

SPECIAL PROVISIONS
FOR
19TH AVENUE BRIDGE OVER ACDC

Ed R.

Bid Range 650-850,000

CONTRACT NO. FCD 87-46

Property of
Flood Control District of MC Library
Please Return to
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Phoenix, AZ 85009



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

A118.522

SPECIAL PROVISIONS
FOR
19TH AVENUE BRIDGE OVER ACDC

CONTRACT NO. FCD 87-46



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

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
CONTRACT FCD 87-46

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INVITATION FOR BIDS
(Construction Contract)

Project: 19th Avenue Bridge
Over ACDC

Ref. Invitation FCD 87-46
Date: February 22, 1988
Issued by: Flood Control District
of Maricopa County

Vicinity: 19th Avenue at the Arizona Canal,
Phoenix, Arizona

SEALED BIDS, IN SINGLE COPY FOR THE WORK DESCRIBED HEREIN WILL BE RECEIVED UNTIL 2:00 P.M., LOCAL TIME AT THE PLACE OF THE BID OPENING MARCH 22, 1988, IN THE OFFICE OF THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, 3335 WEST DURANGO STREET, PHOENIX, ARIZONA, 85009, AND AT THAT TIME PUBLICLY OPENED.

A PRE-BID CONFERENCE WILL BE HELD ON MARCH 10, 1988, AT 10:00 A.M. IN THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY CONFERENCE ROOM, 3335 WEST DURANGO STREET. IT IS IN THE BEST INTEREST OF PROSPECTIVE BIDDERS TO ATTEND THE PRE-BID CONFERENCE.

BID SECURITY IN AN AMOUNT OF NOT LESS THAN FIVE PERCENT (5%) OF THE TOTAL BID PRICE MUST BE SUBMITTED WITH EACH BID. THE BID SECURITY MAY BE IN THE FORM OF A BID BOND, CASHIER'S CHECK, POSTAL MONEY ORDER, OR CASH. THE BID SECURITY WILL BE MADE PAYABLE TO THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY AS A GUARANTEE THAT IF THE WORK IS AWARDED TO THE BIDDER, HE WILL WITHIN TEN (10) DAYS FROM THE DATE OF SUCH AWARD, ENTER INTO PROPER CONTRACT AND BOND CONDITIONS FOR THE FAITHFUL PERFORMANCE OF THE WORK. OTHERWISE, SAID AMOUNT WILL BE FORFEITED TO THE FLOOD CONTROL DISTRICT. BID SECURITY WILL BE RETURNED AS PRESCRIBED BY MAG 103.

THE SUCCESSFUL BIDDER SHALL BE REQUIRED TO FURNISH PERFORMANCE AND PAYMENT BONDS IN PENAL SUMS NOT LESS THAN ONE HUNDRED PERCENT (100%) RESPECTIVELY, OF THE ORIGINAL AMOUNT OF THE CONTRACT.

DESCRIPTION OF WORK:

CONSTRUCTION OF A BRIDGE IN TWO PHASES AT 19TH AVENUE NORTH OF THE ARIZONA CANAL. RELOCATION OF AN 8" SANITARY SEWER LINE BETWEEN 17TH AND 15TH AVENUES. MISCELLANEOUS WATER ADJUSTMENTS FROM 15TH AVENUE TO 10TH AVENUE, AND DEMOLITION OF EXISTING STRUCTURES, FENCES, ETC., ALONG THE ACDC RIGHT OF WAY FROM 17TH TO 10TH AVENUES.

INVITATION FOR BIDS
NO. FCD 87-46

THE WORK SHALL COMMENCE WITHIN SEVEN (7) CALENDAR DAYS AND BE COMPLETED WITHIN TWO HUNDRED TEN (210) CALENDAR DAYS AFTER RECEIPT OF THE NOTICE TO PROCEED.

NOTICE: THE BID SCHEDULE, SPECIAL PROVISIONS, INSTRUCTIONS TO BIDDERS, UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, EDITION OF 1979 (MAG) AND DRAWINGS LISTED UNDER THE CONTENTS WILL BE INCORPORATED IN AND BECOME A PART OF THE RESULTANT CONTRACT.

CHERIE PENNINGTON, CLERK
BOARD OF DIRECTORS
FLOOD CONTROL DISTRICT OF
MARICOPA COUNTY

INVITATION FOR BIDS
NO. FCD 87-46

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
INVITATION FOR BIDS, FCD 87-46
INSTRUCTIONS TO BIDDERS

1. Explanation to Bidders. Any explanations desired by the bidder, questions, or items for clarification regarding the meaning or interpretation of the invitation for bids, drawings, specifications, etc., may be addressed to the Chief Engineer and General Manager, preferably in writing, prior to the pre-bid conference. Any answers, interpretations, or clarifications affecting the cost will be addressed to all bidders in an addendum to the invitation. The receipt of an addendum by the bidder must be acknowledged in the space provided on the bid form or by letter or telegram received before the time set for the bid opening. Oral explanations or instructions given before the award of the contract will not be binding.
2. Conditions Affecting the Work. It is in the best interest of the bidders to attend the pre-bid conference. Bidders should visit the site and take such other steps as may be reasonably necessary to ascertain the nature and the location of the work, the general and local conditions which can affect the work and the cost thereof. Failure to do so will not relieve bidders from responsibility for estimating properly the difficulty or cost of successfully performing the work. (See MAG 102.4)
3. Bidder's Qualifications. Before a bid is considered for award, a bidder may be requested by the Chief Engineer and General Manager of the Flood Control District to submit a statement regarding his previous experience in performing comparable work, his business and technical organization, financial resources, and plant available to be used in performing the work.
4. Bid Guarantee. Where a bid guarantee is required by the invitation for bids, failure to furnish a bid guarantee in the proper form and amount by the time set for opening of bids, may be cause for rejection of the bid.

If the successful bidder, upon acceptance of his bid by the Flood Control District within the period specified herein for acceptance (sixty days if no period is specified) fails to execute such further contractual documents, if any, and give such bond(s) as may be required by the terms of the bid as accepted within the time specified (ten days if no period is specified) after receipt of the forms by him, his contract may be terminated for default. In such event the bid guarantee shall be retained as liquidated damages.

INVITATION FOR BIDS
NO. FCD 87-46

5. Preparation of Bids. Bids shall be submitted on the forms furnished, or copies thereof, and must be manually signed. If erasures or other changes appear on the forms, each erasure or change must be initialed by the person signing the bid. Unless specifically authorized in the invitation for bids, telegraphic bids will not be considered.

No bid will be considered unless all items in the bid schedule are priced. In case of an error in the extension of price, the unit price shall govern. The quantities listed on the bid schedule on which unit prices are requested are estimates only.

Unless called for, alternate bids will not be considered.

Modifications of bids already submitted will be considered if received at the office designated in the invitation for bids by the time set for opening bids.

6. Submission of Bids. Bids must be sealed, addressed to the Chief Engineer and General Manager, Flood Control District of Maricopa County, 3335 West Durango, Phoenix, Arizona 85009, and marked to identify the bid to the referenced Contract FCD Number. Failure to appropriately identify the bid may result in a premature opening of, or a failure to open, such bid. The name of the bidder shall be on the outside of the envelope. (See MAG 102.9)
7. Withdrawal of Bids or Modifications. Bids may be withdrawn by written request received from the bidder prior to the time set for opening of bids.
8. Public Opening of Bids. Bids will be publicly opened at the time and place set for the opening in the invitation for bids. Their content will be made public for the information of bidders and others interested, who may be present either in person or by representative.
9. Award of Contract. Award and execution of a contract shall be in accordance with MAG Section 103.
10. Specifications. Specifications referred to herein shall include all revisions and amendments in effect on the date of issuance of the invitation for bids. These instructions, Special Instructions to Bidders, and the herein contained Construction Special Provisions supplement the Uniform Standard Specifications herein referred to by "MAG" section number or paragraph number; however, in case of conflict, these instructions and Special Provisions supersede the Uniform Standard Specifications (MAG).

INVITATION FOR BIDS
NO. FCD 87-46

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
INVITATION FOR BIDS, FCD 87-46
SPECIAL INSTRUCTIONS TO BIDDER

Contract Plans, Special Provisions and Contract Documents: Plans, Special Provisions, and forms for proposal, Bidding Schedule, Contract Agreement and Performance Bond may be obtained from the Flood Control District of Maricopa County, 3335 West Durango Street, Phoenix, Arizona, upon payment of \$25.00 by check payable to the FLOOD CONTROL DISTRICT OF MARICOPA COUNTY. This payment will not be refunded. Plans sheets may be purchased separately for a fee of \$20.00, not refundable.

APPROXIMATE QUANTITIES FOR PRINCIPAL ITEMS

<u>QUANTITY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>
196	C.Y.	Class "A" Concrete
308	C.Y.	Class "AA" Concrete
79,000	Lbs.	Reinforcing Steel
1,010	L.F.	36"-Drilled Shaft Foundation
11	EQ.	Pre-cast Concrete Girders
139	L.F.	Steel Pedestrian Fence
260	L.F.	6"-M.J.D.I.P. (Class 52)
1	L.S.	Miscellaneous Removal

and such other pertinent items as are necessary for the completion of the project as shown on the plans or as called for in the Special Provisions or in the Maricopa Association of Governments Uniform Standard Specifications for Public Works Construction.

Location of Work: The proposed work is located on 19th Avenue at the Arizona Canal, Phoenix, Arizona.

CHERIE PENNINGTON, CLERK
BOARD OF DIRECTORS
FLOOD CONTROL DISTRICT OF
MARICOPA COUNTY

INVITATION FOR BIDS
CONTRACT NO. FCD 87-46

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
(Construction Contract)

BID FORM

Project: 19th Avenue Bridge
Over ACDC

Invitation: FCD 87-46
Date: February 22, 1988

Location: 19th Avenue at the Arizona Canal,
Phoenix, Arizona

To: Chief Engineer and General Manager
Flood Control District of Maricopa County
3335 West Durango Street
Phoenix, Arizona 85009

The following Proposal is made on behalf of _____
_____ and no others. The Total Contract amount of
this proposal is (in words) _____
_____ and _____/100 dollars, (in figures)

_____, this amount being the sum total of the extended
amount for each pay item on the Bidding Schedule.

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

The Undersigned certifies that the approved Plans, Uniform Standard Specifications for Public Works Construction, 1979 Edition (MAG) and revisions and supplements thereto, together with the Special Provisions, forms of Contract and Bond authorized by the Board of Directors and constituting essential parts of this Proposal, have been carefully examined, and also that the site of the work has been personally inspected.

The Undersigned declares that the amount and nature of the work to be done is understood and that at no time will misunderstanding of the Plans, Specifications, Special Provisions, or conditions to be overcome, be pled. On the basis of the Plans, Specifications, Special Provisions, the forms of Contract, and the Bond 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 therefor, the sum of various products obtained by multiplying each unit price, herein bid for work or materials, by the quantity thereof actually incorporated in the completed project, as determined by the Chief Engineer and General Manager, Flood Control District of Maricopa County.

The Undersigned understands that the quantities mentioned herein are approximate 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.

BIDDING SCHEDULE

PROJECT : 19th Avenue Bridge @ the ACDC
8" Sanitary Sewer Relocation
Waterline Adjustment
ACDC Right-Of-Way Demolition

CONTRACT NO. : FCD 87-46

ITEM NO.	APPROX. QUANT.	UNIT	DESCRIPTION	UNIT COST IN WRITING	UNIT COST IN FIGURES	EXTENDED AMOUNT
			19TH AVENUE - BRIDGE AT THE ACDC		\$	\$
206-1	1	L.S.	STRUCTURAL EXCAVATION (APPROX. QUANTITY-2040 C.Y.)			
206-2	1	L.S.	STRUCTURAL BACKFILL (APPROX. QUANTITY-210 C.Y.)			
215-1	1	L.S.	CHANNEL EXCAVATION (APPROX. QUANTITY-3800 C.Y.)			
301-1	1483	S.Y.	SUBGRADE PREPERATION (19TH AVE. AND DETOUR)			
310-1	340	TON	AGGREGATE BASE COURSE (FOR DETOUR ROADWAY)			
315-1	1	TON	BITUMINOUS PRIME COAT (FOR DETOUR ROADWAY)			
321-1	235	TON	ASPHALT CONCRETE (C-3/4) (FOR DETOUR ROADWAY)			

BIDDING SCHEDULE

PROJECT : 19th Avenue Bridge @ the ACDC
8" Sanitary Sewer Relocation
Waterline Adjustment
ACDC Right-Of-Way Demolition

CONTRACT NO. : FCD 87-46

ITEM NO.	APPROX. QUANT.	UNIT	DESCRIPTION	UNIT COST IN WRITING	UNIT COST IN FIGURES	EXTENDED AMOUNT
321-2	1	TON	BITUMINOUS TACK COAT		\$	\$
321-3	50	TON	ASPHALT CONCRETE (D-1/2)			
321-4	280	TON	ASPHALT CONCRETE (A-1-1/2)			
324-1	170	S.Y.	PORTLAND CEMENT CONCRETE PAVEMENT (10" THICK)			
340-1	232	L.F.	CONCRETE CURB & GUTTER DET. 220 TYPE A (H=6")			
340-2	530	S.F.	CONCRETE SIDEWALK DET. P-1230			
340-3	960	S.F.	CONCRETE DRIVEWAY ENTRANCE DET. P-1255 (9" THICK)			
345-1	6	EA.	ADJUST MANHOLE FRAME & COVER DET. 422			
350-1	395	L.F.	REMOVE CONCRETE CURB AND GUTTER			

BIDDING SCHEDULE

PROJECT : 19th Avenue Bridge @ the ACDC
8" Sanitary Sewer Relocation
Waterline Adjustment
ACDC Right-Of-Way Demolition

CONTRACT NO. : FCD 87-46

ITEM NO.	APPROX. QUANT.	UNIT	DESCRIPTION	UNIT COST IN WRITING	UNIT COST IN FIGURES	EXTENDED AMOUNT
350-2	1425	S.F.	REMOVE CONCRETE SIDEWALK, DRIVEWAY & SLABS		\$	\$
350-3	1483	S.Y.	SAWCUT & REMOVE AC PAVEMENT			
350-4	1	L.S.	MISCELLANEOUS REMOVAL AND OTHER WORK			
401-1	1	L.S.	TRAFFIC CONTROL			
401-2	1100	HRS.	UNIFORMED, OFF-DUTY LAW ENFORCEMENT OFFICER			
401-3	1	L.S.	TRAFFIC SIGNAL RELOCATION			
505-1	196	C.Y.	CLASS 'A' CONCRETE F'C = 3,000 PSI			
505-2	308	C.Y.	CLASS 'AA' CONCRETE F'C = 4,000 PSI			

BIDDING SCHEDULE

PROJECT : 19th Avenue Bridge @ the ACDC
8" Sanitary Sewer Relocation
Waterline Adjustment
ACDC Right-Of-Way Demolition

CONTRACT NO. : FCD 87-46

ITEM NO.	APPROX. QUANT.	UNIT	DESCRIPTION	UNIT COST IN WRITING	UNIT COST IN FIGURES	EXTENDED AMOUNT
505-3	79,000	LBS.	REINFORCING STEEL		\$	\$
505-4	1010	L.F.	36" DRILLED SHAFT FOUNDATION			
506-1	11	EA.	PRECAST CONCRETE GIRDERS AASHTO TYPE III (66'-6") PRETENSIONED			
520-1	139	L.F.	STEEL PEDESTRIAN FENCE			
610-1	260	L.F.	6" MJDIP WATER PIPE (CLASS 52)			
615 1	199	L.F.	12" PVC PIPE AIRLINE (ASTM D3034 SDR 35)			
615-2	220	L.F.	8" PVC PIPE SLEEVE (CLASS 150 (DR18), AWWA C900)			
615-3	170	L.F.	18" PVC PIPE STORM DRAIN (ASTM D. 3034 SDR 35)			
625-1	2	EA.	ABANDON & FILL MANHOLE			

SUBTOTAL BRIDGE ITEMS

BIDDING SCHEDULE

PROJECT : 19th Avenue Bridge @ the ACDC
8" Sanitary Sewer Relocation
Waterline Adjustment
ACDC Right-Of-Way Demolition

CONTRACT NO. : FCD 87-46

ITEM NO.	APPROX. QUANT.	UNIT	DESCRIPTION	UNIT COST IN WRITING	UNIT COST IN FIGURES	EXTENDED AMOUNT
			SEWERLINE RELOCATION AND ADJUSTMENTS 17TH AVENUE - 10TH AVENUE		\$	\$
615-3	1365	L.F.	8" VCP SANITARY SEWER PIPE (EXTRA STRENGTH)			
615-5	6	EA.	CUT & PLUG EXISTING 8" VCP SEWERLINE DET. 427			
615-6	2	EA.	8" SANITARY SEWER CLEANOUT STD. DET. 441			
625-2	6	EA.	SANITARY SEWER MANHOLE STD. DET. 420			
625-3	6	EA.	ABANDON & FILL MANHOLE			
350-5	1	L.S.	MISC. REMOVAL & OTHER WORK			
				SUBTOTAL SEWERLINE ITEMS		

BIDDING SCHEDULE

PROJECT : 19th Avenue Bridge @ the ACDC
 8" Sanitary Sewer Relocation
 Waterline Adjustment
 ACDC Right-Of-Way Demolition

CONTRACT NO. : FCD 87-46

ITEM NO.	APPROX. QUANT.	UNIT	DESCRIPTION	UNIT COST IN WRITING	UNIT COST IN FIGURES	EXTENDED AMOUNT
			WATERLINE ADJUSTMENTS 15TH AVENUE - 10TH AVENUE		\$	\$
610-2	4	EA.	CUT & PLUG EXIST. 8" WATER- LINE COP STD. DET. P-1343			
610-3	1	EA.	CUT & PLUG EXIST. 6" WATER- LINE COP STD. DET. P-1343			
610-4	3	EA.	CUT & PLUG EXIST. 2" WATER- LINE COP STD. DET. P-1343			
350-6	1	L.S.	MISC. REMOVAL & OTHER WORK			
			SUBTOTAL WATERLINE ITEMS		 	
			DEMOLITION ACDC R/W 17TH AVENUE -- 10TH AVENUE		 	
350-7	1	L.S.	ACDC RIGHT-OF-WAY DEMOLITION			

PROJECT TOTAL (BRIDGE, SEWERLINE, WATERLINE, DEMOLITION ITEMS) _____

THE BIDDER HERBY ACKNOWLEDGES RECEIPT OF AND AGREES
 HIS PROPOSAL IS BASED ON THE FOLLOWING ADDENDA.

The Undersigned further proposes to execute the Contract Agreement and furnish satisfactory Bonds within ten (10) days from the date of award, time being of the essence. The undersigned further proposes to begin the work as specified in the Contract attached hereto, and to complete the work within the time limits as specified in the Special Provisions and maintain at all times a Contract Bond, approved by the Board of Directors, in an amount equal to one hundred percent (100%) of the total bid. 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 Bond to be in full force and effect until the work is finally accepted and the provisions of the Plans, Specifications and Special Provisions are fulfilled.

A Proposal guaranty in the amount and character named in the Invitation for Bids is enclosed amounting to not less than five percent (5%) of the total bid, which Proposal guaranty is submitted as a guaranty of the good faith of the Bidder and that the Bidder will enter into written contract, as provided, to do the work, if successful in securing the award thereof; and it is hereby agreed that if at any time other than as provided in the Proposal requirements and conditions the Undersigned should withdraw this Proposal, or if the Proposal is accepted and there should be failure on the part of the Undersigned to execute the Contract and furnish satisfactory Bond as herein provided, the Flood Control District of Maricopa County in either of such events, shall be entitled and is hereby given the right to retain the said Proposal guaranty as liquidated damages.

Date: _____, 19__.

IF BY AN INDIVIDUAL: License No. _____ Classification _____

(Name) (Address)

IF BY A FIRM OR PARTNERSHIP: License No. _____ Classification _____

(Firm Name) (Firm Address)

By: _____

*Name and Address of Each Member:

Date _____, 19__.

IF BY A CORPORATION: License No. _____ Classification _____

(Corporate Name) (Corporation Address)

By: _____

**Incorporated under the Laws of _____

Names and Addresses of Officers:

(President) (Address)

(Secretary) (Address)

(Treasurer) (Address)

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

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

SURETY BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, as Principal, (hereinafter called the Principal), and the _____, a corporation duly organized under the laws of the State of _____, as Surety, (hereinafter called the Surety), are held and firmly bound unto the Flood Control District of Maricopa County as Obligee, in the sum of ___ percent (___%) of the total amount of the bid of Principal, submitted by him to the Flood Control District of Maricopa County, for the work described below, for the payment of which sum, well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, and administrators, successors and assigns, jointly and severally, firmly by these presents, and in conformance with A.R.S.

WHEREAS, the said Principal is herewith submitting its proposal for _____

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

Signed and sealed this _____ day of _____, A.D., 19__.

Principal

Title

Witness:

Surety

Title

Witness:

CONSTRUCTION SPECIAL PROVISIONS
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FCD CONTRACT NO. 87-46

for
19TH AVENUE BRIDGE AT THE ACDC
AND
SEWERLINE AND WATERLINE RELOCATIONS
BETWEEN 17TH AND 10TH AVENUES
AND
MISCELLANEOUS REMOVAL (DEMOLITION)
ALONG THE ACDC RIGHT-OF-WAY

PROPOSED WORK: The work includes 4 segments: 1. Construction of a bridge in two phases including utility relocation on 19th Avenue which will be attached to the bridge.
2. Relocation of an 8" Sanitary Sewerline between 17th and 15th Avenues along the north right-of-way of the ACDC.
3. Miscellaneous water adjustments between 15th and 10th Avenues.
4. Demolition of existing structures, fences and miscellaneous stored equipment and materials along the ACDC right-of-way from 17th to 10th Avenues.

LOCATION OF WORK: This project is located in Phoenix, Arizona, on 19th Avenue at the Arizona Canal Diversion Channel, approximately 1/4 mile north of Dunlap Avenue.

A. SPECIFICATIONS: The work embraced herein and as shown on the plans for the construction of this project shall be done in accordance with the Maricopa Association of Governments Uniform Standard Specifications for Public Works Construction dated 1979 and the current revisions thereto, and the Construction Special Provisions contained herein and City of Phoenix 1986 Supplement to MAG Uniform Standard Specifications.

PRECEDENCE OF CONTRACT DOCUMENT: The City of Phoenix Supplements to MAG Specifications and Details will govern over the MAG Standard Specifications and Details. In case of a discrepancy or conflict, Project Plans will govern over both the City of Phoenix Supplements and MAG Standard Specifications and Details. These Construction Special Provisions will govern over the City of Phoenix Supplements and MAG Standard Specifications and Details and the Project Plans.

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

CONTRACT TIME: The Contractor shall commence work within seven

(7) calendar days after the date of the notice to proceed and complete all work within 210 (two hundred and ten) days after receipt of the Notice to Proceed.

IN THE EVENT THE CONTRACTOR ELECTS TO SCHEDULE OVERTIME, SECOND SHIFTS, WEEKEND WORK AND GENERALLY ALL WORK AS SPECIFIED IN SECTION 108.5 OF THESE SPECIFICATION IN ORDER TO COMPLETE THE PROJECT, THE CONTRACTOR IS REMINDED THAT THE COSTS ASSOCIATED WITH ADDITIONAL TESTING TIME, ADDITIONAL TEST COST, ADDITIONAL INSPECTION, SURVEY, ENGINEERING OR OTHER WORK BY THE CONSTRUCTION ADMINISTRATOR AND/OR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY SHALL BE BORNE BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 108.5. THESE COSTS SHALL BE DEDUCTED FROM THE MONEY DUE TO THE CONTRACTOR BY THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY. THE COST ASSOCIATED WITH THE ITEMS ABOVE SHALL BE INCIDENTAL TO THE UNIT PRICE OF ITEMS IN THE BID SCHEDULE.

B. NEGOTIATION CLAUSE: Recovery of damages related to expenses incurred by the Contractor for a delay for which the Flood Control District of Maricopa County is responsible, which is unreasonable under the circumstances and which was not within the contemplation of the parties to the contract, shall be negotiated between the Contractor and the Flood Control District of Maricopa County. This provision shall not be construed to void any provision in the contract which requires notice of delays, provides for arbitration or other procedure for settlement or provides for liquidated damages.

WATER, LIGHT, POWER, HEAT TELEPHONE: All water for construction purposes, drinking water, lighting, temporary electric power, heat and telephone service shall be arranged for and provided for the requirements of the work by the Contractor at his expense.

PROGRESS SCHEDULE: The Contractor shall submit his proposed work progress schedule to the Project Engineer for approval before starting the work.

MATERIAL SOURCES: Concrete, Aggregate Base and Pipe shall be obtained from commercial sources. The Contractor shall pay all royalties, or any other charges or expenses, incurred in connection with the securing and hauling of the material.

The Contractor will be required to furnish the Engineer with a list of his proposed commercial sources prior to use, and shall present certificates stating that the material produced from commercial sources is in accordance with the Uniform Standard Specifications and these Special Provisions.

SUBSECTION 101.2 - DEFINITIONS AND TERMS: Change the definition

of Budget Project to read as follows: A project financed by funds set aside in the annual budget or otherwise approved by the Board of Directors of the Flood Control District of Maricopa County.

Change the definition of Engineer to read as follows: The Chief Engineer and General Manager of the Flood Control District of Maricopa County acting directly or through his authorized representative.

Change the definition of Owner to read as follows: The Flood Control District of Maricopa County, acting through its legally constituted officials, officers, or employees.

SECTION 102 - ADDENDA & SUBMISSION OF BIDDING SCHEDULE: It shall be the responsibility of prospective bidders to determine, prior to submission of a bid, if any addenda have been issued. This may be accomplished by calling 602-262-1501. Any addendum issued, if not already bound into the Special Provisions, must be included as a part of the Special Provisions, and any quantities on the Bidding schedule requiring change shall be adjusted by pen and ink to the new figure.

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

SECTION 102.4 - EXAMINATION OF SITE: The existing 45-inch storm drain lateral in 19th Avenue is a closed system that drains only partially into the Arizona Canal by means of an existing 18-inch pipe on the east side of 19th Avenue. The 45-inch storm drain is presently filled with water. To construct the modifications to the storm drain system, the Contractor shall provide necessary pumping facilities or means to complete the storm drain system in accordance with the plans and specifications.

The Contractor shall be responsible for maintaining the new temporary 18-inch storm drain on 19th Avenue during the construction of the project. The contractor is also responsible for maintaining drainage through the construction site.

SECTION 102.5 - PREPARATION OF PROPOSAL: The bidder's Arizona State Contractor's license number and classifications shall be shown on the proposal. The Contractor shall be appropriately licensed as a Contractor in the State of Arizona for performing the work in this project.

SECTION 103.6 - CONTRACTOR'S INSURANCE: Concurrently with the execution of the contract, the Contractor shall furnish a Certificate of Insurance. The types on insurance and the limits of liability shall be as indicated thereon, i.e.

\$1,000,000	bodily injury per person
\$5,000,000	bodily injury each occurrence
\$1,000,000	property damage

The Flood Control District of Maricopa County shall be named as coinsured, and a certificate of insurance should be filled with the Flood Control District of Maricopa County.

SECTION 104 - SCOPE OF WORK:

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

SECTION 104.1.2 - TRAFFIC REGULATIONS:

- A. The following shall be considered major streets
19th Avenue
Hatcher Road
- B. All traffic and/or traffic control devices on this project shall be provided, maintained and/or controlled as specified in the City of Phoenix Traffic Barricade Manual, latest revision and the signing, striping and signalization drawings contained in the project plans.
- C. Permission to restrict City streets, sidewalks, and alleys (street closure permits) shall be requested as specified in Section III of the Traffic Barricade Manual.
- D. Unless otherwise provided for in the Project Plans all traffic on this project shall be regulated as specified in Section IV of the Traffic Barricade Manual.

SECTION 104.2 - BORING LOGS AND SOILS REPORT: The soil boring logs are included in the project for the Contractor's information only. No guarantee is made of the accuracy of the boring logs in the soils report. The Contractor shall make his own determination as to soil and subsurface conditions and shall complete his work in whatever material and under whatever condition he may encounter or create, without extra cost (except as modified in MAG). Existing moisture conditions shall be no basis for claim for additional monies or time extensions. The Contractor shall manipulate the existing soil as required to achieve stable soil conditions and the required densities.

SECTION 104.2.2: Due to Physical Conditions: Paragraph *B). In the first sentence delete the following words:
"backfill or bedding"

SUB-SECTION 105.2 - PLANS AND SHOP DRAWINGS: Sub-Section 105.2 of the MAG Standard Specifications is amended to include the following:

The number of copies of plans/shop drawings required for review and/or approval shall be as follow:

Initial submittal: Three (3) copies. One (1) copy will be returned to the Contractor.

Final submittal: Five (5) copies. Two (2) copies will be returned to the Contractor.

The Contractor shall furnish the Engineer with these copies of shop drawings, pipe layout diagrams, manufacturer's catalog data, and detailed information, in sufficient detail to show completed compliance with all specified requirements, covering, but not limited to, the following items:

- A. Fabricated Pipe and Design Data
- B. Pre-cast Manhole Risers
- C. Reinforcing Steel
- D. Castings
- E. Field Closures
- F. Concrete Mix Designs
- G. Reinforcing Steel
- H. Precast Girders
- I. Metal Railing
- J. False Work Plans and Design Calculations
- K. Structural Design Calculations and Details for All Concrete Structures, as Required.
- L. Utility Protection Plans
- M. Detailed Sequence of Construction for Structures

Review: The Contractor, at his own expense, shall make such changes in the drawings as may be necessary to conform to the plans and specifications. Prior to return of such drawings, marked "Furnish as Submitted" or "Furnish as Noted", any work which the Contractor may do on the fabrications covered by the same shall be at his own risk, as the County will not be responsible for any expense or delays incurred by the Contractor for changes required to make the same conform to the drawings as finally reviewed.

One copy of submitted drawings will be returned to the Contractor marked "Furnish as Submitted" or "Furnish as Noted". If the submittal is marked "Revise and Resubmit" or "Rejected", a new submittal shall be made in the same manner as the original submittal.

When submitted for the Engineer's review, shop drawings, line

layouts, etc. shall bear the Contractor's certification that he has reviewed, checked, and approved the shop drawings, etc. and that they are in conformance with the requirements of the Contract Documents. The Engineer will not review any submittals which do not bear the Contractor's certification.

After the review has been completed, the above drawings, lists, samples, design calculations, and other data shall become part of the Contract documents, and the fabrications furnished shall conform to the submittal.

Review of material and layout drawings consists of review for general conformity to plans and specifications, and in no way relieves the Contractor or the supplier from responsibility for the correctness of the drawings.

Deviations or changes from plans or specifications must be called out as such and will require review by the Engineer for approval or rejection.

Construction of this project shall not begin until the shop drawings and line layouts have been reviewed and approved.

Corrections required on the shop drawings will not constitute a valid reason for delay in the project schedule.

SECTION 105.6 - COOPERATION WITH UTILITIES: An attempt has been made to determine the locations of all underground utilities and drainage pipes, culverts, and structures. The Contractor shall comply with the requirements of the ARS 40-360 21 through 40-360-29 in notification to the interested utility owners prior to the start of construction and shall ascertain the approximate locations of the various underground utilities shown on the plans and as may be brought to his attention. The exact locations of these underground utilities shall be determined by excavations made by the Contractor prior to any trenching operations. It shall be the Contractor's responsibility to cooperate with the pertinent utility companies, so that any obstructing utility installation may be adjusted. Should the Contractor's operations result in damage to any utility, the location of which has been brought to his attention, he shall assume full responsibility for such damage.

Any facility or work which may be performed for the accommodation of any utility shall be paid for by the utility owner. The Contractor shall make all arrangements that may be necessary for the construction, and any financial agreement shall be solely between the Contractor and the utility owner.

The following phone numbers, as indicated, should place the Contractor in contact with proper personnel:

Mountain Bell Telephone Company.....Ron Catlett...842-7750
Salt River Project (Overhead Power)...236-8888 or 273-2202
S.R.P. WaterUsers Assoc.....Slavko Jovanovic...236-5072
Arizona Public Service.....Lois Winkler.....371-6837
Location Staking(APS, Mountain Bell,SRP).....263-1100
City of Phoenix (Water).....Steve Schebler.....268-4709
(Sewer).....Bob Rentfro.....268-1864
City of Phoenix (Streets & Traffic).....262-6565
Maricopa County Highway Department.....262-3631
Flood Control District of Maricopa County.....262-1501
Southwest Gas Corporation.....271-4277
Dimension Cable Services.....866-0072..Ext. 243

SECTION 105.8 - CONSTRUCTION STAKES, LINES AND GRADES: The project control line and bench mark elevation are shown on the drawings and will be established by the Engineer. The Contractor shall establish offset stakes and temporary bench marks for referencing the designated construction lines and grades. The Contractor shall provide all rough grade, fine grade, and structural reference lines and shall be responsible for their conformance to the plans and specifications.

Survey work shall be performed by a qualified and experienced surveyor under the supervision of a licensed land surveyor or licensed Civil Engineer.

The Contractor shall furnish field books to be used for recording survey data and field notes. These books shall be available for inspection by the Engineer at any time and shall become the property of the Engineer upon completion of the work.

The Engineer reserves the right to make inspections and random checks of any portion of the staking and layout work. If, in the Engineer's opinion, the work is not being performed in a manner that will assure proper control and accuracy of the work, he will order any or all of the staking and layout work redone at no additional cost.

No separate payment will be made for construction surveying, and the cost thereof shall be included in the price bid for related items of work.

SECTION 105.10 - INSPECTION OF WORK: Work will be subject to City of Phoenix inspection and acceptance prior to final acceptance by the Engineer.

SECTION 105.12 - MAINTENANCE DURING CONSTRUCTION: The Contractor shall maintain the work during construction and until the project is accepted. This maintenance shall constitute continuous and

effective work prosecuted day by day, with adequate equipment and forces to the end so that the roadway or structures are kept in satisfactory conditions at all times.

SECTION 106 - CONTROL OF MATERIALS:

106.1 Source of Materials and Quality: The Contractor shall guarantee the construction work for one year against faulty materials, faulty workmanship and failure to meet the requirements of the specifications. Said guarantee by the Contractor shall not apply to damage caused by earthquakes or other acts of god, land subsidence, or faulty operations or any abuse of the structures by others.

SECTION 106.3 - PLANT INSPECTION:

Off-Site Inspection: The Contractor shall be responsible for all expenses,, including but not limited to travel and per diem expenses, for required inspections by the Engineer and/or the cost of inspection and testing by an independent testing laboratory as required by and at the discretion of the Engineer for any inspection of precast concrete girders manufactured outside of a fifty-mile radius from the City limits of Phoenix, Arizona.

SECTION 106.5 - CONTRACTOR'S MARSHALING YARDS: Contractor shall obtain approval of the Engineer when using vacant property to park and service equipment and store material for use.

- A. The Contractor shall notify adjacent property owners /residents of this proposed use.
- B. Any use of vacant property adjacent to or near the project for parking or servicing equipment and/or storing material will require the Contractor to obtain written approval from the property owner. This approval shall contain any requirements which are a condition of this approval.
- C. A copy of the property owner's approval shall be submitted along with the Contractor's request to the Engineer for approval for use of the marshaling yard in connection with the project. An appropriate distance from adjacent property will be set by the Engineer on a case by case basis based on the size and type of equipment to be used on the project.
- D. The yard shall be fenced and adequately dust-proofed in a manner such as to preclude tracking of mud onto paved City streets.
- E. Work in yard shall be scheduled so as to comply with the City Noise ordinance.
- F. Equipment, materials, etc., shall be located so as to minimize impact on adjacent properties. A sound barrier may be required if deemed necessary by the Engineer.
- G. The Contractor shall clean up property promptly upon

completion of the use.

- H. Contractor's request for approval shall specify in detail how he or she proposes to comply with D through G above.

In the event the Contractor uses Flood Control Property for these uses, he shall obtain a license from FCD/MC.

SECTION 107.2 - PERMITS: The Contractor shall be responsible for obtaining all permits and licenses, paying all charges, fees, taxes, and giving all notices necessary and incidental to the due and lawful execution of the work. Permits for earth moving may be obtained from the Bureau of Air Pollution Control, Maricopa County Department of Health Services, 1845 East Roosevelt, telephone number 258-6381. The Contractor shall obtain a permit from the City of Phoenix for construction within the city's right-of-way. The Contractor shall also obtain a permit from S.R.P. for construction within their right-of-way.

SECTION 107.10 - CONTRACTOR'S RESPONSIBILITY FOR WORK: The Contractor shall properly guard, protect, and take every precaution necessary against injury or damage to all finished or partially finished work, by the action of the elements or from any other cause until the entire project is completed and accepted by the Engineer. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work before final acceptance at no cost to the Contracting Agency. Partial payment for completed portions of the work shall not release the Contractor from such responsibility.

In case of suspension of the work for any cause whatever, the Contractor shall be responsible for the project and shall take such precautions as may be necessary to prevent damage to the project and shall erect any necessary temporary structures, signs, or other facilities at no cost to the Contracting Agency.

SECTION 108.4 - SEQUENCE OF CONSTRUCTION: Construction of the bridge will be phased as illustrated on the plans. The bridge structure will be constructed in two sections in a manner that will permit traffic to be maintained at all times in accordance with Section 104.1.2 - TRAFFIC REGULATIONS and the signing, striping and signalization drawing shown in the Project Plans.

SECTION 108.5 - LIMITATION OF OPERATIONS: Should the Contractor or subcontractor elect to perform any work before or after regular working hours, on week-ends, or legal holidays, any charges incurred by the district for inspection of the work, surveys, or tests of materials will be deducted from monies due or to become due to the Contractor.

SECTION 108.9 - FAILURE TO COMPLETE ON TIME: The actual cost per calendar day incurred by the District for Consultant

Administrative and Inspection Services on this project will be added to the daily charges as indicated by TABLE 108, LIQUIDATED DAMAGES, as shown in the MAG Uniformed Standard Specifications (not in the Phoenix Supplement), and will be deducted from monies due or to become due to the Contractor for each and every calendar day that work shall remain uncompleted after the time specified for the completion of the work in the proposal, or as adjusted by the Engineer. Nothing contained in this provision shall prohibit the District from deducting from monies due or to become due to the Contractor any other costs incurred by the District directly attributable to the delay in completing this contract.

SECTION 201 - CLEARING & GRUBBING: The work under this item consists of removal and disposal of all trees, stumps, asphaltic pavement, and structures within the limits of the roadways and easements, as designated on the plans. Materials shall be disposed of off-site.

No separate payment will be made for clearing and grubbing, and the costs thereof shall be included in the price bid for related items of work.

SECTION 206 - STRUCTURE EXCAVATION AND BACKFILL: Structure excavation and backfill shall conform to Section 206 of the Uniform Standard Specifications.

The Contractor shall provide sheet piling or other means of support for excavation to protect detour road, underground utilities and private property during construction.

Structure backfill behind the abutments and wing walls shall be compacted in accordance with Table 601-2, Type III of the Uniform Standard Specifications.

All backfill behind the bridge abutments and wing walls shall consist of well graded, free-draining granular material with not more than 5% passing a #200 sieve and a PI less than 7. Backfill shall be placed in horizontal lifts consistent with the maximum material size and type of compaction equipment in use and compacted to a minimum of 95% of the maximum density at the optimum moisture content plus 1% or minus 3% as determined in accordance with ASTM D-2922, D-3017, D698 and D1556. Compaction equipment other than hand operated equipment should be maintained at least two (2) feet from the structure.

Structure excavation shall be paid for at the lump sum contract price bid for ITEM 206-1 - STRUCTURE EXCAVATION. Structure backfill shall be paid for at the lump sum contract price for ITEM 206-2 -STRUCTURE BACKFILL.

SECTION 211 - FILL CONSTRUCTION: The work under this section consists of constructing embankments for the detour and approach roadways. The material required for the construction of the fill shall be suitable material obtained from roadway excavation on the Arizona Canal Diversion Channel excavation and shall be free of all debris and vegetation.

Prior to the placement of fill material, all loose soil, vegetation, any roadside debris, concrete pavement, and existing structures within the proposed fill areas shall be completely removed. Depressions and ditches shall be cleaned of all loose or wet soils and widened to accommodate compaction equipment. Sloping surfaces shall be benched to provide a level surface for fill placement.

All exposed subgrade surfaces shall be scarified, brought to the proper moisture content and compacted for a minimum depth of eight (8) inches.

The fill shall be compacted in horizontal lifts to subbase level. The depth of the uncompacted lifts shall not exceed eight (8) inches.

Compaction shall be to a minimum of 95% of the maximum density as determined in accordance with ASTM D-2922, D-3017, D698 and D1556 within a moisture content range of plus 1% or minus 3% of optimum.

No separate payment will be made for fill construction and the cost of these items shall be included in the contract price bid for related items.

SECTION 215 - EARTHWORK FOR OPEN CHANNELS: Earthwork for open channels shall consist of excavation and grading of the Arizona Canal Diversion Channel to the lines and grades as shown on the plans in accordance with Section 215 of the Uniform Standard Specifications.

The Contractor may increase the extent of longitudinal channel excavation for his convenience, at his option, at no additional cost to the Owner. However, the final channel width and side slopes shall be as shown on the plans.

Payment for all work under this section will be made at the lump sum bid for ITEM 215-1 - CHANNEL EXCAVATION, which price shall include excavation, grading, and disposal of excess material excavated from the Arizona Canal Diversion Channel as indicated on the plans.

In the event that the bridge Contractor has not completed the channel excavation at the time of to the commencement of the

construction of the Arizona Canal Diversion Channel, a portion of this item may be deleted. Payment for completed work will be determined on the basis of the percentage of work completed within limits shown on plans divided by the estimated quantity shown on the plans.

SECTION 225 - WATERING: The work under this item shall be in accordance with section 225 of the MAG Standard Specifications.

SECTION 301 - SUBGRADE PREPARATION: Subgrade preparation shall consist of shaping the roadway subgrades to the grades and cross-sections for the new roadways, new detour road and bridge approach slabs as shown on the plans and in accordance with Section 301 of the Uniform Standard Specifications.

This item shall also include all work necessary for the construction of ditches, any excavation, filling, grading, shaping and miscellaneous grading work between the back of curb or edge of pavement and the right-of-way or construction easement.

Width of measurement for payment along new detour roads will be to outside edge of aggregate base course as shown on the plans.

Payment for all work under this section shall be at the contract unit price per square yard bid for ITEM 301-1 - SUBGRADE PREPARATION.

SECTION 310 - UNTREATED BASE: Item 310-1 Aggregate Base shall conform in their entirety to the requirements of Section 310 of the Uniform Standard Specifications. Aggregate Base shall be crushed in accordance with Section 702.2.

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

SECTION 315 - BITUMINOUS PRIME COAT: Item 315-1 shall conform in its entirety to requirements of Section 315. The bituminous material shall be Grade MC-70 or MC250 liquid asphalt as determined by the Engineer. Prime coat shall be applied to the total width of the Aggregate Base Material at the rate of 0.40 gallon per square yard unless otherwise specified by the Engineer.

SECTION 321 - ASPHALT CONCRETE PAVEMENT: Asphalt concrete pavement shall consist of furnishing and placing a plant-mixed asphalt concrete road surfacing material to the compacted thickness shown on the plans and in accordance with Section 321

of the Uniform Standard Specifications.

The mineral aggregate shall meet the grading requirements within the range of the specified tolerances for Mix-Designation A-1 1/2, C-3/4 or D-1/2 in accordance with Section 710 of the Uniform Standard Specifications and the City of Phoenix Supplement to the Uniform Standard Specifications.

The Contractor shall furnish certified weight tickets covering all plant-mixed asphalt concrete placed on the project.

New detour pavement shall be constructed to the lines and grades as shown on the plans. Where the grades require overlay construction, the existing asphaltic or portland cement concrete pavement shall be prime coated as specified in Section 315.

Payment for Items 321-1 thru 321-4 will be made at the contract unit price bid per ton.

SECTION 324 - PORTLAND CEMENT CONCRETE STREET PAVEMENT: PCC street pavement shall consist of furnishing and placing portland cement concrete pavement to the thickness and details shown on the plans and in accordance with Section 324 of the City of Phoenix Supplement of the Uniform Standard Specifications.

Payment for this item will be made at the unit price bid per square yard for ITEM 324-1 - PORTLAND CEMENT CONCRETE PAVEMENT.

Payment for bridge approach slabs will be in accordance with the appropriate item listed in SECTION 505 - CONCRETE BRIDGE STRUCTURES.

SECTION 340 - CONCRETE CURB & GUTTER, SIDEWALKS, DRIVEWAYS AND ALLEY ENTRANCES: Items 340-1 through 340-3 of this project shall conform in its entirety to Section 340 of the MAG Standard Specifications.

SECTION 345 - ADJUSTING FRAME, COVERS, VALVE BOX AND WATER METER BOXES: Item 345-1 shall conform in its entirety to Section 345 of the MAG Standard Specifications.

SECTION 350 - REMOVAL OF EXISTING IMPROVEMENTS AND OTHER WORK: Item 350-1 through 350-6 of this project shall conform in its entirety to Section 350 of the MAG Standard Specifications. In addition to the items listed in the MAG Standard Specifications, Section 350-3 Miscellaneous Removal and Other Work, the following shall be included:

- K. Restoration of Right-of-way and/or Temporary Construction Easements: The Contractors shall leave the easements in as good condition, or better, after work is

completed, special care must be taken to replace any asphalt, trees, sprinklers, lights, walls, fences, etc., which were disturbed as a result of construction. Where grass is located within the easement, such as a lawn, the Contractor shall remove the sod which would be in the path of any construction, store it, keep it moist, and replace it immediately after construction is complete.

- L. Any and all items not specifically set forth as a separate pay item.
- M. Sawcutting and matching existing pavements and curbs, gutters, etc.
- N. Relocating positions of existing signs to be staked by the Inspector.
- O. Relocating positions of existing plants within the right-of-way to be staked by the Inspector.
- P. Removing existing AC, concrete curb and gutter and adjusting an existing, if required, and water meter adjustment as directed by the Engineer.
- Q. Reconnect the Sanitary Sewer Service from the west on 19th Ave. at approximately station 17+90 Lt to the existing manhole stub out at station 18+15.
- R. ^{Provide} Install an 8" Dia. ^{shoot 19} ID PVC sleeve and a 14" Dia. ID PVC sleeve as shown ^{on} the plans for a 4" or 10" gas main by S.W. Gas. The contractor shall provide the PVC pipe per S.W. Gas specifications if the material cannot be provided by the utility in a timely manner. *The contractor shall provide the work of this scope to the S.W. Gas utility before the contractor provides the work under the contract. S.W. Gas shall provide the work of this scope to the S.W. Gas utility before the contractor provides the work under the contract.*
- S. ^{Provide} Install 2-1/2" Dia. ID PVC conduits for power as shown on the plans. ~~The contractor shall provide the PVC pipe per APS specifications if the material cannot be provided by the utility in a timely manner.~~ *any inserts needed by contractor*
- ^{revised} T. Provide excavation and temporary support by timbers or railroad ties for the 16 telephone conduits on the east side of the bridge. Mt Bell will install conduit and conduit hangers.
- ^{delete U} U. Provide all utility hangers and hanger inserts compatible with the appropriate utility's specifications in the event the utility is not able to provide the needed materials in a timely manner.
- V. Install 2 survey monument MAG STD. DET. 120-1 at Station

16+56.31 and Station 17+81.77 on the 19th Avenue Centerline.

- W. Remove 170± LF of 48" water line and associated thrust blocks between Station 16+30 to Station 17+80 and fill and compact the excavated trench per Section 601 of these specifications. *a thrust block of approx. 20 C.Y. is known to exist at Station 16+50.*
- X. Remove 50 LF of 30" RCP and 36 LF of 18" RCP between Station 16+44± and Station 17+30± and fill and compact trench per Section 601 of these Specifications.
- Y. Remove and salvage, on site, the wood barricade across Old Hatcher Road approximately Station 16+11 Rt. to Station 16+81 Rt. Notify Paul DiPierro of Flood Control District (262-1501) to arrange for its removal.

Item 350-7 ACDC Right-of-Way Demolition shall conform to the direction and specification shown on the plans and the direction of the land management division of the land control district of Maricopa County.

Payment for this work shall be at the lump sum bid for Item 350-7, ACDC Right-of-Way Demolition.

SECTION 401 - TRAFFIC CONTROL:

Items 401-1 through 401-3 shall conform in its entirety to Section 401 of the MAG Standard Specifications.

Add the following to MAG Sub-Section 401.7, Payments:

Payment for Item 401-1 Traffic Control, will be paid for on a lump sum basis for Traffic Control Devices

Payment for Item 401-3, TRAFFIC SIGNAL RELOCATION, will be paid for on a lump sum basis for Traffic Control Devices.

401.5 General Traffic Regulations:

- A. 19th Avenue and Hatcher Road shall be considered major streets.

Access to local businesses is required at all times.

- B. All traffic and/or traffic control devices on this project shall be provided, maintained, and/or controlled as specified in the City of Phoenix Traffic Barricade Manual, latest revision.

- C. Permission to restrict city streets, sidewalks, and

alleys (street closure permits) shall be requested as specified in section III of the Traffic Barricade Manual.

- D. Unless otherwise provided all traffic on this project shall be regulated as specified in Section IV of the Traffic Barricade Manual.
- E. The Contractor shall provide a traffic control plan for each barricade installation used for this project.

SECTION 505 - CONCRETE BRIDGE STRUCTURES: The work under this section shall consist of furnishing all labor, materials and equipment for the construction of the cast-in-place concrete portions of the bridge structure, including the approach slabs and bridge sidewalks, in accordance with the plans and Section 505 of the Uniform Standard Specification, except as specified in the Construction Special Provisions.

General: It shall be the Contractor's responsibility to protect the structure and construction site from damage that may occur during the construction period and until final acceptance of the completed bridge by the Flood Control District.

Upon completion of the construction, the Contractor shall clear the work area of all debris.

No vehicular loads will be permitted on the bridges before the lapse of twenty-one (21) days from the date of the last pour of concrete for the bridge deck, unless approval is obtained in writing from the Engineer. The Contractor shall take special precautions to keep the area around the bridges properly barricaded and marked with flares to prevent automotive traffic from crossing the new bridge structures prior to the project engineer's approval.

The installation of any necessary conduits, brackets, or piping or any other facility or work which may be performed for the accommodation of any utility, other than as shown on the plans, shall be paid for by the utility owner. The Contractor shall make all arrangements that may be necessary for the construction and any financial agreement shall be solely between the Contractor and the utility owner.

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

The following strengths of concrete shall be furnished for Cast-In-Place Elements:

ITEM 505-1 Class 'A' Concrete f'c =3,000 psi

Approach Slabs, Sidewalks,
Traffic Barriers

ITEM 505-2 Class 'AA' Concrete f'c =4,000 psi
Deck Slab, Diaphragms, Wingwalls,
Cap Beams, Caissons

The Contractor shall determine the mix proportions and shall furnish concrete which conforms to the requirements of these specifications. All concrete shall be sufficiently workable, at the slump proposed by the Contractor within the specified range, to allow proper placement of the concrete without harmful segregation, bleeding, or incomplete consolidation. It shall be the responsibility of the Contractor to proportion, mix, place, finish, and cure the concrete properly in accordance with the requirements of these specifications.

Admixtures:

The Contractor shall furnish Certificates of Compliance conforming to the requirements of MAG Subsection 106.2 for each type of admixture furnished. Admixtures containing chlorides will not be acceptable for concrete containing uncoated reinforcing steel or embedded metal items.

All concrete admixtures shall be stored in suitable containers in accordance with the manufacturer's recommendations. All liquid admixtures shall be protected from freezing.

Air-entraining admixtures shall conform to the requirements of AASHTO M 154.

Water reducing admixtures shall conform to the requirements of AASHTO M 194.

Fly ash shall conform to the requirements of ASTM C 618 for Class F, except that the pozzolanic activity index with lime shall be reduced to a minimum of 650 pounds per square inch at seven days. The Blaine fineness shall have an average value of at least 2,800 with a minimum value of 2,600 for any one sample. The average value will be determined on the last five consecutive samples. The loss on ignition shall not exceed 3.0 percent.

Design of Concrete Mix:

Portland cement concrete shall comply with Section 725 of the MAG Uniform Standard Specification for Public Works Construction.

A fly ash admixture may be used at the option of the Contractor only when portland cement is used. A maximum of 15 percent of the required weight of portland cement may be replaced with a fly

ash admixture. A minimum of 1.2 pounds of fly ash shall replace each 1.0 pound of portland cement removed.

Concrete shall have a compressive strength not less than that shown on the project plans. Unless otherwise shown on the project plans, the ($f'c$) of concrete shall be the required 28-day compressive strength.

The coarse aggregate size designation for concrete shall be chosen by the Contractor and approved by the Engineer and shall conform to the size designation and grading requirements of AASHTO M 43. In choosing the size designation, the maximum size of coarse aggregate shall not be larger than $1/5$ of the narrowest dimension between sides of adjacent forms, or $2/3$ of the minimum clear spacing between reinforcing bars, or $1/3$ the depth of the slab, whichever is least.

The proposed slump shall be chosen by the Contractor. Concrete at the proposed slumps shall be sufficiently workable to allow proper placement without harmful segregation, bleeding, or incomplete consolidation.

Air-entraining admixtures will be required for all classes of concrete. The amount of entrained air in the concrete mixture shall not be less than four percent nor more than seven percent by volume.

Unless specifically required, water reducing admixtures may be used at the option of the Contractor.

At least two weeks prior to the appropriate concreting operation, the Contractor shall furnish a mix design for each strength of concrete for review and approval. More than one mix design for each strength of concrete may be submitted for approval providing specific items and locations of intended uses accompany the mix design. The Contractor shall substantiate each mix design by furnishing test data and providing all details of the mixtures proposed for use.

The complete solid volume mix designs submitted for approval shall include all weights and volumes of all ingredients. The brand, type, and source of hydraulic cement and admixtures, the coarse aggregate size number designation, source of aggregates, the specific gravities of all ingredients, the proposed slump, a code number to identify the mix design, and the intended use of each mix design shall be an integral part of each mix design.

No changes in the approved mix designs or code numbers shall be made by the Contractor except by the approval of the Engineer. A new mix design shall be submitted for approval any time the Contractor requests a change in materials or proportioning of the

materials from that given in each approved mix design. In no case shall the approval of a mix design relieve the Contractor of the responsibility for the results obtained by the use of such approved mix design.

Mix designs from previous or concurrent projects may be submitted for approval. The Engineer may waive trial batches at any time.

The Contractor may obtain concrete for each strength of concrete from an approved commercial source.

For each strength of concrete, the Contractor shall furnish an invoice for each batch of concrete. The minimum items required of each invoice shall be the mix design code number, date, time batched, truck identification or number, and name of identification of batch plant.

Testing for consistency shall be in accordance with the requirements of AASHTO T 119 to determine the consistency in slump. The Contractor shall be responsible for furnishing concrete at the slump shown on the approved mix designs with a permissible variation of ± 1 inch. Concrete that fails to conform to the consistency requirements will be rejected.

Bridge Deck:

The placing of concrete will not be permitted until the Engineer is satisfied that the rate of producing and placing concrete shall be sufficient to complete the proposed pour and finishing operations within the scheduled time, that experienced concrete finishers are available to finish the deck and that all necessary finishing tools and equipment are on hand at the site of the work and are in satisfactory condition for use.

Concrete shall be placed for the full width of the panel to be poured. After the concrete has been placed it shall be consolidated and then struck off by means of self-propelled screed equipment.

Screed equipment shall be designed to operate as close as practicable to bridge curbs.

Screed equipment shall travel on steel rails. Rails shall be substantially supported by adjustable steel supports of adequate size securely fastened in place and spaced at sufficiently close intervals to prevent any appreciable deflection in the rails. Steel supports shall be of such types and installed in such manner that when the rail and adjustable support have been removed, there will be no void in the concrete.

The steel rails for placing and finishing equipment shall be set

to the correct elevation shown on the project plans or as established by the Engineer. The rails shall extend beyond both ends of the scheduled length for placement a sufficient distance that will permit the screed and finishing equipment to reach all areas of the concrete placed.

Screed beams or rollers shall be made of metal, or the bottom of the beam shall be metal clad. Roller screeds shall be so constructed and of such length that there will be no sag or deflection in the screeds.

Screed assemblies equipped with vibrators shall be so designed that the vibrating units do not contact any reinforcing steel. Vibration shall be transmitted to the concrete in such a manner that when the motion of the machine is stopped, all vibration will cease.

A slight excess of concrete shall be maintained in front of the screed at all times during the screeding operation. The screed shall make as many passes over the slab as necessary to obtain a uniform surface.

The Contractor shall furnish a minimum of two transverse work bridges from which floating, straightedging, and curing operations may be accomplished. The work bridges shall be reasonably rigid and free of excessive deflections. The self-propelled mechanical bridge used for texturing the bridge deck may be substituted for one of the required work bridges.

Tines?

The floating operation shall follow the screeding if required. The float shall have a minimum diameter of three inches and have a minimum length of 12 feet. The float shall be constructed so that the surface will be maintained true at all times.

Prior to placing concrete, the screed shall be traversed the length of the proposed pour and the clearance from the screed to the reinforcing steel and deck thickness shall be checked. The method of determining the clearance shall be approved by the Engineer prior to making such checks. The clearance shall be as indicated on the project plans with a permissible variation of plus or minus 1/4 inch. Deflection of the screed rails as a result of the weight of the screed equipment will not be permitted. All corrections necessary as a result of this operation shall be performed prior to beginning the pour.

Finishing Bridge Deck:

Bridge sidewalks shall be finished to a light broomed texture.

Turf?

The bridge deck shall be textured with a artificial turf drag in accordance with the requirements of Section 324.3.7 of the City

of Phoenix 1987 supplement to the MAG Uniform Standard Specifications.

Hand brooms shall be provided and available at the job site at all times when texturing plastic concrete.

The finishing operation shall be completed before the water sheen disappears. Water shall not be applied to the deck surface at any time during floating or finishing except in the form of a fog spray.

Fogging equipment shall be capable of applying water to the concrete in the form of a fine fog mist in sufficient quantity to curb the effects of rapid evaporation of mixing water from the concrete on the deck resulting from wind, high temperature, or low humidity, or a combination of these factors.

The finished surface of the concrete shall be tested by means of a ten-foot straightedge placed on the deck surface. The surface plane shall not vary more than 1/8 inch, as measured from the bottom of the straightedge, on deck surfaces exposed directly to traffic.

Areas showing deviations greater than those specified shall be corrected in a manner approved by the Engineer. All corrected areas shall be textured to match the finish of the surrounding deck surface.

All areas corrected shall not show deviations in excess of that specified when tested with a ten-foot straightedge.

Concrete curing shall be accomplished with both white pigmented curing compound and water curing in accordance with Section 505 and 726 of the Standard Specifications.

Tests on Finished Structures:

Surface Texture: The grooves for decks exposed directly to traffic shall be not less than 0.08 of an inch nor more than 0.13 of an inch wide and shall be not less than 0.09 of an inch nor more than 0.20 of an inch in depth. The textured groove depth will be measured in accordance with the requirements of Arizona Test Method 310. The center-to-center spacing of the grooves shall be 0.75 of an inch. The maximum allowable deviation from 0.75 of an inch shall be 0.25 of any inch.

Dimensional Tolerances:

Construction dimensional tolerances shall be in accordance with Section 601-4, Concrete Structures, Tests on Finished Structures, of the Arizona Department of Transportation Standard

Specifications for Road and Bridge Construction, Edition of 1987 (revised to date).

Reinforcing Steel:

Reinforcing steel shall be furnished in the sizes, shapes, and lengths shown on the plans and in conformance with the requirements of these Special Provisions. Certificates of Compliance conforming to the requirements of MAG Subsection 106.2 shall be submitted.

When reinforcing steel is delivered to the site of the work, the Contractor shall furnish the Engineer with three copies of all shipping documents. Each shipping document shall show the sizes, lengths and weights of the reinforcing steel separately for each structure.

Steel bars used as reinforcement in concrete shall be deformed and shall conform to the requirements of ASTM A 615.

Where shown on the plans, the bars shall be Grade 60.

Where Grade 60 is not specified on the plans, Grade 40 shall be used if it is immediately available. If Grade 40 is not immediately available, Grade 60 may be used exclusively or in combination with Grade 40 provided that the conditions under which the grades are used in combination are acceptable to the Engineer and further provided that there is no additional cost to the Owner.

Shop drawings and lists showing the bending of reinforcement bars shall be submitted by the Contractor to the Engineer for approval, but such approval shall not relieve the Contractor of responsibility for the correctness of such drawings and lists.

Any discrepancy or error found by the Contractor in checking a bending diagram shown on the project plans or in preparing shop drawings or lists shall be reported immediately to the Engineer, and the discrepancy or error shall be corrected in advance of fabrication and delivery of materials.

When bending is required, it shall be done without the use of heat, and bars having cracks or splits at the bends will be rejected.

Reinforcement shall be accurately fabricated and placed as shown on the plans and shall be firmly held in place by wire ties at all intersections and splices with 16 gauge or heavier tie wire and by using precast mortar blocks or ferrous metal chairs, spacers, metal hangars, supporting wires or other approved supports. Where reinforcement spacing is less than 12 inches in

each direction alternate intersections may be tied. Tack welding or reinforcement will not be permitted unless approved in writing by the Engineer.

Distances from the forms shall be maintained so that the reinforcement does not vary from the position indicated on the plans by more than 1/4 inch. Reinforcement in any member shall be placed, inspected and approved before any concrete is placed.

All reinforcement shall be furnished in the full lengths indicated on the project plans. Splicing of bars, except as shown on the plans, will not be permitted without the Engineer's approval. Splices shall be staggered as far as possible. The type and method of splices or connections shall be approved by the Engineer.

In lapped splices, the bars shall be placed in contact with one another and wired together in such a manner as to maintain a clearance of not less than the minimum clear distance to other bars and the minimum distance to the surface of the concrete, as specified in the AASHTO Standard Specifications for Highway Bridges. Lap lengths shall be as shown on the plans.

Structural steel items embedded in the concrete are incidental to concrete unit prices.

Payment for all work under this section will be made at the unit price bid per cubic yard for ITEMS 505-1 CLASS 'A' CONCRETE through 505-2 CLASS 'AA' CONCRETE and unit price bid per pound for ITEM 505-3 - REINFORCING STEEL.

No separate payment will be made for reinforcing steel Grade 40 and Grade 60.

DRILLED SHAFT FOUNDATIONS: Item 505-4 of the Bidding Schedule shall conform to the following:

Description: The work under this section consists of furnishing all materials and equipment necessary to construct reinforced concrete columns formed within a drilled excavation in reasonably close conformity with the details, dimensions, and locations shown on the project plans and the requirements of these special provisions. These special provisions contain requirements for the use of drilling slurry and metal casing. Neither the slurry nor the casing is required, unless caving of the shaft occurs.

When the terms "caisson" and "shaft" are used hereinafter or on the project plans, they shall be construed to mean drilled shaft foundation and drilled excavation, respectively.

General Requirements: Prior to constructing any caissons,

including any test caissons, the Contractor shall submit to the Engineer a list of all major equipment, with respective capacities, that will be used to construct the caissons and the proposed construction procedure. The submission shall indicate, in detail, the techniques to be used in drilling the shaft and inspecting the completed excavation and reinforcing and concreting the caissons.

The Engineer will review the submission. If at any time during the construction of caissons or test caissons, the Engineer determines that the equipment, materials or procedures, either singly or in combination, are such that defects in the work may occur, the Engineer may stop the work until appropriate changes are made by the Contractor. In no case shall the Contractor be relieved of his responsibility for constructing acceptable caissons.

After constructing one or more caissons or test caissons, the Contractor may make minor modifications to the equipment, materials or procedures, either singly or in combination, and shall advise the Engineer of the changes in writing. The Engineer will review the proposal and may require the Contractor to construct another test caisson in order to test the proposed changes prior to constructing any additional bridge foundation caissons.

An acceptable test caisson (if a test caisson is required) or an acceptable bridge foundation caisson shall be constructed prior to the construction of any other caissons for the bridge foundation.

The decision of the Engineer as to the acceptability of completed caissons is final.

Materials:

Concrete: Concrete shall be Class "AA" conforming to the requirements of Section 725 for the strength of portland cement concrete shown on the project plans. Where concrete is placed in shafts containing bentonite slurry or water, the cement content of the concrete shall be between 658 and 752 pounds per cubic yard and the size of the coarse aggregate shall not exceed one inch. Water reducing and air entraining agents may be used.

Reinforcing Steel: Reinforcing steel shall conform to the requirements of Section 727.

Metal Casing: Casing shall be of unit or sectional construction and shall prevent seepage of water. Casing shall be of sufficient strength to withstand handling stresses, the pressure of concrete and of the surrounding earth. Casings are not

required except as a temporary measure if caving of the shaft should occur.

Shaft Forms: If the size of the shafts adjacent to the channel cannot be maintained within 2" of the shaft diameter as shown on the plans for the depth of the proposed channel or if over drilling will narrow the channel width, sonotube or an approved method shall be used to control the shaft diameter and location shown on the plans.

Construction Requirements:

Excavation: The Contractor shall perform all excavation required for the shafts, rock sockets or belled footings, through whatever substances encountered, to the dimensions and elevations shown on the project plans or required by the site conditions. The maximum deviation from plumb, the maximum variation of the center axis of any shaft at the top, and the maximum deviation in diameter shall be as specified on the project plans.

The anticipated subsurface conditions and depths where satisfactory bearing material may be encountered are indicated on the project plans; however, no warranty of the subsurface conditions and depths where satisfactory bearing material may be encountered shall be inferred.

The bottom elevation of an caisson may be raised or lowered from that shown on the project plans as ordered by the Engineer. No reinforcing steel or concrete shall be placed in a shaft until the final elevation has been determined.

The Contractor shall protect the shaft from caving in at the surface either by constructing a concrete slab or by placing a temporary casing or by other methods as approved by the Engineer. The Contractor shall either drill or form a circular opening at the center of the slab. The slab shall be broken up and removed at the completion of the caisson construction. If a casing is used, it shall be removed after the concreting of the shaft is completed and while the concrete is still fluid. Casing shall not be left in place except as indicated on the project plans or as approved by the Engineer.

Casing specified on the project plans or approved by the Engineer to remain in place shall be installed in such a manner that there will be no voids between the earth and the casing.

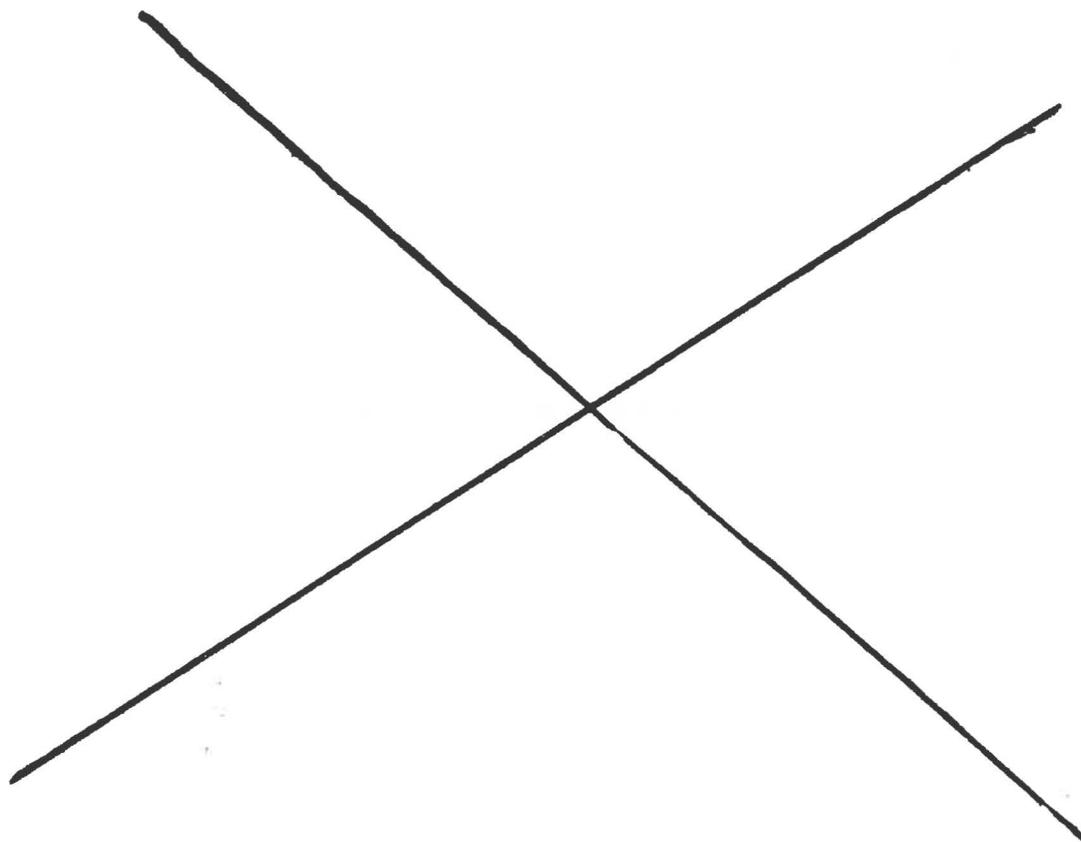
When caving conditions are encountered, drilling shall cease until modifications to the equipment, materials or procedures are made that will prevent such caving. If a steel casing is used, it shall be clean and shall extend to the top of the shaft. The inside diameter of the casing shall not be less than the

specified size of the caisson.

Material excavated from shafts and not used elsewhere on the project shall be disposed of as approved by the Engineer.

When the project plans indicate that shafts are to be drilled within embankments, the embankments shall be constructed as shown on the project plans and thoroughly compacted in accordance with the requirements of Section 206 prior to drilling, except as otherwise approved by the Engineer.

Open excavations that are deemed to be potentially hazardous by the Engineer shall be covered at the end of each shift in a manner approved by the Engineer.



Reinforcing Steel: The reinforcing steel cage shall consist of the longitudinal bar and spiral hoop reinforcement. The cage shall be completely assembled and placed into the shaft as a unit.

Unless otherwise indicated on the project plans, or approved by the Engineer, splicing of reinforcing steel will not be permitted. Lap splices in spiral hoop reinforcement shall be in accordance with the details shown on the project plans or as approved by the Engineer and only at locations approved by the Engineer.

The reinforcing steel cage shall not be placed until immediately before concreting operations are to be started and shall be placed in accordance with the details shown on the project plans.

The cage shall be adequately supported and anchored from the top to prevent movement during the concrete placement and for at least four hours thereafter. The exact length of time will be determined by the Engineer. The support shall be concentric and shall support at least one-half of the vertical bars. Spacers shall be at sufficient intervals along the shaft to insure minimum concrete cover for the entire length of the caisson. The type of spacer used shall be approved by the Engineer.

If the shaft is deepened and the project plans indicate full depth reinforcement, the bars in the lower portion of the caisson shall be extended accordingly, as directed by the Engineer, to the bottom of the shaft. These bars shall be lap spliced, spliced by butt welding or by other connecting procedures approved by the Engineer to the proper length in accordance with the requirements of Section 505.5.1. If the project plans indicate spiral or tie reinforcement for the full depth of the caisson, the spiral or the reinforcement shall also be extended to the bottom of the shaft as directed by the Engineer.

Concrete:

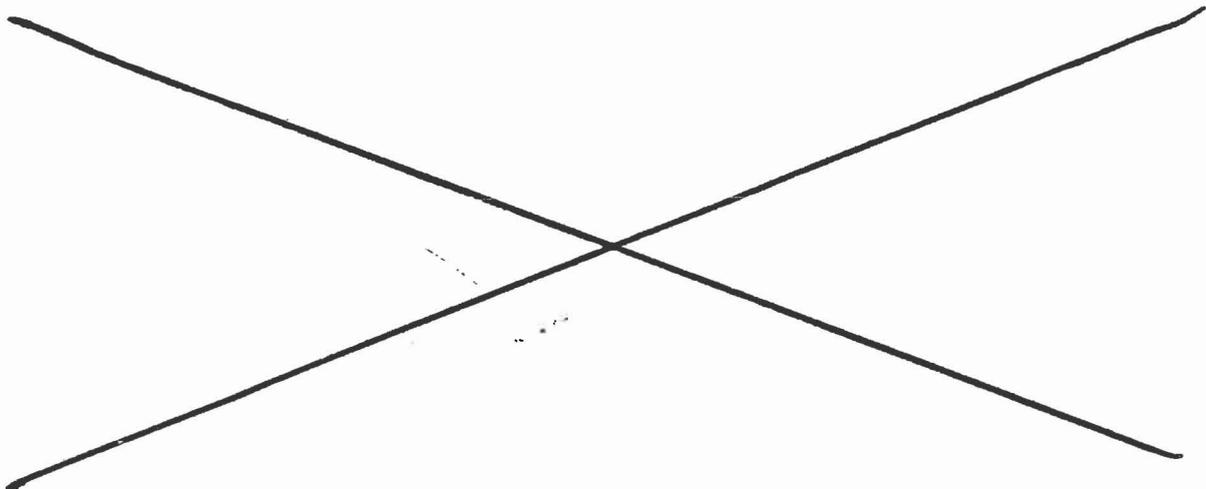
General: Concrete shall be placed as soon as possible after completion of the shaft and the placement of the reinforcing steel cage. Any sloughage or other loose material shall be machine cleaned from the shaft prior to placing reinforcing steel and concrete. An accumulation of loose soils, muck, etc., at the bottom of the shaft will not be allowed at the time of placing steel or concrete. A flight auger shall not be used for cleaning

purposes.

Concrete placement shall be continuous in the shaft to the top elevations or to construction joint shown on the project plans and shall be in accordance with the requirements of Section 505 and as specified herein. Concrete in drilled shafts shall be consolidated by vibration.

Prior to the placing of concrete, the Contractor shall have made all the necessary arrangements to assure the uninterrupted delivery of concrete so that each caisson will be constructed without cold joints.

The Contractor shall exercise care so that no damage to a completed caisson will occur. The Contractor shall not begin construction of the footings, formed columns or cap beams or remove the concrete pad until at least 48 hours after the concreting of the shaft is completed for the respective pier or abutment caisson.



Placement in Dry Excavations: Concrete shall be placed through a suitable tube or tremie to prevent segregation of materials.

Concrete may be placed by the free-fall method provided that water is not standing in the bottom of the shaft and that the fall does not exceed eight feet. The delivery chute shall be positioned so that the concrete does not strike the sides of the shaft or the reinforcing steel. Concrete in drilled shafts shall be consolidated by vibration.

Casing Removal: During removal of any casing, a sufficient head of not less than five feet of fluid concrete shall be maintained above the bottom of the casing except at the top of the shaft. All contaminated concrete below the top of the caisson shall be removed.

If the removal of the casing causes an upward movement of the concrete and/or reinforcing steel cage of one inch or less, the casing may continue to be pulled provided no further movement occurs and if the concrete is vibrated or rodded to reconsolidate the concrete. Vibration or rodding of the concrete shall not be used to attempt to break the casing loose for extraction.

If the upward movement is greater than one inch, the casing shall be left in place as a permanent sleeve at the Contractor's expense. A load test may be required by the Engineer to determine the adequacy and acceptability of the caisson.

Test Caisson: Unless otherwise directed by the Engineer, a test caisson is not required.

Inspection and Tests: Continuous observations of the construction of drilled pier foundations should be carried out by a representative of the geotechnical engineer. He should verify proper diameter of the shaft, depth and cleaning, and should also verify the nature of materials encountered in the pier excavations. Concrete placement should be continuously observed to ensure that it meets requirements. A quality assurance report should be submitted on each pier stating, in writing, that all details have been observed and meet the requirements. After completion of a shaft and prior to placement of the reinforcing steel cage and concrete, the shaft will be inspected by the Engineer. The Contractor shall provide suitable equipment for the Engineer to inspect the completed excavation.

Gamma ray testing will not be required unless it is necessary for the contractor to use a drilling slurry.

If required each completed caisson will be inspected by means of a gamma ray logging device. The Contractor shall furnish and install two inch inside diameter polyvinyl chloride pipe (Schedule 40). The pipe shall be joined with glued couplers to provide a clean, dry and unobstructed two inch diameter clear opening from the top of the caisson to the tip. The pipe shall be capped top and bottom and shall be securely tied to the reinforcing steel in a straight line in order to prevent displacement during handling and concrete placement and permit the gamma ray logging device to pass top to bottom. The Engineer will provide the testing equipment and make the actual inspection.

If the inspection indicates the presence of voids or zones of unconsolidated concrete in the caisson, the concrete shall be core drilled or otherwise exposed as directed by the Engineer.

After all inspection has been completed, all holes and conduit in all bridge foundation caissons shall be filled with an approved sand-cement grout.

Caisson Repair: If after inspection the Engineer determines that the integrity of the bridge foundation has been compromised, the Engineer will order the Contractor to make such repairs as are deemed necessary by the Engineer.

Method of Measurement: Caissons will be measured by the linear foot. Measurement will be made from the top of the accepted caisson to the bottom, as indicated by elevations on the project plans.

Basis of Payment: The accepted quantities of caissons, including test caissons, if required, measured as provided above, will be paid for at the contract unit price per linear foot for the diameter designated in the bidding schedule, complete in place, including excavation, drilling slurry, metal casing, steel reinforcing, portland cement concrete, concrete slabs, and any needed forming, curing and finishing. No additional payment will be made for metal casing that is to remain in place.

The contract unit price shall also include the cost of exposing, by excavation, the upper length of the test caissons, the drilling and/or backfilling of any additional shafts and the construction of any additional test caissons.

The contract unit price shall also include the cost of the core drilling or exposing of concrete and the subsequent repair of caissons as hereinbefore specified under "Caisson Repairs" for caissons which are deemed to be unacceptable.

The contract unit price shall also include the cost of furnishing all materials, equipment and labor necessary for the splicing of reinforcing steel and for the radiographic testing of welds and the testing of butt splices and threaded splices.

The contract unit price shall also include the cost of furnishing and placing conduit and the subsequent filling with a sand-cement grout.

If the Contractor is ordered by the Engineer to core drill or otherwise expose the caisson for inspection and no voids,

unconsolidated concrete or other condition that will compromise the integrity of the bridge foundation is determined by the Engineer to exist, the cost of such work and the cost of the subsequent repairs will be paid for in accordance with the requirements of ADOT Standard Specifications Subsection 109.04.

No measurement or direct payment will be made for the reinforcing steel extending from the top of the drilled shaft foundation into the cap, the price being considered as included in the cost of the respective drilled shaft foundation.

When load tests are required by the Engineer to determine the adequacy and acceptability of drilled shafts, payment for load tests for drilled shafts determined to be adequate and acceptable will be made in accordance with the provisions of ADOT Standard Specifications Subsection 109.04.

Load tests for drilled shafts determined to be inadequate and unacceptable will be at the Contractor's expense.

SECTION 506 - PRECAST PRESTRESSED CONCRETE GIRDERS: The work under this section shall consist of furnishing and erecting the bridge girders as shown on the plans and in accordance with AASHTO Standard Specifications for Highway Bridges dated 1983.

All materials and construction of prestressed bridge girders shall conform to Section 506 of the Uniform Standard Specifications, except as modified by these Construction Special Provisions.

Portland Cement Concrete for Prestressed Girders shall be Class S concrete and shall conform to Section 505 of the Uniform Standard Specifications and these Construction Special Provisions.

Class "S" Concrete $f'c = 5,000$ psi

The elastomeric bearing pads shall meet the requirements of Section 25 - Elastomeric Bearings of the AASHTO Standard Specifications for Highway Bridges dated 1983 (revised to date).

No separate payment will be made for the elastomeric bearing pads, structural steel, anchor bolts, prestressing or post-tensioning steel, reinforcing steel or other embedded items necessary to the furnishing of the girders complete-in-place.

Payment will be made at the unit price bid per each for:

ITEM 506-1 - PRECAST CONCRETE GIRDERS (PRETENSIONED)
AASHTO TYPE III (66'-6")

SECTION 520 - PEDESTRIAN HANDRAIL: The work under this section

consists of the construction of a pedestrian rail on the bridge decks and abutments as shown on the plans in accordance with Section 520 of the Uniform Standard Specifications. The railing shall be painted with #4 paint after fabrication in accordance with Section 530 and 790 of the Standard Specifications.

Payment for this item will be made at the contract unit price bid per lineal foot for ITEM 520-1 - PEDESTRIAN HANDRAIL.

SECTION 601 - TRENCH EXCAVATION, BACKFILLING, AND COMPACTION:
The following is repeated from the City of Phoenix 1986 supplement to the MAG Standard Specifications.

A. CITY OF PHOENIX SUPPLEMENT SUB-SECTION 601.2.1 GENERAL: is amended to add the following paragraph:

"No extra compensation or additional time will be authorized for claims that soil conditions differ from those anticipated or those indicated by soil logs and/or reports. It is the Contractor's responsibility to make his own determination as to actual existing conditions."

B. SUB-SECTION 601.2.2 TRENCH WIDTH: is amended to add the following paragraph:

"If the Contractor elects to slope the trench walls in lieu of shoring, sheeting or other wall support measures, he shall be responsible for any and all problems encountered and costs incurred as a result of the increased trench width. Furthermore, no increase in contract time will be allowed as a result of sloping trench walls."

C. SUB-SECTION 601.2.5 OVER EXCAVATION: is amended to add the following paragraph:

"When the Engineer determines that over excavation and backfilling, below the normal foundation and bedding depth, are required as a result of unsuitable material, it will be considered extra work. Payment and construction time extension will be negotiated with the Contractor or as otherwise provided for in these contract documents. As a condition of the Contractor receiving payment, agreement on method of payment and construction time extension shall be reached prior to start of work unless otherwise authorized in writing by the Engineer."

D. SUB-SECTION 601.2.8 GRADING AND STOCKPILING: Add the following paragraph:

"Excavated material shall not be considered as unsuitable due to an excessive moisture content or an inadequate

moisture content for proper compaction. The Contractor shall take whatever measures are required at his own expense to add or remove moisture from material to be used as backfill in order that proper compaction can be obtained within the limits set in Section 601.4.

The Contractor may elect, at no cost to the Contracting Agency, to haul off and dispose of excessively wet or dry material and replace it with material conforming to the specifications for backfill.

In either event, the proper compaction shall be obtained. There will be no additional payment or time extension for this work."

- E. SUB-SECTION 601.4.3 BACKFILL: Delete the fourth paragraph in its entirety, and substitute the following:

"When mechanical compaction is to be used, the Contractor will provide a test section demonstrating his proposed method and equipment to be used. Upon agreement with the Engineer as to the acceptability of the Contractor's proposed method and equipment, they shall not be changed without prior approval of the Engineer. Mechanical compacted lifts in excess of one foot will not be allowed without the express written consent of the Engineer."

- F. SUB-SECTION 601.4.3 BACKFILL: is amended to add the following paragraphs:

"Backfill material shall be within the range of +2% to -4% of the optimum moisture content, prior to placing the material in the trench. The moisture content shall be uniform throughout the backfill material. Material not meeting these requirements may be required to be removed from the trench and moisture added or removed to correct the deficiencies prior to replacement, all at no increase in cost to the contract."

It shall be the Contractor's responsibility to blend excavated material, removing or adding moisture as may be necessary to meet the requirements of the specifications, all at no increase in cost to the contract.

Excavated material when used for backfill shall meet the requirements of the preceding paragraph.

The moisture content requirements contained herein are waived when granular material is used and water settled.

The Engineer may require all or any part of the trench to be

lead tested for stability with Contractor's equipment prior to placement of asphalt or Portland cement concrete pavement. Unstable areas as determined by the Engineer shall be corrected by the Contractor at no increased in cost to the contract."

LIMITS OF BACKFILL TYPE

Type I : Canal right-of-way, street right-of-ways and to 10' above pipes in the ACDC right-of-way.

Type II : Will not be used.

Type III: For all structures.

- G. SUBMITTAL: The Contractor shall submit his plan, methods, and procedures for protecting existing utilities prior to beginning construction. Approval of the plan does not limit the Contractor's responsibility for utility protection, and the Contractor shall implement all additional utility protection measures as determined to be necessary in the field.

SECTION 610 - WATER LINE CONSTRUCTION - Items 610-1 thru 610-4 on the Bidding Schedule of this project shall conform in their entirety to Section 610 of the MAG Standard Specification and City of Phoenix Supplements.

SECTION 615 - SEWER LINE CONSTRUCTION: Items 615-1 through 615-6 of this project shall conform in their entirety to section 615 of the MAG Standard Specifications.

The trenching, bedding and backfilling of the foregoing items shall be in accordance with Section 601 of the Standard Specifications and the amendments in these special provisions.

Item 615-1 thru 615-3, as detailed on the project plans, shall be PVC sewer pipe, conforming to the following specifications:

P.V.C. (Polyvinylchloride) sewer Pipe: P.V.C. pipe and fittings shall meet the requirements of ASTM Specification D3034 for SDR35.

Prior to installation of the pipe, the Contractor shall obtain and submit a manufacturer's certification that the pipe meets the foregoing specifications and passes the tests described in this section.

Pipe shall be suitable for use as a gravity sewer conduit. Provisions must be made for contraction and expansion at each joint with rubber ring. The bell shall consist of an integral wall section with a solid cross-section rubber ring, factory assembled, securely locked in place to prevent displacement

during assembly.

The pipe (6" long section) shall be subjected to impact from a free-falling tup (20-lb Tup A.) in accordance with ASTM Method of Test D2444. No shattering nor splitting shall be evident when impacted with an energy of 220 ft-lbs. (Denting is not a failure.)

All fittings and accessories shall be as manufactured and furnished by the pipe supplier, or approved equal, and have been and/or spigot configurations compatible with that of the pipe.

One full length of P.V.C. pipe selected from 20 lengths shall be subjected to the following tests, which shall be conducted at 73 degrees F. (+-3 degrees F.):

a. Pipe Stiffness

Minimum "pipe stiffness" (F y) at 5% deflection shall be 46 psi when tested in accordance with ASTM Method of test D2411, "External Loading Properties of Plastic Pipe by Parallel-Plate Loading".

b. Joint Tightness

Two sections of pipe shall be assembled in accordance with the manufacturer's recommendation. Joints shall be tested in accordance with ASTM D3212, "Joints for Drain and Sewer Plastic Pipe Using Flexible Elastomeric Seals".

c. Flattening

There shall no evidence of splitting, cracking, or breaking when the pipe is tested as follows:

Flatten specimen of pipe, six inches long, between parallel plates in a suitable press until the distance between the plates is forty percent of the outside diameter of the pipe. The rate of loading shall be uniform and such that the compression is completed within two to five minutes.

Trenching, bedding, and backfilling of P.V.C pipe shall be in accordance with Section 601 of the Standard Specifications and the amendments in these special provisions.

All pipe for the air jumper line shall be measured by the linear foot, parallel to the central axis, and shall include lengths of fittings.

The accepted quantities of pipe, measured as provided above, will be paid for at the contract unit price complete-in-place. No measurement or direct payment will be made for furnishing and placing bedding material, condensate pit materials, fittings, collars, bands, or couplings joining the various sections of pipe.

SECTION 625 - MANHOLE CONSTRUCTION: Items 625-1 and 625-3 shall conform in their entirety to Section 625 of the MAG Standard Specifications.

The brick work and mortar for Item 625-1 and 625-3, Sanitary Sewer Pipe Plugs, shall be constructed in accordance with Section 625 of the MAG Standard Specifications.

Construction of Item 625-1 and 625-3, Fill and Abandon Manhole and Plug Pipe, shall be undertaken after the new sanitary sewer pipes have been placed into service and accepted by the Engineer. Prior to installation of any plugs, filling in, removing, or abandoning any manholes, the abandoned sewer lines will be dewatered and aerated by the Contractor as will not cause damage to public property nor constitute any nuisance or menace to the public. The Contractor shall plug all pipes entering and exiting the manhole, remove and salvage the frame and covers, fill and compact all manholes with aggregate base up to the frame and cover base.

The aggregate base used shall comply with Table 702 in the MAG Standard specifications.

Removed frames and covers shall become the property of the City of Phoenix, and the contractor shall load, haul, and stockpile the frames and covers, as directed, at the City of Phoenix Maintenance Yard at 2301 W. Durango Avenue.

Measurement and payment will be on a unit basis for each manhole filled and will include surface replacement, salvaging of frames and covers, delivery to the City, and plugging pipes.

①

CONTRACT FCD 87-46

THIS AGREEMENT, made and entered into this _____ day of _____, 19____,
by and between _____

of the City of _____, County of _____, State of _____,
party of the first part, hereinafter designated the CONTRACTOR, and the FLOOD
CONTROL DISTRICT OF MARICOPA COUNTY, acting by and through its BOARD OF
DIRECTORS, a political subdivision of the State of Arizona, a body politic with
corporate power, party of the second part, hereinafter designated OWNER.

WITNESSETH. That the said CONTRACTOR, for and in consideration of the sum
to be paid him by the said OWNER, in the manner and at the time hereinafter
provided, and of the other covenants and agreements hereincontained, and under
the penalties expressed in the bonds provided, hereby agrees, for himself, his
heirs, executors, administrators, successors, and assigns to as follows:

ARTICLE I-SCOPE OF WORK: The CONTRACTOR shall furnish any and all labor,
materials, equipment, transportation, utilities, services and facilities
required to perform all work for the construction of Project No. FCD 87-46
19th Avenue Bridge Over ACDC
and to complete and totally construct the same and install the material therein
for the OWNER, in a good and workmanlike and substantial manner and to the
satisfaction of the OWNER through its Engineers and under the direction and
supervision of the Engineer, or his properly authorized agents and strictly
pursuant to and in conformity with the Plans and Specifications prepared by the
Engineers for the OWNER, and with such modifications of the same and other
documents that may be made by the OWNER through the Engineer or his properly
authorized agents, as provided herein.

ARTICLE II-CONTRACT DOCUMENTS: The Invitation for Bids, Plans, Standard
Specifications and Details, Special Provisions, Addenda, if any, and Proposal,
as accepted by the BOARD OF DIRECTORS, Performance Bond, Payment Bond,
Certificates of Insurance, and Change Orders, if any, are by this reference
made a part of this Contract to the same extent as if set forth herein in full.

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

ARTICLE IV-PAYMENTS: For and in consideration of the faithful performance
of the work herein embraced as set forth in the Contract Documents, which are a
part hereof and in accordance with the directions of the OWNER, through its
Engineer and to his 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 within forty (40) days after final
inspection and acceptance of the work.

IN WITNESS WHEREOF: Four (4) 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.

The CONTRACTOR agrees that this Contract, as awarded, is for the stated work, and understands that payment for the total work will be made on the basis of the indicated amount(s), as bid in the Proposal.

PARTY OF THE FIRST PART

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
PARTY OF THE SECOND PART

By: _____
Chairman, Board of Directors

Date: _____

RECOMMENDED BY:

ATTEST:

Chief Engineer and General Manager
Flood Control District
of Maricopa County

Clerk of the Board

Date: _____

LEGAL REVIEW

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

By: _____

Date: _____

CONTRACT NO. FCD 87-46

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

KNOW ALL MEN BY THESE PRESENTS:

That, _____
(hereinafter called the Principal), as Principal, and

_____ a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____, (hereinafter called the Surety), as Surety, are held and firmly bound unto the Flood Control District of Maricopa County, State of Arizona (hereinafter called the Obligee) in the amount of _____ dollars (\$ _____), for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the _____ day of _____, 19____, for _____

_____ which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall promptly pay all moneys due to all persons supplying labor or materials to him or his subcontractors in the prosecution of the work provided for in said contract, then this obligation shall be void, otherwise to remain in full force and effect.

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

The prevailing party or any party which recovers judgment on this bond shall be entitled to such reasonable attorney's fees as may be fixed by the court or a judge thereof.

Witness our hands this _____ day of _____, 19____.

PRINCIPAL SEAL

BY: _____

AGENCY OF RECORD

SURETY SEAL

BY: _____

AGENCY ADDRESS

POWER OF ATTORNEY SEAL

BY: _____

CONTRACT NO. FCD 87-46
PAYMENT BOND

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

KNOW ALL MEN BY THESE PRESENTS:

That, _____
(hereinafter called the Principal), as Principal, and

_____ a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ (hereinafter called the Surety), as Surety, are held and firmly bound unto the Flood Control District of Maricopa County, in the County of Maricopa, State of Arizona, in the amount of _____ dollars (\$ _____), for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Flood Control District of Maricopa County, dated the _____ day of _____, 19____, for _____

_____ which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said contract during the original term of said contract and any extension thereof, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety being hereby waived; then the above obligation shall be void, otherwise to remain in full force and effect;

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

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

Witness our hands this _____ day of _____, 19____.

AGENCY OF RECORD

AGENCY ADDRESS

CONTRACT NO. FCD 87-46
PERFORMANCE BOND

PRINCIPAL SEAL

BY: _____

SURETY SEAL

BY: _____

POWER OF ATTORNEY SEAL

BY: _____

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

5

CERTIFICATE OF INSURANCE

CONTRACT FCJ 87-46 PROJECT TITLE 19th Ave. Bridge Over ACDC

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

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

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	EXPIRATION DATE	LIMITS OF LIABILITY IN \$1,000 MINIMUM each occurrence	
	<input checked="" type="checkbox"/> COMPREHENSIVE GENERAL LIABILITY FORM <input checked="" type="checkbox"/> PREMISES OPERATIONS <input checked="" type="checkbox"/> CONTRACTUAL <input checked="" type="checkbox"/> BROAD FORM PROPERTY DAMAGE <input checked="" type="checkbox"/> EXPLOSION & COLLAPSE <input checked="" type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS HAZARD <input checked="" type="checkbox"/> UNDERGROUND HAZARD <input checked="" type="checkbox"/> INDEPENDENT CONTRACTORS <input checked="" type="checkbox"/> PERSONAL INJURY			BODILY INJURY per person \$1,000 each occurrence \$5,000 PROPERTY DAMAGE \$1,000 OR BODILY INJURY AND PROPERTY DAMAGE Combined \$5,000	
	<input checked="" type="checkbox"/> COMPREHENSIVE AUTO LIABILITY & NON-OWNED			SAME AS ABOVE	
	<input type="checkbox"/> EXCESS LIABILITY			NECESSARY IF UNDERLYING NOT ABOVE MINIMUM	
	<input checked="" type="checkbox"/> WORKERS' COMPENSATION and EMPLOYERS' LIABILITY			STATUTORY	each accident \$100
	<input type="checkbox"/> OTHER				

The Flood Control District of Maricopa County is added as an additional insured as respects work done for the District by the named insured as required by statute, contract, purchase order or otherwise requested. It is agreed that any insurance available to the named insured shall be primary of other sources that may be available. It is further agreed that no policy shall expire, be cancelled or materially changed to effect the coverage available to the District without fifteen days written notice to the District. THIS CERTIFICATE IS NOT VALID UNLESS COUNTERSIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE INSURANCE COMPANY.

NAME AND ADDRESS OF CERTIFICATE HOLDER
 FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
 3335 West Durango Street
 Phoenix, Arizona 85009

DATE ISSUED _____

AUTHORIZED REPRESENTATIVE _____

6

It is further agreed that:

The Contractor hereby agrees to indemnify and save harmless the FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, or any of its departments, agencies, officers or employees, from and against all loss, expense, damage or claim of any nature whatsoever which is caused by any activity, condition or event arising out of the performance or nonperformance of any of the provisions of this Agreement. The Flood Control District of Maricopa County shall in all instances be indemnified against all liability, losses and damages of any nature for or on account of any injuries to or death of persons or damages to or destruction of property arising out of or in any way connected with the performance or nonperformance of this Agreement, except such injury or damage as shall have been occasioned by the negligence of the Flood Control District of Maricopa County.

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

Date _____

Contractor

CERTIFICATE OF INSURANCE
CONTRACT FCD 87-46

FLOOD CONTROL DISTRICT of Maricopa County

19th Avenue Bridge @ the ACDC
8" Sanitary Sewer Relocation
WATERLINE ADJUSTMENT

TABULATION OF BIDS

FCD 87-46

PROJECT: ACDC Right of Way Demolition

DATE OPENED: 22 MARCH 1983

SH. 1 OF 3

PAY ITEM NO.	DESCRIPTION	APPROX. QUANTITY & UNIT	ENGINEER'S ESTIMATE		NEDBIT CONTR.		R. E. MILLER		PULICE CONSTR.		JWJ CONTR.		ROYDEN CONST.	
			UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL
206-1	STRUCTURAL EXCAVATION (APPROX. QUANTITY - 2040 C.Y.)	1 LS.	15,000.	15,000.00	10,000.	10,000.00	17,000.	17,000.00	16,534.	16,534.00	25,000.	25,000.00	15,000.	15,000.00
206-2	STRUCTURAL EXCAVATION (APPROX. QUANTITY - 210 C.Y.)	1 LS.	4,200.	4,200.00	7,500.	7,500.00	14,000.	14,000.00	9,015.	9,015.00	8,000.	8,000.00	5,000.	5,000.00
215-1	CHANNEL EXCAVATION (APPROX. QUANTITY - 3800 C.Y.)	1 LS.	15,200.	15,200.00	15,000.	15,000.00	18,000.	18,000.00	19,652.	19,652.00	35,000.	35,000.00	12,000.	12,000.00
301-1	SUBGRADE PREPARATION (1/4" AVE. AND DETOUR)	1483 S.Y.	5.00	7,415.00	2.00	2,966.00	5.00	7,415.00	7.00	10,371.00	10.00	14,830.00	7.00	10,371.00
310-1	AGGREGATE BASE COURSE (FOR DETOUR ROADWAY)	340 TON	10.00	3,400.00	9.00	3,060.00	11.00	3,740.00	33.00	11,220.00	30.00	10,200.00	18.00	6,120.00
315-1	BITUMINOUS PRIME COAT (FOR DETOUR ROADWAY)	1 TON	350.00	350.00	1,000.	1,000.00	500.00	500.00	1,300.	1,300.00	1.00	1.00	1,000.	1,000.00
321-1	ASPHALT CONCRETE (C-314) (FOR DETOUR ROADWAY)	235 TON	35.00	8,225.00	30.00	7,050.00	36.00	8,460.00	4.00	940.00	60.00	14,100.00	40.00	9,400.00
321-2	BITUMINOUS TACK COAT	1 TON	400.00	400.00	500.00	500.00	350.00	350.00	1,000.	1,000.00	1.00	1.00	1,000.	1,000.00
321-3	ASPHALT CONCRETE (D-1/2)	50 TON	40.00	2,000.00	31.00	1,550.00	35.00	1,750.00	77.00	3,850.00	40.00	2,000.00	40.00	2,000.00
321-4	ASPHALT CONCRETE (A-1-1/2)	280 TON	30.00	8,400.00	26.00	7,280.00	32.00	8,960.00	42.00	11,760.00	35.00	9,800.00	35.00	9,800.00
324-1	PORTLAND CEMENT CONCRETE PAVEMENT (12" THICK)	170 S.Y.	40.00	6,800.00	30.00	5,100.00	35.00	5,950.00	29.00	4,930.00	25.00	4,250.00	40.00	6,800.00
340-1	CONCRETE CURB + GUTTER DET. 220 TYPE A (H=6")	232 L.F.	10.00	2,320.00	6.00	1,392.00	10.00	2,320.00	7.52	1,744.64	9.00	2,088.00	10.00	2,320.00
340-2	CONCRETE SIDEWALK DET. P-1230	530 S.F.	3.00	1,590.00	2.00	1,060.00	2.50	1,325.00	1.53	810.90	2.00	1,060.00	13.00	6,890.00
340-3	CONCRETE DRIVEWAY ENTRANCE DET. P-1255 (4" THICK)	960 S.F.	11.00	10,560.00	4.00	3,840.00	3.50	3,360.00	2.10	2,016.00	4.00	3,840.00	2.50	2,400.00
345-1	ADJUST MANHOLE FRAME + COVER DET. 422	6 EA.	250.00	1,500.00	200.00	1,200.00	250.00	1,500.00	350.00	2,100.00	150.00	900.00	300.00	1,800.00
350-1	REMOVE CONCRETE CURB + GUTTER	395 L.F.	5.00	1,975.00	2.00	790.00	2.00	790.00	6.00	2,370.00	1.00	395.00	1.00	395.00
350-2	REMOVE CONCRETE SIDEWALK, DRIVEWAY + SLABS	1425 S.F.	2.00	2,850.00	1.00	1,425.00	1.00	1,425.00	1.00	1,425.00	1.00	1,425.00	1.00	1,425.00
350-3	SAWCUT + REMOVE AC PAVEMENT	1483 S.Y.	10.00	14,830.00	1.00	1,483.00	4.00	5,932.00	7.00	10,381.00	1.00	1,483.00	2.00	2,966.00
350-4	MISCELLANEOUS REMOVAL + OTHER WORK	1 LS.	50,000.	50,000.00	38,000.	38,000.00	72,000.	72,000.00	44,503.	44,503.00	10,000.	10,000.00	18,000.	18,000.00
401-1	TRAFFIC CONTROL	1 LS.	55,000.	55,000.00	40,000.	40,000.00	65,000.	65,000.00	40,992.	40,992.00	45,000.	45,000.00	65,000.	65,000.00
401-2	UNIFORMED, OFF-DUTY LAW ENFORCEMENT OFFICER	1100 HRS	19.00	20,900.00	18.00	19,800.00	19.00	20,900.00	19.00	20,900.00	20.00	22,000.00	18.00	19,800.00
401-3	TRAFFIC SIGNAL RELOCATION	1 LS.	38,000.	38,000.00	19,000.	19,000.00	19,000.	19,000.00	18,000.	18,000.00	28,000.	28,000.00	25,000.	25,000.00
505-1	CLASS 'A' CONCRETE F'C = 3,000 PSI	196 C.Y.	250.00	49,000.00	200.00	39,200.00	155.00	30,380.00	170.00	33,320.00	152.00	29,400.00	180.00	35,280.00
505-2	CLASS 'AA' CONCRETE F'C = 4,000 PSI	308 C.Y.	300.00	92,400.00	400.00	123,200.00	240.00	73,920.00	240.00	73,920.00	190.00	58,520.00	265.00	81,620.00

FLOOD CONTROL DISTRICT of Maricopa County

19th Avenue Bridge @ the A.C.D.C.
8" Sanitary Sewer Relocation
waterline Adjustment

TABULATION OF BIDS

F.C.D. 87-46

PROJECT: A.C.D.C. Right-of-Way Demolition

DATE OPENED: 22, MARCH 1988

SH. 2 OF 3

PAY ITEM NO.	DESCRIPTION	APPROX. QUANTITY & UNIT	ENGINEER'S ESTIMATE		NESBITT CONTR.		R. E. MILLER		PULICE CONSTR.		JWJ CONTR.		ROYDEN CONST.	
			UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL
5053	REINFORCING STEEL	M,000 LBS	.50	39,500.00	.34	26,860.00	.35	27,650.00	.39	30,310.00	.40	31,600.00	.40	31,600.00
5054	36" DRILLED SHAFT FOUNDATION	1010 L.F.	75.00	75,750.00	85.00	85,850.00	85.00	85,850.00	100.00	101,000.00	82.00	82,820.00	100.00	101,000.00
5061	PRECAST TYPE III (60'-L) PRETENSIONED CONCRETE SIDERS	11 EA	6,000.	66,000.00	6,000.	66,000.00	5,800.	63,800.00	5,400.	59,400.00	7,800.	85,800.00	8,135.	90,035.00
520-1	STEEL PEDESTRIAN FENCE	139 L.F.	150.00	20,850.00	27.00	3,753.00	22.00	3,058.00	50.00	6,950.00	30.00	4,170.00	45.00	6,255.00
616-1	6" MJDIP WATER PIPE (CLASS 52)	260 L.F.	20.00	5,200.00	25.00	6,500.00	26.00	6,760.00	25.00	6,500.00	30.00	7,800.00	35.00	9,100.00
615-1	12" PVC PIPE AIRLINE (ASTM D 3034 SDR 35)	194 L.F.	30.00	5,970.00	30.00	5,970.00	55.00	10,945.00	40.00	8,756.00	35.00	6,965.00	40.00	7,960.00
615-2	8" PVC PIPE SLEEVE (CLASS 150 (DRIS) A-420040)	220 L.F.	25.00	5,500.00	27.00	5,940.00	55.00	12,100.00	35.00	7,700.00	30.00	6,600.00	35.00	7,700.00
615-3	18" PVC PIPE STORM DRAIN (ASTM D 3034 SDR 55)	170 L.F.	40.00	6,800.00	33.00	5,610.00	56.00	9,520.00	37.00	6,290.00	35.00	5,950.00	55.00	9,350.00
625-1	ABANDON + FILL MANHOLE	2 EA	500.00	1,000.00	550.00	1,100.00	650.00	1,300.00	800.00	1,600.00	400.00	800.00	600.00	
SUBTOTAL BRIDGE				638,885.00				604,960.00		581,938.54		559,798.00		605,597.00
SEWERLINE RELOCATION AND ADJUSTMENTS 17th AVENUE - 10th AVENUE														
615-3	8" VCP SANITARY SEWER PIPE (EXTRA STRENGTH)	1365 L.F.	20.00	27,300.00	21.00	28,665.00	18.00	24,570.00	16.00	21,840.00	25.00	34,125.00	25.00	34,125.00
615-5	CUT - PLUG EXISTING 8" VCP SEWERLINE DET. 427	6 EA	500.00	3,000.00	100.00	600.00	500.00	3,000.00	250.00	1,500.00	130.00	780.00	250.00	1,500.00
615-6	8" SANITARY SEWER CLEANOUT STD. DET. 441	2 EA	500.00	1,000.00	500.00	1,000.00	1,500.	3,000.00	200.00	400.00	200.00	400.00	250.00	500.00
625-2	SANITARY SEWER MANHOLE STD. DET. 420	6 EA	2,000.	12,000.00	1,375.	8,250.00	1,000.	6,000.00	850.00	5,100.00	1,400.	8,400.00	1,500.	9,000.00
625-3	ABANDON + FILL MANHOLE	6 EA	500.00	3,000.00	350.00	2,100.00	500.00	3,000.00	480.00	2,880.00	400.00	2,400.00	125.00	750.00
350-5	MISC. REMOVAL + OTHER WORK	1 L.S.	5,000.	5,000.00	5,000.	5,000.00	3,000.	3,000.00	1,000.	1,000.00	30,000.	30,000.00	100.00	100.00
SUBTOTAL SEWERLINE				51,300.00		45,615.00		42,570.00		32,720.00		76,105.00		45,975.00

FLOOD CONTROL DISTRICT of Maricopa County

17th Avenue Bridge & the ACDC
8" Sanitary Sewer Renovation
Waterline Adjustment

TABULATION OF BIDS

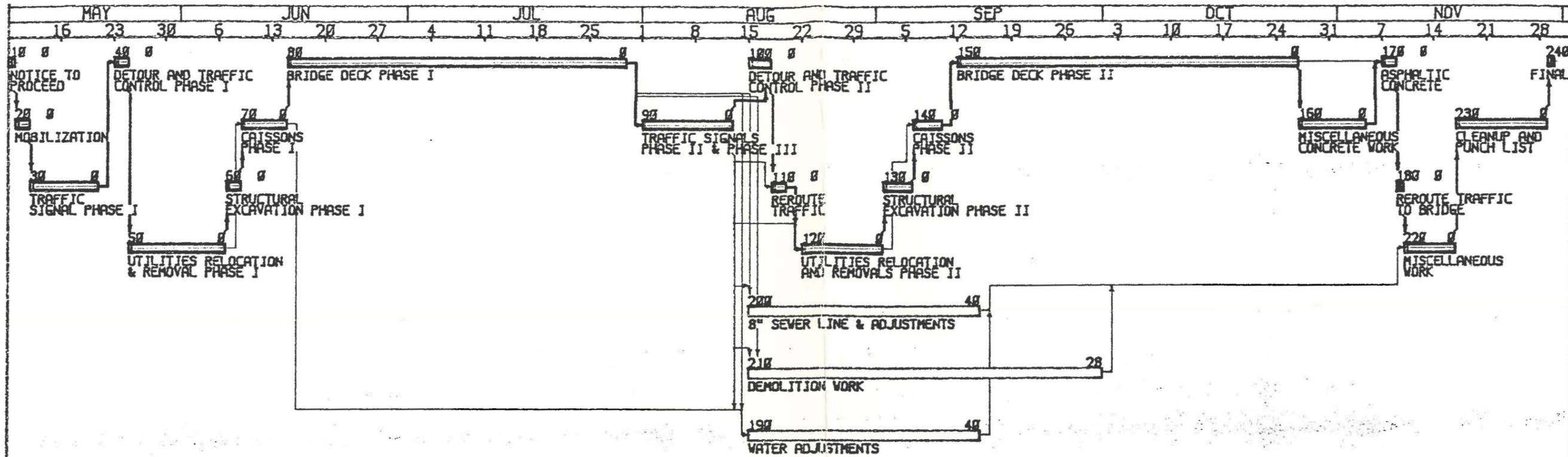
FCD 87-46

PROJECT: ACDC Right of Way Demolition

DATE OPENED: 22, MARCH 1988

SH. 3 OF 3

PAY ITEM NO.	DESCRIPTION	APPROX. QUANTITY & UNIT	ENGINEER'S ESTIMATE		NESBITT CONTR.		R.E. MILLER		ALLICE CONSTR.		JWJ CONTR.		ROYDEN CONST.	
			UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL	UNIT PRICE	BID TOTAL
	WATERLINE ADJUSTMENTS													
	15th AVENUE - 10th AVENUE													
610-2	CUT + PLUG EXIST. 8" WATERLINE COP STD. DET. P-1343	4 EA.	500.00	2,000.00	450.00	1,800.00	600.00	2,400.00	750.00	3,000.00	250.00	1,000.00	950.00	3,800.00
610-3	CUT + PLUG EXIST. 6" WATERLINE COP STD. DET. P-1343	1 EA.	500.00	500.00	425.00	425.00	575.00	575.00	740.00	740.00	250.00	250.00	900.00	900.00
610-4	CUT + PLUG EXIST. 2" WATERLINE COP STD. DET. P-1343	3 EA.	300.00	900.00	200.00	600.00	500.00	1,500.00	400.00	1,200.00	250.00	750.00	650.00	1,950.00
350-6	MISC. REMOVAL + OTHER WORK	L.S.	1.00	1,000.00	5.00	5,000.00	1,200.	1,200.00	500.00	500.00	3,000.	3,000.00	100.00	100.00
	SUBTOTAL WATERLINE			4,400.00		7,825.00		5,675.00		5,440.00		5,000.00		6,750.00
	DEMOLITION ACDC R/W													
	17th AVENUE - 10th AVENUE													
350-7	ACDC RIGHT OF WAY DEMOLITION	L.S.	70,000.	70,000.00	45,000.	45,000.00	12,000.	12,000.00	52,740	52,740.00	70,000.	70,000.00	78,725.	78,725.00
	PROJECT TOTAL (BRIDGE, SEWERLINE, WATERLINE, DEMOLITION)			76,485.00		657,419.00		665,205.00		672,838.54		710,903.00		737,047.00



Activity Bar/Early Dates
 Critical Activity
 Primavera Systems, Inc. 1984, 1985, 1986, 1987

Project Start: 9MAY88
 Project Finish: 29NOV88

MARICOPA COUNTY FLOOD DISTRICT
 19TH AVE. BRIDGE AT THE ACDC
 TIME-SCALED LOGIC PLOT

Sheet 1 of 1

Date Dates: 9MAY88
 Plot Dates: 14APR88

19TH AVE. BRIDGE AT THE ARIZONA CANAL			
Date	Revision	Checked	Approved

19th AVE UPDATED SCHEDULE

MARICOPA COUNTY FLOOD DISTRICT

PERMITS/PROJECT PLANNER

19TH AVE. BRIDGE AT THE ADDC

REPORT DATE 9AUG88 RLX NO. 0

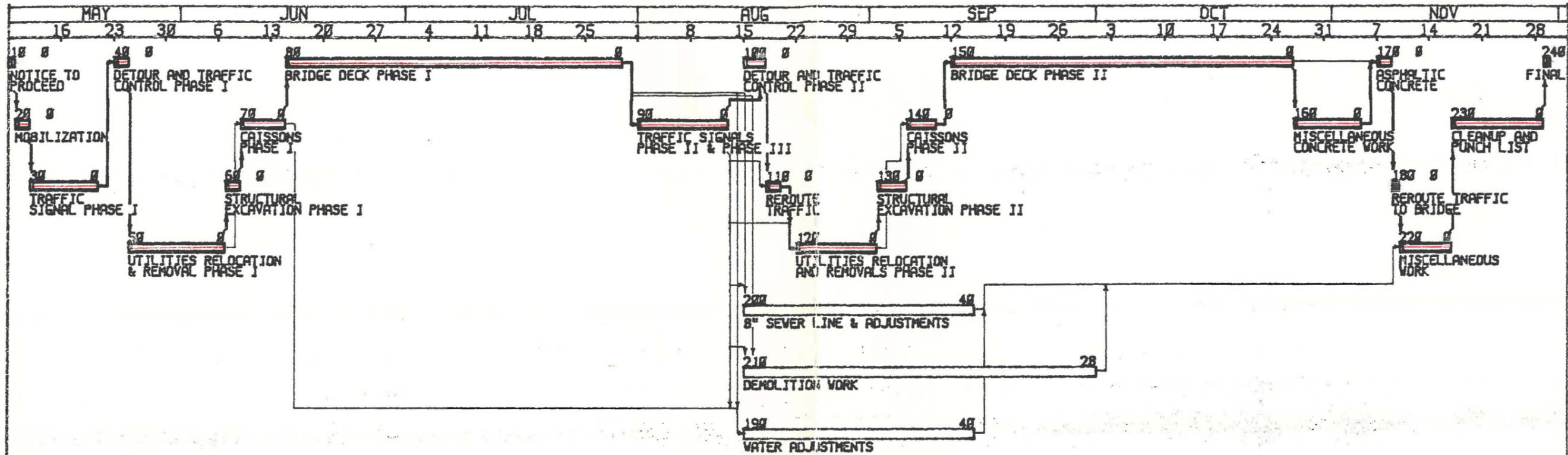
19TH AVE. BRIDGE AT THE ARIZONA CANAL

START DATE 9MAY88 FIN DATE 29NOV88

CLASSIC SCHEDULE REPORT - SORTED BY ES, TF

DATA DATE 9AUG88 PAGE NO. 1

ACTIVITY ID	ORIG DUR	REM DUR	PCT	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
10	1	0	100		NOTICE TO PROCEED	9MAY88A	9MAY88A			
20	2	0	100		MOBILIZATION	10MAY88A	11MAY88A			
30	7	0	100		TRAFFIC SIGNAL PHASE I	12MAY88A	20MAY88A			
40	2	0	100		DETOUR AND TRAFFIC CONTROL PHASE I	23MAY88A	24MAY88A			
50	9	0	100		UTILITIES RELOCATION & REMOVAL PHASE I	25MAY88A	6JUN88A			
60	2	0	100		STRUCTURAL EXCAVATION PHASE I	7JUN88A	8JUN88A			
70	4	0	100		CAISSONS PHASE I	9JUN88A	14JUN88A			
80	33	0	100		BRIDGE DECK PHASE I	15JUN88A	17AUG88A			
90	10	10	0		TRAFFIC SIGNALS PHASE II & PHASE III	9AUG88	22AUG88	9AUG88	22AUG88	0
100	3	3	0		DETOUR AND TRAFFIC CONTROL PHASE II	23AUG88	25AUG88	23AUG88	25AUG88	0
210	35	35	0		DEMOLITION WORK	23AUG88	10OCT88	30SEP88	17NOV88	28
190	23	23	0		WATER ADJUSTMENTS	23AUG88	22SEP88	18OCT88	17NOV88	40
200	23	23	0		8" SEWER LINE & ADJUSTMENTS	23AUG88	22SEP88	18OCT88	17NOV88	40
110	2	2	0		REROUTE TRAFFIC	26AUG88	29AUG88	26AUG88	29AUG88	0
120	9	9	0		UTILITIES RELOCATION AND REMOVALS PHASE II	30AUG88	9SEP88	30AUG88	9SEP88	0
130	2	2	0		STRUCTURAL EXCAVATION PHASE II	12SEP88	13SEP88	12SEP88	13SEP88	0
140	4	4	0		CAISSONS PHASE II	14SEP88	18SEP88	14SEP88	18SEP88	0
150	33	33	0		BRIDGE DECK PHASE II	20SEP88	3NOV88	20SEP88	3NOV88	0
160	7	7	0		MISCELLANEOUS CONCRETE WORK	4NOV88	14NOV88	4NOV88	14NOV88	0
170	2	2	0		ASPHALTIC CONCRETE	15NOV88	16NOV88	15NOV88	16NOV88	0
180	1	1	0		REROUTE TRAFFIC TO BRIDGE	17NOV88	17NOV88	17NOV88	17NOV88	0
220	3	3	0		MISCELLANEOUS WORK	18NOV88	22NOV88	18NOV88	22NOV88	0
230	4	4	0		CLEANUP AND PUNCH LIST	23NOV88	28NOV88	23NOV88	28NOV88	0
240	1	1	0		FINAL	25NOV88	29NOV88	25NOV88	29NOV88	0



Activity Bar/Early Dates
 Description
 Critical Activity
 Primavera Systems, Inc. 1984, 1985, 1986, 1987

Project Start: 9MAY88
 Project Finish: 29NOV88
 MARICOPA COUNTY FLOOD DISTRICT
 19TH AVE. BRIDGE AT THE ACDC
 TIME-SCALED LOGIC PLOT
 Sheet 1 of 1
 Date Date: 9MAY88
 Plot Date: 14APR88

19TH AVE. BRIDGE AT THE ARIZONA CANAL			
Date	Revision	Checked	Approved

MARICOPA COUNTY FLOOD DISTRICT

PRIMAVERA PROJECT PLANNER

19TH AVE. BRIDGE AT THE ARLC

REPORT DATE 14APR88 RUN NO. 2

19TH AVE. BRIDGE AT THE ARIZONA CANAL

START DATE 09MAY88 FIN DATE 29NOV88

CLASSIC SCHEDULE REPORT - SORTED BY ES, TF

DATA DATE 09MAY88 PAGE NO. 1

ACTIVITY ID	ORIG DUR	REM DUR	PCT	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
10	1	1	0		NOTICE TO PROCEED	09MAY88	09MAY88	09MAY88	09MAY88	0
20	2	2	0		MOBILIZATION	10MAY88	11MAY88	10MAY88	11MAY88	0
30	7	7	0		TRAFFIC SIGNAL PHASE I	12MAY88	20MAY88	12MAY88	20MAY88	0
40	2	2	0		DETOUR AND TRAFFIC CONTROL PHASE I	23MAY88	24MAY88	23MAY88	24MAY88	0
50	9	9	0		UTILITIES RELOCATION & REMOVAL PHASE I	25MAY88	06JUN88	25MAY88	06JUN88	0
60	2	2	0		STRUCTURAL EXCAVATION PHASE I	07JUN88	08JUN88	07JUN88	08JUN88	0
70	4	4	0		CAISSONS PHASE I	09JUN88	14JUN88	09JUN88	14JUN88	0
80	33	33	0		BRIDGE DECK PHASE I	15JUN88	29JUL88	15JUN88	29JUL88	0
90	10	10	0		TRAFFIC SIGNALS PHASE II & PHASE III	01AUG88	12AUG88	01AUG88	12AUG88	0
100	3	3	0		DETOUR AND TRAFFIC CONTROL PHASE II	15AUG88	17AUG88	15AUG88	17AUG88	0
210	35	35	0		DEMOLITION WORK	15AUG88	30SEP88	22SEP88	09NOV88	28
190	23	23	0		WATER ADJUSTMENTS	15AUG88	14SEP88	10OCT88	09NOV88	40
200	23	23	0		8" SEWER LINE & ADJUSTMENTS	15AUG88	14SEP88	10OCT88	09NOV88	40
110	2	2	0		REROUTE TRAFFIC	18AUG88	19AUG88	18AUG88	19AUG88	0
120	9	9	0		UTILITIES RELOCATION AND REMOVALS PHASE II	22AUG88	19SEP88	22AUG88	19SEP88	0
130	2	2	0		STRUCTURAL EXCAVATION PHASE II	25SEP88	05SEP88	25SEP88	05SEP88	0
140	4	4	0		CAISSONS PHASE II	06SEP88	09SEP88	06SEP88	09SEP88	0
150	33	33	0		BRIDGE DECK PHASE II	12SEP88	26OCT88	12SEP88	26OCT88	0
160	7	7	0		MISCELLANEOUS CONCRETE WORK	27OCT88	04NOV88	27OCT88	04NOV88	0
170	2	2	0		ASPHALTIC CONCRETE	07NOV88	08NOV88	07NOV88	08NOV88	0
180	1	1	0		REROUTE TRAFFIC TO BRIDGE	09NOV88	09NOV88	09NOV88	09NOV88	0
220	5	5	0		MISCELLANEOUS WORK	10NOV88	16NOV88	10NOV88	16NOV88	0
230	8	8	0		CLEANUP AND PUNCH LIST	17NOV88	28NOV88	17NOV88	28NOV88	0
240	1	1	0		FINAL	29NOV88	29NOV88	29NOV88	29NOV88	0

19th AVE UPDATED SCHEDULE

MARICOPA COUNTY FLOOD DISTRICT

PRIMAVERA PROJECT PLANNER

16TH AVE. BRIDGE AT THE ADCO

REPORT DATE 9AUG88 RUN NO. 3

16TH AVE. BRIDGE AT THE ARIZONA CANAL

START DATE 8MAY88 FIN DATE 29NOV88

CLASSIC SCHEDULE REPORT - SORTED BY ES, TF

DATA DATE 9AUG88 PAGE NO. 1

ACTIVITY ID	ORIG DUR	REM DUR	PCT	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
10	1	0	100		NOTICE TO PROCEED	9MAY88A	9MAY88A			
20	2	0	100		MOBILIZATION	10MAY88A	11MAY88A			
30	7	0	100		TRAFFIC SIGNAL PHASE I	12MAY88A	20MAY88A			
40	2	0	100		DETOUR AND TRAFFIC CONTROL PHASE I	23MAY88A	24MAY88A			
50	9	0	100		UTILITIES RELOCATION & REMOVAL PHASE I	25MAY88A	6JUN88A			
60	2	0	100		STRUCTURAL EXCAVATION PHASE I	7JUN88A	8JUN88A			
70	4	0	100		CAISSONS PHASE I	9JUN88A	14JUN88A			
80	33	0	100		BRIDGE DECK PHASE I	15JUN88A	17AUG88A			
90	10	10	0		TRAFFIC SIGNALS PHASE II & PHASE III	9AUG88	22AUG88	9AUG88	22AUG88	0
100	3	3	0		DETOUR AND TRAFFIC CONTROL PHASE II	23AUG88	25AUG88	23AUG88	25AUG88	0
210	35	35	0		DEMOLITION WORK	23AUG88	10OCT88	30SEP88	17NOV88	28
190	23	23	0		WATER ADJUSTMENTS	23AUG88	22SEP88	18OCT88	17NOV88	40
200	23	23	0		8" SEWER LINE & ADJUSTMENTS	23AUG88	22SEP88	18OCT88	17NOV88	40
110	2	2	0		REROUTE TRAFFIC	26AUG88	29AUG88	26AUG88	29AUG88	0
120	9	9	0		UTILITIES RELOCATION AND REMOVALS PHASE II	30AUG88	9SEP88	30AUG88	9SEP88	0
130	2	2	0		STRUCTURAL EXCAVATION PHASE II	12SEP88	13SEP88	12SEP88	13SEP88	0
140	4	4	0		CAISSONS PHASE II	14SEP88	19SEP88	14SEP88	19SEP88	0
150	33	33	0		BRIDGE DECK PHASE II	20SEP88	3NOV88	20SEP88	3NOV88	0
160	7	7	0		MISCELLANEOUS CONCRETE WORK	4NOV88	14NOV88	4NOV88	14NOV88	0
170	2	2	0		ASPHALTIC CONCRETE	15NOV88	16NOV88	15NOV88	16NOV88	0
180	1	1	0		REROUTE TRAFFIC TO BRIDGE	17NOV88	17NOV88	17NOV88	17NOV88	0
220	3	3	0		MISCELLANEOUS WORK	18NOV88	22NOV88	18NOV88	22NOV88	0
230	4	4	0		CLEANUP AND PUNCH LIST	23NOV88	28NOV88	23NOV88	28NOV88	0
240	1	1	0		FINAL	29NOV88	29NOV88	29NOV88	29NOV88	0

To Contract Documents

ENTITLED: 19TH AVENUE BRIDGE OVER ACDC

OWNER: Flood Control District of Maricopa County

The above documents are herein modified. The provisions of said documents applicable to these modifications remain unchanged unless specifically indicated otherwise herein. This Addendum forms a part of the contract documents and modifies them as follows:

1. Construction Special Provisions page 6 of 36, add the following sentence to SECTION 105.6 - COOPERATION WITH UTILITIES: "see SECTION 350 of these Construction Special Provisions and Addendum No. 1 for additional notes concerning cooperation with Utilities."

2. Construction Special Provisions page 14 of 36, delete paragraph "R" and substitute the following new paragraph "R":

"R. The contractor shall coordinate with Southwest Gas Corporation (SWG) so that SWG can install a 4" and 10" gas main. The contractor will provide and install hanger inserts and hanger hardware compatible with SWG's plan. The contractor will provide and install an 8" Inside Diameter (ID) PVC sleeve and 14" ID PVC sleeve (both ASTM D3034 SDR 35) under the approach slabs as shown on sheet 19 of the construction plans. The contractor will coordinate his work with that of SWG so that SWG can place their lines under the portland cement concrete pavement and concrete driveways before the contractor paves these surfaces."

3. Construction Special Provisions page 14 of 36, delete paragraph "S" and substitute the following new paragraph "S":

"S. Provide and install 2-1/2 " Dia. ID schedule 40 PVC Conduits for power as shown on sheet 19 of the Construction Plans."

4. Construction Special Provisions page 14 of 36, delete paragraph "T" and substitute the following new paragraph "T":

"T. The contractor shall provide excavation and temporary support for the 16 telephone conduits on the east side of the bridge. This support shall remain in place until Mountain Bell hangs the conduits from the bridge superstructure. The contractor will provide and install hanger inserts compatible with Mountain Bell's plan. If Mountain Bell's plan is unavailable or if the insert type or spacing is unspecified use the "Insert Detail" and "Typical Hanger Spacing For Pipe Utilities" shown on sheet 20 of the construction plans. Mountain Bell will install the conduit and conduit hangers. The contractor will coordinate with Mountain Bell and give them access to the work area."

5. Construction Special Provisions page 14 of 36, delete paragraph "U".

6. Construction Special Provisions Page 15 of 36, add the following sentence to paragraph "W" of SECTION 350 - REMOVAL OF EXISTING IMPROVEMENTS AND OTHER WORK: "A thrust block of approximately 20 cubic yards is known to exist at approximately station 16+50."

7. Construction Plans sheet 4 of 41, the Contractor will provide 6 sand filled plastic crash barrels to be located as directed by the Engineer along the edge of the Phase One and Phase Two detours. The barrels will be salvaged and turned over to the Flood Control District on completion of the work. Payment will be part of the lump sum for Item No. 401-1, Traffic Control.

8. Construction Plans sheet 14 of 41, delete the note entitled "UTILITY COORDINATION", and in its place substitute the following note:

"UTILITY COORDINATION - see page 14 of 36 of the Construction Special Provisions and Addendum No. 1 for utility coordination notes."

Ed Raleigh

19th Ave BRIDGE
OVER ACDC 87-46

PLANS - 20.00
SPRINTS - 5.00
TOTAL - 25.00

1. M-A-C CONTRACTING, INC. 269-3278
(4949 W. Superior Ave) \$25.00
PO Box 23079 PHX. 85063

2. THE TANNER COMPANY \$25.00
P.O. Box 20128
PHX 85036
4302 S. 40th ST. 437-7878

3. F.W. DODGE N/C
5225 N. CENTRAL STE 202
PHX, 85012 C.S. Construction
22023 N. 20th Ave
PHX 85027

4. JWS CONTRACTING Co 20.00
4525 E. UNIVERSITY DR + 5.00
PHX, AZ 85034 967-1815 \$25.00
(Julie McHugh)

5. KNOCHEL BROS. CONTRACTOR \$25.00
18227 N 13th AVE
PHX, AZ 85023 942-6041

6. ROYDEN CONSTRUCTION Co. \$25.00
3051 W IND. SCH RD.
PHX, AZ 85017 266-4093
(RANDY EAST)

ED. RALEIGH

1911 AVE BRIDGE
OVER ACDC 87-46

PLANS 20.00
SPFC 5.00
Total 25.00

14. Sunland Steel
201 E. Southern Ave #109
Tempe AZ 85282
921-0856

15.

R. E. Miller
Tucson, AZ.
748-0336
P.O. Box 27427
- 85726

16. WILLAMETTE CRUSHING DBA: Wildish S.W.
1976 E. Pima
Tempe, AZ 85281 968-0662 \$25.00
(RICHARD TADANO)

17. DUNN DEL RE STEEL
353 S. WASHINGTON
CHANDLER, AZ 85225 \$25.00
(JIM DEL RE)

18. Construction News West 258-7641
2050 E University Dr. PH. 85034

19. New Construction, Inc.
P.O. Box 26669
1992 E. First St.
Tempe AZ 85282
968-77801 Office
968-2864 Res.

20. Police Construction
2033 W Mountain View Rd
Dux, AZ 85021

29. *Billings*
2245 W. Chaparral Dr
Phoenix AZ 85029
994-6145

30. *Electric + Machinery Ltd.*
1225 N. Straden Dr.
Tempe 85281 829-8088

M A C Contracting, Inc.
P.O. Box 23079
Phoenix, AZ 85063

Sanner Contractors
P.O. Box 8370
Phoenix, AZ 85066

Entranco Mann-Johnson
8805 North 234d Avenue #9
Phoenix, AZ 85021

The Tanner Company
P.O. Box 20128
Phoenix, AZ 85036

Lor Construction Co., Inc.
1333 East Chilton
Tempe, AZ 85283

Carmean Contracting/CS Constr.
2121 S. Mill Ave. Ste. 212
Tempe, AZ 85282

F. W. Dodge
5225 North Central, Suite 202
Phoenix, AZ 85012

Sun Land Steel
201 East Southern Avenue #109
Tempe, AZ 85282

Tanner Co.
3640 South 19th Avenue
Phoenix, AZ 85009

JWJ Contracting Co.
4525 East University Drive
Phoenix, AZ 85034

R. E. Miller
P.O. Box 27427
Tucson, AZ 85726

Traffic Marking & Stripping
922 West 1st Street
Tempe, AZ 85281

Knochel Bros. Contractor
18227 North 13th Avenue
Phoenix, AZ 85023

Williamette Crushing
Richard Tadano
1976 East Pima Road
Tempe, AZ 85281

Sils Drilling
2245 West Shangra La
Phoenix, AZ 85029

Royden Construction Co.
3051 West Indian School Road
Phoenix, AZ 85017

Dunn Del Re Steel
353 S. Washington
Chandler, AZ 85225

Electric & Machinery Ltd.
1225 North Straden Drive
Tempe, AZ 85281

WEI Arizona
Tom Service Ste. 122
1 West Deer Valley Road
Phoenix, AZ 85027

Construction News West
2050 East University Drive
Phoenix, AZ 85034

Klondyke, Inc.
Jim Grose
P.O. Box 35034
Phoenix, AZ 85069

New Construction, Inc.
P.O. Box 26669
1992 East First Street
Tempe, AZ 85282

Pulice Construction
2033 West Mountain View
Phoenix, AZ 85021

Nesbitt Contracting Co., Inc.
P.O. Box 1269
Mesa, AZ 85201

Breinholt Contracting
5303 East Fairview
Chandler, AZ 85224

Bentson Contractor
2525 West Boyd, Suite 100
Phoenix, AZ 85021

Rebar, Inc.
P.O. Box 6472
Phoenix, AZ 85005

Ashton Co.
2727 South Country Club Rd
Tucson, AZ 85713



**SALT RIVER PROJECT
LICENSE TO USE RIGHT-OF-WAY**

1 OF 2

CSR# B3714-31

LICENSE# _____

SEQ# 8801760

DATE March 28, 1988

The Salt River Valley Water Users' Association (hereinafter referred to as Salt River Project) hereby grants a License to install facilities within the right-of-way of the Salt River Project for the following purpose(s):

Placing traffic barricaders on canal right-of-way.

The Licensee, having read and understood the Special Conditions below (and attached) and the General Conditions on the reverse, agrees to these conditions for the installation at the following location(s):

TRAFFIC BARRICADE - 19TH AVENUE AND THE ARIZONA CANAL.
(12.0E-13.3N) Approximately 240 feet North of the 16/7
Corner of Section 25; T-3N, R-2E.

TRAFFIC BARRICADE - 19TH AVENUE AND THE ARIZONA CANAL.
(12.0E-13.3N) Approximately 240 feet North of the 16/4
Corner of Section 30; T-3N, R-2E.

SPECIAL CONDITIONS

A. DRAWINGS:

PROJECT

CONSULTANT

19th Ave. Detour Plan
FCD 87-46

Entranco, Mann, Johnson, Inc.

B. SPECIFICATIONS:

1. Licensee may install traffic barricades within Salt River Project canal right-of-way as shown on the drawings referenced in paragraph (A).
2. Canal right-of-way is to be restored to original condition as determined by Salt River Project's inspector. Care shall be taken to prevent any dirt or debris from falling into the canal.

FLOOD CONTROL DISTRICT
PROJECT #FCD 87-46

APPROVED:

ACCEPTED:

Licensee _____

Salt River Valley
Water Users' Association

Owner/Agent
3335 W. Durango St.

CALL FOR ASSISTANCE:

Address
Phoenix, AZ. 85009

Inspection Irrigation
236- 2609 236- 5836

City _____ Telephone _____



SALT RIVER PROJECT
LICENSE CONTINUATION

2 2
OF

CSR# B3714-31
8801760
SEQ# _____
JOB# _____

LICENSE# _____
DATE March 28, 1988

- 3. Salt River Project assumes no responsibility for damage to Licensee's installation in operation and maintenance of irrigation facilities.
- 4. The contractor assumes sole responsibility for dust control.

D. CONSTRUCTION CLEARANCE:

Work to be done after securing a construction clearance from TRANSMISSION DIVISION, phone 236-5836, a minimum of 72 hours in advance. A CONSTRUCTION CLEARANCE DOES NOT ASSURE A DRYUP.

GENERAL CONDITIONS:

1. Licensee warrants and represents that he is qualified to perform, or will contract with qualified parties to perform, the undertaking which is the subject of this license.
2. Licensee agrees to obtain such other licenses, permits and agreements as may be required by other governing bodies having jurisdiction over the location which is the subject hereof.
3. Licensee agrees that any work in the Salt River Project right-of-way shall be completed and maintained in conformity with all applicable safety standards and regulations, and in a manner to avoid the creation of potentially dangerous conditions and harm to others.
4. Failure to obtain a specific construction clearance from the designated Salt River Project department will automatically void this license and subject Licensee to liability for any resulting damage to the property of others, including, though not limited to, that of the Salt River Project. If a construction clearance is not obtained and subsequent damage to Licensee's unauthorized installation occurs, Licensee agrees to waive all rights and claims for such damage and to assume sole responsibility for same. *NOTE: A construction clearance does not necessarily assure a dryup.*
5. In the event that said installation does not comply with the specifications and conditions stated herein or upon revocation of this license, Licensee shall remove at his sole cost, within ninety (90) days after written notice, any improvements or installations placed on said right-of-way pursuant to this license, and restore the irrigation facilities to the satisfaction of Salt River Project. In the event that Salt River Project determines that the irrigation facilities must be restored immediately for operational purposes, or Licensee fails to remove the installations or improvement within the time specified above or restore the irrigation facilities, the Salt River Project may remove the installations from the said right-of-way and/or restore the irrigation facilities, and the cost so incurred (as solely and conclusively determined by the Salt River Project) shall be paid by Licensee within ten (10) days after receipt of a statement of such cost. Licensee hereby releases the United States of America, the Salt River Valley Water Users' Association, and the Salt River Project Agricultural Improvement and Power District from all claims for damages that may result to the Licensee or others by reason of such removal.
6. Should any Salt River Project facilities be damaged by Licensee, such facilities shall be repaired at Licensee's expense, to the satisfaction of Salt River Project. Salt River Project reserves the right, depending upon the nature and extent of the damage, to make such repairs and bill Licensee for all costs associated therewith.
7. Licensee shall be liable for any and all damages to the property of the United States of America, Salt River Project Agricultural Improvement and Power District, or any other party or parties by reason of the exercise of the privilege herein granted to Licensee. Licensee agrees to indemnify and hold harmless the United States of America, the Salt River Valley Water Users' Association and the Salt River Project Agricultural Improvement and Power District, against any claims, actions, costs, expenses, or other liabilities for property damage or personal injuries in any way caused by or related to the exercise of rights herein granted, except those caused solely and exclusively by the negligence of the Salt River Project. Licensee understands and agrees that he enters upon the property of Salt River Project at his own risk.
8. Should Licensee fail to start construction within one (1) year following execution of this license, this license is automatically revoked and terminated, and Licensee shall secure a new license to construct the installation under conditions and specifications then in force.
9. All facilities installed pursuant to this license are subject to inspection and approval by agents of the Salt River Project and must comply with the specifications and conditions listed on both sides of this form (and attached). Said inspection, however, is not intended nor understood to be or constitute more than a determination that the specifications set forth herein have been complied with by Licensee and is not to be considered as an approval or ratification by Salt River Project of the quality or fitness of Licensee's improvements.
10. Licensee agrees to keep in proper maintenance and repair any facilities placed within said right-of-way.
11. This license shall continue in effect so long as it is considered to be expedient as conclusively determined by Salt River Project and shall be revocable within ninety (90) days after written notice is sent to Licensee.
12. Licensee shall move or modify any facility constructed in the Salt River Project right-of-way at its sole expense if at any time the existence of said facility conflicts with the maintenance of, or future installations of Salt River Project's facilities.
13. It is mutually understood that Salt River Project may have only easement rights to the right-of-way covered by this license, and consent by the record owner of the underlying fee title to the land is not to be implied.

E.E. 764,585.-

BID SUMMARY & CHECKLIST

2:00 p.m.

PROJECT: 19th Ave. Bridge at the ACDC. CONTRACT FCD: 87-46 DATE: March 22, 1988

CO Personnel

- Bob Payette
- Earl Kirby
- Bill Poppel
- Ed Raleigh
- Glenn Slathrow
- Tom Bankot
- Ray Ketchum

Item	RE Miller Paving & Constr Inc Tucson	JWJ Contracting Co., Inc.	Nesbitt Contracting Co., Inc.	Pulice Construction, Inc	Royden Construction Co
Schedule Complete	✓	✓	✓	✓	✓
Addenda Noted	✓	✓	✓	✓	✓
No Exceptions	✓	✓	✓	✓	✓
Changes Initialed	✓	✓	✓	✓	✓
Proposal Signed	✓	✓	✓	✓	✓
License Number	✓	✓	✓	✓	✓
Bid Security	✓	✓	✓	✓	✓
No Collusion Affidavit	✓	✓	✓	✓	✓
1					
2					
3					
TOTAL CONTRACT	665,205. (2)	710,903. (4)	657,689. (1)	672,838. ⁵⁴ (3)	737,047. (5)

3/10/88

19th Ave @ ACDC
Pre bid
~~Reconstruction~~ Conference

10 Am March 10, 1988

Name	Company	Phone
Ed Raleigh	Flood Control Dist.	262-1501
W.C. "Andy" Anderson	FCD, Const. Br.	" "
Ron Brown	C S Construction	256-7943
Phil Berger	Putice Construc.	944-7741
Russ Schoenick	City of Phoenix Eng	257-9599
Ron Pierson	R. E. Miller	748-0336
MARK EKLUND	R E MILLER	748-0336
Ellery Brathrow	Flood Control Dist.	262-1501
Bill Poppe	FCDMC	262-1501
Earl Kirby	FCDMC	262-1501
JIM MILNE	ENTRANCO MARK JANSON	244-1228
BILL KANTOR	"	"

3/10/88

19th Ave @ ACDC
Pre bid
~~Reconstruction~~ Conference

10 AM March 10, 1988

Name	Company	Phone
Ed Raleigh	Flood Control Dist.	262-1501
W.C. "Andy" Anderson	FCD, Const. Bn.	" "
Ron Brown	C S Construction	256-7943
Phil Berger	Putice Constr.	944-7741
Russ Schoenick	City of Phoenix Eng	257-9599
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MARK EKLUND	R E MILLER	748-0336
Ellery Biathrow	Flood Control Dist.	262-1501
Bill Poppe	FCDMC	262-1501
Earl Kirby	FCDMC	262-1501
JIM MILNE	ENTRANCO MANN JOHNSON	244-1228
Bill KANTOR	"	"

3/10/88

19th Ave @ ACDC
Pre bid
~~Preconstruction~~ Conference

10 Am March 10, 1988

Name	Company	Phone
Ed Raleigh	Flood Control Dist.	262-1501
Jan Warriner	"	"
W.C. "Andy" Anderson	FCD, Const. Br.	" "
Ron Brown	C S Construction	256-7943
Phil Berger	Pulice Construc.	944-7741
Russ Schoenick	City of Phoenix Eng	257-9599
Ron Pierson	R. E. Miller	748-0336
MARK EKLUND	R E MILLER	748-0336
Ellery Biathrow	Flood Control Dist.	262-1501
Bill Poppe	FCDMC	262-1501
Earl Kirby	FCDMC	262-1501
JIM MILNE	ENTRANCED MARK JANSSEN	244-1228
Bill KANTOR	"	"

JCD responsibilities

342 - Fence removed

342 (6) - underground air & electric lines not removed

343 (7) - Fence not removed

344 (10) - Fence not removed

348 - (20) - 1 structure not removed

351 (25) - structure not demolished - w.o. written for O&M

353 (29) - Fence not removed

354 (30) - 3 structures not demolished - w.o. written for O&M

355 - not done

357 - not done



ENTRANCO • MANN • JOHNSON, INC.

ENGINEERS

ENVIRONMENTAL SCIENTISTS

PLANNERS

8805 NORTH 23RD AVENUE, SUITE 9,
PHOENIX, ARIZONA 85021

(602) 264-1228

April 6, 1988

Flood Control District
of Maricopa County
3335 W. Durango
Phoenix, Arizona 85009

ATTN: Edward A. Raleigh, P.E.
Project Manager
(602-262-1501)

FLOOD CONTROL DISTRICT RECEIVED	
APR 12 '88	
CHIEF	P&M
DEP	HYDRO
ADMIN	INSTR
FINANCE	PLN
CAD	
ENGR	
REMARKS	

RE: Reconstruction Conference - FCD Contract 87-46
19th Avenue Bridge over ACDC

Gentlemen:

You are invited to attend the Preconstruction Conference for the referenced project on Thursday, April 14, at 10:00 a.m. The meeting will be held in the Durango Conference Room at the offices of the Flood Control District of Maricopa County, 3335 West Durango Street, Phoenix, Arizona 85009.

An agenda and a list of people and agencies invited are attached. Please call me immediately if you know of anyone else who should attend.

Sincerely,

Entranco Mann Johnson, Inc.

William S. Kantor, P.E.
Manager, Civil Engineer Services

WSK/tl:wsk-mtg
Enclosures
CC: Invitees

AGENDA

PRECONSTRUCTION CONFERENCE

Project: 19th Avenue Bridge over ACDC

Contract Number: FCD 87-46

Owner: Flood Control District of Maricopa County
3335 West Durango Street
Phoenix, Arizona 85009 (602-262-1501)

Engineer: Entranco Mann Johnson, Inc.
8805 North 23rd Avenue, #9
Phoenix, Arizona 85021 (602-264-1228)

Contractor: Nesbitt Contracting Company, Inc.
100 South Price Road
Tempe, Arizona (602-894-2831)

(Note: The meeting is being tape recorded for the purpose of the Construction Administrator [Engineer] preparing the meeting minutes. Copies available by request.)

1.0 INTRODUCTIONS OF:

- 1.1 Owner Personnel
- 1.2 Engineer Personnel
- 1.3 Contractor Personnel
- 1.4 Concerned Entities' Personnel
- 1.5 List of Key Personnel and Position
 - 1.5.1 Name, Firm, Emergency (24 hr.) Number
- 1.6 Subletting of Contracts

2.0 ADMINISTRATION

- 2.1 Notice to Proceed
- 2.2 Purpose of Preconstruction Conference
- 2.3 Description of Work
 - A. 19th Avenue Bridge over ACDC
 - B. Water Line Adjustments
 - C. Sanitary Sewer Relocation and Adjustments
 - D. Demolition
- 2.4 Contract Time
- 2.5 Progress Schedule (construction schedule)
- 2.6 Permits
 - A. SRP - Canal R/W
 - B. COP - Street R/W, Water/Sewer
 - C. MCHD - Haul
 - D. FCD/MC - ACDC R/W
- 2.7 Project Documents
 - 2.7.1 Change Orders (See Exhibit A)
 - 2.7.2 Time Extensions
 - 2.7.3 Progress Payments
 - 2.7.4 Insurance and Bonds
 - 2.7.5 Overtime Work

3.0 CONTROL OF WORK AND COORDINATION

- 3.1 Communication
 - CONTRACTOR-CONTRACT MANAGER-OWNER
- 3.2 Submittals/Shop Drawings/Correspondence
- 3.3 Cooperation with Utilities and Other Contractors
- 3.4 Weekly construction Coordination Meetings
- 3.5 Safety and Sanitary Requirements
 - 3.5.1 Accident Reports
- 3.6 Traffic Control
- 3.7 Alcohol/Drug Use
- 3.8 Guarantee of Work

4.0 TECHNICAL

- 4.1 Testing-Types and Quantities
- 4.2 Inspections
 - 4.2.1 Inspector's Duties
 - 4.2.2 Inspection of Work
 - A. FCD/MC
 - B. Other Agencies
 - 4.2.3 Material Compliance/Substitutes
 - 4.2.4 Addition and/or Corrective Work
 - 4.2.5 Final Inspection (Acceptance)
 - 4.2.6 Survey

5.0 PUBLIC

- 5.1 Safety
- 5.2 Convenience
- 5.3 Noise/Dust Control
- 5.4 Work Hours
- 5.5 Property damage
- 5.6 Complaints

EXHIBIT 'A'



MARICOPA COUNTY PROCUREMENT CODE

DEPARTMENT OF MATERIALS MANAGEMENT

ARTICLE

5

DATE

05/12/87

SUBJECT

PROCUREMENT OF CONSTRUCTION AND RELATED ARCHITECT/ENGINEER CONSULTANT SERVICES

6. Award of the work shall be made by the Board of Supervisors and shall be made to the most responsible/responsive bidder submitting the priced proposal which is the most advantageous to Maricopa County and conforms to the solicitation.
7. Changes in the scope of work and in proposal amount after award shall be described on a change order form as approved by the Construction Agency Director and signed by an approved Construction Agency signature and co-signed by the Contractor as "accepted". The Contractor shall not proceed on any change in scope prior to receipt of approved authorization for the change.
8. Payment for the work shall normally be in one lump sum including any change of work after completion and approval by the Project Coordinator/Manager.

MCI-506 CONSTRUCTION CHANGE ORDER AUTHORIZATION

As authorized by the Board of Supervisors, the Department Head of the Construction Procurement Agency may approve change orders to previously awarded design or construction projects within the following limits:

1. In architectural and engineering contracts, total cumulative amount of changes shall not exceed the lesser of 20% of the initial contract or \$20,000 without Board approval. Individual changes shall not exceed the lesser of 15% of the initial contract or \$15,000.
2. In construction contracts, total changes shall not exceed the lesser of 10% of the initial contract amount or \$100,000 without Board approval. Changes on major individual bid items shall not exceed 20% of the bid for that item and must fall within the above parameters for total changes.

MCI-507 PROGRESS PAYMENTS

Progress payments may be made monthly and normally within 30 days after receipt of an estimate approved by the construction Agency of the work performed.

Pre Construction	4-14-88	FCD 87-46
BILL KANTOR	ENTRANCE MANN JOHNSON	264-1228
MIKE CASTON	"	"
JIM MILNE	"	"
W.C. "Andy" Anderson	FCD	262-1501
Bob Payette	"	" "
Bill Poppe	FCD	262-1501
E. Biathrow	"	" "
RON MORENCY	SOUTHWEST GAS	484-5254
Al Ruckman	S H & B	272-6848
Bob Hughes	Nesbitt Contracting	894-2831
RUBEN TEJILLO	" "	" "
Eduardo Goudio	" "	" "
JAMES L. NESBITT	" "	" "
WARREN FRANCE	ALBERT BARRICAOS	271-9511
ANDREW ANDRADE	MT BELL	842-7250
Rick Byrd	MT Bell	233-8153
GARY SUTHERS	ST. E'TR. COP	262-6566
Ed Raleigh	Flood Control Dist	262-1501
JAN WARRINER	"	"
Earl Kirby	"	"