sidewalk</u>	<u>1.0</u>
<u>Brown & White, Inc</u>	<u>Peter A. Granillo</u>	<u>PO Box 8759 Phx AZ 85066</u>	<u>Fence/Guardrail</u>	<u>3.1</u>
<u>Paradise Rebar, Inc</u>	<u>Joel L. Raschke</u>	<u>PO Box 86458 Phx AZ 85080</u>	<u>Rebar Placing</u>	<u>6.8</u>

TOTAL (Dollars/Percentage) \$219,563.71/10.9

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]
 Signature
Vice President
 Title
01-29-98
 Date

STATE OF ARIZONA }
 County of Maricopa }

Subscribed and sworn to before me this 29 day of January by Maribeth Klasek
 Notary Public

My commission Expires: Aug. 17 2001

**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 20th day of Feb, 1998 by and between the Flood Control District Of Maricopa County, hereinafter called the Owner, acting by and through its Board of Directors, and R. E. Monks Construction Company, LLC, hereinafter called the Contractor.

WITNESSETH: That the said Contractor, for and in the consideration of the sum of **Two million, eight thousand, four hundred sixty-three dollars and eighty-five cents (\$2,008,463.85)** 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 97-34, Rittenhouse Channel, Phase II**, 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 two hundred ten (210) 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:

R. E. MONKS CONSTRUCTION COMPANY

By: Richard D. Monks
Printed Name

By: *Richard D. Monks* 2/9/98
Signature Date

Title: Vice President

84-1425505

Tax Identification Number

Party of the Second Part:

FLOOD CONTROL DISTRICT OF
MARICOPA COUNTY
PARTY OF THE SECOND PART

By: *Jan Brewer* 2/20/98
Chairman, Board of Directors Date

ATTEST:
Jan Brewer 2/20/98
Clerk of the Board 102297 Date

RECOMMENDED BY:

11159111 2/13/98
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: *Julie M. Lemmon* 2/11/98
District, General Counsel Date

**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: Bond No. 19-0120-13277-98(5)
R. E. MONKS CONSTRUCTION COMPANY, LLC UNITED STATES FIDELITY
That, _____ hereinafter called the Principal, as Principal, and AND GUARANTY COMPANY
_____ a corporation organized and existing under the laws of the State of Maryland, with its
principal office in the City of Baltimore (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 two million, eight thousand, four hundred sixty-three dollars and eighty-five cents
(\$2,008,463.85), 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 _____, 1998, for Contract FCD 97-34, Rittenhouse
Channel, Phase II, 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 5th day of Feb., 1998.

HRH of Denver
Agency of Record, State of Arizona

Address: 455 Sherman Street, Suite 390
Denver, Colorado 80203-4404
Phone: (303) 722-7776

BOND NUMBER: 19-0120-13277-98(5)

COUNTERSIGNED BY: ARIZONA RESIDENT
AGENT

By: Karen K. Ranger
Karen K. Ranger
Minard-Ames Insurance Group
4130 East Van Buren Street, Suite 350
Phoenix, Arizona 85008

R. E. MONKS CONSTRUCTION COMPANY, LLC.
16646 E. Laser Dr., Fountain Hills, AZ
Principal Richard Monks 85268

By: Richard D Monks
Printed Name and Signature

Title: Vice President

Attest By: Paul Crocker

UNITED STATES FIDELITY AND GUARANTY
Surety COMPANY Seal

By: Celeste Moore
Celeste Moore

Title Attorney-in-Fact

United States Fidelity and
Guaranty Company
P O Box 7
Denver, Colorado 80201

United States Fidelity and Guaranty Company



Power of Attorney

No. 110335

Know all men by these presents: That **United States Fidelity and Guaranty Company**, a corporation organized and existing under the laws of the State of Maryland and having its principal office at the City of Baltimore, in the State of Maryland, does hereby constitute and appoint **Courtney T. Peterson, Leon B. Dartois, James S. Rosulek, J.R.Richards and Celeste Moore**

of the City of Denver , State of Colorado its true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety to, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof on behalf of the Company in its business of guaranteeing the fidelity of persons; guaranteeing the performance of contracts; and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, the said **United States Fidelity and Guaranty Company**, has caused this instrument to be sealed with its corporate seal, duly attested by the signatures of its Vice President and Assistant Secretary, this 2nd day of May , A.D. 19 97.

United States Fidelity and Guaranty Company.



(Signed) By [Signature] Vice President

(Signed) By [Signature] Assistant Secretary

State of Maryland)

SS:

Baltimore City)

On this 2nd day of May , A.D. 19 97 , before me personally came Gary A. Wilson, Vice President of **United States Fidelity and Guaranty Company**, and Thomas E. Huibregtse, Assistant Secretary of said Company, with both of whom I am personally acquainted, who being by me severally duly sworn, said, that they, the said Gary A. Wilson and Thomas E. Huibregtse were respectively the Vice President and the Assistant Secretary of the said **United States Fidelity and Guaranty Company**, the corporation described in and which executed the foregoing Power of Attorney; that they each knew the seal of said corporation; that the seal affixed to said Power of Attorney was such corporate seal, that it was so affixed by order of the Board of Directors of said corporation, and that they signed their names thereto by like order as Vice President and Assistant Secretary, respectively, of the Company.

My Commission expires the 1st day of August A.D. 19 98.



(Signed) By [Signature] Notary Public

This Power of Attorney is granted under and by authority of the following Resolutions adopted by the Board of Directors of the **United States Fidelity and Guaranty Company** on September 24, 1992:

Resolved, that in connection with the fidelity and surety insurance business of the Company, all bonds, undertakings, contracts and other instruments relating to said business may be signed, executed, and acknowledged by persons or entities appointed as Attorney(s)-in-Fact pursuant to a Power of Attorney issued in accordance with these resolutions. Said Power(s) of Attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman, or the President, or an Executive Vice President, or a Senior Vice President, or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the foregoing officers and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Attorney(s)-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and subject to any limitations set forth therein, any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is validly attached.

Resolved, That Attorney(s)-in-Fact shall have the power and authority, and, in any case, subject to the terms and limitations of the Power of Attorney issued to them, to execute and deliver on behalf of the Company and to attach the seal of the Company to any and all bonds and undertakings, and other writings obligatory in the nature thereof, and any such instrument executed by such Attorney(s)-in Fact shall be as binding upon the Company as if signed by an Executive Officer and sealed and attested to by the Secretary of the Company.

I, Thomas E. Huibregtse, an Assistant Secretary of the **United States Fidelity and Guaranty Company**, do hereby certify that the foregoing are true excerpts from the Resolutions of the said Company as adopted by its Board of Directors on September 24, 1992 and that these Resolutions are in full force and effect.

I, the undersigned Assistant Secretary of the **United States Fidelity and Guaranty Company**, do hereby certify that the foregoing Power of Attorney is in full force and effect and has not been revoked.

In Testimony Whereof, I have hereunto set my hand and the seal of the **United States Fidelity and Guaranty Company**, on this _____ day of _____, 19____.



[Signature]
Assistant Secretary

INDEMNIFICATION

To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the Flood Control District of Maricopa County, Maricopa County, the City of Mesa, the Town of Queen Creek, and the Queen Creek School District, 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 \$3,000,000 for each occurrence with a \$3,000,000 Products and Completed Operations Limit and \$3,000,000 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 \$3,000,000 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, 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.

All Certificates of Insurance required by this Contract shall be identified with a contract number and title. A \$25.00 administrative fee shall be assessed for all Certificates received without the appropriate contract number and title.

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
CERTIFICATE OF INSURANCE**

CONTRACT FCD 97-34

PROJECT TITLE: Riverbank Channel Phase II

NAME AND ADDRESS OF INSURANCE AGENCY Lockton Companies of CO., Inc. 4500 Cherry Creek Drive South Suite 400 Denver, CO 80246-1532 (303) 753-2000	INSURANCE COMPANIES AFFORDING COVERAGES	
	Company Letter	A Travelers Indemnity Amer.
	Company Letter	B Travelers Indemnity ILL.
	Company Letter	C Indemnity Ins. of N.A.
	Company Letter	D
	Company Letter	E
NAME AND ADDRESS OF INURED R.E. Monks Construction P.O. Box 17959 Fountain Hills, AZ 85268	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	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY FORM <input checked="" type="checkbox"/> PREMISES OPERATIONS 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	470N4893TIA-97	2/1/98	5/1/98	GENERAL AGGREGATE PRODUCTS/COMPLETED OPERATIONS Personal and Adv. Injury PERSONAL INJURY EACH OCCURRENCE	\$2,000,000 \$2,000,000 \$1,000,000 \$1,000,000 \$1,000,000
B	<input checked="" type="checkbox"/> COMPREHENSIVE AUTO LIABILITY & NON-OWNED	469P6097TIL-97	5/1/97	5/1/98	EACH OCCURRENCE	\$1,000,000
B	<input checked="" type="checkbox"/> EXCESS LIABILITY	CUP469P6097 TIL-97	5/1/97	5/1/98	NECESSARY IF UNDERLYING NOT ABOVE MINIMUMS	\$4,000,000
C	<input checked="" type="checkbox"/> WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY	C4234610A	5/1/97	5/1/98	STATUTORY <small>state minimum</small>	\$1,000,000
	<input type="checkbox"/> ENGINEERS PROFESSIONAL LIABILITY				EACH CLAIM AND ANNUAL AGGREGATE	
A	<input checked="" type="checkbox"/> OTHER	In addition to the Flood Control District, add Maricopa County, the City of Mesa, Arizona and the Town of Queen Creek 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 intermediaries. 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 1/15/98

William M. O'Connell
 AUTHORIZED REPRESENTATIVE

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
CERTIFICATE OF INSURANCE**

CONTRACT FCD 97-34

PROJECT TITLE: Rittenhouse Channel, Phase II

NAME AND ADDRESS OF INSURANCE AGENCY

Rockton Companies of CO., Inc.
4500 Cherry Creek Drive South
Suite 400
Denver, CO 80246-1532

INSURANCE COMPANIES AFFORDING COVERAGES

Company Letter	A	Travelers Indemnity Amer.
Company Letter	B	Travelers Indemnity ILL.
Company Letter	C	Indemnity Ins. of N.A.
Company Letter	D	Firemans Fund
Company Letter	E	
Company Letter	F	

NAME AND ADDRESS OF INSURED

L.E. Monks Construction
P.O. Box 17959
Fountain Hills, AZ 85268

I hereby 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	
	COMMERCIAL GENERAL					
<input checked="" type="checkbox"/>	LIABILITY FORM	470N4893TIA	5/1/97	5/1/98	GENERAL AGGREGATE	\$2,000,000
<input checked="" type="checkbox"/>	PREMISES OPERATIONS				PRODUCTS/COMPLETED OPERATIONS	\$2,000,000
<input checked="" type="checkbox"/>	CONTRACTUAL				PERSONAL AND ADV. INJURY	\$1,000,000
<input checked="" type="checkbox"/>	BROAD FORM PROPERTY DAMAGE				PERSONAL INJURY	\$1,000,000
<input checked="" type="checkbox"/>	EXPLOSION & COLLAPSE				EACH OCCURRENCE	\$1,000,000
<input checked="" type="checkbox"/>	PRODUCTS/COMPLETED OPERATIONS HAZARD				In addition to the Flood Control District, add Maricopa County of Mesa, Arizona and the Town of Queen Creek as Additional named Insured.	
<input checked="" type="checkbox"/>	UNDERGROUND HAZARD					
<input checked="" type="checkbox"/>	INDEPENDENT CONTRACTORS					
<input checked="" type="checkbox"/>	PERSONAL INJURY					
	COMPREHENSIVE AUTO					
<input checked="" type="checkbox"/>	LIABILITY & NON-OWNED	469P6097TIL-97	5/1/97	5/1/98	EACH OCCURRENCE	\$1,000,000
<input checked="" type="checkbox"/>	EXCESS LIABILITY	CUP469P6097 TIL-97	5/1/97	5/1/98	NECESSARY IF UNDERLYING NOT ABOVE MINIMUM	\$4,000,000
<input checked="" type="checkbox"/>	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY	C4234610A	5/1/97	5/1/98	STATUTORY each accident	\$1,000,000
<input type="checkbox"/>	ENGINEERS PROFESSIONAL LIABILITY				EACH CLAIM AND ANNUAL AGGREGATE	
D	<input checked="" type="checkbox"/> Builders Risk	TBD	1/28/98	1/28/99	\$3,000,000 Limit \$1,000 Deductible Special Form	

Except for Professional Liability Insurance and Workers' Compensation Insurance, the Flood Control District of Maricopa County is added as an additional insured on all 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 indemnitees. 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 02/04/98

Revsd 2/4/98

William M. O'Connell
AUTHORIZED REPRESENTATIVE

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FCD CONTRACT 97-34
FCD PROJECT No. 480012
RITTENHOUSE CHANNEL, PHASE II**

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, including all revisions through 1997.

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 Manager of the Flood Control District of Maricopa County Planning and Project Management 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 its 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 102.4 - Examination of the Plans, Special Provisions, and Site Work: Add the following:

The soil boring logs (included in the plans) and geotechnical report are available for review at the Owner's office, and the Contractors are encouraged to do so. Existing moisture conditions shall be no basis for claim for additional monies or time extensions. The Contractor shall manipulate the existing soil as required to achieve stable soil conditions and the required densities, as well as safe and stable side slopes during construction activities.

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: Add the following:

A list of subcontractors and suppliers (including any MBE/WBE participation) intended to be employed 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 form of 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 104.1 - Work to be Done:

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 to 104.1.1:

Any concrete box culvert related activities in front of the Queen Creek School shall be completed between May 23rd through August 3rd, 1998 (From Sta. 234+00 to Sta. 246+00).

At all times during the construction, the Contractor shall provide a minimum of one access point to access the School bus parking lot from Queen Creek Road.

At all times during the construction, the Contractor shall be responsible for maintaining the irrigation canals operational and functional. The Contractor shall not interrupt delivery of irrigation water through the irrigation canals to the impacted farmers.

The waterline (as shown on the plans) parallel to the box culvert in front of the Queen Creek School may be relocated before constructing the concrete box culvert. Extreme caution shall be taken during the waterline relocation when school is in session. Queen Creek School District shall be notified at least 48 hours in advance of any waterline shut-off.

At Sta. 245+28, the Contractor shall cap the existing abandoned well site per ADWR guidelines.

The Contractor shall notify MCDOT at least 7 days in advance before starting construction at following MCDOT roadway crossings: 1) Ellsworth Road 2) Germann Road and 3) Sossaman Road.

The Queen Creek School District shall be notified at least 7 days in advance of any construction activities in front of Queen Creek School. The contact person for the School District is Mr. Mike Gross (987-8794).

The Town of Queen Creek may be installing a sanitary sewer line along the south side of the channel from Ellsworth Road to the Railroad. The Contractor shall coordinate and cooperate with the sewerline Contractor to minimize delaying the Contractor's channel construction schedule.

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 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).

Subsection 105.5 - Cooperation of Contractor: Add the following:

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 strength 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. 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 an 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 of actual costs, 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 of Maricopa County, Fred Fuller	(602) 506-4728
Town of Queen Creek Dick Schaner	(602) 987-9887
Queen Creek School District Mike Gross	(602) 987-8794
Queen Creek Irrigation District Dean Griffith	(602) 987-3002
Southwest Gas Company (SWG) Robert Sprague	(602) 484-5306
US West Communications (USW) Millie Franks	(602) 630-3552
SRP George Mrocckiewicz	(602) 236-0795

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.
- C. The Contractor shall submit original construction surveyor's notes duly signed by a Registered Land Surveyor to the Engineer at the end of the project. Copies of the survey notes shall be submitted to the Engineer during construction as and when requested.
- D. As-Built plans sealed by an Engineer registered in the State of Arizona shall be provided by the Contractor to the Owner prior to project close out.

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 106.5 - Contractors Marshaling Yards: Add the following:

The Contractor can use the vacant property (RR-16) owned by the District south of Germann Road, northeast of the Railroad and west of Hawes Road as shown in attached Exhibit "A".

The Contractor shall obtain approval of the Engineer when using any other vacant property to park and service equipment and store materials for use. The Contractor will obtain prior written approval of the property owner for such use and submit a copy of the approval to the Engineer prior to use of the property.

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.

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 107.4 - Archeological Reports: Add the following:

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the Contractor, or any person working on his behalf, shall be immediately reported to the Engineer. The Contractor shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Engineer. An evaluation of the discovery will be made by the Engineer and the Salt River Project and/or Bureau of Reclamation Archaeologist to determine appropriate actions to prevent the loss of significant cultural or scientific resources.

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 107.6.4 - Project Signs:

Contractor shall provide and install two project information signs, one at each end of the project, before beginning construction to inform the public of the forthcoming project, construction dates, and suggested alternate travel routes. Project signs shall include the names of all agencies participating in the project. Signs shall be constructed in accordance with the "Project Sign Information" drawing to be provided to the Contractor at the pre-construction meeting. The signs shall be installed at the location(s) approved by the Engineer. The Contractor shall maintain the signs 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 SIGNS ALLOWANCE

Subsection 107.9 - Protection and Restoration of Property:

The construction within Temporary Construction Easement shall be restored in a clean and well graded manner at the completion of construction.

The Contractor shall protect in place all of the utility poles and any other improvements located within Railroad rights-of-way.

Subsection 107.10 - Contractor's Responsibility for Work: Add the following:

The Contractor shall be responsible to complete his work in front of the Queen Creek School within the time frame listed in Subsection 104.1

The Contractor shall confirm locations of lateral irrigation pipes to Queen Creek School property prior to commencement of demolition or excavation. The Contractor shall contact Mr. Dean Griffith of Queen Creek Irrigation District at 987-3002.

The small diameter waterline shown on plan sheets 31, 32 and 33 is approximately located. The Contractor shall confirm locations and relocate as necessary. The Contractor shall contact school maintenance staff at 987-8794 prior to commencement of excavation or demolition.

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 107.10.1 - Ground Breaking and Dedication Ceremonies Allowance

Contractor shall provide services, materials, transportation, and amenities as required by the Owner for both a Project ground breaking ceremony and a dedication ceremony. Coordination of all Project ground breaking and dedication ceremony services, materials, transportation, and amenities will be provided by the Owner.

Payment will be based on original invoices, to be delivered to the Owner, and will be for a total amount not to exceed the amount shown in the bid schedule for "**Ground Breaking and Dedication Ceremonies Allowance**". All costs shall be deducted from the aforementioned bid schedule allowance. To cover the administrative expenses associated with this task, the Contractor may add an amount equal to not more than five percent (5%), including applicable sales taxes, of the total approved sum as invoiced. This administrative cost will be considered included in the "Ground Breaking and Dedication Ceremonies Allowance".

Item 107.3 - GROUND BREAKING AND DEDICATION CEREMONIES ALLOWANCE

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 two hundred ten (210) 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 which shall include an estimated amount of each billing 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.

(C) The Contractor's representative and the Engineer shall make a determination of the monthly pay quantities on the last Wednesday of each month. The monthly pay estimate shall then be signed by the Contractor and submitted to the Engineer on the first day of the next month.

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FCD CONTRACT 97-34
FCD PROJECT NO. 480012
RITTENHOUSE CHANNEL - PHASE II**

SPECIAL PROVISIONS

SECTION 201 - CLEARING AND GRUBBING

In addition to the requirements of the Standard Specifications:

Subsection 201.1 Description

Shall be revised to add the following:

The work consists of removing fencing, concrete structures, concrete rubble, trees, shrubs and other objectional material as necessary for the construction of this project excavation. Items which are labeled remove and salvage, or reuse, or install, or salvage to Owner shall be removed with special care not to damage the item. If the Owner rejects the salvaged item, it shall be salvaged to the Flood Control District or become the property of the Contractor at the Engineer's direction. The District shall provide a list of Owner contacts for items to be salvaged to Owner. The Contractor shall deliver items to the location specified by the Owner so long as the location specified is within 2 miles of the project limits. All items removed from the project which are not salvaged to Owner shall be the property of the Contractor and shall be disposed of in accordance with Federal, State, County, and municipal regulations. Prior to starting his work, the Contractor must verify the location of existing utilities. Utility relocations will be completed by the utility Owner except as noted on the plans.

No separate measurement or payment will be made for clearing and grubbing. This item is incidental to Item 215-1, Earthwork for Open Channels.

SECTION 202 - MOBILIZATION

Contractors Field Office

The work shall consist of providing and maintaining a furnished Field Office for the exclusive use of the Engineer and the Engineer's staff.

The Contractor shall provide a field office for the duration of the project. The field office may be located on the project site or otherwise with the approval of the Engineer. The office may be in the same building or trailer as office space of the Contractor, provided that such office is separated from the area used by the Contractor by a wall with a locking door. The office shall also have its own door to the outside.

The office shall have a minimum of 150 square feet. The office shall be fully equipped and shall be in place and acceptable to the Engineer not later than 10 days after the issuance of the Notice to Proceed (NTP). The office shall be provided and maintained by the Contractor until seven (7) days after the project acceptance by the District.

The Contractor shall provide hookups and continuous service for electricity, telephone, air conditioning, heating, and water service. All utility costs, except long distance calls made by the Engineer, shall be the responsibility of the Contractor. Permits and hook up fees for the office are the responsibility of the Contractor.

The room for use by County Personnel shall be equipped with the following:

- a. Lights: Electric non-glare type lighting to provide adequate illumination at desk height.
- b. Heating and cooling: Capable of maintaining an air temperature of 72 degree F.

- c. 1 - Office desk with locking drawers and padded swivel chair.
- d. 4 - Folding office chairs.
- e. 2 - 3' x 5' tables.
- f. 1 - Dry erase board.
- g. 1 - Office phone.
- h. 1 - Office fax machine with separate phone line.
- I. Maintenance: The Contractor shall maintain all the facilities and furnished equipment in good working condition.

Subsection 202.1 - Payment

Shall be revised to add the following:

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 206 - STRUCTURAL EXCAVATION AND BACKFILL

In addition to the requirements of the Standard Specifications:

Subsection 206.1 Description

Structure excavation and backfill shall conform to Section 206 of the Uniform Standard Specifications except as modified herein. The work consists of the removal, placing and compaction of material around the channel structures to the lines designated on the plans or as directed by the Engineer.

Subsection 206.2 Foundation Material Treatment

Shall be revised to add the following:

If foundation material below concrete or grouted riprap structures is unsuitable, as determined by the Engineer, the Contractor shall over-excavate the bottom of the trench as directed and replace the over-excavation with compacted backfill. Where the original surface is below the base of the structure, all fill required for the structural foundation shall be placed as compacted backfill.

All fill about the structure above the base of the structure to lateral dimensions 1 foot outside of the structure and within slopes of one to one to the finished surfaces of adjacent earthwork shall be placed as compacted backfill. All material placed for foundation material shall be compacted to a minimum of 95 percent maximum density.

Subsection 206.4 Structural Backfill

Shall be revised to add the following:

Structure backfill behind the drop structures, box culvert, and wing walls shall consist of free-draining granular material and shall not contain stones larger than three inches in diameter, with from 5 to 12 percent passing a #200 sieve and a PI less than 4. Material obtained from project excavations may not be suitable for use in structure backfill construction. Structure backfill shall be placed in horizontal lifts not to exceed six inches in compacted thickness and shall be compacted to a minimum of 95 percent of the maximum density at the optimum moisture content ± 3 percent as determined in accordance with ASTM D-2922 and D-3017. Compaction equipment or methods which may cause excessive displacement or may damage structures shall not be used. Hand-operated compaction equipment shall be used adjacent to structures.

The maximum equipment loading allowed over any structure, existing or new, shall be HS-20 loading (16,000 pound wheel load) in accordance with the "Standard Specifications for Highway Bridges", AASHTO latest edition. Construction equipment that exerts a larger load on the top of the structure shall not be allowed to travel over the

structure at any time until a method for protecting the structure from the larger loading is approved by the Engineer.

No separate measurement or payment will be made for foundation material, structure excavation or structure backfill. These items are incidental to Bid Items of Section 505-Concrete Structures of these Special Provisions.

SECTION 211 - FILL CONSTRUCTION

In addition to the requirements of the Standard Specifications:

Subsection 211.3 Compacting

Shall be revised to add the following:

Fills which are not within the project right-of-way will be compacted to 85% of the maximum density. Fills within the project right-of-way will be compacted to a minimum of 90% of maximum density or as required in Sections 206 or 215. All rills and jugholes shall be filled and compacted to a minimum of 90% of maximum density.

No separate measurement or payment will be made for fill construction. The cost of fill construction shall be considered incidental to Bid Item 215-1 - Earthwork for Open Channels.

SECTION 215 - EARTHWORK FOR OPEN CHANNELS

In addition to the requirements of the Standard Specifications:

Subsection 215.1 Description

Shall be revised to add the following:

Excess material not used for fill construction shall be the property of the Contractor and shall be removed from the site. The Contractor shall provide documentation indicating the location to which excess material is to be disposed and that the Owner of said location has approved the use of the facility. The Contractor shall provide for continued access to private property during and after grading of the right-of-way has been completed.

Subsection 215.4 Fill and Backfill

Shall be revised to add the following:

At the time of compaction, the moisture content of the material to be used in fill areas shall be such that the specified compaction will be obtained and the fill will be firm and unyielding. Material containing excessive moisture shall not be compacted until the material is dry enough to obtain the required compaction. Compensation for additional work involved in drying fill material to the required moisture content shall be considered as included in the contract price for "Earthwork for Open Channels" and no additional compensation will be allowed.

Subsection 215.7 Measurement

Shall be revised to add the following:

Earthwork for channel excavation shall be measured by the cubic yard and shall be calculated to the finished lines of the channel. Over-excavation for grouted riprap, sill walls, crest walls, wing walls, drop structures or any other items will not be measured or paid for and shall be considered incidental to the construction of that item.

Subsection 215.8 Payment

Shall be revised to add the following:

Earthwork for open channels will be measured to the neat lines of the compacted, finished channel surface by the cubic yard as listed in Bid Item 215-1.

Payment will be made for the cubic yards calculated as described above, and shall include clearing, stripping,

excavation, fill, backfill, compaction, grading, haul, removal and disposal of excess excavated material, all costs of labor and all other work not specifically covered that is incidental.

ITEM 215 -1 - EARTHWORK FOR OPEN CHANNELS

SECTION 220 - RIPRAP CONSTRUCTION

Riprap construction shall conform to Section 220 of the MAG Uniform Standard Specifications Except as modified herein by adding the following:

Subsection 220.1 - Description

The construction of grouted riprap shall consist of furnishing and placing stone and grout as shown on the plans and specified in the special provisions. Sacked concrete riprap shall not be allowed.

Grouted riprap is specified as for downdrains, Type I, Type II or Type III as shown on the plans and specified here and in Section 703.

Subsection 220.2 - Materials

Concrete for all grouted riprap shall be an approved batch per MAG Standard Specifications and shall develop a minimum 2500 psi compressive strength within 28 days.

Subsection 220.4 - Plain Riprap

The construction of plain riprap shall consist of furnishing and placing the stones as shown in the plans and as specified in the special provisions.

Subsection 220.5 - Grouted Riprap

The appearance of the grouted riprap is important for this project. The grout shall be colored desert tan. The contractor shall submit a color for the grout for review and approval by the District. The grout shall fully penetrate the entire depth of the riprap. The finished surface shall have no more than 4 inches of stone protruding above the grout. However, in areas where the grouted riprap is to provide a smooth driving surface no more than 2 inches of stone shall protrude above the grout.

Excavate for placement of grouted riprap as indicated. Placement methods will minimize disturbance of the subgrade. Place stones in position following the details. Wash the stones free of fines or soil which would affect the grout bond. Placement of grouted riprap through water will not be permitted. 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 operator shall be able to stop the flow of grout and will place grout in the voids and not on the surface of the stone. 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 stone layer. In all cases, grout must penetrate to subgrade. The pencil vibrator may be used to smooth the appearance of the surface.

The stone for riprap shall have a size as specified in Section 703 of these Special Provisions. When a construction note does not specify the type of grouted riprap the contractor shall use Type I stone. Grouted riprap shall have a minimum thickness as listed in Table 220-1 when measured perpendicular to the surface on which it is placed. Grouted riprap shall be placed in a single layer.

Table 220-1

Riprap Type	Minimum Thickness
Type I	1'-4"
Type II	1'-6"

The Contractor shall provide a ten foot (10') by ten foot (10') square sample of grouted riprap for inspection and approval by the District, a minimum of two (2) weeks before beginning placement of the grouted riprap. The Contractor shall use Type II stone for the sample and shall demonstrate the techniques used to achieve full penetration grouting. The Contractor shall also submit a mix design for the grout indicating the type of color used and the quantity. The grout shall have a slump of no less than 7 inches and no more than 9 inches and shall contain a plasticizer.

After completion of any area of grouted riprap, no workman or other load shall be permitted on the grouted riprap for a period of 24 hours. Vehicles shall be kept off of the grouted riprap for a period of 7 days after the grout has been placed. The grouted surface shall be protected from injurious action of the sun; shall be protected from rain, flowing water, and mechanical injury; and shall be moist cured or membrane cured at the Contractor's option. The grout shall be cured for a period of 7 days following placement. Grouted riprap damaged before the project has been completed shall be removed and replaced at the direction of the Engineer.

Subsection 220.7 Measurement

Shall be revised to add the following:

Grouted riprap shall be measured by the square yard of the finished exposed surface as shown on the plans. The measurement shall be to the neat line as delineated on the plans to the nearest square yard and shall not include toe down areas.

Subsection 220.8 Payment

Shall be revised to add the following:

Payment for grouted riprap, and plain riprap shall be by the square yard in place; within the limits of dimensions shown on the plans. Payment shall include labor, preparation of ground surfaces, excavation, riprap, grout, color, curing, replacement of damaged areas, samples provided for the Engineer's approval and all other miscellaneous items required for grouted riprap construction.

ITEM 220-1 - GROUTED RIPRAP (Downdrains)

ITEM 220-2 - GROUTED RIPRAP, TYPE I (Drop Structures or Open Channel Protection)

ITEM 220-3 - GROUTED RIPRAP, TYPE II ((Drop Structures Basins)

SECTION 225 - WATERING

In addition to the requirements of the Standard Specifications:

Subsection 225.1 Description

Replace Section 225.1 of the Standard Specifications with the following:

The work performed under this contract shall include applying all water required for the control of dust as considered necessary in the execution of the work, including excavation, and on roads used to haul materials, for the safety and convenience of the traveling public, for the reduction of the dust nuisance to adjacent property, and as may be directed by the Engineer.

The Contractor shall obtain the necessary permits required under the County Air Pollution Statutes. It shall be the responsibility of the Contractor to keep the construction site moistened to prevent pollution of air, water and adjacent property.

Subsection 225.3 Construction Equipment

Shall be revised to add the following:

The use of pressure pumps and spray bars on all sprinkling equipment used for the application of water will be required. The use of gravity flow spray bars and splash plates will not be permitted.

Subsection 225.5 Payment:

There is no pay item for watering. This item is incidental to Item 215-1 Earthwork for Open Channels.

SECTION 310 - UNTREATED BASE

Replace Section 310 of the Standard Specifications with the following:

Subsection 310.1 Description:

Aggregate base course, also referred to as ABC, shall be placed in a 4-inch layer for the maintenance roads and turn around areas, where shown on the design plans.

Subsection 310.2 Materials:

Materials for use as ABC shall be in accordance with Section 702 - Base Materials of the Standard Specifications, Table 702.

Subsection 310.3 Placement:

The ABC may be placed and compacted in a single layer. After distributing, the base material shall first be watered and then immediately bladed to a uniform layer that will net, after rolling, the required thickness. If the materials deposited are not uniformly blended together, the blading operation shall be continued to such extent as may be necessary to eliminate segregation. The quantity of water applied shall be that amount which will assure proper compaction resulting in a relative density of not less than 100 percent as determined under Section 301 of the Standard Specifications. Care shall be exercised in connection with watering operations to avoid wetting the subgrade or any lower base course to detrimental extent.

Upon completion, the base surface shall be true, even and uniform, conforming to the grade and cross-section shown on the design plans.

ABC may vary not more than 1/2 inch above or below required grade and cross-section.

Subsection 310.4 Measurement:

Quantities of ABC shown on the design plans are measured by the cubic yard, based upon the actual dimensions shown. No allowance is made for spalling or waste beyond those limits.

Subsection 310.5 Payment:

Payment shall be by the cubic yard in place, to the dimensions shown on the design plans. for Item 310-1 of the Bid Schedule. Such payment shall be compensation in full for materials, transportation, miscellaneous earthwork, labor, equipment, placement, watering, and roller compaction.

ITEM 310-1 - 4" ABC MAINTENANCE ROAD/ 2" ABC DRIVEWAY

SECTION 336 - PAVEMENT MATCHING AND SURFACING REPLACEMENT

In addition to the requirements of the Standard Specifications:

Subsection 336.2.4 Permanent Pavement Replacement

Shall be revised to add the following:

Pavement shall be Type D½ per Table 710 in Section 710. Aggregate base course shall be per Table 702, Aggregate Base, in Section 702. Pavement removed for construction shall be replaced in accordance with MAG Standard Detail 200, Type D and MAG Standard Detail 201, Type B. Pavement replacement shall include a ten-inch (10") layer of aggregate base course compacted to 100 percent of the maximum density under four inches (4") of asphalt concrete or an eight-inch (8") layer of aggregate base course compacted to 100 percent of the maximum density under three inches (3") of asphalt concrete. Placement and compaction of the asphalt concrete pavement will be per MAG Section 321.5.4, Asphalt Base and Surface Course.

Subsection 336.4 Measurement

Replace with the following:

The Contractor shall mark the limits of pavement removal and shall have them approved by the Engineer before removing any existing pavement. No measurement will be made for pavement removed or damaged beyond the limits approved by the Engineer.

Subsection 336.5 Payment

Replace with the following:

Payment for pavement matching and surfacing replacement shall be the square yard of the completed pavement section as approved by the Engineer and as described in these Special Provisions.

ITEM 336-1 - PAVEMENT (4"AC/10"ABC)

ITEM 336-2 - PAVEMENT (3"AC/8"ABC)

SECTION 340 - CONCRETE CURB, GUTTER, SIDEWALK, DRIVEWAY AND ALLEY ENTRANCE

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

Subsection 340.1 - Description

Add the following:

The work shall include the construction of concrete curb and gutter sections and sidewalk to replace and match existing curb, gutter, and sidewalk removed for the construction of the channel as identified in the plans.

Subsection 340.6 - Payment

Replace this subsection with the following:

Payment for concrete sidewalk (MAG Det. 230) shall be made on the basis of the price bid per square foot and shall be full compensation for all construction equipment, labor, materials, and all incidentals necessary to accomplish the work in conformance to the plans. .

ITEM 340-1 - CONCRETE SIDEWALK

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 340-2 - CONCRETE CURB AND GUTTER

Payment for concrete ribbon curb (MAG Det. 220 Type 'B') 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 340-3 - CONCRETE RIBBON CURB

SECTION 350 - REMOVAL OF EXISTING IMPROVEMENTS

Removal of existing improvements shall conform to Section 350 of the MAG Uniform Standard Specifications except as modified herein.

Subsection 350.1 - Description

Add the following:

The work includes the removal and disposal of existing culverts underneath Germann and Sossaman Roads and the removal of grouted riprap and other obstacles to construction, unless it is specifically called out on the plans to be removed and salvaged or protected in place. Holes, cavities and trenches resulting from the removal of structures shall be backfilled if necessary in accordance with Sections 206 and 211. The disposal of all waste material removed under this item shall be the responsibility of the Contractor. The disposal site shall be approved by the Engineer.

If a Maricopa County landfill is selected for the disposal of waste materials and/or debris, a Maricopa County Landfill Use Permit will be required. Application for permit can be made at the Maricopa County Landfill Office, located at 2801 West Durango Street, Phoenix, Arizona 85009 (telephone (602) 269-2661). Charges will be levied on a volume basis for each load delivered to the landfill in accordance with the current fee schedule.

Subsection 350.2 - Construction Methods

Add the following:

Removal of chain link fences, gates, and razor wire shall be carefully dismantled and neatly rolled or coiled. Posts shall be cleaned of all concrete and dirt. The work shall be done in accordance with Section 201. The work required to relocate hose bibs shall be done in accordance with Section 107.

Subsection 350.3 - Miscellaneous Removal And Other Work

Add the following:

The work includes the removal, salvage, and reinstallation of the traffic sign and post and school entry sign, the removal of chain link fence, gates, and razor wire and salvage to the owner, the relocation of hose bibs, the removal and disposal of existing irrigation lines of all sizes, and the removal of well equipment including pump, motor, and other appurtenances and power pole.

Subsection 350.4 - Payment

Replace this subsection with the following:

No separate payment shall be made for the removal of trees; the cost is incidental to Item 215-1 Earthwork For Open Channels.

No separate measurement or payment will be made for the removal and disposal of existing AC pavement; the cost is incidental to Item 215-1 Earthwork For Open Channels.

No separate measurement or payment will be made for the removal, salvage and reinstallation of the traffic sign and post and school entry sign; the cost is incidental to Item 215-1 Earthwork For Open Channels.

No separate payment will be made for the removal and disposal of existing irrigation junction or turnout structure; the work is incidental to Item 350-4 Removal of Existing Irrigation Line.

No separate payment will be made for the removal, disposal or plugging of the existing abandoned delivery line; the work is incidental to Item 350-4 Removal of Existing Irrigation Line.

No separate payment will be made for the removal and salvage of the existing precast safety curb; the work is incidental to Item 350-5 Remove Existing Curb and Gutter.

No separate payment will be made for salvaging riprap as such; the cost thereof shall be considered incidental to the work that such removal is incidental or appurtenant.

Payment for removal and disposal of the existing culverts shall be made on the basis of the price bid per linear foot. Payment shall be full compensation for furnishing all labor, materials, tools and equipment, removal, hauling, disposal and all other items necessary to accomplish the work.

ITEM 350-1 - REMOVE CULVERTS

Payment for removal and disposal of the existing headwalls and drainage structures shall be made on the basis of the price bid per each. Payment shall be full compensation for furnishing all labor, materials, tools and equipment, removal, hauling, disposal and all other items necessary to accomplish the work.

ITEM 350-2 - REMOVE HEADWALLS

ITEM 350-3 - REMOVE CATCH BASIN

Payment for removal and disposal of the existing Irrigation line shall be made on the basis of the price bid per linear foot. Payment shall be full compensation for furnishing all labor, materials, tools and equipment, removal, hauling, disposal and all other items necessary to accomplish the work.

ITEM 350-4 - REMOVE IRRIGATION LINE

Payment for removal and disposal of the existing curb and gutter shall be made on the basis of the price bid per linear foot. Payment shall be full compensation for furnishing all labor, materials, tools and equipment, removal, hauling, disposal and all other items necessary to accomplish the work.

ITEM 350-5 - REMOVE CURB AND GUTTER

Payment for removal and salvage of the existing chain link fence, gates, and razor wire shall be made on the basis of the price bid per linear foot of chain link fence. No separate payment will be made for removal and salvage of gates, posts, or razor wire as such; the cost thereof shall be considered incidental to the removal and salvage of the chain link fence. Payment shall be full compensation for furnishing all labor, materials, tools and equipment, removal, hauling, salvage and all other items necessary to accomplish the work.

BID ITEM 350-6 - REMOVE CHAIN LINK FENCE

Payment for relocation of existing hose bibs shall be made on the basis of the price bid per each. No separate payment will be made for the relocation of the existing water line as such; the cost thereof shall be considered incidental to the relocation of the hose bib. Payment shall be full compensation for furnishing all labor, materials, tools and equipment, and all other items necessary to accomplish the work.

BID ITEM 350-7 - RELOCATE HOSE BIB

Payment for removal of well equipment including pump, motor, and other appurtenances including power pole shall be made on the basis of the price bid per each. No separate payment will be made for the removal of above ground irrigation pipe and appurtenances and capping of lines as such; the cost thereof shall be considered incidental to the removal of well equipment. Payment shall be full compensation for furnishing all labor, materials, tools and equipment, removal, hauling, disposal, and all other items necessary to accomplish the work.

BID ITEM 350-8 - REMOVE WELL EQUIPMENT

SECTION 401 - TRAFFIC CONTROL

In addition to the requirements of the Standard Specifications:

401.1 Description

Shall be revised to add the following:

Separate traffic control plans will be required for Germann Road, Sossaman Road and Ellsworth Road.

Approval of the traffic control plan for Sossaman Road must be received from the City of Mesa and the Flood Control District. Approval of the traffic control plan for Germann Road and Ellsworth Road must be obtained from the Maricopa County Dept. of Transportation and the Flood Control District.

No separate measurement or payment will be made for traffic control; the cost thereof shall be included in the item that traffic control is incidental.

SECTION 410 -PRECAST SAFETY CURBS

Subsection 410.1 - Description

Add the following:

The work shall consist of installing salvaged precast safety curb as shown on standard details or as detailed on the plans, or as directed by the Engineer.

Subsection 410.4 - Measurement

No measurement will be made for the installation of salvage precast safety curb.

Subsection 410.5 - Payment

No payment will be made for the installation of salvage precast safety curb; the cost is incidental to Item 340-2 Concrete Vertical Curb and Gutter, 6".

SECTION 415 - FLEXIBLE METAL GUARDRAIL

In addition to the requirements of the Standard Specifications:

Subsection 415.1 Description

Shall be revised to add the following:

Flexible metal guardrail shall be installed in accordance with Maricopa County Department of Transportation Standard Details 2037, 2039, 2040, 2041 and 2043 as shown on the plan drawings and details.

Subsection 415.2 Measurement

Measurement will be per linear foot per the Standard Specifications.

Subsection 415.3 Payment

Payment for furnishing materials and installing guard rails complete, in place, including excavation and backfill for the posts and painting will be made on the basis of the price bid per linear foot.

ITEM 415-1 - FLEXIBLE METAL GUARD RAIL

Section 420 - Chain Link Fences

In addition to the requirements of the Standard Specifications:

Subsection 420.1- Description

Shall be revised to add the following:

Chain link fences and gates will be constructed in accordance with MAG Standard Detail 160 and the plan drawings. All gates shall have an opening width of fourteen feet (14'), shall be double swing and made with chain link fence.

Subsection 420.2 - Materials

Shall be revised to add the following:

Each gate shall be supplied with a two foot (2') length of G30, one quarter (0.25) inch stock chain. Chain link fence materials shall conform to Section 772. Posts, rails and braces shall conform to Section 772.2, Type A.

Subsection 420.4 - Measurement

Shall be revised to add the following:

Subsection 420.5 - Payment

Shall be revised to add the following:

ITEM 420-1 - CHAIN LINK FENCE, 6'

ITEM 420-2 - 12' CHAIN LINK FENCE GATES, 6'

ITEM 420-3 - 14' CHAIN LINK FENCE GATES, 6'

ITEM 420-4 - CHAIN LINK FENCE, 4'

ITEM 420-5 - INSTALL SALVAGED ROLLING GATES

ITEM 420-6 - INSTALL SALVAGED DOUBLE GATES

SECTION 421 - BARBLESS WIRE FENCE

Add Section 421 - Barbless Wire Fence to the Standard Specifications.

Subsection 421.1 Description: The work under this section shall consist of furnishing all materials and constructing 4-strand barbless wire fence in accordance with the details shown on the plans. Fences shall be as shown on the plans and shall be constructed in accordance with the requirements of these specifications.

Barbless wire fence shall be built in accordance with the plan details.

Subsection 421.2 Materials:

General: All fencing material will be sampled and tested in accordance with methods used by ADOT and will require written approval by the District prior to being incorporated into the work.

Posts and Braces: Line posts shall conform to the requirements of ASTM A-702. Lengths of posts shall be 6'-6". The type of posts furnished shall be tee posts.

End, corner and pull posts and braces shall conform to the requirements of ASTM A-702, for uprights and braces.

Posts and braces shall be painted Rugby Tan (Griggs Paint, Color Number M-44-3) or equal.

Concrete: Concrete for post footings shall be Class B conforming to the requirements of Section 725.

Barbless Fencing Wire: Barbless wire shall be 12-1/2 gauge twisted steel wire and shall be either zinc-coated or aluminum-coated. Zinc-coated steel wire shall conform to the requirements of ASTM A-121, Class 1 coating. Aluminum-coated steel wire shall conform to the requirements of ASTM A-585, Type I, Class 1 coating.

Stays and Fasteners: Stays shall be 9-1/2 gauge twisted wire designed for screw-on type installation. Stays shall be zinc-coated steel of good commercial quality. The minimum weight of zinc-coating shall be 0.3 ounce per square foot of uncoated wire surface.

Tie wires, hog rings and post clips shall be zinc-coated steel of good commercial quality and shall be of the same gauge as the fence fabric being fastened.

The minimum weight of zinc-coating shall be 0.3 ounce per square foot of uncoated wire surface.

Subsection 421.3 Construction Requirements:

General: In areas where there is livestock, the Contractor shall take all measures necessary to restrict the livestock to the land where it is being kept. The Contractor shall furnish all materials and construct temporary fence, gates and cattle guards as may be necessary to restrict the livestock as specified.

Existing fences that are to remain in place and which have been damaged by the Contractor's operations shall be replaced or restored by the Contractor at his expense in accordance with the provisions of Subsection 107.9 of the Standard Specifications.

The Contractor shall clear the fence lines of all earth, trees, brush and other obstructions which interfere with the proper construction of the fences, unless the District orders certain trees to remain in place. Clearing the fence line shall be within the right-of-way. Clearing the fence line is included in Section 201 work.

Fence shall be constructed on the right-of-way or as shown on the plans.

Setting Fence: Fence posts shall be spaced at the intervals and set to the depths shown on ADOT Standard Drawing C-12.10 as modified on the plans.

In determining the post spacing, measurements shall be made parallel to the ground slope, and all posts shall be placed in a vertical position, except in unusual locations where the District may direct that the posts be set perpendicular to the ground surface.

Line posts may be driven into undisturbed earth provided driving does not injure the posts. All voids around the post shall be backfilled and the material thoroughly tamped.

End, corner, and pull posts and braces shall be set in concrete footings crowned at the top to shed water.

Any high points which interfere with the placing of wire fence fabric shall be excavated to provide the clearance shown on the plans.

Changes in the horizontal alignment of the fence line where the angle of deflection is 15 degrees or more shall be considered as corners and a corner post assembly shall be installed. Changes in fence alignment where the angle of deflection is less than 15 degrees but more than five degrees shall be considered as alignment angles and diagonal tension wire shall be installed. The diagonal tension wires shall consist of two twisted steel wires and shall be attached to the adjacent line posts.

Where the fence line intersects a cross fence, the wires of the existing cross fence shall connect to an end post assembly as shown on the plans.

Connecting fence assemblies with braces for every direction of strain shall be placed at the junction with new fences.

Intermediate post assemblies shall be installed at not more than 650-foot intervals between other braced posts. After post assemblies have been placed, the barbless wire shall be pulled taut to the satisfaction of the District, and each longitudinal wire shall be cut and securely fastened to the braced post with devices customarily used for the purpose. Barbless wire shall not be carried past a post assembly, but shall be cut and fastened to the post independently of the adjacent spans. A maximum of two splices on barbless wire will be permitted between post assemblies, but not on the same wire. No splice shall be placed closer than 100 feet to any post assembly.

Where fence lines are interrupted by openings for gates and cattle guards, intermediate post assemblies shall be installed at both sides of the opening at a distance of one panel width from the end of the opening.

After the tensioning of the barbless wire between two post assemblies, all longitudinal wires shall be attached to each intervening line post at the height and spacing as shown on the plans. The distance from the bottom wire to the ground may vary at any one point from that shown on the plans four inches plus or minus for barbless wire fence and game fence. Where abrupt changes occur in the fence line grade, intermediate line posts may be required to maintain proper distances between the bottom wire and the ground.

Spacing of the twisted vertical wire stays shall be as shown on the ADOT Standard Drawing C-12.10. The vertical wire stays shall be woven into every horizontal wire.

At all grade depressions where stresses tend to pull the posts from the ground, the affected fence posts shall be anchored in concrete or the fence wires shall be weighted with concrete sag weights. The volume of concrete required to anchor the posts shall be not less than one cubic foot. Fence sag weights shall weigh not less than 100 pounds and shall be made with a wire loop hanger embedded in the concrete. A double strand of wire shall be attached to each horizontal line of barbless wire and tied to the wire loop hanger of the sag weight.

Flood Gates: Flood gates shall be constructed at the locations specified on the project plans or where designated by the District and in accordance with the details shown on the project plans. If the length of the flood gate is such that the District determines that line posts are needed, the posts shall be placed as necessary and driven to the depth required to keep the flood gate upright.

Flood gates shall be constructed to the same requirements specified for barbless wire fence construction, except that the concrete sag weights shall weigh 35 pounds.

Subsection 421.4 - Method of Measurement:

Wire fence will be measured by the linear foot. Measurement will be made along the top of the completed fence from outside to outside of end posts, excluding the widths of gate openings.

Flood gates will be measured by the linear foot. Measurement will be made on the fence line along the top wire from gate post to gate post as shown on the details, but exclusive of any gates.

Subsection 421.5 - Basis of Payment:

The accepted quantities of wire fence and flood gates, measured as provided above, will be paid for at the contract unit price per linear foot as designated in the bidding schedule, complete in place.

No payment will be made for furnishing materials and constructing temporary fence, gates and cattle guards as may be necessary to restrict livestock or provide security.

ITEM 421-1 - 4-STRAND BARBLESS WIRE FENCE

SECTION 430 - LANDSCAPING AND PLANTING

Add Gravel Mulch to the Standard Specifications.

Gravel Mulch:

Gravel mulch will be graded material and shall be free of chemicals harmful to plant growth, debris, fines, and soil particles. Gravel mulch will consist of a combination of crushed and rounded material with a minimum of 50 percent by weight crushed material. Crushed rock shall have at least two (2) fractured faces. A sample must be approved by the Engineer prior to delivery to site.

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

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

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

Gravel Installation:

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

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

Measurements for the quantities of gravel mulch will be those of the completed bid item, in place, within the limits of dimensions shown on the plans. The Engineer will compute the quantities of gravel mulch by a method which in his opinion is best suited to obtain an accurate determination.

Payment for Gravel Mulch shall be paid for at the contract bid price per square yard for Bid Item 430-1 in place as stipulated in the proposal. Such price shall include all labor, materials, equipment, tools and accomplishing all work in conformity with the plans and specifications.

ITEM 430-1 - GRAVEL MULCH

SECTION 505 - CONCRETE STRUCTURES

In addition to the requirements of the Standard Specifications:

Subsection 505.1 Description:

The work under this section shall include constructing concrete box culverts, headwalls and wingwalls, drop structures, channel lining, catch basin, and other concrete structures as shown on the plans and in conformance with the requirements of the Standard Specifications.

Two 3 barrel 8'X6''s and one 2 barrel 8'x 4' concrete box culverts are a part of the design plans. The structure is based upon standard details prepared by the Arizona Department of Transportation (ADOT). For construction specifications and procedures reference shall be made to the ADOT Highways Division, "Standard Specifications for Road and Bridge Construction," Edition of 1990. For concrete box culvert construction only, Section 601 - "Concrete Structures", Section 605 - "Steel Reinforcement", and Section 1011 - "Joint Materials" of the above referenced specifications.

The concrete box culvert must be constructed between June 6 and August 30. Precast concrete box sections meeting or exceeding the same hydraulic characteristics of the cast-in-place concrete box culverts is an acceptable alternative and will not be considered in a CICOP. The Contractor choosing to use precast concrete box sections is responsible for providing all details necessary to accommodate the wingwalls and channel lining connections.

Concrete for the box culvert and culvert wing walls shall be "Class AA" per Section 725 of the Standard Specifications, all other structures shall be "Class A."

Channel lining for the irrigation ditch may be completed using formed concrete or shotcrete. The Contractor shall submit a mix design and construction plan for any shotcrete work for approval before beginning any shotcrete work.

The Contractor shall construct a catch basin at the station, size, dimensions and orientation as shown on the plans.

Subsection 505.2 Subgrade for Concrete Structures:

Refer to Section 206 of these Special Provisions for structure excavation and backfill.

Subsection 505.3 Forms:

Forms shall be plywood sheathing or other suitable material and shall be true to line and grade and sufficiently rigid to resist deflection during placement of the concrete.

Subsection 505.5.4 Reinforcing Steel

Add this section to the Standard Specifications:

Reinforcing steel shall conform to the standard sizes shown on the plans. All reinforcing steel shall be grade 60. Where dowels are placed into existing structures, Epoxy dowel in hole with an approved epoxy adhesive. Epoxy anchorage shall develop a tensile pullout strength of 13 Kips. The Contractor shall provide shop drawings and lists showing the bending of reinforcement bars to the Engineer for approval for each different drop structure size. Such approval shall not relieve the Contractor of responsibility for the correctness of such drawings and lists. Reinforcing steel shall be incidental to the concrete, bid items 505-1 through 505-5

Subsection 505.9 Finishing Concrete:

Surfaces of existing concrete against which new concrete is to be placed shall be thoroughly cleaned and moistened immediately prior to placing the new concrete. Construction joints shall be constructed as shown on the plans. Finish of green concrete shall be Class I finish.

Subsection 505.10 Payment

Replace with the following:

Concrete structures shall be measured and paid for by the cubic yard of concrete or shotcrete, the completed structure (each), or the linear foot as listed in the bid document. Payment under these items shall include all costs associated with the structures including, but not limited to, traffic control, excavation, labor, materials, forms, curing, cleanup, backfill, backfilling, compaction, fittings, grates, concrete, reinforcing steel and other incidental items.

Payment for the items specified in this section will be made under:

BID ITEM 505-1 - STRUCTURAL CONCRETE (BOX CULVERTS & WINGWALLS) MAG Class "AA"

BID ITEM 505-2 - STRUCTURAL CONCRETE (DROP STRUCTURES) MAG Class "A"

BID ITEM 505-3 - REPLACE IRRIGATION DITCHES

BID ITEM 505-4 - CATCH BASIN

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).

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 square yards of exposed surface exclusive of any turn downs that are to be buried. No measurement will be made for turndowns. The Engineer will verify the surface quantities 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 square 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

SECTION 601 - TRENCH EXCAVATION, BACKFILLING AND COMPACTION

Subsection 601.1 Description

Shall be revised to add the following:

Item 610-1, Waterline Relocation, Items 618-1 and 618-2, Irrigation Line Relocation, and Item 618-3 24" CMP shall be constructed using this specification section for trench excavation, backfilling and compaction.

No separate measurement or payment will be made for this work as it is incidental to the related work.

SECTION 610 - WATER LINE CONSTRUCTION

Water line construction shall conform to Section 610 of the MAG Uniform Standard Specifications except as modified herein.

Subsection 610.1 - Description

Revised to add the following:

The vertical water line relocation shall be constructed of ductile iron pipe with mechanical joints as shown on the plan and in accordance with MAG Specification 610, 611 and 750, except as modified herein. The ductile iron pipe shall be designed for 150 psi and for a bury depth of 15 feet. This vertical relocation must be completed in advance of the construction of concrete box culvert so that it does not impede completion schedule of the concrete box culvert.

The waterline must not be taken out of service for more than 2 hours, from the time that the water line is taken out of service to the time that the water line is placed back into operation. The Contractor shall receive approval from the District and the water line Owner of the schedule for the water line relocation. Seven (7) calendar days before the relocation is started, the Contractor shall supply a printed copy of the schedule (date and time period that the water line will be out of service) to the water system users affected by the interruption in service. The Contractor shall have two (2) water hauling vehicles each with a minimum of 5,000 gallons of water on site while the water system is out of service. The water hauling vehicles shall be equipped with supply connections as required by the fire fighting agency responsible for the area affected by the water line closure. The water hauling vehicles shall be placed and/or moved to the locations specified by the fire fighting agency. The Contractor shall receive approval from the District of a traffic control plan for this work.

Subsection 610.18- Measurement and Payment

Revised to add the following:

Measurement and payment will be in accordance with the standard specification. Payment shall include all costs of labor, excavation, shoring, bracing, bedding, backfilling, compaction, furnishing and installing pipe, providing emergency fire fighting vehicles and water, and all other work not specifically covered that is incidental.

ITEM 610-1 -WATERLINE RELOCATION

SECTION 618 - STORM DRAIN CONSTRUCTION

Storm drain construction shall conform to Section 618 of the MAG Uniform Standard Specifications except as modified herein.

Subsection 618.1 - Description

Add the following:

This section will control the construction of rubber gasketed reinforced concrete pipe (RGRCP) for irrigation line relocation, storm drain and downdrain construction. All pipe shall be class IV unless noted otherwise in the plans. The profile of new or relocated irrigation line shall match the existing irrigation line invert elevation and slope.

Subsection 618.3 - Construction Methods

Add the following:

The Contractor shall contact Mr Barnes at (602) 978-3648 verbally and in writing at least 10 working days prior to relocating the irrigation ditch and culvert crossing and shall request that Mr. Barnes or a representative of his to stake the exact location of the culvert crossing. If the locations differ from that as shown on the plan, the Contractor must obtain written approval from the Engineer before any conduit is placed.

The Contractor may, at his option and expense, use a larger size pipe than specified provided the larger size is continuous for the entire length of the run.

Subsection 618.5 - Measurement

Replace this subsection with the following:

Measurement will be made by the linear foot as measured horizontally along the axis of the pipe rounded to the nearest foot including all fittings. Measurement shall extend from the inside face of the outlet to the inside face of the junction structure.

Subsection 618.6 - Payment

Payment for storm drain construction shall be made at the unit price bid per linear foot, and shall be full compensation for furnishing and installing the pipe and fittings complete in place, as specified including Manholes, junction boxes, standpipes, and outlet protection which shall be considered incidental to the pipe construction and shall include all costs of labor, excavation, shoring, bracing, bedding, backfilling, compaction, and all other work and appurtenances not specifically listed.

ITEM 618-1 - 24" RGRCP DOWNDRAIN

ITEM 618-2 - 18" RGRCP

ITEM 618-3 - 24" RGRCP

Payment for construction of the Irrigation Dip Section at Sta. 254 +23 shall be made on the basis of price bid per each. No separate payment will be made for pipe collars, 12" ductile iron pipe, 24" RGRCP, fitting, excavation, removal of existing pipe; the cost thereof shall be considered incidental to the dip section. Payment shall be full compensation for furnishing all labor, material, tools, and equipment and accomplishing all work in conformity with the plans and specifications.

ITEM - 618-4 - 26" IRRIGATION LINE DIP SECTION

SECTION 703 - RIPRAP

Riprap shall conform to Section 703 of the MAG Uniform Standard Specifications except as modified herein.

Subsection 703.1 - Stone

In addition to the requirements of section 703.1, stone for riprap shall have a minimum apparent specific gravity of 2.4 per ASTM C-127.

Waste concrete shall not be used for riprap.

Subsection 703.2 - Size of Stone

Section 703.2 of the MAG Uniform Standard Specifications is replaced with the following requirements, which shall apply for grouted riprap Types I and II.

Table 703-1

Design Gradation for Specified Classes of Grouted Riprap

	Percent Passing	Down Drain	Type	
			I	II
D Max	90 - 85	12"	16"	18"
	85 - 65	9"	12"	14"
D Min	0	6"	8"	9"

GERMANN ROAD

S 89-49-18 E 2630.39

RR-16

NW COR
SEC 8
2S,7E

ALMANZA
32L

32K

32C

N4 COR
SEC 8
2S,7E

SCALE 1" = 300'

0 150 300 600

BASIS of BEARING:

Section survey by
Brooks, Hersey and Assoc.
Recorded: 93-0001362
Book 357, Page 45 (MCR)

SLAUTERBECK
32S

JAMBOR
32R

KLOTZ
32D

1330.28

RR-16

NE COR
NE4SE4NW4
SEC 8 2S,7E

S 89-50-38 E
595.23

EMW PROPERTY
TRUST

N 53-37-43 W
746.78
32J

441.27
S 00-47-20 E

	SQ.FT.	ACRES
RR-16	131,312	3.0145

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY-ARIZONA

PT NE4SE4NW4 SEC 8 - 2S,7E

RP-16 ; 304-61-32J
EMW PROPERTY TRUST to FCD

PRELIMINARY: 11-30-93 KWG

REVISED: 2-11-94

FINAL: *Final 11-28-94*

EXHIBIT "A"

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

**Rittenhouse Channel - Sossaman Road to Ellsworth Road
Phase II**

**Contract FCD 97-34
Project No. 480012
ADDENDUM NO. 1**

January 13, 1998

Contract FCD 97-34

To Contract Documents

Title: Rittenhouse Channel - Sossaman Road to Ellsworth Road - Phase II

Owner: Flood Control District of Maricopa County

This Addendum No. 1 modifies or clarifies Contract FCD 97-34. All other provisions of the contract remain unchanged unless specifically modified herein. The Addendum No. 1 forms a part of the Contract Documents and modifies them as follows:

**I. Revisions to Invitation For Bid
Pre-Bid Conference**

Strike the second sentence that states, "All contractor's submitting bids are required to attend a pre-bid conference."

II. Revisions to Bidding Schedule

Bidders are to replace the existing pages 6 & 7 of 30 with pages 6 & 7 of 30 attached hereto and made a part of this Addendum No. 1 which reflects the following changes.

The revisions are as follows:

1. Approximate quantity of Bid Item No. 350-4 revised to 3,525LF.
2. Approximate quantity of Bid Item No.618-1 revised to 441 LF.
3. Approximate quantity of Bid Item No.618-2 revised to 1,231 LF.
4. Approximate quantity of Bid Item No.618-3 revised to 2,352 LF.
5. Added Bid Item No. 625-1, Pressure Manhole; the approximate quantity is 1 EA.

III. Revisions to Supplementary General Conditions
Not applicable to this Addendum.

IV. **Revisions to Special Provisions**
Add the following:

Section 202 - Mobilization

Contractors Field Office

Revise the office size from a minimum of 150 square feet to a minimum of 300 square feet in the first sentence of the second paragraph.

Change item h to a 3 in 1 fax, printer, & copier machine.

Section 215 - Earthwork For Open Channels

Subsection 215.1- Add the following to this subsection:

The following parties have expressed an interest in receiving some of the excess material:

Sally and Tom Jambor: 987-3062 (H) 987-0405 (W)
Town of Queen Creek, Dick Shaner 987-9887

Section 625 - Manhole Construction

The pressure manhole construction shall conform to Section 625 of the MAG Uniform Standard Specifications except as modified herein.

Subsection 625.1 - Description

Add the following:

This section will control the construction of a pressure irrigation manhole as shown on the drawings and in accordance with MAG Specification 523 except as modified herein. A pothole location sketch and testhole summary report by Geotrack Inc. are attached to this addendum for informational purposes.

Subsection 625.2 - Materials

Add the following:

The manhole shall be 30 inches in diameter per MAG detail 523. The frame and lid shall be a Neenah Foundary watertight bolt down manhole ring cover Model 1743 or an approved equal. The frame and lid shall be rubber gasketed and the bolts shall be stainless steel. The frame and cover shall be capable of withstanding heavy wheel loads.

Subsection 625.3 - Construction Methods

Add the following:

The cover shall be constructed flush with the ground. The manhole shall be pressure tight and shall be tested for leaks under normal operating conditions prior to final acceptance and before backfilling.

Subsection 625.5 - Payment

Replace this subsection with the following:

Payment for the pressure manhole will be paid at the contract unit price per each and shall include all appurtenances shown on the plans and specifications and all other work not specifically covered that is incidental including the removal of the existing standpipe.

BID ITEM 625-1 - PRESSURE MANHOLE

IV. Revisions to Construction Plans

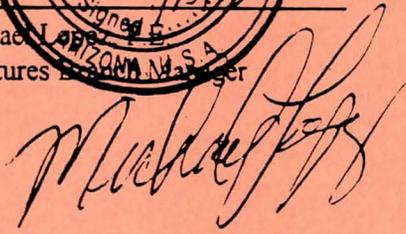
1. **Revise Sheet 3 as follows:** Add 2" gravel mulch to the 4:1 channel slopes in Typical Sections 1, 2, & 3 (See attached Exhibits.)
2. **Bidders are to replace the existing Sheets 4, 32, 33, and 64 of 73 with the revised sheets attached hereto and made a part of this Addendum No. 1.**
3. **Revise Sheet 30 as follows:** Change Sta. 232+41 to Sta. 232+81.81 for the beginning station of the CBC in Note 7 (Quantities remain unchanged).

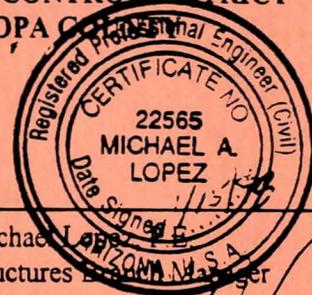
Note that the due date of all bids under this Invitation For Bids remains scheduled for January 22, 1998 at 2:00 pm. Bidders are reminded that each addenda must be acknowledged on page 5 of 30 of the bid and a copy of addenda attached to the bid package.

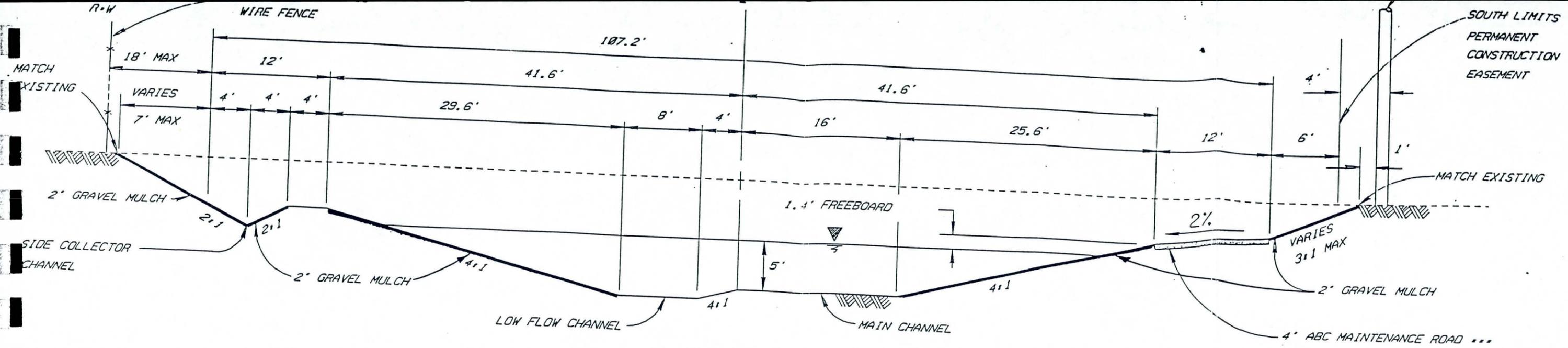
**FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY**

By: 
Michael S. Ellegood, P.E.
Chief Engineer and General Manager

**FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY**

By: 
Michael A. Lopez, P.E.
Civil/Structures Engineer





CROSS SECTION NO. 1, MAIN CHANNEL

STA 114+60.87 TO STA 115+60.87 **

NOT TO SCALE

NOTE:

** DO NOT CONSTRUCT SIDE COLLECTOR CHANNEL. * CONSTRUCT TRANSITION TO FUTURE CHANNEL AS SHOWN ON PLAN VIEW.

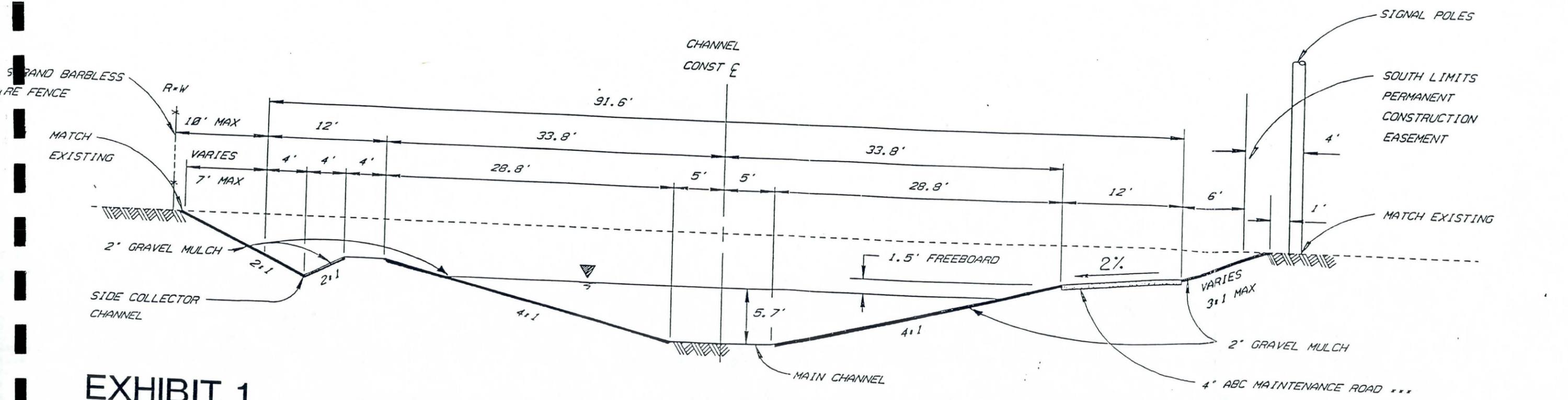


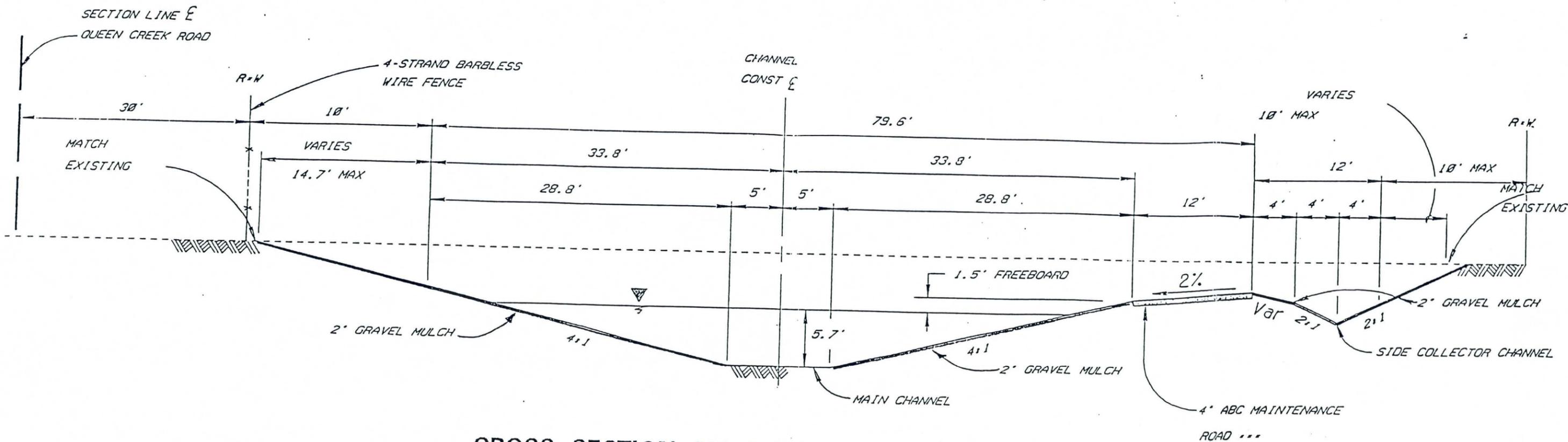
EXHIBIT 1

CROSS SECTION NO. 2, MAIN CHANNEL

STA 116+60.87 TO STA 202+70.61

NOT TO SCALE

NOTE:



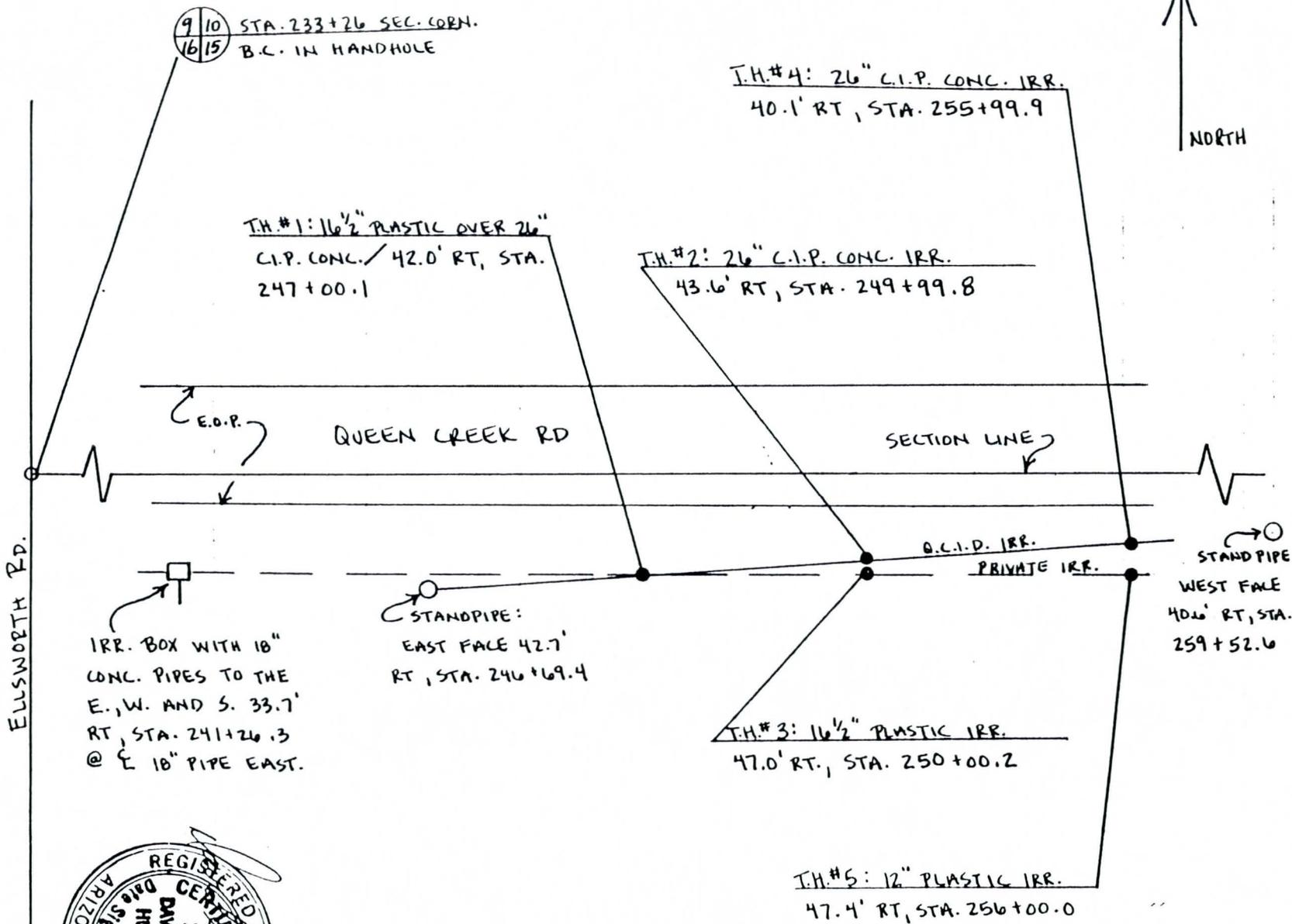
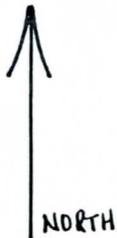
CROSS SECTION NO. 3, MAIN CHANNEL
 STA 204+31.69 TO STA 232+81.81
 NOT TO SCALE

EXHIBIT 2

Project: QUEEN CREEK ROAD
 Job No: 15618 - E.O. OF MARICOPA CO.
 By: J.T.
 Date: FEBRUARY 27, 1995

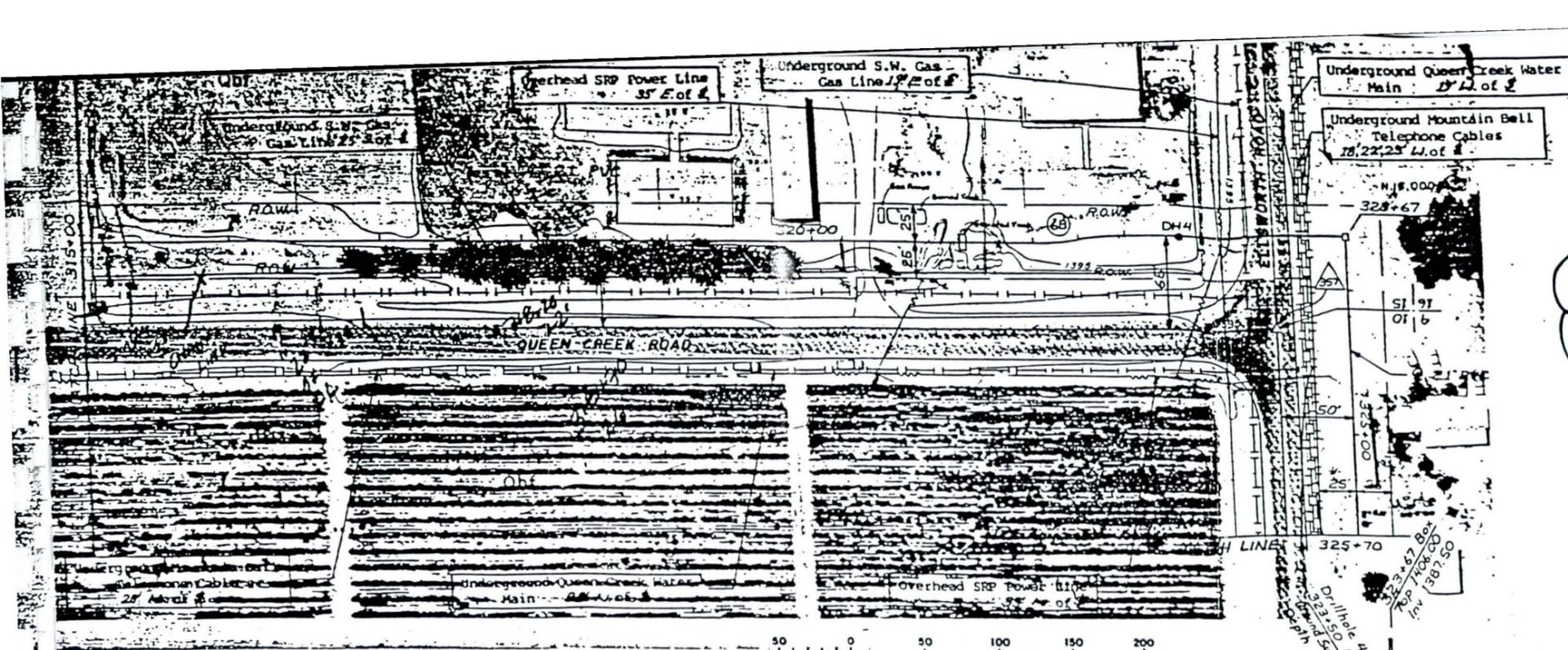
Description: LAYOUT OF IRRIGATION LINES
POTTLED & DESIGNED.

SHEET
1/1

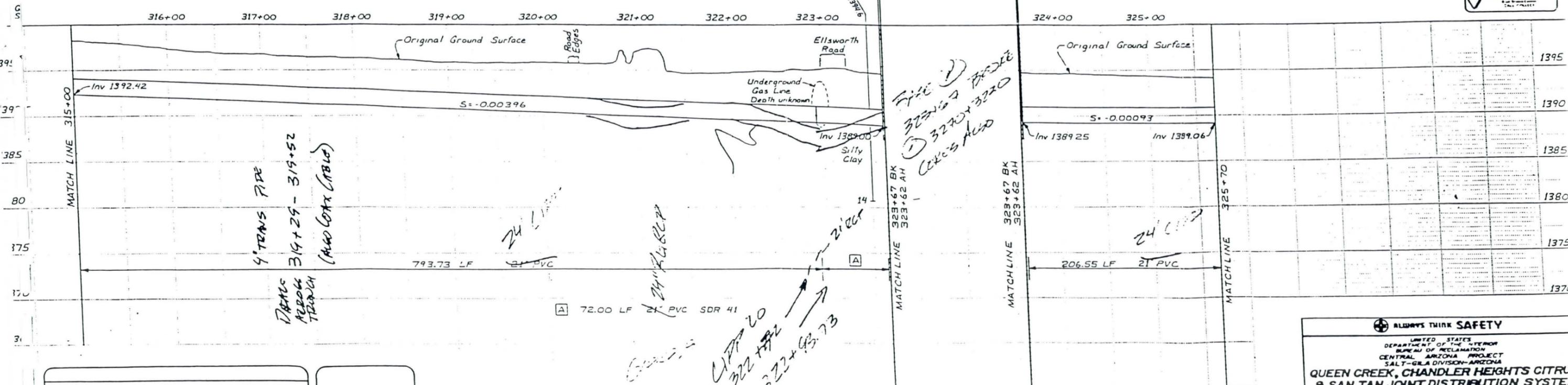
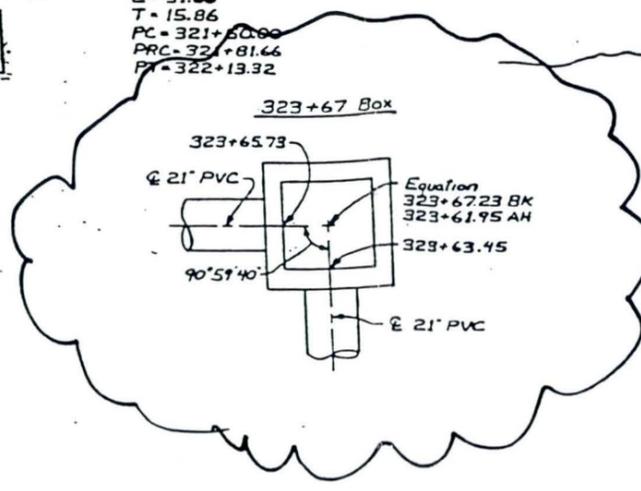


* NOT TO SCALE *





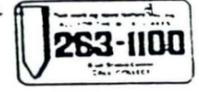
(68) Compound Curve
 R=200
 $\Delta = 09^{\circ}04'07''$
 L=31.66
 T=15.86
 PC=321+60.99
 PRC=321+81.66
 PT=322+13.32



Handwritten notes:
 Pipe 21" PVC
 323+67 BK
 323+62 AH
 CXCS ALSO

Handwritten notes:
 72.00 LF 21" PVC SDR 41
 24" PVC
 22+92
 22+93.73

Station	Dis (ft)	2 (ft)	3 (ft)	4 (ft)	5 (ft)	6 (ft)	Hydraulic Gradient
315+00 - 323+66	21	10.3	2.405	4.28	0.438	0.010	0.00266
323+63 - 325+70	21	10.3	2.405	4.28	0.438	0.010	0.00299



APPROVED BY: W. S. GOOKIN & ASSOCIATES
 ENGINEERS - ARCHITECTS - PLANNERS - SURVEYORS
 1500 NORTH MOUNTAIN AVENUE
 MESA, ARIZONA 85201
 (602) 747-7741

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UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF RECLAMATION
 CENTRAL ARIZONA PROJECT
 SALT-GILA DIVISION-ARIZONA

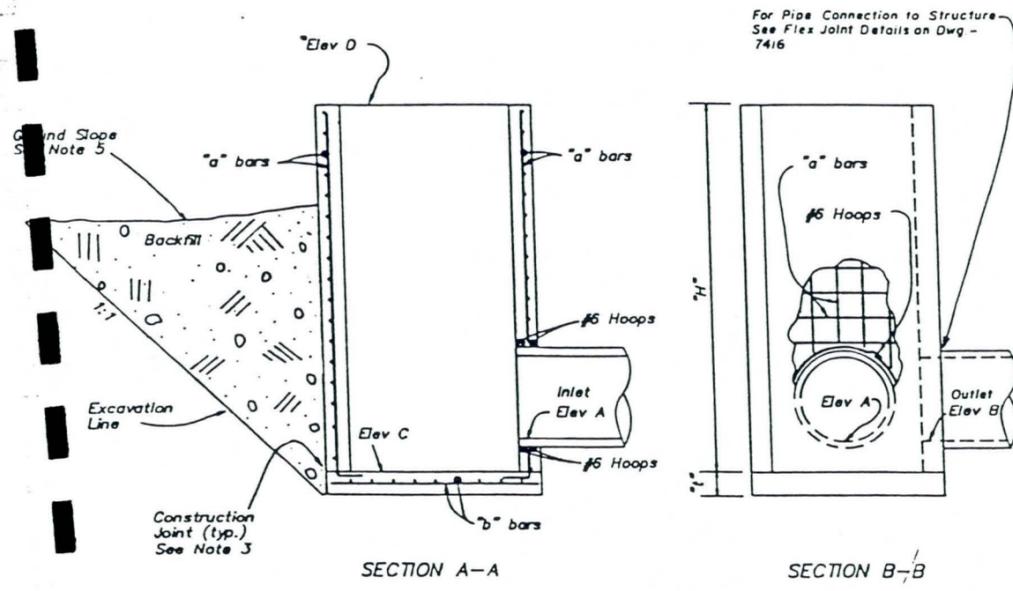
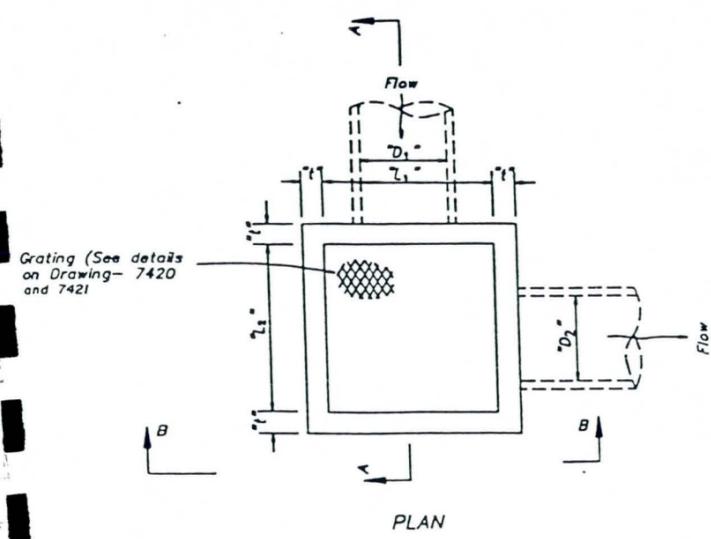
QUEEN CREEK, CHANDLER HEIGHTS CITRUS & SAN TAN JOINT DISTRIBUTION SYSTEM
 PLAN AND PROFILE 224
 PIPELINE 2
 STA 315+00 TO STA 325+70

DESIGNED: _____ SUBMITTED: _____
 DRAWN: DPRL RECOMMENDED: _____
 CHECKED: _____ APPROVED: _____

344-330-7313

BOX SCHEDULE

PIPELINE	ARRANGEMENT	DIMENSIONS						ELEVATIONS (Ft)				BAR SIZES		GATE SIZES (In)			TRANSITION SIZE (Deg)			GATE INVERTS (Ft)		
		D ₁	D ₂	L ₁ (Ft)	L ₂ (Ft)	H (Ft)	t (In)	A	B	C	D	"a"	"b"	G ₁	G ₂	G ₃	G ₁	G ₂	G ₃	G ₁	G ₂	G ₃



PIPELINE 1

1324.97	D ₁	24	3.50	0.50	16.50	8	1311.50		1310.00	1326.50	#5	#5	12										1312.50
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PIPELINE 2

1624.72	D ₁	12	27	5.50	1.50	19.75	8	1444.75	1443.76	1442.25	1452.00	#5	#5	18									1445.50	
323+67	D ₁	21	21	3.00	3.00	18.50	8	1389.00	1389.25	1387.50	1408.00	#4	#4											
178+10	D ₁	21	21	3.00	3.00	14.00	8	1387.75	1387.00	1385.50	1398.50	#4	#4											
130+20	D ₁	18	3.00	3.00	13.50	8	1378.50		1368.00	1368.60	1380.60	#4	#4	18	12								1378.50	1381.00

PIPELINE 3

706+10	D ₂	27	27	4.50	3.50	18.00	8	1378.00	1378.00	1376.50	1388.50	#4	#4												
210+25	D ₁	27	27	4.50	3.50	13.25	8	1372.00	1371.25	1369.75	1385.00	#4	#4												
378+32	D ₁	24	21	3.00	3.00	17.75	8	1323.25	1321.75	1321.75	1330.50	#4	#4	18	18	18	0	4.5					1321.00	1321.00	1327.00
886+00	D ₁	21	21	3.00	3.00	18.00	8	1323.00	1324.50	1323.00	1339.00	#4	#4												

PIPELINE 3 LATERAL 1

706+10	D ₁	21	21	3.00	3.00	18.00	8	1380.50	1380.50	1380.00	1408.00	#4	#4										
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PIPELINE 3 LATERAL 3

387+02	D ₁	21	18	3.00	3.00	16.50	8	1353.50	1354.00	1352.00	1347.50	#4	#4	12	12								1334.13	1334.00
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PIPELINE 4

100+10	D ₁	30	36	4.50	3.50	11.75	8	1376.75	1376.75	1375.25	1387.00	#4	#4	12										1378.00	
140+36	D ₁	36	36	4.50	3.50	12.50	8	1375.50	1375.50	1374.00	1388.50	#4	#4	18											1378.00

PIPELINE 4 LATERAL 3

84+35	D ₂	18	18	3.00	3.00	17.50	8	1344.50	1343.00	1343.00	1360.50	#4	#4	12										1346.00
74+10	D ₁	18	18	3.00	3.00	16.50	8	1344.00	1343.50	1344.00	1360.50	#4	#4											

6. L₁ may be constructed equal to L₂ so long as the largest dimension is used for both.

NOTES

- All bars to be spaced at 1'-0" centers. All steel placed in center of walls and slab.
- See Box Schedule and Plan and Profiles for location of D₁ and D₂ at each box.
- A construction joint shall occur at the junction of the base slab and walls - See detail on Drawing-7434.
- Structural Design Properties
 - Concrete: 4000 psi specified compressive concrete strength at 28 days with a working stress of 1200 psi.
 - Steel: Working stress of 24,000 psi tension in reinforcement with specified minimum yield strength of 60,000 psi.
- Finished slopes to extend a minimum of 10 feet horizontally and have a minimum vertical fall of 3 inches. Minimum grades of 2 percent shall be maintained where the horizontal slope distance exceeds 10 feet.

NOTE: DRAWING NOT TO SCALE

GOOKIN ENGINEERS
 ENGINEERS - HYDROLOGISTS - PLANNERS - SURVEYORS
 4203 NORTH BROWN AVENUE
 SCOTTSDALE, ARIZONA 85251
 (602) 947-3741



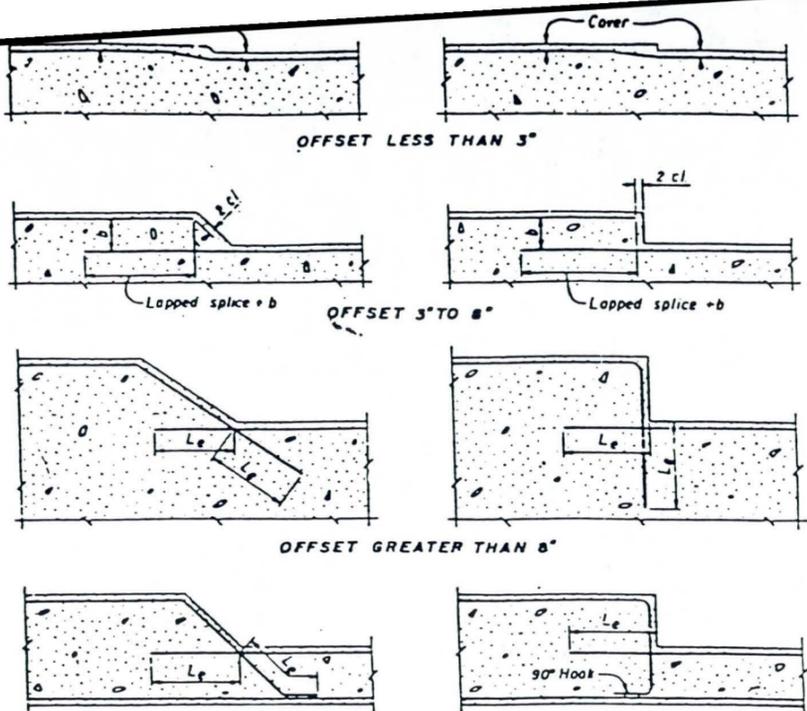
263-1100

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STATE OF ARIZONA
 DEPARTMENT OF THE TREASURY
 BUREAU OF REVENUE
 CENTRAL ARIZONA PROJECT
 SALT - GILA DIVISION - ARIZONA

QUEEN CREEK, CHANDLER HEIGHTS CITRUS & SAN TAN JOINT DISTRIBUTION SYSTEM

BOX STRUCTURE DETAILS & SCHEDULE

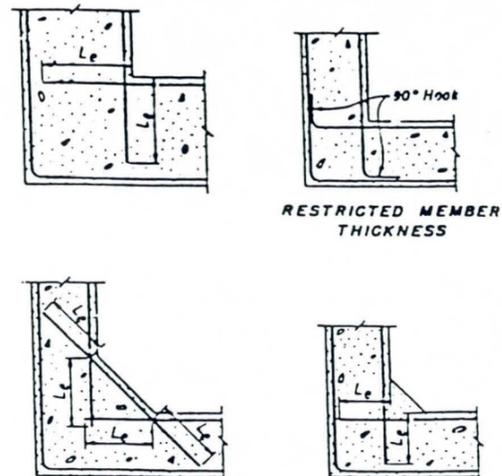


OFFSET LESS THAN 3"

OFFSET 3" TO 8"

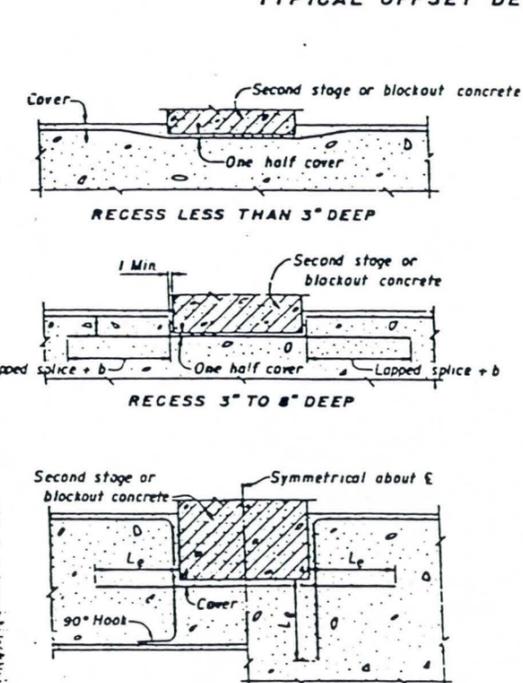
OFFSET GREATER THAN 8"

OFFSET GREATER THAN 8" RESTRICTED MEMBER THICKNESS TYPICAL OFFSET DETAILS



RESTRICTED MEMBER THICKNESS

FILLET 10° OR GREATER FILLET LESS THAN 10° TYPICAL CORNER DETAILS

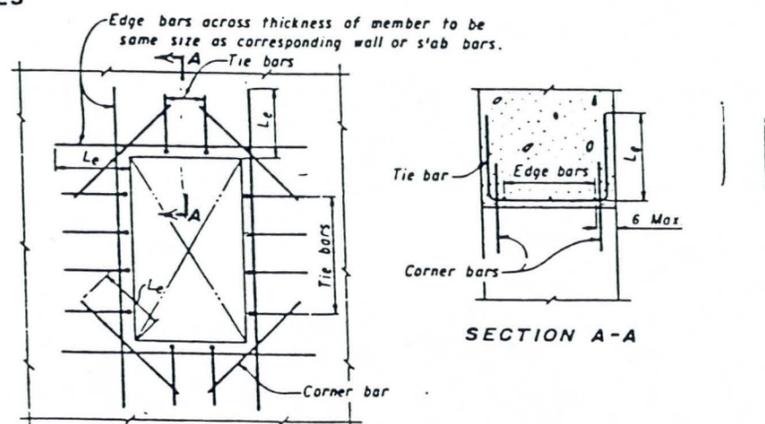


RECESS LESS THAN 3" DEEP

RECESS 3" TO 8" DEEP

RECESS GREATER THAN 8"

TYPICAL BLOCKOUT RECESS DETAILS (Second stage concrete shown)



SECTION A-A

MEMBER THICKNESS	TIE BARS	EDGE BARS	CORNER BARS
Less than 10"	None	1-ctr	1-#4 ctr
10 thru 1'-6"	None	2-(1-ef)	2-#4 (1 ef)
1'-7" thru 3'-0"	#4 @ 1-0	3-eq spc	2-#6 (1 ef)
Over 3'-0"	#6 @ 1-0	Spc @ 1-0	2-#8 (1 ef)

Omit edge and tie bars along sides of openings where dimension is less than 1'-6".
 Omit corner bars at sides of openings adjacent to floors, walls, or beams.
 Corner bars required if either dimension of opening is greater than 1'-6".
 Use corner bars in face of recesses deeper than 4" if either dimension of recess is greater than 1'-6".

ADDITIONAL REINFORCEMENT AROUND OPENINGS

ABBREVIATIONS:
 bf = bottom face br = bottom row bl = bottom layer
 tf = top face tr = top row tl = top layer
 nf = near face nr = near row ml = middle layer
 ff = far face fr = far row ns = near side
 ef = each face er = each row fs = far side
 if = inside face ir = inside row es = each side
 of = outside face or = outside row ew = each way
 mr = middle row ec = each corner
 spc = space or spaces
 eq spc = equally spaced, equal spaces
 D = nominal diameter of reinforcing bar
 uv = uniformly varying lengths of bars between lengths shown
 cl = clear
 ctr = center or centers

SYMBOLS:
 Bars shown thus $\text{---} \# 8 @ 10 \text{---}$ or $\text{---} \# 6 @ 7 \frac{1}{2} \text{---}$ indicate a group of the same size bars equally spaced.
 An open circle at the end of a bar indicates a bend with the bar turned away from the observer.
 A closed circle at the end of a bar indicates a bend with the bar turned towards the observer.
 Splices shown thus $\text{---} \text{---}$ indicate a lapped splice, not a bend in the bar.

DIMENSIONS:
 Dimensions are to the center lines of the bars unless otherwise shown.
 Clear cover dimensions are marked 'cl'

COVER:
 Place the reinforcement so that the clear distance between face of concrete and nearest reinforcement is $1 \frac{1}{2}$ " for #5 bars and smaller and 2" for #6 bars and larger; except provide a clear distance from face of concrete placed against earth or rock of 2" where member thickness is 9" or less and 3" where member thickness is greater than 9", the clear distance being to the design dimension line.
 Reinforcement paralleling construction joints shall have a minimum of 2" clear cover.

PLACING:
 Reinforcement at small openings (max 1'-6") in walls and slabs may be spread apart not more than $1 \frac{1}{2}$ times the bar spacing.
 Reinforcement may be adjusted laterally to maintain a clear distance of at least 1" between the reinforcement and keys, waterstops, anchor bolts, form ties, conduits, and other embedded material in heavily reinforced areas relocation of the embedded material must be considered.
 When bars are bent due to offsets less than 3 inches and recesses less than 3 inches deep, the slope of the inclined portion must not exceed 6 to 1.
 Reinforcement parallel to anchor bolts or other embedded material shall be placed to maintain a clear distance of at least $1 \frac{1}{2}$ times the maximum size aggregate.

SPACING:
 The first and last bars in walls and slabs, stirrups in beams and ties in columns are to start and end at a maximum of one half of the adjacent bar spacing.

GENERAL NOTES

UNLESS OTHERWISE SHOWN ON THE REINFORCEMENT DESIGN DRAWINGS, THE DETAILS AND NOTES SHOWN ARE TYPICAL FOR ALL REINFORCEMENT DRAWINGS THAT REFER TO THIS DRAWING.

STANDARD HOOKS:
 Hooks shall have 180° bends and extensions of 4-bar diameters but not less than 2 1/2" parallel to the main leg of the bar or 90° bends and extensions of at least 12-bar diameters. Hooks for stirrup and the anchorage only shall have a 90° bend plus an extension of at least 6-bar dia's for #5 bars and smaller and at least 12-bar dia's for #6 through #8 bars, or a 135° bend plus an extension of at least 6-bar dia's. Radius of bend to be as specified in the table of pin diameters.

A bar (—) with a standard 180° hook on one end is referred to as an "A" bar.
 A bar (—) with a standard 180° hook on both ends is referred to as a "B" bar.

BENT BARS:
 Only billet steel or axle steel shall be used for bars to be bent.
 Unless other radius bends are indicated on the design drawings, all reinforcement requiring bending shall be bent around a pin having the following diameter:

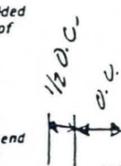
BAR NO.	3	4	5	6	7	8	9	10	11	14	18
Standard bends	2 1/2	3	3 1/2	4 1/2	5 1/2	6	6 9/10	7 1/2	8 1/2	10 1/2	12 1/2
Stirrups and tie bends	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2

REINFORCEMENT DOWELS:
 Dowels indicated on the drawing, such as #8 (d), shall have an embedment equal to L_d and a projection equal to that required for lap splicing a bar of the same diameter.

PLAIN DOWELS:
 Plain dowels across contraction joints shall be smooth bars uniformly coated with a film of oil before concrete placement. Viscosity of the oil shall have a SAE rating of not less than 250.

ACCESSORIES:
 Bar supports, spacers, and other accessories are not shown on the design drawings. The recommendations of the ACI Detailing Manual-1980, or other approved supporting systems may be used.

REFERENCES:
 Numerals in parentheses () following notes and section letters or numbers indicate the number of the drawing upon which the section of detail is shown; for example (524) denotes Drawing No. 557-D-524.
 Unless otherwise shown follow the recommendations established by the ACI Detailing Manual-1980.



NOTES TO DESIGNERS:
 Splice lengths shown in the tables on this drawing are for Class B splices, spaced at least 6 inches on centers, ($0.8 \times 1.3 L_d$) in accordance with ACI 318-83. Splices requiring lap lengths other than those for Class B must be detailed on the reinforcement design drawings.
 Embedment length, L_d , in the above tables is based on "other" bars spaced at least 6 inches or 6 bar diameters.

SPLICES:
 Unless otherwise shown the maximum length of lap for splicing parallel bars shall be as given in the applicable tables. Splices shall be staggered, to give 12 inches clear between ends of adjacent splices, if bars are spaced close 6 inches or 6 bar diameters.
 Noncontact lap splices shall not be spaced farther than one-fifth the required length of lap or 6 inches. When reinforcing bars of different size are to be spliced the length of lap shall be governed by the smaller diameter bar.
 Splices are to be made so that the given distances to concrete will be maintained.

BAR SIZE NO.	LENGTH OF LAPPED SPLICE IN INCHES		EMBED. LEN.
	TOP BARS	OTHER BARS	
3	12	12	1
4	12	12	1
5	15	12	1
6	19	14	1
7	26	19	1
8	34	24	1
9	43	31	2
10	54	39	3
11	67	48	3

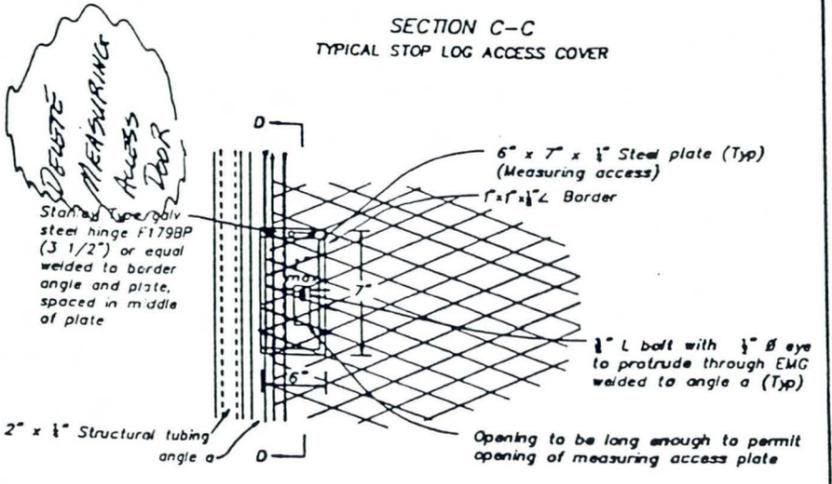
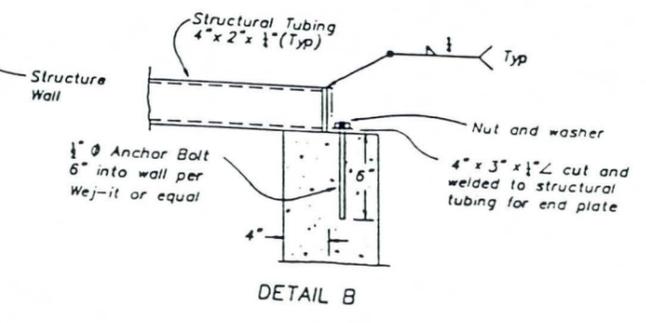
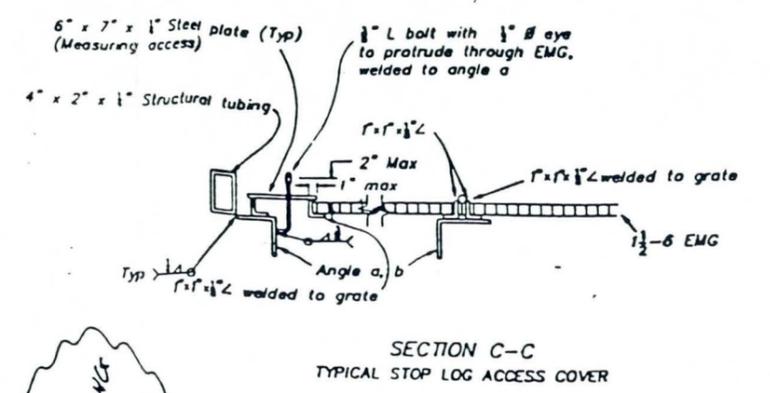
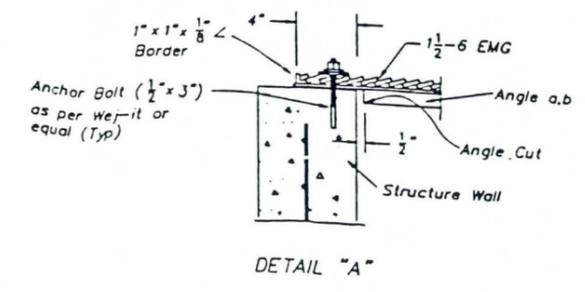
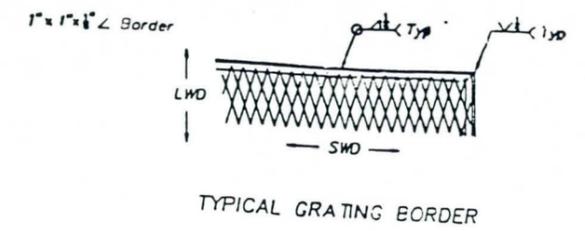
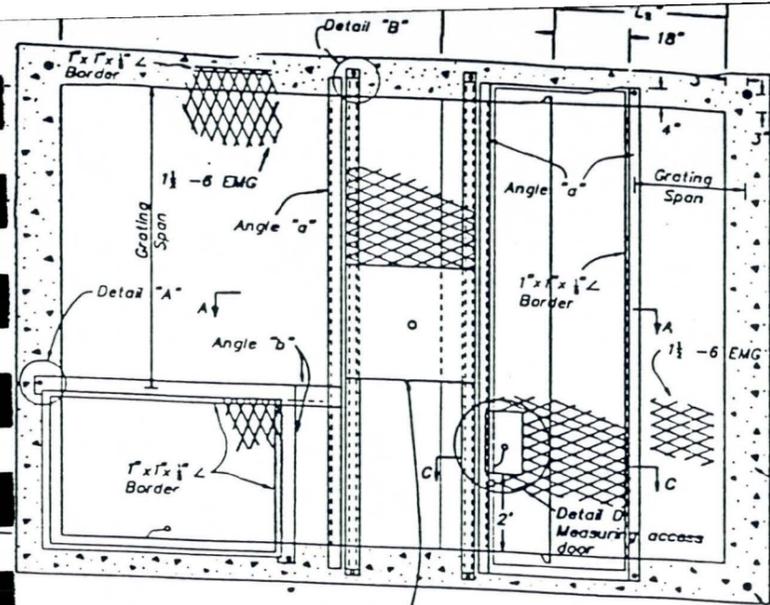
BAR SIZE NO.	LENGTH OF LAPPED SPLICE IN INCHES		EMBED. LEN.
	TOP BARS	OTHER BARS	
3	13	12	L
4	18	13	L
5	22	16	L
6	28	20	L
7	39	28	2L
8	51	36	2L
9	64	46	3L
10	81	58	4L
11	100	71	5L

BAR SIZE NO.	LENGTH OF LAPPED SPLICE IN INCHES		EMBED. LEN.
	TOP BARS	OTHER BARS	
3	13	12	12
4	18	13	12
5	22	16	12
6	26	19	15
7	33	24	18
8	44	31	24
9	56	40	31
10	70	50	39
11	86	62	47

* Top bars are horizontal bars in beams and slabs so placed that more than 12 inches of concrete is cast in the member below the bar.

W. S. GOOKIN & ASSOCIATES
 ENGINEERS HYDROLOGISTS PLANNERS SURVEYORS
 4205 NORTH BROWN AVENUE
 SCOTTSDALE, ARIZONA 85251
 (602) 947-3741

ADD GOOKIN TITLE BLOCK
 REVISED PIN DIAMETER TABLE, REFERENCED THE ACI DETAILING MANUAL, ADDED NOTES UNDER PLACING AND STANDARD HOOKS
 DIVISION REVISIONS
REINFORCEMENT SAFETY
 UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF RECLAMATION
 STANDARD DESIGNS
GENERAL NOTES AND MINIMUM REQUIREMENTS FOR DETAILING REINFORCEMENT
 DENVER, COLORADO, JUNE 19, 1978 344-330-74

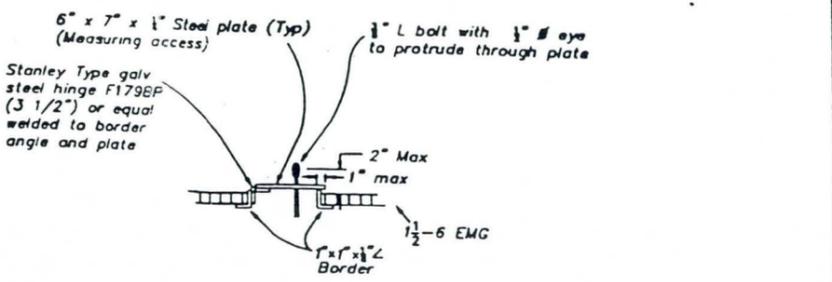
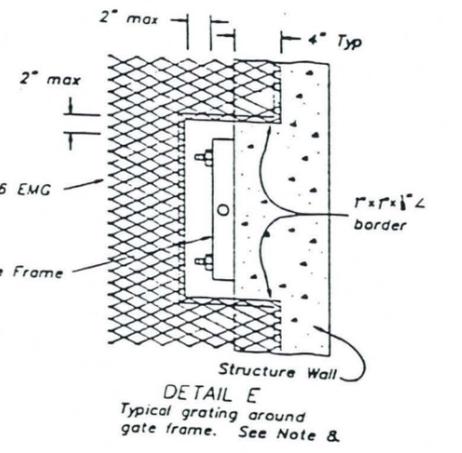
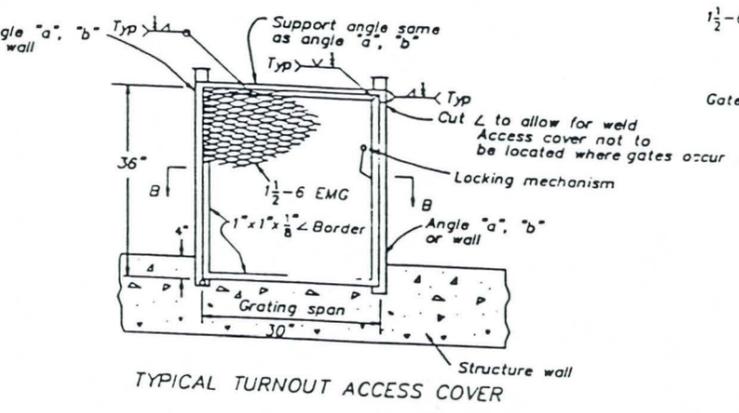
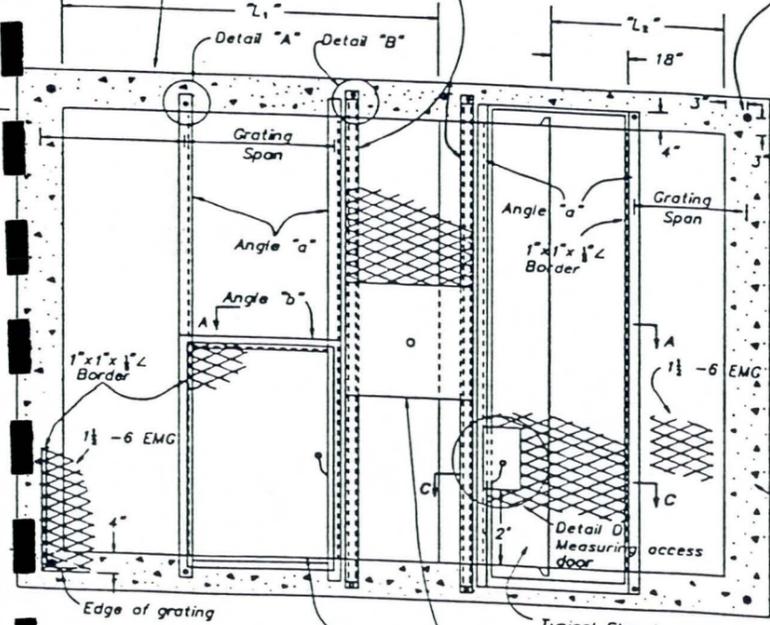


13" x 13" x 1/4" Plate
-See section A-A for lifting equipment
On Drawing - 7421

4 - 1/2" x 3" Wej-it or equal with 1/2" and 3/4" Std steel washers and nut (Typ at each corner) Install in field using cover as guide

When a gate occurs to be cut to permit for gate a Detail "E"

Typical Structural Tubing (2)
4" x 2" x 1/4"

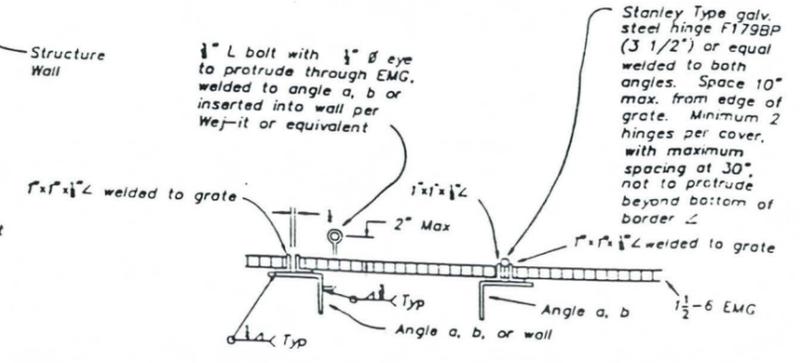


Typical turnout access covers. See detail this sheet

13" x 13" x 1/4" Plate
-See section A-A for lifting equipment on Drawing - 7416

Edge of grating

Typical Stop log access cover

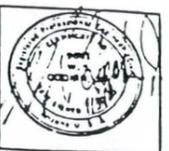


- NOTES
- The grating must be placed so that the long direction of the diamond opening is parallel to the grating span.
 - Grating span to be a maximum of 36".
LWD - Long direction of diamonds
SWD - Short direction of diamond
 - Contractor is to submit shop drawings of grating and support system to Engineer for approval. All final dimensions must fit "as built" box and structure dimensions. The contractor is responsible for this coordination.
 - Regular expanded metal grating shall be style 1 1/2" - # 6 (2.5 lb/ft²) ASTM std A-283-587 by AMICO or equal.
 - Angles to be used on turnout structures:
angle a 2" x 2" x 1/4" L
angle b 1 1/2" x 1 1/2" x 1/4" L
 - Painting must be done prior to installation and after all modifications and adjustments are made.
 - All sharp edges must be ground smooth.
 - Grating must be cut and angles located to accommodate Type II gates. See Plan and Profile Drawings for location, size and number of gates per structure.



NOTE: DRAWING NOT TO SCALE

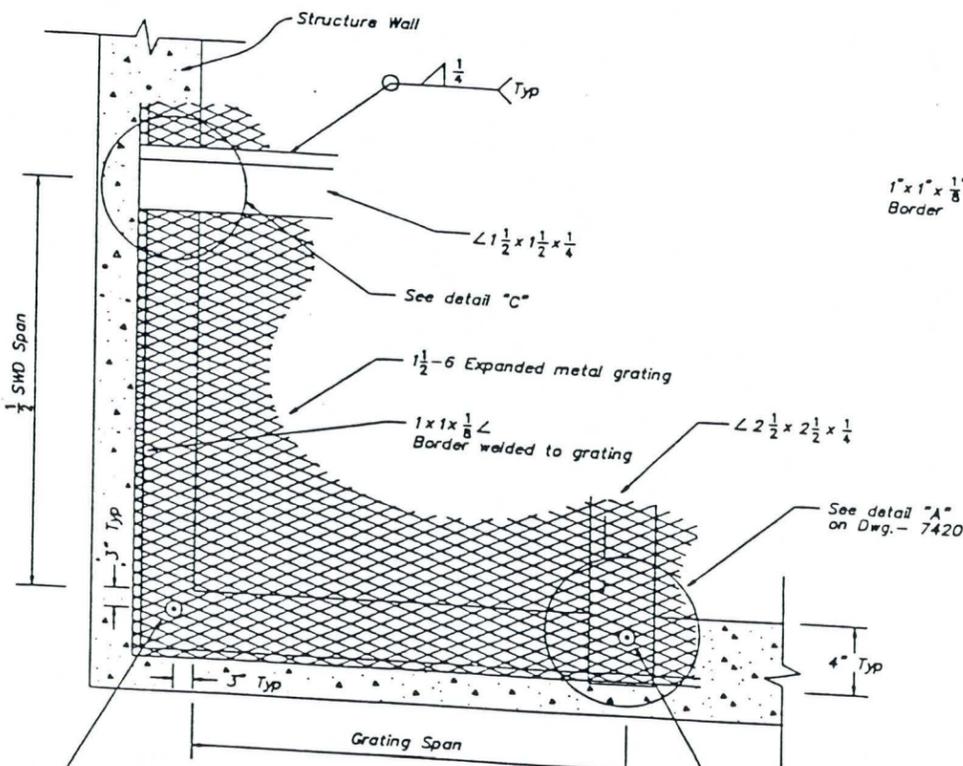
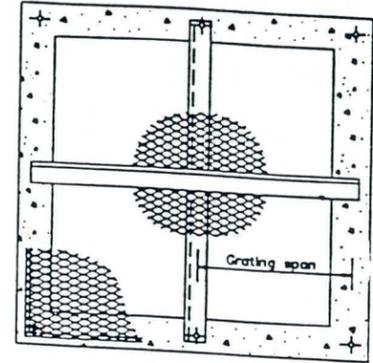
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ENGINEERS HYDROLOGISTS PLANNERS SURVEYORS
4203 NORTH BROWN AVENUE
SCOTTSDALE, ARIZONA 85251
(602) 947-3741



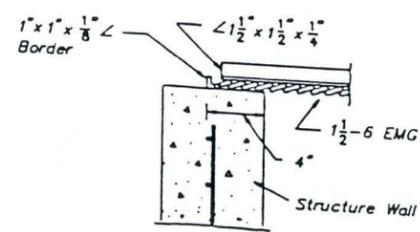
ALWAYS THINK SAFETY

QUEEN CREEK, CHANDLER HEIGHTS CITRUS & SAN TAN JOINT DISTRIBUTION SYSTEM
GRATING FOR TURNOUT STRUCTURES

TYPICAL BOX STRUCTURE GRATING



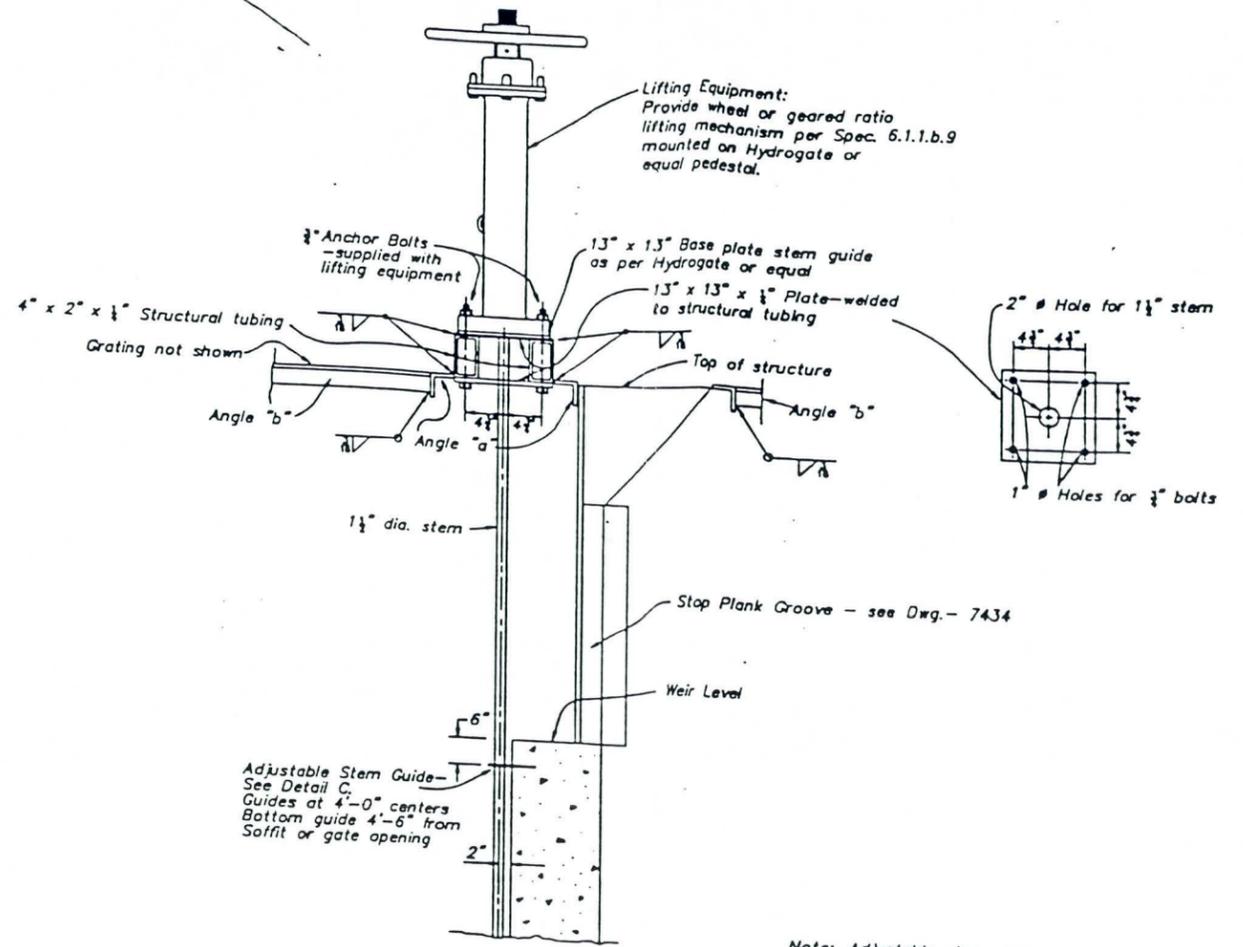
5-1/2" x 3" Weir-it with 1/2" and 3/4" Std steel washer each bolt (Typ at each cor and 2 1/2" x 2 1/2" x 1/4" ends) Install in field using cover as guide



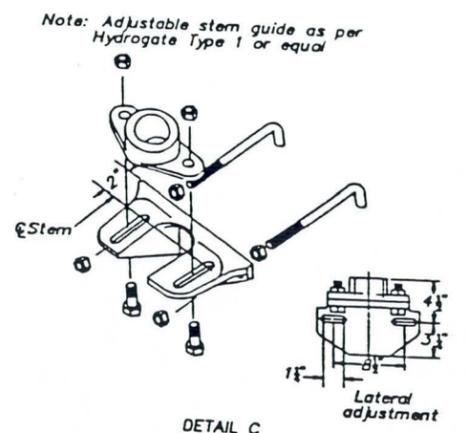
DETAIL "C"

NOTES

- The grating must be placed so that the long direction of the diamond opening is parallel to the grating span.
- Grating span to be a maximum of 36".
LWD - Long direction of diamonds
SWD - Short direction of diamond
- Contractor is to submit shop drawings of grating and support system to Engineer for approval. All final dimensions must fit "as built" box and structure dimensions. The contractor is responsible for this coordination.
- Regular expanded metal grating shall be style 1 1/2" - # 6 (2.5 lb/ft²) ASTM std A-283-587 by AMICO or equal.
- Angles to be used on box structures:
angle a 2" x 2" x 1/2" L
angle b 1 1/2" x 1 1/2" x 1/2" L
- Painting must be done prior to installation and after all modifications and adjustments are made.
- All sharp edges must be ground smooth.
- Grating must be cut and angles located to accommodate Type II Gates (if required). See Plan and Profile Drawings for location, size and number of gates per structure. See Detail E on Dwg. - 7420 for border requirement.



SECTION A-A (From Dwg. - 7416) Weir gate Lifting Hardware



DETAIL C

NOTE: DRAWING NOT TO SCALE

GOOKIN ENGINEERS
ENGINEERS HYDROLOGISTS PLANNERS SURVEYORS
4203 NORTH BROWN AVENUE
SCOTTSDALE, ARIZONA 85251
(602) 947-3741



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UNIVERSITY MICROFILMS
DEPARTMENT OF THE ENGINEER
BUREAU OF MECHANICAL
CENTRAL ARIZONA PROJECT
SALT - GILA DIVISION - ARIZONA

QUEEN CREEK, CHANDLER HEIGHTS CITRUS
& SAN TAN JOINT DISTRIBUTION SYSTEM
GRATING FOR BOX STRUCTURES
& LIFTING EQUIP. DETAILS

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Rittenhouse Channel - Sossaman Road to Ellsworth Road
Phase II

Contract FCD 97-34
Project No. 480012
ADDENDUM NO. 2

January 20, 1998

Contract FCD 97-34

To Contract Documents

Title: Rittenhouse Channel - Sossaman Road to Ellsworth Road - Phase II

Owner: Flood Control District of Maricopa County

This Addendum No. 2 modifies or clarifies Contract FCD 97-34. All other provisions of the contract remain unchanged unless specifically modified herein. The Addendum No. 2 forms a part of the Contract Documents and modifies them as follows:

I. Revisions to Bidding Schedule

- Revise the approximate quantity of Bid Item No. 220-1 to 1,605 SY.
- Revise the approximate quantity of Bid Item No. 220-2 to 7,604 SY.
- Revise the approximate quantity of Bid Item No. 430-1 to 106,363 SY.

Note that the due date of all bids under this Invitation For Bids remains scheduled for January 22, 1998 at 2:00 pm. Bidders are reminded that each addenda must be acknowledged on page 5 of 30 of the bid and a copy of addenda attached to the bid package.

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY



BY: [Signature]
 Michael S. Ellegood, P.E.
 Chief Engineer and General Manager

BY: [Signature]
 Michael Lopez, P.E.
 Civil/Structures Branch Manager