

C.69.97.039.5

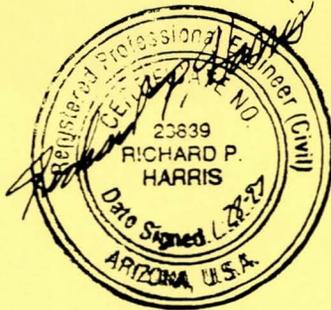
CONSTRUCTION SPECIFICATIONS

FOR

CONTRACT FCD 96-03
CACTUS ROAD STORM DRAIN, PHASE III
75TH AVENUE TO 67TH AVENUE

CACTUS RD STORM DRAIN, PHASE III

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



(Engineer's
Seal)

Prepared For

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Recommended by: Edward A. Raleigh Date: 1/28/97
for Edward A. Raleigh, P.E., Chief
Engineering Division

Issued for Public Bidding by: Stanley L. Smith, Jr. Date: 1-28-97
Stanley L. Smith, Jr., P.E.
Interim 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.

A450.507

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CACTUS ROAD STORM DRAIN
PHASE III

ADDENDUM NO. 2

February 25, 1997

To Contract Documents

Title: Contract FCD 96-03

Owner: Flood Control District of Maricopa County

This Addendum No. 2 modifies or clarifies Contract FCD 96-03. 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:

TO THE CONSTRUCTION DRAWINGS:

Sheet 70 of 74, TYPICAL TRENCH DETAIL - change new base course from 6" A.B.C. to 12" A.B.C. to match Special Provisions Section 336 Permanent Pavement Replacement.

Flood Control District of Maricopa County

By: Heidi Birch
Heidi Birch
Contracts Branch Manager

By: Stanley L. Smith, Jr.
Stanley L. Smith, Jr., P.E.
Interim Chief Engineer and General Manager



Richard P. Harris

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
CONTRACT FCD 96-03
ADDENDUM NO. 1
February 20, 1997

To Contract Documents

Title: Cactus Road Storm Drain

Owner: Flood Control District of Maricopa County

This Addendum No. 1 modifies or clarifies Contract FCD 96-03. 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:

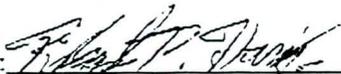
TO THE SPECIAL PROVISIONS:

Subsection 618.1 - Description

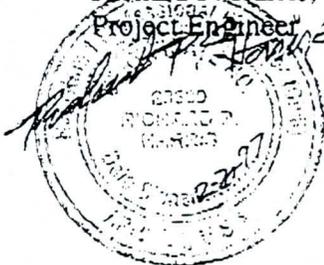
Reinforced Concrete Pipe

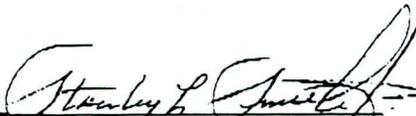
Replace the second sentence with the following: "15" through 84" RCP pipe shall meet the requirements of ASTM C 76, class IV."

Flood Control District of Maricopa County

By: 

Richard P. Harris, P.E.
Project Engineer



By: 

Stanley L. Smith, Jr., P.E.
Interim Chief Engineer and General Manager



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 96-03

Cactus Road Storm Drain, Phase III
75th Avenue to 67th Avenue

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(Area to left reserved
for Engineer's Seal)

CONTROL DISTRICT OF MARICOPA COUNTY

INVITATION FOR BID

BID OPENING DATE: February 27, 1997

LOCATION: This project is located on Cactus Road from 75th Avenue to 67th Avenue.

PROPOSED WORK: Approximately one mile of storm drain varying in size from 84 to 60-inch is to be installed. In addition, 37 catch basins and one slotted drain are to be installed and connected to the new storm drain. Assorted utilities will be relocated as shown on the plans and in accordance with MAG Standard Specifications.

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 February 27, 1997 and then publicly opened and read at 2801 West Durango Street, Phoenix, Arizona 85009. All bids are to be marked in accordance with Section 102.9 of the MAG Uniform Standard Specifications and addressed to the Chief Engineer and General Manager, Flood Control District of Maricopa County, 2801 West Durango Street, Phoenix, Arizona 85009. No bids will be received after the time specified for bid opening. All bids must be submitted on proposal forms furnished by the Flood Control District and included in the Proposal Pamphlet. The Board of Directors reserves the right to reject any and all bids and to waive any informality in any bid received.

ELIGIBILITY OF CONTRACTOR:

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

The bidder shall be required to certify that it has the appropriate "A" Contractor's license in the State of Arizona to perform the before-mentioned type of work. Certification shall be on the form provided herein.

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

CONTRACT TIME:

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

MBE/WBE PARTICIPATION:

For this contract, a goal of five percent (5%) MBE/WBE is established for Minority/Women-Owned Business Enterprises. Instructions and required forms are included in the Minority and Women-Owned Business Enterprise Program Contracting Requirements section. The Maricopa County minority and Women-Owned Business Enterprise Program, effective January 1, 1992, is incorporated by reference.

PRE-BID CONFERENCE:

A Pre-Bid conference will be held on February 19, 1997 at 2:00 p.m. Phoenix time in the Flood Control District New River Conference Room, 2801 West Durango Street, Phoenix, Arizona. All potential contractors and subcontractors are encouraged to attend this pre-bid conference and be prepared at that time to submit in writing and discuss any comments concerning this solicitation.

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

PROJECT PLANS, SPECIAL PROVISIONS AND CONTRACT DOCUMENTS:

Plans and Construction Specifications may be obtained from the Flood Control District of Maricopa County, 2801 West Durango Street, Phoenix, Arizona 85009 upon **payment of \$26.00** 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 \$33.50 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
2,248	LF	84 RCP
2,606	LF	78 RCP
37	EA	Catch Basins

BID

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

Gentlemen:

The following Bid is made for **Cactus Road Storm Drain, Phase III, FCD 96-03**, in the County of Maricopa, State of Arizona.

The following Bid is made on behalf of

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

The Undersigned certifies that the approved Plans, Supplementary General Conditions, Special Provisions, Forms of Contract, Bonds, and Sureties authorized by the Board of Directors and constituting essential parts of the bid, have been carefully examined and also that the work site has been personally inspected.

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

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

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

The Undersigned further proposes to execute the Contract Agreement and furnish satisfactory Bonds and Sureties within ten (10) days of receipt of Notice of Bid acceptance, **TIME BEING OF THE ESSENCE**. The Undersigned further proposes to begin work as specified in the Contract attached hereto, and to complete the work within 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>2/20/97</u>
Addendum No. <u>2</u>	Dated <u>2/25/97</u>
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____

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

BIDDING SCHEDULE

PROJECT: Cactus Road Storm Drain Phase III

CONTRACT: FCD 96-03

ITEM NO.	DESCRIPTION	UNIT	APPROX QTY.	UNIT COST NUMBERS	EXTENDED AMOUNT
105 - 1	Partnering	EA	1	\$4,000.00	\$4,000.00
107 - 1	SWPP, NPDES. Permit Requirements	LS	1	4,500	4,500
107 - 2	Public Information and Notification Allowance	LS	1	\$20,000.00	\$20,000.00
107 - 3	Project Signs Allowance	LS	1	\$2,000.00	\$2,000.00
401 - 1	Traffic Control Devices	LS	1	20,000	20,000
401 - 2	Off Duty Police Officer	HR	400	22	9,200
405 - 1	Remove & Replace Survey Markers, M.A.G. Std. Det. 120-1-A	LS	4	1100	4,400
505 - 1	Special Box Structure, Sta. 134+08	EA	1	11,000	11,000
505 - 2	Special Box Structure, Sta. 180+66	EA	1	11,000	11,000
505 - 3	Concrete Catch Basin Modified R-1, L=10' Special Detail (see plans)	EA	4	3,200	13,200
505 - 4	Concrete Catch Basin Modified R-1, L=17' Special Detail (see plans)	EA	1	3,400	3,400
505 - 5	Concrete Catch Basin M-1, L=6' Phx. Std. Det. P-1569	EA	3	1,900	5,700
505 - 6	Concrete Catch Basin M-1, L=10' Phx. Std. Det. P-1569	EA	15	1,900	28,500
505 - 7	Concrete Catch Basin M-2, L=6' Phx. Std. Det. P-1569	EA	1	2,900	2,900
505 - 8	Concrete Catch Basin M-2, L=17' Phx. Std. Det. P-1569	EA	6	3,000	18,000
505 - 9	Concrete Catch Basin Type "N" Single, Phx Std. Det P-1570	EA	1	2,000	2,000
505 - 10	Concrete Catch Basin Type "R" Double, Special Detail (see plans)	EA	3	4,500	13,500
505 - 11	Concrete Catch Basin Type "R" Triple, Special Detail (see plans)	EA	3	4,700	14,100
610 - 1	Vertical Realignment of Water Mains, M.A.G. Std. Det. 370	EA	2	2,495	4,990
610 - 2	Waterline Replacements, 6" and 8"	EA	6	1,150	6,900
610 - 3	Waterline Replacements, 10"	EA	1	1,150	1,150
610 - 4	Waterline Replacements, 12"	EA	4	1,350	5,400
618 - 1	36" Diameter RCP Storm Drain Pipe	LF	86	125	10,750
618 - 2	48" Diameter RCP Storm Drain Pipe	LF	66	190	12,540
618 - 3	60" Diameter RCP Storm Drain Pipe	LF	119	250	29,750
618 - 4	66" Diameter RCP Storm Drain Pipe	LF	101	260	26,260
618 - 5	78" Diameter RCP Storm Drain Pipe	LF	2,606	335	872,810
618 - 6	84" Diameter RCP Storm Drain Pipe	LF	2,248	333	748,584
618 - 7	15" Diameter RCP Catch Basin Connector Pipe	LF	1,062	60	63,720
618 - 8	24" Diameter RCP Catch Basin Connector Pipe	LF	134	85	11,390
618 - 9	78" x 78" x 15" Prefabricated Tee	EA	7	655	4,585
618 - 10	84" x 84" x 15" Prefabricated Tee	EA	9	655	5,895
618 - 11	84" x 84" x 24" Prefabricated Tee	EA	1	785	785
618 - 12	84" x 84" x 36" Prefabricated Tee	EA	1	1,220	1,220
618 - 13	84" x 84" x 48" Prefabricated Tee	EA	1	1,550	1,550
618 - 14	60" x 60" x 15" x 15" Prefabricated Cross	EA	1	1,310	1,310
618 - 15	66" x 66" x 15" x 15" Prefabricated Cross	EA	1	1,310	1,310
618 - 16	78" x 78" x 15" x 15" Prefabricated Cross	EA	3	1,310	3,930
618 - 17	84" x 84" x 15" x 15" Prefabricated Cross	EA	3	1,310	3,930
618 - 18	84" x 78" Prefabricated Reducer	EA	1	5,260	5,260
618 - 19	Pipe Plug, MAG Std Det. 427 - 15"	EA	1	160	160
618 - 20	Pipe Plug, MAG Std. Det. 427 - 36"	EA	1	200	200
618 - 21	Pipe Plug, MAG Std. Det. 427 - 48"	EA	1	320	320
618 - 22	Pipe Plug, MAG Std. Det. 427 - 60"	EA	1	480	480
618 - 23	Pipe Plug, MAG Std. Det. 427 - 66"	EA	1	550	550
618 - 24	Permenant Pipe Support, M.A.G. Std. Det. 403	EA	14	1,100	15,400
618 - 25	Remove Pipe Plug, 84"	EA	1	4,050	4,050

5,880

BIDDING SCHEDULE

PROJECT: Cactus Road Storm Drain Phase III

CONTRACT: FCD 96-03

ITEM NO.	DESCRIPTION	UNIT	APPROX QTY.	UNIT COST NUMBERS	EXTENDED
					AMOUNT
618 - 26	Concrete Pipe Collar, 24" and Larger, M.A.G. Std. Det. 505	EA	1	550 ⁰⁰	550 ⁰⁰
618 - 27	24" Diameter RGRCP Irrigation Pipe, CI V	EA	73	75 ⁰⁰	5,475 ⁰⁰
621 - 1	24" x 1 3/4" Slotted Drain (see plans)	LF	72	150 ⁰⁰	10,800 ⁰⁰
625 - 1	Storm Drain Manhole, M.A.G. Std. Det. 520 and 522	EA	3	2600 ⁰⁰	7,800 ⁰⁰
625 - 2	Storm Drain Manhole, M.A.G. Std. Det. 521 and 522	EA	6	2700 ⁰⁰	16,200 ⁰⁰
625 - 3	Special Irrigation Manhole	EA	1	4700 ⁰⁰	4,700 ⁰⁰
630 - 1	6" Valve, Box, and Cover, M.A.G. Std. Det. 391-1-A	EA	2	2000 ⁰⁰	4,000 ⁰⁰
630 - 2	8" Valve, Box, and Cover, M.A.G. Std. Det. 391-1-A	EA	1	2250 ⁰⁰	2,250 ⁰⁰
630 - 3	10" Valve, Box, and Cover, M.A.G. Std. Det. 391-1-A	EA	1	2250 ⁰⁰	2,250 ⁰⁰
630 - 4	12" Valve, Box, and Cover, M.A.G. Std. Det. 391-1-A	EA	4	2250 ⁰⁰	9,000 ⁰⁰
TOTAL					2,023,072

2,023,302.00
W

IF BY AN INDIVIDUAL:

By: _____ (Printed Name - Title) _____ (Address)

(Signature) _____ (Date) _____ (Telephone Number)

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

(Firm Name) _____ (Firm Address)
By: _____
(Signature - Title) _____ (Date) _____ (Telephone Number)

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

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

IF BY A CORPORATION:

Kip Incorporated _____ 2949 S Beck Ave Tempe Az _____
(Corporate Name) _____ (Corporation Address) 85204
Ken Fisher - V-President _____ (602) 961-0404 _____
(Printed Name - Title) _____ (Telephone Number)

By: [Signature] _____ 2-27-97 _____
(Signature) _____ (Date)

* Incorporated under the Laws of the State of Arizona Names and Addresses of Officers:

Gilbert G. Lynch _____ 1017 Eucalyptus Walk Rd San Mar _____
(President) _____ (Address) 920
Bill Franceschini _____ 470 Rivergate Way Sacramento CA _____
(Secretary) _____ (Address) 95821
Bill Franceschini _____ 470 Rivergate Way Sacramento CA _____
(Treasurer) _____ (Address) 95821

* 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 intended 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 work performed on site by a Subcontractor.

C.M. Trucking	MBE
City Traffic Services	MBE



(Signature)
Ron Fisher, Vice President

SURETY BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, KIP, INC., as Principal, (hereinafter called the Principal), and the FIRST NATIONAL INSURANCE COMPANY OF AMERICA, a corporation duly organized under the laws of the State of WASHINGTON, as Surety, (hereinafter called the Surety), are held and firmly bound unto the Flood Control District of Maricopa County as Obligee, in the sum of **ten percent (10%)** of the total amount of the bid of Principal, submitted by him to the Flood Control District of Maricopa County, for the work described below, for the payment of which sum, well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, and administrators, successors and assigns, jointly and severally, firmly by these presents, and in conformance with the Arizona Revised Statutes.

WHEREAS, the said Principal is herewith submitting its proposal for Contract FCD-96-03.

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 24TH day of FEBRUARY, A.D., 1997.

BUSH, COTTON, THOMPSON & SCOTT, INC.
Agency of Record, State of Arizona
1500 N.E. IRVING SUITE 135
Agency Address
PORTLAND, OR 97232

KIP, INC.
Principal
By: [Signature]
Title: Vice President

FIRST NATIONAL INSURANCE COMPANY OF AMERICA
Surety
By: [Signature]
BONNIE RIDDLE
Title: ATTORNEY-IN-FACT

Bond Number: N/A

ATTACH SURETY POWER OF ATTORNEY

FIRST NATIONAL SURETY

POWER OF ATTORNEY

FIRST NATIONAL INSURANCE COMPANY OF AMERICA
4333 BROOKLYN AVE NE
SEATTLE, WASHINGTON 98105

4333 Brooklyn Avenue N.E.
Seattle, WA 98105

No. 5469

KNOW ALL BY THESE PRESENTS:

That **FIRST NATIONAL INSURANCE COMPANY OF AMERICA**, a Washington corporation, does hereby appoint

*****Rene' O'Rourke; Robert W. Lagler; Bonnie Riddle; Portland, Oregon*****

its true and lawful attorney(s)-in-fact, with full authority to execute on behalf of the company fidelity and surety bonds or undertakings and other documents of a similar character issued by the company in the course of its business, and to bind **FIRST NATIONAL INSURANCE COMPANY OF AMERICA** thereby as fully as if such instruments had been duly executed by its regularly elected officers at its home office.

IN WITNESS WHEREOF, **FIRST NATIONAL INSURANCE COMPANY OF AMERICA** has executed and attested these presents

this 23 day of October, 19 96

CERTIFICATE

Extract from the By-Laws of **FIRST NATIONAL INSURANCE COMPANY OF AMERICA**:

"Article V, Section 13. - FIDELITY AND SURETY BONDS . . . the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business . . . On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of
FIRST NATIONAL INSURANCE COMPANY OF AMERICA adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,
(i) The provisions of Article V, Section 13 of the By-Laws, and
(ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
(iii) Certifying that said power-of-attorney appointment is in full force and effect,
the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, R. A. Pierson, Secretary of **FIRST NATIONAL INSURANCE COMPANY OF AMERICA**, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of this corporation, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 24TH day of FEBRUARY, 19 97

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

STATE OF ARIZONA }
County of Maricopa }SS

Ray Fisher being first duly sworn, deposes and says:

That he/she is He of Kip, Incorporated bidding on Contract FCD 97-03 for Cactus Road Storm Drain, Phase III, in the County of Maricopa, State of Arizona.

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


(Signature of Affiant)

Subscribed and sworn to before me this 27 day of Feb, 1997.

T. Darleen Harcrow
(Notary Public)

April 12, 1997
My Commission Expires



CERTIFICATION OF LICENSE

Pursuant to A.R.S. Section 32-1169, I hereby state that I hold a current contractor's license, duly issued by the office of the Registrar of Contractors for the State of Arizona, said license has not been revoked, that the license number is: 074998-03A that my privilege license number (as required by A.R.S. Section 42-1305) is: 07-29529-P; and that, if any exemption to the above licensing requirements is claimed;

(1) The basis for the claimed exemption is: N/A 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.

Don Fisher
Signature of Licensee Don Fisher

Date: 2-27-97

Company: Kip, Incorporated

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

- A. The following conditions will apply in the calculations of the percentage attainment:
1. All M/WBE firms used in attainment of the goal must be certified with the Maricopa County Minority Business Office (MBO). The MBO is located at 2901 West Durango Street, Phoenix, Arizona 85009, telephone 506-4068. In addition, only those firms certified prior to the bid opening will be considered in the attainment of the goal.
 2. Prime contractor subcontracts to MBE or WBE:
The M/WBE amount to be applied to the goal will be based on that portion (dollar value) of the contract that the M/WBE performs. For example, if a prime contractor subcontracts work amounting to \$100,000 of a contract for which the total project cost is \$1,000,000 the M/WBE participation will be credited as 10 percent.
 3. Prime Minority Contractor:
An M/WBE prime contractor will be credited with the M/WBE participation for that portion of the contract which they themselves perform plus that portion subcontracted to other M/WBE firms. For example, if an M/WBE prime contractor proposes to perform 50 percent of a project quoted as \$1,000,000 and subcontracts 25 percent to an MBE firm and 25 percent to a non-M/WBE firm, M/WBE participation will be credited as 75 percent, or \$750,000.
 4. Minority-Non Minority Joint Venture:
A joint venture consisting of M/WBE participation and non-M/WBE business enterprises, functioning as a prime contractor, will be credited with minority participation on the basis of the percentage of profit accruing to the M/WBE firm. For example, if a M/WBE and non-M/WBE joint venture proposes to perform 50 percent of a \$1,000,000 project and 50 percent of the joint venture profits (\$500,000) are to accrue to the M/WBE partner in the joint venture, M/WBE participation will be credited at 25 percent or \$250,000.
 5. Lower Tier Non-M/WBE Participation:
M/WBE subcontractors proposing to further subcontract to non-M/WBE contractors shall not have that portion of subcontracting activity considered when determining the percentage of M/WBE participation.
 6. M/WBE Suppliers:
Any M/WBE supplier that performs a commercially useful function, manufactures or substantially alters the material or product it supplies will have that portion of activity considered when determining the percentage of M/WBE participation.
 7. M/WBE Trucking:
Credit for trucking by MBEs or WBEs will be the amount to be paid when the MBE or WBE trucker will perform the trucking with his/her trucks, tractors, and employees or when a MBE or WBE trucking broker has signed agreements with MBE and WBE truckers.

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

A SAMPLE of the "Actual M/WBE Participation Affidavit", that must be completed and returned by the first and second bidders to the Minority Business Office by 4:00 p.m. on the seventh calendar day after bid opening, if M/WBE goals have been established, is provided for information purposes. A copy of the sample or the sample form itself may also be used. The affidavit will list the M/WBE participation by M/WBE firm name and the relative dollar value of the M/WBE contract. The information in this affidavit is binding on the contractor, to the extent that any amounts may be

increased and not decreased, and that if any listed M/WBE's are unable to enter into a subcontract with contractor, the contractor **must** provide a written report to the Procurement Officer, through the Owner's representative in accordance with instructions provided elsewhere in this document.

C. Good Faith Efforts:

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

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

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

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

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

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

1. The date bidder requested assistance in writing, in person, or by telephone from the MBO. The bidder should request assistance from the MBO office in order for a determination to be made. **As Maricopa County M/WBE listings are updated frequently, bidders shall contact the MBO to ensure that they have the most recent edition.**
2. Names, addresses and telephone numbers; and dates of notification of Maricopa County certified MBEs and WBEs solicited by direct mail for this project; and dates and methods used for follow up of initial solicitations to determine with certainty whether MBEs or WBEs were interested in subcontracting. (SEE FOLLOWING NOTE).
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.

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

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

1. A description of the efforts made to assist 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 will 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 Date	Name	Tel. No.
--------------------------------------	-------------	-----------------

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 SHALL 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 of bidder's good faith efforts to obtain the participation. This documentation will be reviewed by the MBO to determine whether in fact a comprehensive "good faith" effort has been implemented. The required affidavit shall be obtained by the apparent first and second low bidders from the Minority Business Office, 2901 West Durango Street, Phoenix, Arizona 85009, Telephone 506-4068, following the bid opening and verbal notification from the Procurement Officer of the Procurement Agency; a SAMPLE affidavit form for reference purposes follows.

Kip Incorporated
Name of Firm

By: [Signature]
Signature

Ron Fisher, Vice President
Title

STATE OF ARIZONA)
)ss
County of Maricopa)

Subscribed and sworn to before me this 27 day of Feb., 1997

[Signature]
Notary Public

My Commission Expires: Apr 12 1997





Maricopa County Minority and Women-owned Business Enterprise Program
Actual DBE/MBE/WBE Participation Affidavit
 (Completed Affidavit Must be submitted within seven calendar days following bid opening)

KIP INCORPORATED
 Name of Prime Contractor
Ron Fisher
 Contact Person
8949 S. Beck Avenue
 Street No. AZ 85284
Tempe, State Zip Code
 City

Cactus Rd. Storm Drain, Phase III/
 Project/Contract Number FCD 96-03
 Total Amount of Contract: \$2,023,302.00

<u>Minority/Women-owned Firm</u>	<u>Principal</u>	<u>Address</u>	<u>Type of Work</u>	<u>Subcontract Amount</u>
<u>C. M. Trucking</u>	<u>Steve Mancini</u>	<u>1457 W Pueblo Mesa</u>		<u>100,200</u>
<u>State Traffic Services</u>	<u>Heather</u>	<u>1509 W Mesa Ct. Mesa</u>		<u>9,200</u>
<u>Preston Masonry Inc</u>	<u>Phil Peral</u>	<u>1601 W Hatcher Rd Phoenix</u>		<u>7,200</u>

The undersigned will enter into a formal agreement with the D/M/WBE contractor/suppliers listed above upon execution of a formal contract with Maricopa county.

State of Arizona)
)SS
 County of Maricopa)

Subscribed and sworn before me this 13th day of

March, 1997 By T. Darleen Harcrow
 NOTARY PUBLIC

My Commission Expires: April 12, 1997



Ron Fisher
 Signature Ron Fisher
 Vice President 03/13/97
 Title Date

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: Cactus Road Storm Drain, Phase III
Contract Number: FCD 96-03
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

C 69.97-039.5

CONTRACT AGREEMENT

THIS AGREEMENT, made and entered into this 26th day of March, 1997 by and between the FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, hereinafter called the OWNER, acting by and through its BOARD OF DIRECTORS, and KIP, Incorporated, hereinafter called the CONTRACTOR.

WITNESSETH: That the said CONTRACTOR, for and in the consideration of the sum of two million, twenty-three thousand, three hundred two dollars (\$2,023,302.00) 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-96-03, Cactus Road Storm Drain, Phase III**, 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 cancelled without penalty or further obligation within three years after execution if any person significantly involved in initiation, negotiation, securing, drafting or creating a contract on behalf of the OWNER is, at any time while the contract or any extension of the contract is in effect, an 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.

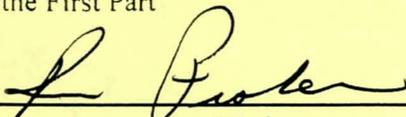
ARTICLE VII - COMPLIANCE WITH LAWS: The CONTRACTOR is required to comply with all Federal, State and local ordinances and regulation. The CONTRACTOR's signature on this contract certifies compliance with the provisions of the I-9 requirements of the Immigration Reform Control Act of 1986 for all personnel 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.

KIP INCORPORATED
Party of the First Part

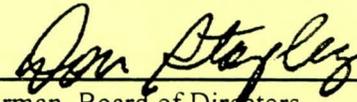
By: 
Signature Ron Fisher

Title: Vice President

Date: 3/13/97

99-193846Y
Tax Identification Number

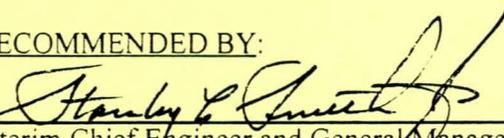
FLOOD CONTROL DISTRICT OF
MARICOPA COUNTY PARTY OF
THE SECOND PART

By:  3/26/97
Chairman, Board of Directors

ATTEST:

Clerk of the Board 010897

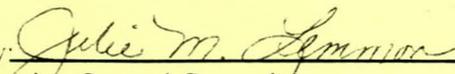
RECOMMENDED BY:


Interim Chief Engineer and General Manager
Flood Control District of Maricopa County

Date: 3-18-97

LEGAL REVIEW

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

By: 
District, General Counsel

Date: 3/24/97

STATUTORY PAYMENT BOND PURSUANT TO TITLE 34
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS:

That, KIP, Incorporated (hereinafter called the Principal), as Principal, and First National Insurance Company of America a corporation organized and existing under the laws of the State of Washington, with its principal office in the City of Seattle (hereinafter called the Surety), as Surety, are held and firmly bound unto the Flood Control District of Maricopa County, in the County of Maricopa, State of Arizona (hereinafter called the Oblige), in the amount of two million, twenty-three thousand, three hundred two (\$2,023,302.00), for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Flood Control District of Maricopa County, dated the ____ day of _____, 1997 for Contract FCD-96-03 which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

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

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

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

Witness our hands this 14th day of March, 1997.

Bush, Cotton, Thompson & Scott, Inc.
Agency of Record, State of Arizona
1500 N.E. Irving Suite 135 Portland, OR 97232
Agency Address

BOND NUMBER: 5874596

ATTACH SURETY POWER OF ATTORNEY

KIP, Incorporated
Principal
By: [Signature]
Ron Fisher
Title: Vice President

First National Insurance Company of America
Surety Seal
By: [Signature]
Rene O'Rourke
Title: Attorney-In-Fact

Countersigned by Arizona Resident Agent
[Signature]
Virginia Bradley, Acordia of Arizona
3020 E. Camelback Road, Suite 200
Phoenix, Arizona 85016-4400

FIRST NATIONAL SURETY

POWER OF ATTORNEY

FIRST NATIONAL INSURANCE COMPANY OF AMERICA
4333 BROOKLYN AVE NE
SEATTLE, WASHINGTON 98105

4333 Brooklyn Avenue N.E.
Seattle, WA 98105

No. 5469

KNOW ALL BY THESE PRESENTS:

That **FIRST NATIONAL INSURANCE COMPANY OF AMERICA**, a Washington corporation, does hereby appoint

*****Rene' O'Rourke; Robert W. Lagler; Bonnie Riddle; Portland, Oregon*****

its true and lawful attorney(s)-in-fact, with full authority to execute on behalf of the company fidelity and surety bonds or undertakings and other documents of a similar character issued by the company in the course of its business, and to bind **FIRST NATIONAL INSURANCE COMPANY OF AMERICA** thereby as fully as if such instruments had been duly executed by its regularly elected officers at its home office.

IN WITNESS WHEREOF, **FIRST NATIONAL INSURANCE COMPANY OF AMERICA** has executed and attested these presents

this 23 day of October, 19 96

CERTIFICATE

Extract from the By-Laws of FIRST NATIONAL INSURANCE COMPANY OF AMERICA:

"Article V, Section 13. - FIDELITY AND SURETY BONDS . . . the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business . . . On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of FIRST NATIONAL INSURANCE COMPANY OF AMERICA adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,
(i) The provisions of Article V, Section 13 of the By-Laws, and
(ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
(iii) Certifying that said power-of-attorney appointment is in full force and effect,
the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, R. A. Pierson, Secretary of **FIRST NATIONAL INSURANCE COMPANY OF AMERICA**, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of this corporation, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 14th day of March, 19 97

STATUTORY PERFORMANCE BOND PURSUANT TO TITLE 34
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS:

That KIP, Incorporated hereinafter called the Principal, as Principal, and First National Insurance Company of America a corporation organized and existing under the laws of the State of Washington, with its principal office in the City of Seattle (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, twenty-three thousand, three hundred two dollars (\$2,023,302.00), for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Flood Control District of Maricopa County, dated the _____ day of _____, 1997, for Contract FCD-96-03, 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 14th day of March, 1997.

Bush, Cotton, Thompson & Scott, Inc.

Agency of Record, State of Arizona
1500 N.E. Irving Suite 135 Portland, OR 97232
Agency Address

BOND NUMBER: 5874596

ATTACH SURETY POWER OF ATTORNEY

Contract FCD 96-03

KIP, Incorporated
Principal

By: [Signature]
Ron Fisher

Title: Vice President

First National Insurance Company of America
Surety Seal

By: [Signature]
Rene' O'Rourke

Title: Attorney-In-Fact

Countersigned by Arizona Resident Agent

[Signature]
Virginia Bradley, Acordia of Arizona
3020 E. Camelback Road, Suite 200
Phoenix, Arizona 85016-4400



POWER OF ATTORNEY

FIRST NATIONAL INSURANCE COMPANY OF AMERICA
4333 BROOKLYN AVE NE
SEATTLE, WASHINGTON 98105

4333 Brooklyn Avenue N.E.
Seattle, WA 98105

No. 5469

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*****Rene' O'Rourke; Robert W. Lagler; Bonnie Riddle; Portland, Oregon*****

its true and lawful attorney(s)-in-fact, with full authority to execute on behalf of the company fidelity and surety bonds or undertakings and other documents of a similar character issued by the company in the course of its business, and to bind **FIRST NATIONAL INSURANCE COMPANY OF AMERICA** thereby as fully as if such instruments had been duly executed by its regularly elected officers at its home office.

IN WITNESS WHEREOF, **FIRST NATIONAL INSURANCE COMPANY OF AMERICA** has executed and attested these presents

this 23 day of October, 1996

CERTIFICATE

Extract from the By-Laws of **FIRST NATIONAL INSURANCE COMPANY OF AMERICA**:

"Article V, Section 13. - FIDELITY AND SURETY BONDS . . . the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business . . . On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of
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(i) The provisions of Article V, Section 13 of the By-Laws, and
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IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 14th day of March, 1997

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
CERTIFICATE OF INSURANCE

CONTRACT NO: FCD 96-03

PROJECT TITLE: Cactus Road Storm Drain, Phase III

NAME AND ADDRESS OF INSURANCE AGENCY BUSH, COTTON, THOMPSON & SCOTT, INC. 1500 N.E. IRVING, SUITE 135 PORTLAND, OREGON 97232	INSURANCE COMPANIES AFFORDING COVERAGES	
	Company Letter	A TRANSPORTATION INS. CO.
	Company Letter	B INSURANCE CO. OF THE WEST
	Company Letter	C
	Company Letter	D
	Company Letter	E
NAME AND ADDRESS OF INURED KIP, INC. 8949 S. BECK AVENUE TEMPE, ARIZONA 85284	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	COMMERCIAL GENERAL <input checked="" type="checkbox"/> LIABILITY FORM <input checked="" type="checkbox"/> PREMISES OPERATIONS <input checked="" type="checkbox"/> CONTRACTUAL <input checked="" type="checkbox"/> BROAD FORM PROPERTY DAMAGE <input checked="" type="checkbox"/> EXPLOSION & COLLAPSE <input checked="" type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS HAZARD <input checked="" type="checkbox"/> UNDERGROUND HAZARD <input checked="" type="checkbox"/> INDEPENDENT CONTRACTORS <input checked="" type="checkbox"/> PERSONAL INJURY	1036478580	4/1/96	4/1/97	GENERAL AGGREGATE	2,000,000
					PRODUCTS/COMPLETED OPERATIONS AGG.	1,000,000
					BODILY INJURY AND PROPERTY DAMAGE	1,000,000
					PERSONAL INJURY	1,000,000
					EACH OCCURANCE	
A	COMPREHENSIVE AUTO <input checked="" type="checkbox"/> LIABILITY & NON-OWNED	BUA103647594	4/1/96	4/1/97	1,000,000 SAME AS ABOVE COMBINED SINGLE	
A	<input checked="" type="checkbox"/> EXCESS LIABILITY	CUP1036478613	4/1/96	4/1/97	NECESSARY IF UNDERLYING NOT ABOVE MINIMUM	4,000,000 4,000,000
B	<input checked="" type="checkbox"/> WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY	WOR1285487	4/1/96	4/1/97	STATUTORY each accident	1,000,000
	<input type="checkbox"/> ENGINEERS PROFESSIONAL LIABILITY				EACH CLAIM AND ANNUAL AGGREGATE	
	<input checked="" type="checkbox"/> OTHER	In addition to the Flood Control District, add Maricopa County, City of Peoria and City of Glendale as additional insured.				

Except for Professional Liability Insurance and Workers' Compensation Insurance, the Flood Control District of Maricopa County is added as an additional insured on those types of policies described herein which are required to be furnished by this contract entered into between the insured and the Flood Control District. To the extent provided in this contract, insured shall hold harmless the Flood Control District of Maricopa County from liability arising out of any services provided or duty performed by insured as required by statute, law, purchase order or otherwise required, with the exception of liability for loss or damage resulting from the sole negligence of Flood Control District, its agents, employees or indemnities. It is agreed that any insurance available to the named insured shall be primary of other sources that may be available. It is further agreed that no policy shall expire, be cancelled, 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 / MARCH 7, 1997

Rene O'Rourke
AUTHORIZED REPRESENTATIVE

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.
BLANKET ADDITIONAL INSURED ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

WHO IS AN INSURED (Section II) is amended to include as an insured any person or organization (called additional insured) whom you are required to add as an additional insured on this policy under:

1. A written contract or agreement; or
2. An oral agreement or contract where a certificate of insurance showing that person or organization as an additional insured has been issued; but
the written or oral contract or agreement must be:
 - a. currently in effect or becoming effective during the term of this policy; and
 - b. executed prior to the "bodily injury", "property damage", "personal injury", or "advertising injury".

The insurance provided to the additional insured is limited as follows:

1. That person or organization is only an additional insured with respect to liability arising out of:
 - a. Premises you own, rent, lease, or occupy; or
 - b. "Your work" for that additional insured by or for you.

2. The Limits of Insurance applicable to the additional insured are those specified in the written contract or agreement or in the Declarations for this policy, whichever is less. These Limits of Insurance are inclusive and not in addition to the Limits of Insurance shown in the Declarations.

The insurance provided to the additional insured does not apply to "bodily injury", "property damage", "personal injury", or "advertising injury" arising out of an architect's, engineer's, or surveyor's rendering of or failure to render any professional services including:

1. The preparing, approving, or failing to prepare or approve maps, drawings, opinions, reports, surveys, change orders, design or specifications; and
2. Supervisory, inspection, or engineering services.

Any coverage provided hereunder shall be excess over any other valid and collectible insurance available to the additional insured whether primary, excess, contingent or on any other basis unless a contract specifically requires that this insurance be primary or you request that it apply on a primary basis.

0002000510364785803757



It is further agreed that:

The Contractor hereby agrees to indemnify and save harmless the FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, Maricopa County, the City of Glendale and the City of Peoria, or any of their departments, agencies, officers or employees, from and against all loss, expense, damage or claim of any nature whatsoever which is caused by any activity, condition or event arising out of the performance or nonperformance of any of the provisions of this Agreement, with the exception of liability for loss resulting from the sole negligence of the Flood Control District, its agents, employees, or indemnities.

The Flood Control District of Maricopa County, Maricopa County, the City of Glendale and the City of Peoria, shall in all instances be indemnified against all liability, losses and damages of any nature for or on account of any injuries to or death of persons or damages to or destruction of property arising out of or in any way connected with the performance or nonperformance of this Agreement, except such injury or damage as shall have been occasioned by the sole negligence of the Flood Control District of Maricopa County, Maricopa County, the City of Glendale and the City of Peoria.

The above cost of damages incurred by the Flood Control District of Maricopa County, Maricopa County, the City of Glendale and the City of Peoria or any of their departments, agencies, officers or employees, or others aforesaid shall include in the event of an action, court costs, expenses for litigation and reasonable attorney's fees.

KIP INCORPORATED

Firm

Date

3/13/97

KIP INCORPORATED

Principal

By:

Ron Fisher

Vice President

Title

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
CONTRACT FCD 96-03
CACTUS STORM DRAIN
PHASE III
75TH AVENUE TO 67TH AVENUE**

SUPPLEMENTARY GENERAL CONDITIONS

SPECIFICATIONS:

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

PRECEDENCE OF CONTRACT DOCUMENTS:

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

Construction contract specifications for all portions of this project shall conform to the requirements of the Uniform Standard Specifications for Public Works Construction and the City of Phoenix Supplement (1994), sponsored and distributed by the Maricopa Association of Governments (Latest Edition), except as noted, including Revisions and Corrections. In specific cases where the City of Phoenix Supplement is specified in the plans, they shall supersede the Maricopa Association of Governments Uniform Standard Specifications.

Subsection 101.2 - Definitions and Terms:

1. Change the definition of the phrase "Board of Supervisors" to being the Board of Directors acting under the authority of the laws of the State of Arizona and in their capacity of the Board of Directors of the Flood Control District of Maricopa County.
2. Change the definition of the phrase "Budget Project" to being a project financed by funds set aside in the annual budget or otherwise approved by the Flood Control District of Maricopa County Board of Directors.
3. Add to the definition of the phrase "Contract Documents", the phrase "Supplementary General Conditions".
4. Change the definition of the term "Engineer" to being the person appointed by the Flood Control District of Maricopa County Board of Directors to the office of Chief Engineer and General Manager of the Flood Control District of Maricopa County acting directly or through its authorized representative, the Chief of the Flood Control District of Maricopa County Construction and Operations Division.

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

Subsection 102.5 - Preparation of Proposal: 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 will 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, **must 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 and show appropriate changes to the Bidding Schedule, and receipt of addenda acknowledged in the Proposal shall be invalid.**

The bidder's Arizona State Contractor's License number and the classification under which it proposes to perform the work shall be shown on the proposal. **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: Replace with the following:

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

Subsection 102.7 - Irregular Proposals: Add the following:

- (F) If the Maricopa County Minority and Women-Owned Business Enterprises Assurances Affidavit is not completed and submitted.
- (G) If any addenda are not acknowledged and attached.
- (H) If Owner's bond forms are not used.
- (I) If the entire specifications document is not returned
- (J) If the Owner's provided Certificate of Insurance form is not used.

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.**
- (1) **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.
- (2) **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.
- (3) **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).
- (4) **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.

Subsection 105.1 - Authority of Engineer: Add the following:

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. 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. District 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 District for work on the project) occasioned thereby. Whether or not Engineer accepts a substitute item so proposed or submitted by Contractor, Contractor shall reimburse District for the charges of Engineer and Engineer's Consultants for evaluating each such proposed substitute item.

Subsection 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:

Partnering:

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

This partnering relationship will be bilateral in makeup. Any cost associated with effectuating partnering will be covered by the Bid Item. The partnering workshop shall be scheduled after award of the contract, and prior to the Notice to Proceed, and shall be facilitated by a third party competent in the fundamentals of partnering, and mutually acceptable to Contractor and Owner. 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, and will be for a total amount not to exceed the amount shown in the bid schedule for the item:

Subsection 105.6 - Cooperation with Utilities: Add the following paragraph:

An attempt has been made to determine the location of all 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 Contractor is to protect in place any utilities which are not designated as "to be relocated by others."

At numerous locations utility lines will need to be supported across the storm drain trench. The contractor is to coordinate with the utility owner for the support of these lines, and shall pay to the utility owner all applicable fees for bracing or support.

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

Flood Control District of Maricopa County,	
Fred Fuller	602/506-1501 or 4728
Southwest Gas	
Preston Ford	602/484-5306
US West Communications	
Cathy Schmidt	602/395-2407
Salt River Project(Electrical)	
Joe Penunuri	602/236-5900
Salt River Project(Water Operations)	
Susana Ortega	602/236-5799
Arizona Public Service	
Joe Herrera	602/932-6758
City of Peoria Engineering	
Dan Nissen	602/412-7210
City of Peoria Fire Dept.	
Michael Susco	602/412-7440
City of Glendale Engineering	
Dan Sherwood	602/930-3630
Glendale Traffic Engineering	
Dick Janke	602/930-2762
City of Glendale Fire Dept.	
Brooke Edwards	602/930-3400
MCDOT Traffic Signals	
Manny Burruel	602/506-8600
Location Staking(A.P.S.,US West, S.R.P.)	602/263-1100

Electrical Service

The entire project lies within the SRP electrical service area. OSHA and ASWC require a minimum ten foot clearance from overhead lines.

For power pole tracing, contact the power company 7 working days in advance. All fees for pole bracing are to be paid by the contractor.

Salt River Project (SRP) Irrigation

This project includes work on and adjacent to Salt River Project (SRP) irrigation facilities. SRP will require the contractor to execute a Construction Clearance Agreement (CCA) for work on and adjacent to their system. A copy of a blank CCA is available for review in the District's Contracting Branch located at 2801 West Durango Street, Phoenix, Arizona. This agreement must be executed before SRP will issue a construction clearance. The contractor for this project shall be responsible to execute this agreement. If the work on the SRP irrigation system will be done by a subcontractor, both the prime contractor and the subcontractor shall sign the agreement with SRP. A copy of the fully executed agreement shall be delivered to the project inspector prior to the start of work on SRP facilities. The inspector shall also receive copies of any revisions to the agreement that may become necessary during the course of the project construction. FCD wishes to emphasize item 4 of the terms and conditions of the CCA. Dry-up of SRP facilities is at the sole discretion of the Water Master. Dry-ups may take several weeks to schedule and may be impractical due to seasonal demands.

At numerous locations the contractor is to construct catch basins and connector pipes adjacent to SRP irrigation pipes ranging in size from 24" to 48". Many of these pipes are fragile cast in place pipe, and the contractor is cautioned to use care when working around them. If the contractor's operations disturb the surrounding soil around the pipe, the contractor is to replace the affected pipe with RGRCP and connect it to the original pipe using a concrete collar. A minimum of two full lengths of RGRCP shall be used. This is because the surrounding soil provides part of the structural integrity of cast in place pipe. The contractor should plan on replacing existing irrigation pipes with RGRCP where they come in close proximity to the catch basins. The contractor is to make minor deflections to the pipe as necessary to fit the proposed catch basins.

The Contractor shall provide shop drawings for protecting in place any of SRP's irrigation lines, for review and approval prior to working in the area. Special consideration should be given to supporting the 48" RGRCP at 67th avenue. And the 24" pipes at 71st avenue.

Southwest Gas Corporation (SWG)

SWG pipes which cross trenches more than 3 feet wide must be supported in a manner where the supporting material does not damage the pipe or its protective wrapping. Please call Southwest Gas at 484-5306 to review and approve all proposed pipe support designs.

Please see Special Provisions Section 601.0 regarding trenching and backfilling.

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

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.

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 District 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 shall obtain approval of the engineer when using 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 107.1 - Laws to be Observed: Add the following Paragraph (G):

- (G) Contractor shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor Regulations (29 CFR Part 5). Contractor shall also comply with all applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101-12213) and all applicable federal regulations under the Act, including CFR Parts 35 and 36.

Subsection 107.2 - Permits: Replace with the following:

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

Subsection 107.2.1 - NPDES Permit Requirements: Add the following

- 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 Environmental Protection Agency (EPA), 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 District 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 no later 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:

Dan Nissen, City Engineer
City of Peoria
8401 West Monroe Street
Peoria, AZ 85345

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 District 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 District 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 District 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:

Subsection 107.2.2 - Hauling and Grading Permit

A haul plan must be reviewed and approved by the City of Glendale (the contact person with the City of Peoria is Mr. Larry Fudurich at 412-7432). When the quantity of fill or excavation to be hauled exceeds 10,000 cubic yards, or when the duration of the haul is for more than 20 working days (i.e., Monday through Friday, inclusive), it shall be unlawful to haul, or cause to be hauled, fill or excavation, by truck, except upon the issuance of a haul route and construction permit by the City of Peoria for such conditions as may reasonably be necessary to prevent creation of a nuisance or hazard to the public. Such conditions may include, but not be limited to:

1. Designation of specific routes to be used.
2. Designation of specific locations and times of day access will be made to and from public right-of-way.
3. Provision for safety precautions, such as the use of barricades, warning or traffic signs, flagmen, or police officers for traffic control.
4. Payment of a cash bond in the amount of five hundred dollars (\$500) in order to secure the cost of the removal of any spillage of fill or excavation and the cleaning of the right-of-way by the City, such bond to be returned to the applicant if no spillage occurs or if any spillage is removed and the right-of-way cleaned by the applicant to the satisfaction of the City Engineer.
5. Any violation of the terms or conditions of the permit shall be sufficient grounds for the City Engineer to revise the permit.

Subsection 107.5 - Safety Health and Sanitation Provisions: 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 District-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 107.6.3 - Public Information and Notification: Add the following:

The Contractor shall provide a community relations program for this project, which shall be designed to run the full length of calendar days in the contract for this project. The program will include but not be limited to the following:

1. Distributing a preconstruction information letter to all residences, businesses, schools, etc. within an area bounded by 75th Avenue, 65th Avenue, Cholla Street, and Sweetwater Street.
2. Printing and distribution of public notices and/or newsletters.

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

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

At a date agreed upon between the Engineer and Contractor, and prior to the start of work, the Contractor shall notify, by letter, all affected businesses and residents of construction plans and schedules within the geographic area identified above. In addition, all schools and emergency services which serve the geographic area will also be notified even though they may be located outside the geographic area described above. The letter shall contain, as a minimum, the following information:

1. Name of Contractor
2. 24-hour telephone complaint number
3. Brief description of the project
4. Name of Contractor Project Superintendent
5. Name of Engineer
6. Name of Area Supervisor
7. Construction schedule including anticipated work hours
8. Traffic regulations including lane restrictions
9. City of Peoria Street Transportation 24-hour phone number.

The plan and work which is eligible for reimbursement shall include the following: meetings with impacted businesses, schools, emergency services and residents, scheduling, preparation and distribution of newsletter at least bi-weekly, and maintaining a 24-hour telephone hotline for complaints.

The Contractor shall submit a final report/evaluation of the Public Information and Notification process performed for this project. This report shall be submitted before the Contractor receives final payment.

Payment will be based on invoices, and will be for a total amount not to exceed the amount shown in the bid schedule for the item, "PUBLIC INFORMATION AND NOTIFICATION ALLOWANCE", for work performed in notifying and coordinating with the local population impacted by this project. To cover the cost for administration and supervision, the General Contractor may add an amount equal to not more than five percent(5%) of the accumulated total invoiced billing for actual public information services provided by a subcontractor. This cost for administration and supervision will be considered included in the "PUBLIC INFORMATION AND NOTIFICATION ALLOWANCE".

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 routes. Project signs shall include the names of all agencies participating in the project. Signs shall not be constructed or installed prior to approval by the Engineer of their designs, sizes and proposed locations. 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.

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

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

Subsection 108.1 - Notice to Proceed: Delete Paragraph (A) and replace with the following:

(A) Contractor shall commence work within seven (7) calendar days after the date of the Notice to Proceed and complete all work within two hundred ten (210) calendar days beginning the day following the effective date specified in the Notice to Proceed. This includes the time necessary to fabricate the pipe. No time extension will be granted for pipe fabrication and delivery.

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

Subsection 108.4.1 - Add the following:

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

Subsection 108.5 - Limitation of Operations: Add the following:

Should Contractor elect to perform any work after regular working hours, on weekends, or legal holidays, "with or without written approval of Engineer", any charges incurred by District 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 District for Consultant Administrative and Inspection Services on this project will be added to the daily charges as indicated by TABLE 108, LIQUIDATED DAMAGES, and will be deducted from monies due or to become due to 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 District from deducting from monies due or to become due to Contractor for any other costs incurred by District 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 completed and sealed As-Built Plans and 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 District within thirty (30) days following receipt of the As-Built Plans and Engineer's final estimate and receipt by District of Consent of Contractor's Surety to said final payment. If payment will be longer than thirty (30) days as aforesaid, District will provide Contractor specific written findings for reasons justifying the delay in payment.
- (C) Contractor's pay estimates will be initially processed by Districts' Construction and Operations Division on a Tuesday, Tuesdays being the only day Contractor may submit a pay estimate.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY CONTRACT
FCD 96-03
CACTUS ROAD STORM DRAIN
PHASE III

SPECIAL PROVISIONS

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 Engineer and the Engineer's Staff shall be equipped with the following:

- a. Lights: Electric lighting, non glare type to provide adequate illumination at desk height.
- b. Heating and cooling: Capable of maintaining an air temperature of 72 degrees.
- c. 1 - Office desk with locking drawers and padded swivel chair
- d. 8 - Folding office chairs
- e. 2 - Three by five foot tables
- f. 1 - Dry erase board
- g. 1 - Office phone
- h. 1- Paper Facsimile Machine (including paper)
- i. Maintenance: The Contractor shall maintain all the facilities and furnished equipment in good working condition.

Subsection 202.2-Payment

No separate payment shall be made for the Engineer's field office, the cost thereof being an incidental cost to the work.

SECTION 329 - Tack Coat

Subsection 329.1 - Description

Construction shall conform to MAG Standard Specifications Section 329, except as modified herein.

Subsection 329.3 - Application

Tack coat shall be applied at a rate of 0.05 to 0.10 gallons per square yard.

Subsection 329.7 - Payment

No separate measurement or payment shall be made for tack coats; the cost thereof shall be included in the price bid for the construction of the item for such work that pavement replacement is incidental or appurtenant.

SECTION 334 - Preservative Seal for Asphalt Concrete

Subsection 334.1 - Description

Construction shall conform to MAG Standard Specifications Section 334, except as modified herein.

Subsection 334.3 - Construction Method

Preservative seal coat shall be applied at a rate of 0.05 to 0.10 gallons per square yard diluted.

Subsection 334.5 - Payment

No separate measurement or payment shall be made for preservative seal coats; the cost thereof, shall be included in the price bid for the construction for such work that pavement replacement is incidental or appurtenant.

SECTION 336 - Permanent Pavement Replacement

Subsection 336.1 - Description

Construction shall conform to MAG Standard Specifications Section 336, except as modified herein.

Subsection 336.2.4 - Materials and Construction Methods

All asphaltic concrete pavement shall be placed using appropriate lay down equipment which has been specifically designed for that purpose. The temperature of the asphaltic concrete shall be a minimum of 200 degrees Fahrenheit while being rolled.

All pavement replacement within the intersection of 71st and 67th Avenues shall be completed prior to opening the intersection to traffic.

The pavement replacement shall consist of two layers of asphaltic pavement over 12" of aggregate base course. The base course of the A.C. will be 2 1/2" of C-3/4 and the surface course shall be 1-1/2" of D-1-2.

Subsection 336.5 - Payment

No separate measurement or payment shall be made for pavement removal or replacement; the cost thereof, shall be included in the price bid for the construction for such work that pavement replacement is incidental or appurtenant.

SECTION 340 - Concrete Curb, Gutter, Sidewalk, Driveway and Alley Entrance

Subsection 340.1 - Description

Concrete curb, gutter, sidewalk, driveway and alley entrance construction shall conform to MAG Standard Specifications Section 340 except as modified herein.

Subsection 340.6 - Payment

No separate payment shall be made for concrete curb and gutter removal & replacement. This item shall be included in the contract unit price for the construction for such work that concrete curb and gutter removal & replacement is incidental or appurtenant. No separate payment shall be made for concrete sidewalk removal & replacement. This item shall be included in the contract unit price for the construction of such work that is incidental or appurtenant.

SECTION 401- Traffic Control

Subsection 401.1 - Description

Traffic regulations and control shall be in accordance with MAG Specifications Section 401, City of Phoenix Traffic Manual, guidelines provided in the plans and the following paragraphs.

Subsection 401.5 - General Traffic Regulations

1. The following shall be considered major streets: Cactus Road from 75th Avenue to 67th Avenue, 71st Avenue, and 67th Avenue.
2. Permission to restrict city streets, sidewalks and alleys shall be requested from the Cities of Peoria and Glendale (written approval required). The Contractor will be required to submit a traffic control plan for restriction or closure when requesting restriction permission.
3. The roadway shall be open to emergency vehicle traffic at all times.
4. The contractor will be responsible for the restoration of any traffic signals, pavement markings, dagmars, and appurtenances disturbed during construction. If traffic signal mast arms are removed or traffic signal lines are disturbed, the Contractor shall provide and install, and bear the full cost of the new wire. No old traffic signal wire from traffic signal loops shall be reused if disturbed; the Contractor shall provide new traffic loops including all necessary related materials and work. No splicing of traffic signal loops will be permitted.

Subsection 401.5.1 - Special Traffic Regulations:

1. Cactus Road, 75th Avenue to 67th Avenue. On paved surfaces, when construction requires, Cactus Road can be reduced to two lanes (one each way).
2. Special Access Requirements. The Contractor shall provide and maintain clean, safe, and adequate pedestrian walkways and sidewalks, free of mud, dust, debris, equipment, maintaining access to all transit facilities and bus stops by providing temporary BUS STOP signs as needed (if any).

When construction restricts the intersections, the Contractor shall provide off-duty police officers to assist with traffic control at the intersections of 71st and 67th Avenues during construction hours.

Subsection 401.6 - Measurement

Measurement for Traffic Control Devices shall be by lump sum for the completed bid item for the completed bid item within the limits shown on the plans.

Measurement for Off Duty Police Officers shall be in accordance with section 401.6 of the MAG Standard Specifications.

Subsection 401.7 - Payment

Payment for Traffic Control shall be made at the contract unit price per lump sum. The price shall include full compensation for furnishing labor (except off-duty police officers), materials, tools, equipment and incidentals to regulate and maintain traffic per the guidelines and these specifications. Payment for Traffic Control Devices shall be at contract unit price lump sum for Bid Item 401-1. Payment for Off Duty Police Officers shall be at the contract unit price per man hour for Bid Item 401-2.

No separate payment shall be made for removing and replacement of Traffic Signal Loops, the cost thereof shall be included in the contract unit price for the construction of such work that is incidental or appurtenant.

SECTION 405 - Monuments

Subsection 405.1 - Description

Construction of survey markers shall be in accordance with MAG Specifications Section 405, except as modified herein.

Subsection 405.3 - Construction

Prior to removal of any existing survey marker, brass cap, the contractor shall ensure that appropriate survey ties have been made and recorded by a Registered Land Surveyor for reestablishing the survey markers after construction has been completed.

Subsection 405.5 - Payment

Payment for survey markers shall be at the contract unit price per each for Bid Item 405-1. Such payment shall be full compensation for removal, furnishing and installing the monuments, complete in place, including the cost of labor, Registered Land Surveyor, and all other work not specifically covered that is incidental.

No penalty shall be incurred for the reduction in the number of the items described above as determined by the Engineer.

SECTION 505 - Concrete Structures

Subsection 505.1 - Description

Construction of all concrete structures shall be in accordance with MAG Standard Specification 505, except as noted herein.

Special Structures

The Contractor shall construct two special structures on the storm drain in accordance with the plans at Stations 134+08 and 180+66.

Catch Basins

The Contractor shall construct catch basins at the stations shown on the plans to the size and dimensions shown on the plans.

Catch basins shall have a minimum horizontal clearance of six (6) inches between all other facilities and the nearest surface to the catch basin. If the clearance cannot be maintained, the Contractor shall install expanded polystyrene form material of a minimum of two (2) inches thickness between the pipe and the catch basin.

Curbs, gutters and sidewalks shall be removed as necessary to construct the catch basins. The contractor has the option of saw cutting the existing curbs, gutters and sidewalks for the removal or removing them to the closest existing joint within four (4) feet (preferred). Removal and replacement of existing curbs gutters and sidewalks is incidental to the construction of the catch basins. No separate measurement or payment shall be made to modify the catch basin dimensions in the field to avoid conflicting utilities, or for the removal and replacement of existing sidewalks.

Measurement for the catch basins shall be made at the contract unit price for each of the completed bid items in place within the limits shown on the plans.

Subsection 505.10 - Payment

Payment for the special structure shall be made at the contract unit price for Bid Item 505-1 and 505-2. Such payment shall be full compensation for furnishing and installing the item complete in place including all fittings, reinforcing steel, concrete, cost of labor, excavation, removal of obstructions, shoring, bracing, bedding, backfilling, compaction, pavement removal and replacement, testing, and all other work not specifically covered is incidental.

Payment for the catch basins shall be made at the contract unit price per Bid Item 505-3 through Bid Item 505-11. Such payment shall be full compensation for removing and replacing existing curbs, gutters and sidewalks, constructing the item complete in place including all fittings, concrete aprons and grade to drain grader ditches, if applicable, reinforcing steel, concrete, cost of labor, excavation, removal of obstructions, shoring, bracing, bedding, backfilling, compaction, pavement removal and replacement, testing, and all other work not specifically covered that is incidental.

No penalty shall be incurred for the reduction of the number of each of this item described above as determined by the Engineer.

SECTION 601 - Trench Excavation, Backfilling and Compaction

Subsection 601.1 - Description

Trench excavation, backfilling and compaction shall be in accordance with MAG Standard Specification 601, except as noted herein.

Contractor shall hand dig carefully at station 181+00 until the 2" gas line is located. Care should be used to avoid damaging a small electrical tracer wire buried with the pipe.

Subsection 601.4 - Foundation, Bedding, Backfilling, and Compaction

Gas Line Bedding: Natural gas facilities require both six (6) inches of bedding and six (6) inches of shading with sand or material free of rocks and able to pass through a 3/8 inch screen in order to provide firm support under the facility and to prevent damage to the pipe or pipe coating from the backfilling operation. When backfilling, do not drop backfill directly on the exposed pipe. When

compacting, use extra care when directly over the gas pipe in order to avoid any damage. See SGC's section 105.6 for more information.

Irrigation Pipe Bedding: The bedding requirements will depend on the pipe location. Class C bedding or better will be required for pipe subject to heavy traffic and will be specified on the plans, license or construction contract for the job. Where no bedding is specified, Class D bedding shall be used.

Bedding material that is placed or disturbed shall be mechanically compacted to the densities specified in the plans and specifications.

Bell holes shall be excavated with a minimum clearance of two inches to prevent point loading of laid pipe, and to provide full length, continuous support of the pipe barrel. Cable holes should also be excavated to prevent movement of the pipe when removing the pipe sling.

MAG Bedding: If this option is chosen, the trench width shall be as shown on sheet 70 of the project plans. The initial granular bedding shall be a minimum of 6 inch thick and shall otherwise be in accordance with MAG specifications. Bedding shall conform to Section 601 of the MAG Specifications and shall be select material type B or aggregate base, in accordance with Section 702, Table 702. Bedding is as defined in Subsection 101.2 of the MAG Standard Specifications which is in conformance with the typical trench detail shown on sheet 70 of the plans.

The required sequence of backfill materials consists of the following:

- Bedding
- Native soils to within 2 feet of pavement surface.
- Imported or granular site soils with low expansive potentials to pavement subsurface level.

Compaction of the bedding material shall be in accordance with MAG 601 and the following:

Backfill compaction shall be accomplished by mechanical methods. Water jetting or flooding of loose, dumped backfills is prohibited.

The Contractor shall excavate holes in the compacted bedding and backfill material to the depths, and at the locations, designated by the Engineer. As determined by the Engineer, these holes shall be of such size as to allow the required density testing to be performed in a safe manner. This shall include shoring or any other trench wall support measures required by OSHA.

Slurry Alternate: At his option, the Contractor may utilize a cement-enriched slurry A.B.C. bedding for the precast concrete pipe. The slurry A.B.C. will consist of one bag of portland cement per cubic yard of A.B.C. The slurry shall be placed at a minimum from the outside bottom of the pipe to the springline of the pipe. The slurry must have a minimum of an 8-inch slump. The slurry shall meet a minimum of 40 psi compressive strength at seven days.

Also, the Contractor may opt to excavate a trench having a cross-section with a rounded bottom rather than a flat bottom. If this option is chosen, the trench cross-section must maintain the minimum 12 inches between the outside wall of the pipe and the trench wall up to the springline.

Subsection 601.6 - Measurement and Payment

No separate measurement or payment shall be made for excavation, falsework, backfilling, and compacting of the storm drain, irrigation and connector pipes, and protecting utilities in place; the cost thereof shall be included in the price bid for construction or installation of the storm drain, irrigation and connector pipes to which such work is incidental or appurtenant. Excavation shall include pavement removal and replacement as described above and shall be in accordance with MAG standard specifications and details and the details shown in the plans.

SECTION 610 - Waterline Construction and Relocation

Subsection 610.1 - Description

All waterline construction shall be in accordance with Section 610 of the MAG Standard Specifications and City of Phoenix Supplements, as directed by the Engineer.

Except where noted otherwise, the Contractor is responsible for protecting all water lines in place and for maintaining all water lines in service for the duration of the project. If the Contractor elects to temporarily shut down a water main for a period of time which exceeds eight hours, the Contractor shall provide a temporary bypass water line at no additional cost which is approved by the City of Peoria or the City of Glendale, depending on location.

The Cities of Peoria and Glendale require 72 hours written notice prior to shut downs on water lines. City fire departments must be notified at least 24 hours in advance of any shutdowns for water lines serving fire hydrants.

The Contractor is responsible for maintaining access to water valves within the construction area. Failure to do so may result in delays to a scheduled water shut down. Only City of Peoria and City of Glendale Utility personnel are permitted to operate valves.

The Contractor shall provide all materials and labor necessary to complete all water line work. The Cities of Peoria and Glendale will not provide materials, labor, or equipment for work related to the project.

The Contractor shall be responsible for all water line testing, disinfection, and flushing including the cost of the water needed for flushing.

Waterline Realignment and Valve Removals

In the event of an unforeseen conflict between storm drain construction and an existing waterline not detailed on the plans or as directed by the Engineer, the Contractor shall vertically and/or horizontally realign the waterline in accordance with MAG Standard Detail 370 and Section 610 of the MAG Standard Specifications.

The waterline realignment shall include, but not be limited to, excavation, backfill, compaction, pipe, fittings, offsets, couplings, sleeves, blocking, joint restraints, and hardware. The realigned waterline shall be tested per Subsection 610.14 of the MAG Standard Specifications prior to backfilling.

The Contractor shall coordinate with the City of Peoria or the City of Glendale and obtain permission to have the line shut down in order to perform this work. The contractor shall notify the Cities at least 72 hours in advance of the need for a shutdown.

All salvaged water line valves from the City of Peoria water distribution system shall be delivered to the City of Peoria's Municipal Operations Center, 8850 North 79th Avenue.

Materials for waterline realignment shall be ductile iron, in accordance with Section 750 of the MAG Standard Specifications.

Waterline Replacement

In the event of ACP or plastic waterlines crossing over the mainline storm drain construction or laterals greater than 24 inches in diameter, the Contractor shall replace the waterline with DIP in accordance with Section 610 of the MAG Standard Specifications, as modified herein.

The Contractor shall arrange to have the line shut down in order to perform this work. The Contractor shall notify the Cities at least 72 hours prior to the need to shut down any water lines. The Contractor shall bear the cost of flushing the lines.

Except for 2" waterlines, materials for waterline replacement shall be ductile iron, in accordance with Subsection 610.3 of the MAG Standard Specifications.

Replacement of 2" water service line, including tapping water main, saddle, corp stop, copper line, meter line, and all appurtenances shall be considered incidental to related storm drain feature construction.

The replaced waterlines shall be visually inspected for leaks under line pressure prior to backfilling.

Subsection 610.18 - Measurement and Payment

Measurement will be made per each replacement constructed for the various waterline sizes encountered.

Payment for waterline realignment shall be made at the unit price bid per each for Bid Item 610-1. Such payment shall be full compensation for furnishing and installing the connections to the existing water line, complete in place including all fittings, cost of labor, excavation, removal of obstructions, shoring, bracing, bedding, backfilling, compaction, pavement removal and replacement, testing, and all other work not specifically covered that is incidental. No penalty shall be incurred for the reduction of the number of each, of this item as determined by the Engineer.

Payment for replacement of 6", 8", 10", and 12" waterlines shall be made at the unit price bid per each for Bid Item 610-2 through 610-4. Such payment shall be full compensation for furnishing and installing the waterline, connections to the existing water line, removal of pavement and obstructions, excavation, shoring, bracing, bedding, backfill, compaction, fittings, couplings, sleeves, blocking, joint restraints, hardware, ABC and pavement removal and replacement, testing, and all work not specifically covered that is incidental. No penalty shall be incurred for the reduction of the number of each, of this item as determined by the Engineer.

SECTION 618 - Storm Drain Construction

Subsection 618.1 - Description

Storm drain and connector pipe construction shall be in accordance with MAG Standard Specification 618, except as modified herein.

Reinforced Concrete Pipe:

Construction shall conform to the MAG Standard Specifications Sections 618 and 735, except as modified herein.

15" though 36" pipe shall meet the requirements of ASTM C 76, Class IV.

Reducers, Crosses, Tees, Plugs, Permanent Pipe Supports, and Concrete Pipe Collars:

Structure locations, quantities, and sizes shall be as shown on the plans.

Permanent Pipe Supports

Permanent pipe supports for the various type and sizes of sewer, water and utility lines shall conform to the MAG Standard Details and to the details shown on the plans. Such pipe supports shall be erected at the locations shown on the plans and at any other locations as necessary as determined by the Engineer.

The Contractor shall be responsible for designing and constructing safe and adequate falsework which provides the necessary rigidity to support the loads imposed by the irrigation pipe culvert at Sta 180+42 as shown on the project plans.

Falsework shall be any system of structural elements that provides temporary support for loads from the culvert flowing full, all fill material over the structure, and any other related dead and live loads.

RGRCP Irrigation Pipe

Irrigation and Low-Head Pressure Drain Pipe---Pipe is to be manufactured and installed in accordance with SRP's specifications for "Pre-cast concrete pipe" (RGRCP).

The irrigation manhole to be constructed at 71st Avenue is to be built in accordance with SRP standard manhole drawings and all applicable specifications. The alignment and manhole location shall be surveyed by the Contractor and approved by an SRP field inspector.

Rubber Gasket Reinforced Concrete Pipe (RGRCP Low-head Pressure Pipe)---The pipe shall meet the requirements of ASTM C-361 and withstand a minimum internal hydrostatic head of 25 feet under the provisions of Section 10 of ASTM C-361 or meet the requirements of ASTM C-76 and withstand a hydrostatic head of 10 psi for 10 minutes under the provisions of Section 10 of ASTM C-14. The minimum strength for wheel loads and earth loads is Class V, Wall C per ASTM C-76.

Twelve (12) inches minimum clearance is to be maintained below Salt River Project's irrigation pipe. When paralleling irrigation pipe, a minimum of twenty-four (24) inches horizontal clearance is to be maintained between the pipe and the open excavation unless approved otherwise by SRP.

Any storm drain connector pipe, connected to the SRP irrigation system, that is to be abandoned shall be done so with a permanent brick and mortar plug.

Rubber Gasket Joints---Rubber gaskets and joints shall meet the requirements of ASTM C-443 unless provisions for manufacture and testing are otherwise specified in the ASTM specification for the pipe.

Mastic Joint Seal--- the seal shall be of preformed butyl rubber material and shall meet the requirements of AASHTO M-198. It shall be Kent Seal No. 2 Hamilton Kent of Ram Nek by K. T. Snyder Company or approved equal.

Joint Assembly---The inside of the bell and the outside of the spigot end shall be thoroughly cleaned to remove oil, grit, excess coating and other foreign matter. The gasket shall be properly installed as per the pipe Seller instructions. A generous coating of gasket lubricant shall be applied to the inside surface of the bell end of the pipe, in the groove portion of the spigot, and the gasket. Gasket lubricant shall be as supplied by the pipe Seller and approved by the Engineer. If the pipe is delivered with gaskets already installed, a weather-tight protective covering shall enclose that end of the pipe. Pipe shall be laid with bell ends facing in the direction of laying, unless directed otherwise by the Engineer. On grades exceeding 10%, the laying shall start at the lower end and shall proceed upward. The spigot end of the pipe shall be entered into the bell, with care used to keep the joint from contacting the ground. The joint shall then be completed by pushing or pulling the spigot end all the way into the bell by approved methods for the industry.

When pipe is laid on tangent, each joint shall be fitted together so that the spigot end of one pipe is as close to being in contact with the shoulder of the bell of the adjacent pipe as practicable.

Plugs---Installed piping systems shall be temporarily plugged at the end of each day's work, or other interruption to progress. Plugging shall be adequate to prevent entry of small animals or persons into the pipe or the entrance or insertion of any deleterious materials.

Standard plug shall be inserted into the bell of all dead-end pipes, laterals, or fittings; spigot ends shall be capped. If there is a delay greater than overnight or over the weekend, the ends of such lines shall be equipped with a semi-permanent type plug or cap.

Plugs installed for leak testing shall be fully secured and blocked to withstand the test pressure.

Plugs installed for protection of flooding during construction shall be fully removed by the Contractor.

Field Testing---Before final acceptance, the Engineer will monitor the pressure test for leaks to be performed by the Contractor, with the pipeline under the maximum static head as determined by the SRP Water Operations Water master for the affected area. The maximum allowable leakage shall not exceed 100 gallons by the inch of nominal diameter per day per mile of pipeline. No leak having dripping or flowing water will be acceptable. Leakage tests shall be performed for a minimum of four hours with readings at 30-minute intervals. The Contractor may fill the line with water and allow it to stand 24 hours prior to testing.

The Contractor will be required to repair any leaks or other deficiencies revealed by field test prior to final acceptance of the pipeline and during the one-year guarantee period beginning with the date of Final Acceptance.

The Contractor is cautioned to use care working around SRP's existing 24" CIPP irrigation pipe. When it is deemed necessary by the Engineer to replace the 24" CIPP with 24" RGRCP, the replacement shall extend at least three feet beyond the outside walls of catch basin being constructed or be a minimum of two pipe lengths whichever is greater. The contractor is to replace the CIPP irrigation pipe with 24" CL V RGRCP and connect back to the existing CIPP with concrete pipe collars. The contractor is to replace 24" CL V RGRCP where it is shown on the plans near 71st Avenue and Cactus Road and connect back to the existing CL V RGRCP and new irrigation manhole.

Subsection 618.5 - Measurement

Measurement for the storm drain pipes shall be by the lineal foot pipe size for the completed item in place within the limits as shown on the plans.

Measurement for Reducers, Crosses, Tees, Plugs, Permanent Pipe Supports, and Concrete Pipe Collars shall be by each for the completed item in place within the limits as shown on the plans except that there will be no separate measurement for concrete pipe collars for pipe diameters of less than 24".

Measurement will be made for each permanent pipe support constructed for the various sizes encountered.

No separate measurement or payment shall be made for Falsework.

Measurement for the irrigation pipes shall be by the lineal foot/pipe size for the item completed in place at the locations shown on the plans.

Subsection 618.6 - Payment

Payment for the RCP storm drain and connector pipes shall be at the contract unit price for Bid Items 618-1 through 618-8. Such payment shall be full compensation for furnishing and installing the storm drain pipe and connector pipes complete in place including all fittings, related falsework, cost of labor, excavation, removal of obstructions and pavement, shoring, bracing, bedding, backfilling, compaction, asphalt replacement, manhole and valve adjustments, testing, and all other work not specifically covered that is incidental.

Payment for the Reducers, Crosses, Tees, Plugs, Plug Removal, and Concrete Pipe Collars shall be at the contract unit price for Bid Items 618-9 through 618-26, excluding 618-24. Such payment shall be full compensation for furnishing, installing/constructing the item complete in place including joining collars and field closures, the cost of labor, excavation, removal of obstructions, shoring, bracing, bedding, backfilling, compaction, testing, and all other work not specifically covered that is incidental.

Payment for Permanent Pipe Supports shall be made at the contract unit price per each completed installation per Bid Item 618-24. No separate payment shall be made for temporary pipe supports; the cost thereof, shall be included in the price bid for the construction or installation of the storm drain or connector pipe to which such work is incidental or appurtenant. Such payment shall be full compensation for furnishing and installing the item, complete in place and all fittings, cost of labor, excavation, removal of obstructions, shoring, bracing, bedding, backfilling, compaction, pavement removal and replacement, testing, and all other work not specifically covered that is incidental.

Payment for the RGRCP Irrigation Pipes shall be at the contract unit price for Bid Item 618-27. Such payment shall be full compensation for furnishing and installing the storm drain pipe and connector pipes complete in place including the removal of curb, gutter, and pavement, the cost of labor, excavation, removal of obstructions, shoring, bracing, bedding, backfilling, compaction, asphalt pavement replacement, curb and gutter, testing, and all other work not specifically covered that is incidental.

No penalty shall be incurred for the reduction of the number of each of this item described above as determined by the Engineer.

SECTION 621 - CORRUGATED METAL PIPE AND SLOTTED DRAIN

Subsection 621.1 - Description

Corrugated steel pipe and slotted drain for storm drain construction shall conform to Section 621 and 760 of the MAG Uniform Standard Specifications and COP Supplements, and as shown in the slotted drain detail, sheet 63 of the plans.

Subsection 621.2 - Materials

The corrugated steel pipe used in the slotted drain shall meet the requirements of AASHTO M36/ASTM A760. The corrugated steel pipe shall be minimum 0.064" thick and shall be galvanized or ALUMINIZED STEEL.

The corrugated steel pipe shall have a minimum of two rerolled annular ends. The slotted drain bands shall secure the pipe and prevent infiltration of the backfill. When the slotted drain is banded together, the adjacent grates shall have a maximum 3-inch gap.

The grates shall be manufactured from ASTM A570, grade 36 steel. The spacers and bearing bars (sides) shall be 3/16-inch material \pm 0.0075-inch. The spacers shall vary in length to match the required variable grate height and shall be on 6-inch centers and welded on both sides to each bearing bar (sides) with four (4) 1-1/4-inch long 3/16-inch fillet welds on each side of the bearing bar. The grates shall be vertical (straight sides) with a 1-3/4-inch opening in the top with vertical spacers. The grate shall be galvanized in accordance with ASTM A123 except with a 2-ounce galvanized coating. The grate shall be fillet welded with a minimum weld 1-inch long to the corrugated steel pipe on each side of the grate at every other corrugation. The joints between the sides of the grate and the corrugations of the corrugated steel pipe shall be sealed with a continuous application of 1-1/2-inch wide, 1/8-inch thick TC40 Sealant Strip Mastic as manufactured by Contech Construction Products Inc. or approved equal. This mastic strip shall be applied prior to the concrete encasement operations. The upstream end of the slotted drain shall have a fully welded cap.

The slotted drain and connecting corrugated steel pipe shall be as manufactured by Contech Construction Products, Inc. or approved equal.

Subsection 621.5 - Measurement

Measurement for the slotted drain shall be by the lineal foot/pipe size for the item completed in place at the locations shown on the plans.

Subsection 621.6 - Payment

Payment for the slotted drain shall be at the contract unit price for Bid Items 621-1. Such payment shall be full compensation for furnishing and installing the storm drain pipe and connector pipes complete in place including the removal of curb, gutter, and pavement, the cost of labor, excavation, removal of obstructions, shoring, bracing, bedding, backfilling, compaction, asphalt pavement replacement, curb and gutter, testing, and all other work not specifically covered that is incidental.

SECTION 625 - Manhole Construction

Subsection 625.1 - Description

Manholes shall be constructed as shown on the plans and in accordance with MAG Standard Specifications 625, except as noted herein. Manhole construction includes a special irrigation manhole which is to be constructed in 71st Avenue.

Subsection 625.4 - Measurement

Measurement for manholes shall be for each bid item completed in place within the limits shown on the plans.

Subsection 625.5 - Payment

Payment for manhole shall be made at the contract unit price per each for Bid Item 625-1 through 625-3. Such payment shall be full compensation for furnishing and installing the item complete in place including the cost of all prefabricated tees, labor, excavation, removal of obstructions, shoring, bracing, bedding, backfilling, compaction, pavement removal and replacement, testing, and all other work not specifically covered that is incidental.

SECTION 630 - Tapping Sleeves, Valves and Valve Boxes on Water Lines

Subsection 630.1 - Description

All water valves shall be in accordance with Section 630 of the MAG Standard Specifications and the City of Phoenix Supplements.

All existing valves which are to be abandoned as a result of new waterline construction shall be salvaged, as directed by the Engineer.

All valve shutdown fees will be waived for work on water services and meters under these specifications. When it becomes necessary to shut down existing water mains and services to construct replacements, no main shall be left out of service for more than one (1) hour, and no individual service will be disrupted for more than five (5) continuous hours. Main valves shall be operated by representatives of the City of Peoria and/or Water Department. Shutdowns will not begin before 8:00 a.m. and will not extend past 4:00 p.m.

When it becomes necessary to shut down an existing water line, it shall be the Contractor's responsibility to notify all customers, in advance, that the water service will be turned off. The customers shall be notified, in writing, at least 24 hours in advance and also, verbally, the day the shutdown will occur. Initial notification shall include the reason for the shutdown, the date, the time, and the duration the water service will be shut off. A copy of the notification shall be given to the Engineer.

During construction, the Contractor shall be responsible for maintaining continuous access to the valve-operating nut for all water valves within the project boundaries.

Subsection 630.9 - Payment

Payment shall be made at the contract unit price per each for Bid Item 630-1 through 630-4. Such payment shall be full compensation for furnishing and installing the item complete in place including the cost of labor, excavation, removal of obstructions, shoring, bracing, bedding, backfilling, compaction, testing, and all other work not specifically covered that is incidental or appurtenant.

No penalty shall be incurred for the reduction of the number of each of this item described above as determined by the Engineer.