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SPECIAL PROVISIONS  
FOR  
2916 AVENUE BRIDGE OVER ADC

CONTRACT NO FCD 85-47



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

A118.534

SPECIAL PROVISIONS  
FOR  
29TH AVENUE BRIDGE OVER ACDC

CONTRACT NO. FCD 85-40



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 85-40

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INVITATION FOR BIDS  
(Construction Contract)

Ref. Invitation FCD 85-40  
Date: January 6, 1986  
Issued by: Flood Control District  
of Maricopa County

Vicinity: 29th Avenue at the  
Arizona Canal, Phoenix, Arizona

SEALED BIDS, IN SINGLE COPY FOR THE WORK DESCRIBED HEREIN WILL BE RECEIVED UNTIL 2:00 PM, LOCAL TIME AT THE PLACE OF THE BID OPENING FEBRUARY 6, 1986, 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 JANUARY 21, 1986, 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 TEMPORARY DETOUR, TEMPORARY DETOUR BRIDGE, A PERMANENT CONCRETE BRIDGE, APPROACH ROADWAYS, SIGNALIZATION, UTILITY MODIFICATIONS AND OTHER MISCELLANEOUS RELATED ITEMS.

INVITATION FOR BIDS  
NO. FCD 85-40

THE WORK SHALL COMMENCE WITHIN SEVEN (7) CALENDAR DAYS AND BE COMPLETED  
WITHIN ONE HUNDRED FIFTY (150) 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 ELLIG, CLERK  
BOARD OF DIRECTORS  
FLOOD CONTROL DISTRICT OF  
MARICOPA COUNTY

INVITATION FOR BIDS  
NO. FCD 85-40

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

INVITATION FOR BIDS, FCD 85-40  
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 with 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 he shall be liable for any cost of procuring the work which exceeds the amount of his bid, and the bid guarantee shall be available toward offsetting such difference.

INVITATION FOR BIDS  
NO. FCD 85-40

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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 85-40

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
INVITATION FOR BIDS, FCD 85-40  
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 \$17.00 by check payable to the FLOOD CONTROL DISTRICT OF MARICOPA COUNTY. This payment will not be refunded. Plan sheets may be purchased separately for a fee of \$12.00, not refundable.

APPROXIMATE QUANTITIES FOR PRINCIPAL ITEMS

<u>QUANTITY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>
972	C.Y.	Class A Conc. - Bridge and Detour
177	C.Y.	Class A Conc. - Approach Slabs
264	C.Y.	Class AA Conc.
213,038	Lbs.	Reinforcing Steel
273	L.F.	Drilled Shaft Foundation (24")
16	Each	Type II AASHTO Girders
480	Ton	C-3/4 Asphalt Concrete

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 29th Avenue at the Arizona Canal, approximately 1/4 mile north of Dunlap Avenue, Phoenix, Arizona.

INVITATION FOR BIDS  
CONTRACT NO. FCD 85-40

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
(Construction Contract)

BID FORM

Project: 29th Avenue Bridge over ACDC      Invitation FCD 85-40  
Date: January 6, 1986

Location: 29th 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: 29th Avenue Bridge over Arizona Canal Diversion Channel

Contract: FCD 85-40

Item No.	Approximate Quantity	Unit	Description	Unit Cost (in writing) and /100 dollars	Unit Cost	Extended Amount
206-1	1	L.S.	Structure Excavation			
206-2	1	L.S.	Structure Backfill			
211	1	L.S.	Earthwork (Embankment)			
310-1	1093	Ton	Aggregate Base Course			
321-1	480	Ton	C-3/4 Asphalt Concrete			
321-2	329	Ton	A-1½ Asphalt Concrete			
321-3	80	S.Y.	Asphaltic Concrete Paving for Bikepath			
336	134	S.Y.	Pavement Replacement			
340-1	393	L.F.	Concrete Curb and Gutter			
340-2	507	L.F.	Single Curb			
340-3	1205	S.F.	Concrete Sidewalk			
350-1	1	L.S.	Removal of Existing Improvements			

## BIDDING SCHEDULE

Project: 29th Avenue Bridge over Arizona Canal Diversion Channel

Contract: FCD 85-40

Item No.	Approximate Quantity	Unit	Description	Unit Cost (in writing) and /100 dollars	Unit Cost	Extended Amount
350-2	1	L.S.	Removal of Detour Improvements and Restoration			
401-1	1	L.S.	Traffic Control			
401-2	2	Ea.	G.R.E.A.T. Impact Attenuation Device ADOT 4-C2.03			
505-1	972	C.Y.	Class A Concrete - Bridge & Detour Bridge Caps			
505-2	177	C.Y.	Class A Concrete - Approach Slabs			
505-3	264	C.Y.	Class AA Concrete			
505-4	273	L.F.	Drilled Shaft Foundation (24")			

### BIDDING SCHEDULE

**Project:** 29th Avenue Bridge over Arizona Canal Diversion Channel

**Contract:** FCD 85-40

Item No.	Approximate Quantity	Unit	Description	Unit Cost (In writing) and /100 dollars	Unit Cost	Extended Amount
505-5	213,038	Lbs.	Reinforcing Steel			
506-1	16	Ea.	Type II AASHTO Girders (Pretensioned or Post-tensioned)			
506-2	1	L.S.	Detour Bridge Superstructure			
520	226.5	L.F.	Type H-1-1 Bridge Rail			
610-1	1	L.S.	Temporary Water Line Relocation			
610-2	1	L.S.	Water Line			
621-1	200	L.F.	48" CMP			
621-2	62	L.F.	18" CMP			
735	313	L.F.	68"x43" Concrete Pipe			

**BIDDING SCHEDULE**

**Project:** 29th Avenue Bridge over Arizona Canal Diversion Channel

**Contract:** FCD 85-40

Item No.	Approximate Quantity	Unit	Description	Unit Cost (in writing) and /100 dollars	Unit Cost	Extended Amount
772	1	L.S.	Chain Link Fence			
801	1	L.S.	Traffic Signals			

The Bidder hereby acknowledges receipt of and agrees his proposal is based on the following Addenda:

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

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:

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

IF BY A FIRM OR PARTNERSHIP:

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

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

\*Name and Address of Each Member:

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

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

Date \_\_\_\_\_, 19\_\_.

IF BY A CORPORATION:

\_\_\_\_\_  
{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.

CONSTRUCTION SPECIAL PROVISIONS  
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
FCD CONTRACT NO. 85-40  
for  
29TH AVENUE BRIDGE  
over  
ARIZONA CANAL DIVERSION CHANNEL

PROPOSED WORK: The work includes the construction of a temporary detour with signalization, a temporary detour bridge, a permanent concrete bridge, approach roadways, underground utility modifications and other miscellaneous items of work required for the completion of the project.

LOCATION OF WORK: This project is located in Phoenix, Arizona, on 29th Avenue at the Arizona Canal Diversion Channel, approximately 1/4 mile north of Dunlap Avenue.

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

PRECEDENCE OF CONTRACT DOCUMENTS: 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 start work within seven (7) calendar days and complete all work on the project within one hundred fifty (150) calendar days after the date of Notice to Proceed.

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 Engineer for approval before starting the work.

CONSTRUCTION SPECIAL PROVISIONS  
CONTRACT NO. FCD 85-40

MATERIAL SOURCES: Select Material, Aggregate Base and Mineral Aggregate 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.

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

SUBSECTION 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 102.5 - PREPARATION OF PROPOSAL: The bidder's Arizona State Contractor's License number and classifications need not be shown on the proposal. The possession of such a license is no longer a bidding requirement; however, the Contractor may be required to provide certification of prior satisfactory completion for similar construction.

SECTION 103.6 - CONTRACTOR'S INSURANCE: Concurrently with the execution of the contract, the Contractor shall furnish a Certificate of Insurance. The types of 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

SECTION 105.2 - PLANS AND SHOP DRAWINGS: The number of copies of plans/shop drawings required for review and/or approval shall be as follows:

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.

SECTION 105.6 - COOPERATION WITH UTILITIES: An attempt has been made to determine the location of all underground utilities and drainage pipes, culverts and structures; however, it shall be the Contractor's responsibility to cooperate with the pertinent utility companies so that any obstructing utility installation 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.

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

Flood Control District. . . . .	.262-1501
Mountain Bell Telephone Company . . . . .	.842-7755
Salt River Project. . . . .	.273-2202
Arizona Public Service. . . . .	.271-7014
Location Staking (A.P.S., Mtn. Bell, S.R.P.). . . . .	.263-1100
City of Phoenix Streets and Traffic . . . . .	.262-6565
City of Phoenix Water and Wastewater. . . . .	.261-8229

SECTION 105.8 CONSTRUCTION STAKES, LINES AND GRADES: The project control lines (roadway and detour) 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 with the plans and specifications.

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

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 105.12 - 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.

In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations. All cost of maintenance work during construction and before the project is accepted shall be included in the unit bid price on the various pay items.

SECTION 105.13 - FAILURE TO MAINTAIN ROADWAY OR STRUCTURE: If the Contractor, at any time, fails to perform maintenance during construction, the Engineer will immediately notify the Contractor of such noncompliance. If the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of such notice, the Engineer may immediately proceed to maintain the project. The entire cost of this maintenance will be deducted from monies due or to become due the Contractor on his contract.

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

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 108.5 - LIMITATION OF OPERATIONS: Should the Contractor elect to perform any work after regular working hours, on weekends, 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, 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 AND 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, canal and borrow area designated on the plans. Materials shall be disposed of off-site. Also see section 350 in these Special Provisions.

Payment for this item will be incidental to and included in the price bid for ITEM 350-1 Removal of Existing Improvements.

SECTION 205 - ROADWAY EXCAVATION: A temporary spillway for the Arizona Canal shall be excavated in the canal bank as shown on sheet C-6. Material excavated may be used in the construction of the detour road. The detour, when no longer required, shall be excavated and the earth material returned to the borrow area near 25th Avenue (see Section 210). After the detour embankment has been removed, the site shall be restored to its original grades and conditions (see Section 350 of these special provisions).

The cost of excavation of the canal spillway, excavation of the detour and restoration of the site shall be incidental to and included in the price bid for ITEM 350-2 Removal of Detour Improvements and Restoration.

SECTION 206 - STRUCTURE EXCAVATION AND BACKFILL: Structure excavation consists of the removal of material for the construction of the bridge foundations as indicated on the plans and shall be in accordance with Section 206 of the Uniform Standard Specifications.

Structure backfill consists of the furnishing, placing and compacting backfill material around the bridge abutments as indicated on the plans and shall be in accordance with Section 206 of the Uniform Standard Specifications.

Structure backfill around the abutments and around the center pier shall be placed in lifts such that no more than a two foot difference in elevation will exist at any given time between the height of backfill on either side of the abutment or pier. The abutments shall not be backfilled above elevation 1221.0 until the concrete bridge deck has been in place a minimum of 7 days.

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 210 - BORROW EXCAVATION: Borrow shall consist of material excavated for use in the construction of the detour roadway embankment fills. Borrow material shall be excavated from an area adjacent to and immediately to the west of the temporary detour and south of the Arizona Canal, to the lines and grades as designated by the Flood Control District. Prior to the removal of the borrow material, the topsoil from the borrow area shall be stripped and stockpiled for later re-use. See Section 350 of these Special Provisions for restoration of the borrow area.

The cost of borrow excavation shall be incidental to and included in the price bid for ITEM 211 Earthwork (Embankment).

SECTION 211 - FILL CONSTRUCTION: This work shall consist of all embankment and fill construction (except Structure Backfill) on the temporary and the permanent work as indicated on the drawings and shall be in accordance with Section 211 of the Uniform Standard Specification. Included in this Item is construction of the detour fill and the restoration of the temporary spillway in the canal bank (see Section 205).

After removal of the detour road, the temporary spillway shall be filled with clayey soils similar to the existing soil in the canal bank. This material shall be placed in 8" uncompactd lifts and then compacted to 90% maximum density in accordance with ASTM D-698. Road surfacing over the temporary spillway section shall be replaced using 4" of ABC (MAG 702) blended with 20% to 40% native material compacted and graded to drain.

The cost of all related work, such as borrow excavation, hauling, watering, and subgrade-preparation, shall be incidental to and included in the lump sum price bid for ITEM 211 Earthwork (Embankment) in addition to the work specified in Section 211 of the Uniform Standard Specifications.

SECTION 225 - WATERING: The work under this item shall be in accordance with Section 225 of the Uniform Standard Specifications and Highway Department Supplement. No separate payment will be made for this item.

SECTION 301 - SUBGRADE PREPARATION: Subgrade preparation shall also include the preparation of subgrades to the required lines and grades for the bridge approach slabs, in addition to the work specified in Section 301 of the Uniform Standard Specifications.

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

SECTION 310 - UNTREATED BASE: Aggregate Base shall conform to the requirements of Section 702 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. Payment for Untreated Aggregate Base will be made on the basis of the price bid per ton for ITEM 310-1 Aggregate Base Course.

SECTION 321 - ASPHALT CONCRETE PAVEMENT: The bituminous material to be used shall be AR-4000 Paving Asphalt and shall comply with Sections 710 and 711 of the Uniform Standard Specifications.

Pavement of the detour roadway and the temporary median in Metro Parkway shall consist of C-3/4, 2 inches in thickness as indicated on the plans, including a 2" thickness overlay of C-3/4 asphalt concrete on the temporary detour bridge.

Pavement of the new permanent roadway north of the bridge shall consist of A-1-1/2, 8 inches in thickness overlaid with C-3/4, 1-1/2 inches in thickness as indicated on the plans.

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

The work shall be in compliance with Section 321 except that no mineral filler or blending sand will be required.

In addition to pugmill type mixing plants, Drum Dryer Mixers will be allowed in accordance with Section 710.8 of the Uniform Standard Specifications. The moisture content of the bituminous mixture immediately behind the paver shall not exceed three percent.

The proper proportioning of the material at the cold feed shall be determined by the Contractor and approved by the Engineer prior to the production of asphalt concrete. Production shall not commence until calibration tests indicate that an acceptable product can be obtained.

The correct proportions of each aggregate size introduced into the mixer shall be drawn from the storage bins by an approved type of continuous feeder. The feeder shall supply the correct amount of aggregate in proportion to the bituminous material and shall be so arranged that the proportion of each aggregate size can be separately adjusted. The continuous feeder for the aggregate may be mechanically or electrically activated.

The plant shall be equipped with a sampling device to take representative composite samples of the cold feed. If tests indicate non-compliance with specifications, operation shall cease until proper corrections have been made.

The production of the plant shall be governed by the rate required to obtain a thorough and uniform mixture of the materials. Mixing shall continue until the uniformity of coating, when tested in accordance with the requirements of AASHTO T 195, is at least 95 percent.

Payment for asphalt concrete pavement will be at the bid price per ton in place for ITEM 321-1 C-3/4 Asphalt Concrete, and for ITEM 321-2 A-1-1/2 Asphalt Concrete, and at the price bid per square yard for ITEM 321-3 Asphaltic Concrete Paving for Bikepath. ITEM 321-3 does not include restoration of the original bikepath after the detour is removed; that cost is included in bid ITEM 350-2.

SECTION 336 - PAVEMENT MATCHING AND SURFACE REPLACEMENT: Existing pavements which are to be matched by the temporary detour pavement and/or new roadway pavement shall be trimmed to a neat, straight and vertical edge. The trimmed edges shall be painted with a light coat of emulsified asphalt immediately prior to constructing the new abutting pavement. Pavement replacement shall be in accordance with Section 336 of the Uniform Standard Specifications. Pavement Replacement shall consist of replacement of paving along Metro Parkway after the detour and the temporary median paving have been removed as indicated on sheet C-3 of the plans.

Payment for ITEM 336 Pavement Replacement shall be at the price bid per square yard to the neat lines as indicated on sheet C-3 of the plans. This item does not include the new paving on 29th Avenue immediately to the north of the new permanent bridge, the temporary detour paving, or the temporary paving in the median of Metro Parkway which will be paid for under ITEM's 310-1, 321-1 and 321-2.

SECTION 340 - CONCRETE CURB, GUTTER AND SIDEWALK: Work under this item shall conform to Section 340 of the Uniform Standard Specifications and shall include concrete curb, gutter and sidewalk.

All concrete shall be Class B and shall conform to Section 725 of the Uniform Standard Specifications.

All concrete items shall conform to the Standard Details and the details shown on the plans.

Payment for these items will be made at the unit price bid per lineal foot for ITEM 340-1 Concrete Curb & Gutter, the unit price bid per lineal foot for ITEM 340-2 Single Curb, and the unit price bid per square foot for ITEM 340-3 Concrete Sidewalk.

SECTION 350 - REMOVAL OF EXISTING AND DETOUR IMPROVEMENTS AND RESTORATION:

Removal of existing improvements shall consist of the removal and disposal of any obstacle to construction, whether shown on the plans or not, unless specifically called out on the plans to be removed or relocated by other agencies.

The detour, when no longer required, shall be excavated and the earth material returned to the borrow area. The borrow area shall be restored to its original grade and condition. The topsoil that was stockpiled shall be evenly spread over the borrow area and the area shall be reseeded with bermuda grass seed to the satisfaction of the Engineer. The area where the detour was placed shall be completely restored. This will include removal of the detour pavement, temporary fencing, gates, temporary bike path ramps, 48" CMP, curbing and paving on Metro Parkway, and other incidentals thereto.

Restoration will also include replacement of curb and gutter on 29th Avenue, replacement of the chain link fence along 29th Avenue (in the area of Sta. 4+00 and 5+00 on the detour), replacement of the chain link fence along the Arizona Canal, and replacement of curb, gutter, sidewalk and pavement on Metro Parkway, reseeded of the bermuda grass after the detour embankment has been removed, and any other incidentals required to restore the detour alignment to its original condition.

The superstructure of the detour bridge shall be dismantled, the 2" asphaltic concrete overlay removed, and the parts stockpiled by the contractor at the same location where they were originally picked up, in the ACDC right of way, just west of 25th Avenue. The Contractor shall remove the abutment cap beams down to the top of the drilled shaft foundations, as well as any reinforcing steel protruding from the drilled shafts. The Contractor shall restore the banks of the SRP Canal to preconstruction conditions in accordance with SRP compaction requirements (see Section 211). Disposal of all waste material under Section 350 shall be off-site and shall be the responsibility of the Contractor.

Designated materials shall be salvaged, including the ten precast prestressed box beams, the handrail, the impact attenuators, 48" CMP, 18" CMP and 160 feet of temporary concrete median barriers. Resulting trenches, holes, and pits will be backfilled and compacted as required to restore the site to original condition. The Contractor shall state, before construction begins, the method of removal and salvaging he intends to furnish. All salvable material shown on the plans, shall be stored by the Contractor as directed within the project limits.

Unless otherwise directed, the temporary detour bridge will not be removed until the 29th Avenue Bridge is in place and accommodating traffic.

The existing concrete box culvert and wingwalls as shown on the plans shall be completely removed. Utilities will be removed and relocated by the utility companies. The Contractor shall coordinate his removal work with the utility companies. The Contractor shall state, before construction begins, the method of removal he intends to furnish. Unless otherwise directed, the existing concrete box culvert and wingwalls shall not be removed until the detour is in place and accommodating traffic.

Major items to be removed (not provided for elsewhere in these Special Provisions) prior to detour construction and new construction on 29th Avenue (quantities are approximate):

1. Remove curb/gutter - 1,193 lin. ft.
2. Remove trees - 2 each.
3. Remove chain link fence - 381 lin. ft.
4. Remove A.C. pavement - 245 sq. yds.
5. Remove 68 x 43 concrete pipe - 340 lin. ft.
6. Remove sidewalk - 1755 sq. ft.
7. Remove median concrete slab - 80 sq. ft.
8. Remove north approach slab to canal bridge

Summary of major items to be removed (not provided for elsewhere in these Special Provisions) after bridge construction and restoration of traffic to 29th Avenue (quantities are approximate):

1. Remove chain link fence - 1,105 lin. ft.
2. Remove A.C. pavement - 3,695 s.y.
3. Remove embankment - 6,050 cu. yds.
4. Remove chain link gate - 2 each
5. Remove 48" CMP - 188 lin. ft.

Payment for removal of existing and detour improvements shall be made at the lump sum bid prices in the proposal for ITEM 350-1 Removal of Existing Improvements (including box culvert), and ITEM 350-2 Removal of Detour Improvements and Restoration. Payment for replacement of concrete curb and gutter, single curb, sidewalk and the canal bridge approach slab shall be made at the prices bid for items 340-1, 340-2, 340-3 and 505-2; all other restoration costs shall be included in ITEM 350-2.

**SECTION 401 - TRAFFIC CONTROL:** Traffic control shall conform to the applicable paragraphs of Section 401 of the Uniform Standard Specifications, the City of Phoenix Barricade Manual and as specified herein.

The number and types of barricades, signs, delineators, barriers and all other traffic control devices shall be subject to approval, however, approval of traffic control devices and the approval of the Contractor's method of application of all traffic control measures, shall not relieve the Contractor of the responsibility of protecting the work, the workman and the traveling public.

The Contractor shall provide and maintain safe and adequate access, including pavement surfacing of the detour for two-way traffic, at all times. Detour to bypass the construction zone shall be as shown on the plans. Construction and detour advance warning signs shall be as shown on the plans. A five (5) foot high deceleration berm of loose sandy material with nothing over three inches in size shall be placed completely over the paved portion of the road on each approach to the bridge. Internal construction barricading and signing shall be required to provide access and guide traffic through the zone with a speed posted at 35 miles per hour.

All necessary signs and barricades shall remain three working days beyond acceptance of the project by the Owner.

Payment for providing and maintaining traffic control will be at the lump sum bid price in the proposal for ITEM 401-1 Traffic Control. Such price shall include all traffic control devices and traffic control measures, such as warning and control signs, barricades, lighting devices, paint striping, delineators, flagmen and other appurtenant items related to traffic control and safety. Included in the price shall be the maintenance of the detour pavement surface and pavement striping for the detour and the new bridge and approaches. Payment for the impact attenuators shall be at the unit price each for ITEM 401-2 G.R.E.A.T. Impact Attenuation Device, ADOT 4-C-2.03. The impact attenuation devices shall become the property of the Flood Control District at the completion of the project. See Section 801 for signalization.

**SECTION 505 - CONCRETE STRUCTURES:** The work under this item shall consist of furnishing all labor, material and equipment necessary to construct, complete in place, the concrete bridge structures. The work under this item shall conform to the applicable requirements of Section 505 of the Uniform Standard Specifications. All concrete including deck, diaphragms, substructure, approach slabs, wingwalls, curbs, barriers, dados and sidewalks on or off the bridge shall conform to Section 725, Class "A" or Class "AA" as designated in the plans, and reinforcing steel shall conform to Section 727, ASTM A-615, Grade 40 or Grade 60 as designated in the plans.

The work under this item includes the abutment cap beams and drilled shaft foundations for the temporary detour bridge. The abutment cap beam concrete and reinforcing steel shall be as specified in the above paragraph. The drilled shaft foundations shall be as specified in Section 609 of the Arizona Department of Transportation "Standard Specifications for Road and Bridge Construction", 1982 Edition, including method of measurement and basis of payment (ITEM 505-4), except that strength of concrete and grade of reinforcing steel shall be as specified in the above paragraph. Concrete in the drilled shafts shall be consolidated by vibration.

Combination shoring of the bridge deck (shoring from the ground combined with shoring from the girders) during pouring will not be allowed. Shoring for the deck pour will either be supported entirely from the girders or entirely from the ground.

The top surface of the bridge deck shall be cured by the liquid-membrane curing compound method and by the water curing method. The curing compound shall be applied progressively immediately following the surface finishing operation. Liquid-membrane curing compound shall be applied at a rate of one gallon per 100 square feet. The curing compound shall form a continuous unbroken surface. Water curing shall be applied not later than four hours after the completion of the deck finishing operations and shall be applied for a period of at least 7 days after placing. See Sections 505.8 and 726 of the Uniform Standard Specifications for additional information and materials to be used.

Cast-in-place dimensional tolerances shall be in accordance with Section 601-4.02(A) of the Arizona Department of Transportation Highways Division Standard Specifications for Road and Bridge Construction, Edition of 1982.

Payment for concrete will be made at the bid price per cubic yard for ITEM 505-1 Class A Concrete - Bridge, which includes the cap beams for the detour bridge, 505-2 Class A Concrete - Approach Slabs, and 505-3 Class AA Concrete. Payment for drilled shaft foundations will be made at the bid price per lineal foot for ITEM 505-4 Drilled Shaft Foundation (24"), which price shall include drilling, concrete and steel. Payment for reinforcing steel shall be made at the unit price bid per pound for ITEM 505-5 Reinforcing Steel, which price shall include both Grade 40 and Grade 60 reinforcing. Concrete used in the curb, gutter and sidewalk shall be included in the unit prices bid for those items.

**SECTION 506 - PRECAST PRESTRESSED CONCRETE GIRDERS:** The work under this item shall consist of furnishing all labor, material and equipment necessary to construct, complete in place, the AASHTO Type II bridge girders for the permanent 29th Avenue bridge. The work under this section shall conform to the applicable requirements of Section 506 of the Uniform Standard Specifications. The girder design is based on conventional AASHTO Type II girders.

Concrete strengths for bridge girders shall be as indicated on the plans.

Prestressing steel shall be uncoated, seven-wire, stress-relieved, low-relaxation steel strand conforming to ASTM A-416, grade 270, 1/2" diameter.

The plans provide for alternate prestressed concrete girder designs. Alternate 1 designates a pretensioned concrete girder and Alternate 2 designates a post-tensioned concrete girder. Both alternates are precast prestressed concrete girders and shall be fabricated and installed in accordance with the plans and section 506 of the Uniform Standard Specifications.

Elastomeric Bearing Pads shall be in accordance with AASHTO requirements and shall be made of durometer 60 neoprene. Pads shall conform to the dimensions and thicknesses shown on the drawings. No separate payment will be made for bearing pads, and the costs thereof shall be included in the price bid for items to which they are appurtenant.

The Contractor may at his option use either Alternate 1 girders (pretensioned) or use Alternate 2 girders (post-tensioned).

Precast concrete dimensional tolerances shall be in accordance with Section 601-4.02(B) of the Arizona Department of Transportation Highways Division Standard Specifications for Road and Bridge Construction, Edition of 1982.

Payment will be made at the contract unit bid price per each for ITEM 506-1 Type II AASHTO Girders (Pretensioned or Post-tensioned).

The work under this item also includes the erection of the superstructure of the temporary detour bridge over the Arizona Canal. The Flood Control District will provide the box beams for the temporary detour bridge. The Contractor will be required to load and transport ten box beams, hand railing, steel tension rods and 8 each, 20-foot long sections of precast jersey barriers from where they are stored, just north of the Arizona Canal west of 25th Avenue. The Contractor will be required to erect all ten box beams at the Arizona Canal 29th Avenue site.

The cost of transporting and erecting the box beams at 29th Avenue, installing steel tension rods, railings and safety barriers and furnishing and installing bearing pads on the detour structure shall be included in the lump sum price bid for ITEM 506-2 Detour Bridge Superstructure. For removal of the temporary detour bridge at 29th Avenue see Section 350 of these Special Provisions.

SECTION 515 - STEEL STRUCTURES: The work under this item consists of furnishing and installing all miscellaneous metal fabrications incorporated into the project and not specified elsewhere, including the pipe hanger assembly, girder bearing assembly and threaded inserts on the 29th Avenue Bridge and the 3/8" x 3" angle on the temporary detour bridge. Work shall conform to the applicable paragraphs of Section 515 of the Standard Specifications.

No separate payment will be made for these items, and the cost thereof shall be included in the price bid for items to which they are appurtenant.

SECTION 520 - HANDRAIL: The work under this item consists of furnishing and installing handrail and related embeds. Work shall conform to the applicable paragraphs of Section 520 - Steel and Aluminum Handrails of the Uniform

Standard Specifications, and ADOT Std. H-1-1, Single Handrail. Payment for handrailing will be made at the bid price per linear foot for ITEM 520 Type H-1-1 Bridge Rail.

SECTION 601 - TRENCH EXCAVATION, BACKFILL AND COMPACTION: The work under this item consists of performing all operations in connection with the excavation and backfilling of underground utilities and appurtenant structures as indicated on the drawings and in accordance with the applicable provisions of Section 601 of the Uniform Standard Specifications.

No separate payment will be made for trench excavation, backfill and compaction and the cost thereof shall be included in the price bid for related items of work.

SECTION 610 - WATER LINE CONSTRUCTION: The work consists of removal, salvage and construction of waterlines as shown on the drawings in accordance with Section 610 of the Uniform Standard Specifications as modified herein.

Pipe materials shall be as specified in Section 610.3 of the Uniform Standard Specifications and on the plans. The 16" water line for the potable water main shall be ductile iron class 52. All new 16" pipe shall be standard mechanical joint outside the bridge and restrained mechanical joint in the bridge between the two expansion couplings. Expansion couplings shall be installed as close as practicable to the abutment inside faces.

Connections to the existing potable watermain shall be in accordance with Section 610.9 of the Uniform Standard Specifications. The Contractor shall coordinate this work with the City of Phoenix. The Contractor shall furnish all materials and equipment and perform all work related to the connections. The Contractor shall drain the pipeline and dispose of the water in a manner which is not detrimental to adjacent properties or public health.

The existing 16" waterline on the west side of 29th Avenue is a reinforced concrete steel cylinder pipe. This pipe is to be removed as required to provide for the temporary bypass and to accommodate the new ductile iron pipe to be installed through the new bridge. That portion of the reinforced concrete steel cylinder pipe that can be removed intact is the property of the City of Phoenix.

The temporary bypass line shall be constructed to the same standards as a permanent installation using all new materials. The contractor shall provide a shop drawing detailing this pipe and all fittings and a step by step sequence describing the procedure to be used to connect the bypass and then reconnect the new straight run through the bridge.

The temporary bypass pipe and fittings shall be removed after completion of the installation, and final acceptance, of the straight run. These materials will become the property of the Contractor. Trenches shall be backfilled and the area shall be restored to its original condition.

ITEM 610-1, Temporary Water Line Relocation, payment will be made at the lump sum price on the bid schedule, which shall be full compensation for the item complete including testing, disinfection, trenching, backfill, permits and all incidentals for the item complete as described herein and on the plans.

ITEM 610-2 Water Line, payment will be made at the lump sum price on the bid schedule for the new ductile iron pipe which replaces the existing reinforced concrete steel cylinder pipe. This payment will be full compensation for the item complete including testing, disinfecting, hardware, permits and all incidentals for the item complete as described herein and on the plans.

SECTION 621 - CORRUGATED METAL PIPE: Work under this item shall conform to Section 621 of the Uniform Standard Specifications. Pipe shall be 14 gage and sizes shall be as indicated on the plans. The Contractor shall salvage the pipes during removal of the detour and shall stockpile them on the site as directed by the Engineer.

Payment will be made at the unit price bid per lineal foot for ITEM 621-1 48" CMP and ITEM 621-2 18" CMP.

SECTION 735 - REINFORCED CONCRETE PIPE: Work under this item shall be in accordance with Section 735 of the Uniform Standard Specifications. Pipe size and class shall be as indicated on the plans.

Payment shall be made at the unit price bid per lineal foot for ITEM 735 68"x43" Concrete Pipe, this payment shall be for the pipe installation complete in place, including all costs associated with the concrete joint structures as shown on the plans.

SECTION 772 - CHAIN LINK FENCE: Work under this item shall be in accordance with Section 772 of the Uniform Standard Specifications. Temporary chain link fence shall have extension arms and barbed wire per Section 772.6. Arms shall be inclined toward the detour road. Where existing fence is to be cut, adequate bracing or end panels shall be installed to retain the integrity of the fence.

Existing fence and hardware may be used for the temporary fence and/or the permanent replacement if it is sound and undamaged as determined by the Engineer. All fence materials not required for the permanent construction shall become the property of the contractor.

Measurement and payment for all fence installations and replacement shall be by the lump sum bid for ITEM 772 Chain Link Fence.

SECTION 801 - TRAFFIC SIGNALS: Traffic signal work shall be as indicated on the plans and shall be in accordance with the City of Phoenix, Traffic Engineering Department, Traffic Signal Section Memorandum entitled "PROCEDURES FOR TRAFFIC SIGNAL WORK", dated July 22, 1982. This memorandum is included on sheet TC-5 of the contract drawings.

Payment for all traffic signal work shall be by the lump sum for ITEM 801 Traffic Signals and shall include all work necessary for the detour signalization and restoration of the signalization at 29th Avenue after construction of the bridge and removal of the detour.

GENERAL COMMENTS: It shall be the Contractor's responsibility to protect the structure and construction site from any excessive or detrimental flooding, within the channel right-of-way, which may occur during the construction period and until final acceptance of the completed bridge by the Flood Control District of Maricopa County.

The Contractor shall exercise care to prevent damage to any existing facilities.

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

An attempt has been made to determine the location of all underground utilities and to design the location and elevation of all irrigation and drainage pipes, culverts and structures so as not to interfere with the existing utilities, however, it shall be the Contractor's responsibility to cooperate with the utility companies so that any obstructing utility installation may be adjusted.

No traffic will be allowed on the bridge until at least ten days after the last concrete has been placed on the deck and approach slabs and until the compressive strength of the placed concrete, as determined by test cylinders, has reached the required 28-day compressive strength.

The Flood Control District of Maricopa County reserves the right to adjust design grades or the location of drainage structures prior to construction, if it should become necessary in the opinion of the Engineer, without additional cost to the Flood Control District of Maricopa County.

The Contractor shall take special precautions to keep the area around the bridges properly barricaded with sand berms, barricades, barrels, etc. and marked with flares to prevent automotive traffic from running into the channel or the canal or crossing the new bridge structure prior to the bridge deck slab and approach slabs reaching their required strength as defined above.

GUARANTEE: 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



CONTRACT FCD 85-40

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 political 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 85-40,  
29th 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 his  
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 85-40

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 85-40  
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 85-40  
PERFORMANCE BOND

\_\_\_\_\_  
PRINCIPAL SEAL

BY: \_\_\_\_\_

\_\_\_\_\_  
SURETY SEAL

BY: \_\_\_\_\_

\_\_\_\_\_  
POWER OF ATTORNEY SEAL

BY: \_\_\_\_\_

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CERTIFICATE OF INSURANCE

CONTRACT FCD 85-40

PROJECT TITLE 29th Avenue Bridge over ACDC

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

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

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 sole 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 85-40

FLOOD CONTROL DISTRICT of Maricopa County (TABULATION OF BIDS)				PROJECT 29th AVE. BRIDGE OVER ARIZONA CANAL DIVERSION CHANNEL				PROJECT NO. FCD 85-40		DATE OPENED 02/06/86		SHEET 1	
ITEM NO.	DESCRIPTION	The Ashton Co.		The Tanner Co.		C.S. Construction		MEADOW VALLEY CONTRACTORS					
		QUANTITY	UNIT PRICE	\$ AMOUNT	UNIT PRICE	\$ AMOUNT	UNIT PRICE	\$ AMOUNT	UNIT PRICE	\$ AMOUNT	UNIT PRICE	\$ AMOUNT	UNIT PRICE
206-1	STRUCTURE EXCAVATION	1	L.S.	85000.00	85000.00	50000.00	50000.00	60000.00	60000.00	52000.00	52000.00		
206-2	STRUCTURE BACKFILL	1	L.S.	90000.00	90000.00	75000.00	75000.00	20000.00	20000.00	158379.00	158379.00		
211	EARTHWORK (EMBANKMENT)	1	L.S.	90000.00	90000.00	25000.00	25000.00	90000.00	90000.00	30000.00	30000.00		
310-1	AGGREGATE BASE COURSE	1093	TON	13.00	14116.00	10.00	10930.00	9.00	9837.00	11.00	12033.00		
321-1	CL 3/4 ASPHALT CONCRETE	480	TON	34.00	16320.00	35.00	16800.00	37.00	17760.00	42.00	20160.00		
321-2	A-2 ASPHALT CONCRETE	329	TON	34.00	11186.00	30.00	9870.00	35.00	11575.00	40.00	13160.00		
321-3	ASPHALTIC CONCRETE PAVING FOR BIKEPATH	80	S.Y.	15.00	1200.00	6.00	480.00	2.00	160.00	11.00	880.00		
336	PAVEMENT REPLACEMENT	134	S.Y.	15.00	2010.00	3.00	402.00	6.00	804.00	7.00	938.00		
340-1	CONCRETE CURB AND GUTTER	393	L.F.	10.00	3930.00	6.00	2358.00	2.00	786.00	7.00	2751.00		
340-2	SINGLE CURB	507	L.F.	8.00	4056.00	6.00	3042.00	1.50	760.50	6.00	3042.00		
340-3	CONCRETE SIDEWALK	120	S.F.	1.60	192.00	2.00	240.00	2.00	240.00	1.65	198.00		
350-1	REMOVAL OF EXISTING IMPROVEMENTS	1	L.S.	75000.00	75000.00	60000.00	60000.00	70000.00	70000.00	20000.00	20000.00		
350-2	REMOVAL OF DETOUR IMPROVEMENTS AND RESTORATION	1	L.S.	42000.00	42000.00	60000.00	60000.00	50000.00	50000.00	135000.00	135000.00		
401-1	TRAFFIC CONTROL	1	L.S.	40000.00	40000.00	10000.00	10000.00	25000.00	25000.00	21500.00	21500.00		
401-2	G.R.E.A.T. IMPACT ATTENUATION DEVICE ADPT 4-C3.03	2	EA	12500.00	25000.00	15000.00	30000.00	15000.00	30000.00	13500.00	27000.00		
505-1	CLASS A CONCRETE BRIDGE & DETOUR BRIDGE CAPS	972	C.Y.	16.00	15552.00	22.00	21384.00	25.00	24300.00	21.80	21196.00		
505-2	CLASS AA CONCRETE APPROACH SLABS	177	C.Y.	13.50	2392.50	17.00	3009.00	10.00	1770.00	13.80	2433.60		
505-3	CLASS AA CONCRETE	264	C.Y.	30.00	7920.00	28.00	7392.00	29.00	7660.00	15.50	4092.00		
505-4	DRILLED SHAFT FOUNDATION (24")	273	L.F.	35.00	9555.00	40.00	10920.00	50.00	13650.00	5.00	1365.00		
505-5	REINFORCING STEEL	203	QRS/lbs	35	7105.00	34	6942.00	34	6942.00	40	8120.00		
506-1	TYPE II AASH TO GIRDERS PRETENSIONED OR POST-TENSIONED	16	EA	2900.00	46400.00	5000.00	80000.00	3100.00	49600.00	4800.00	76800.00		
506-2	DETOUR BRIDGE SUPERSTRUCTURE	1	L.S.	20000.00	20000.00	35000.00	35000.00	50000.00	50000.00	35000.00	35000.00		
520	TYPE H-1-1 BRIDGE RAIL	226.5	L.F.	35.00	7927.50	38.00	8607.00	36.00	8154.00	40.00	9060.00		
610-1	TEMPORARY WATER LINE RELOCATION	1	L.S.	30000.00	30000.00	20000.00	20000.00	15000.00	15000.00	19500.00	19500.00		
610-2	WATER LINE	1	L.S.	20000.00	20000.00	35000.00	35000.00	30000.00	30000.00	20527.00	20527.00		
621-1	48" CMP	200	L.F.	6.00	1200.00	7.50	1500.00	4.00	800.00	4.00	800.00		
621-2	18" CMP	62	L.F.	35.00	2170.00	5.00	310.00	4.00	248.00	35.00	2170.00		
735	68" X 43" CONCRETE PIPE	313	L.F.	11.00	3443.00	21.50	6729.50	20.00	6260.00	16.00	5008.00		
772	CHAIN LINK FENCE	1	L.S.	5000.00	5000.00	10000.00	10000.00	8000.00	8000.00	16000.00	16000.00		
801	TRAFFIC SIGNALS	1	L.S.	12000.00	12000.00	20000.00	20000.00	20000.00	20000.00	47000.00	47000.00		
				1,014,416.80		1,045,114.92		1,089,914.30		1,170,277.45			

Deck Pour Schedule?  
Where are the Plans?

# DMJM/Adam, Hamlyn, Anderson

April 1, 1986

Flood Control District of Maricopa County  
3335 West Durango Street  
Phoenix, AZ 85009

Attention: Ed Raleigh

Subject: Deck Pour Schedule

Project: 29th Avenue Bridge over ACDC for the Flood Control District  
of Maricopa County  
DMJM Number 4252-01-02

Dear Mr. Raleigh:

Please find the referenced document attached.

This is our interpretation of the information requested for proper setting of deck forms  
for the permanent bridge.

Please comment on the adequacy of the information provided so that DMJM may present  
it in an addendum.

Sincerely,

*Lee Underwood*

Lee Underwood

LU/cl

Attachment

FLOOD CONTROL DISTRICT  
RECEIVED

APR 03 '86

CH ENG	HYDRO
ASST	LMgt
ADMIN	SUSP
C & O	FILE
FINANCE	DESTROY
REMARKS	

*[Handwritten initials and signatures over the stamp]*

DMJM

PROJECT  
29<sup>th</sup> AVE. BRIDGE OVER ACDC

PROJECT NO :  
4252-01-02

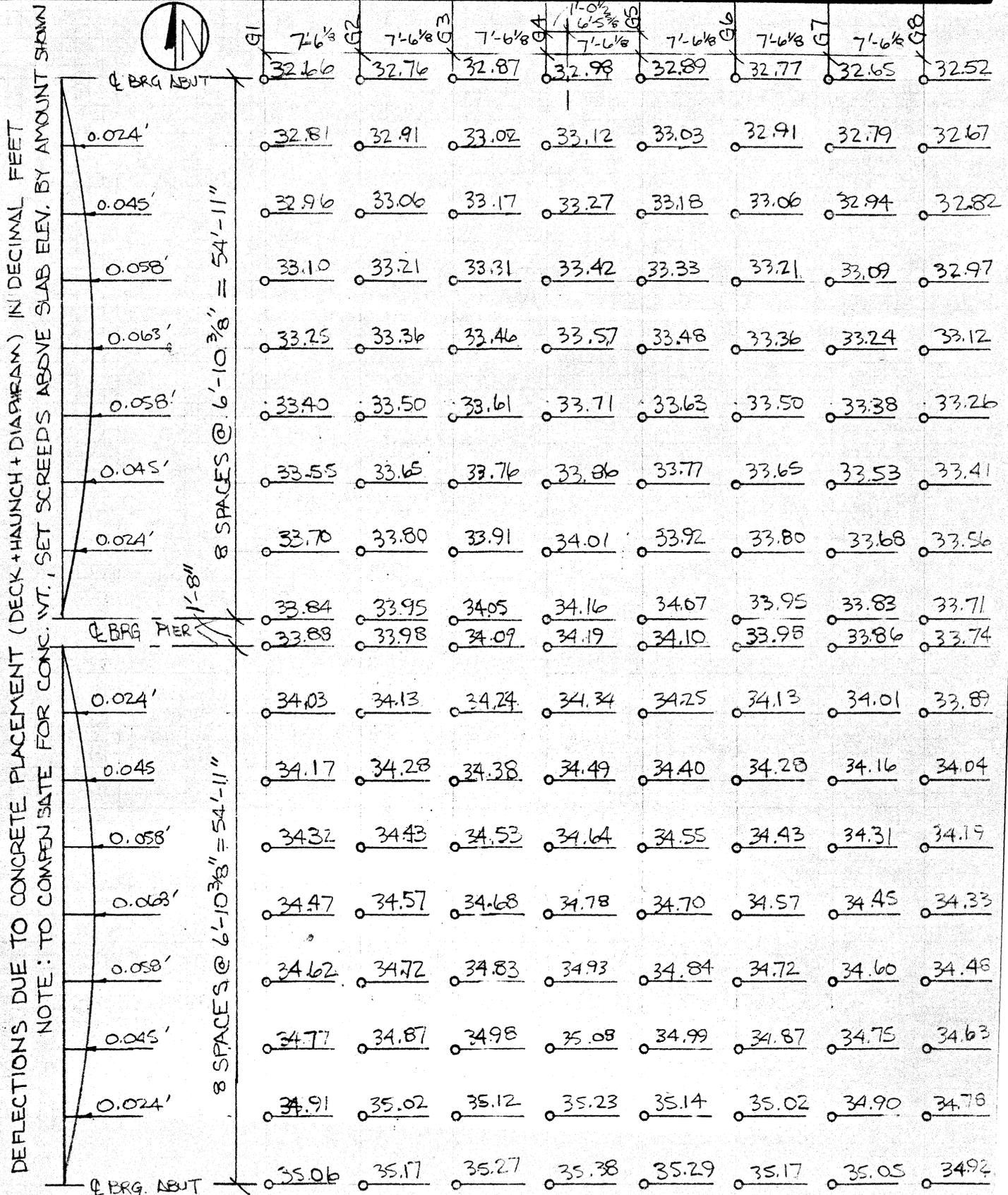
PAGE

BY:  
LU

DATE:  
3/31/86

25

SUBJECT DECK POUR SCHEDULE



TOP OF DECK SLAB ELEVATIONS  
(EL + 1200.00)

DMJM/Adam, Hamlyn, Anderson

May 1, 1986

Mr. Robert Payette, P.E.  
Flood Control District of Maricopa County  
3335 West Durango  
Phoenix, Arizona 85009

ATTENTION: Jan Warriner

SUBJECT: Horizontal Control

PROJECT: 29th Avenue Bridge over A.C.D.C.  
for Flood Control District of Maricopa County  
FCD Contract No. 85-40  
DMJM Job Number 4252-02-01

FLOOD CONTROL DISTRICT  
RECEIVED

MAY 02 '86

CH ENG	HYDRO
ASST	LMgt
ADMIN	SUSP
C & O	FILE
FINANCE	DESTROY
REMARKS	DEAR

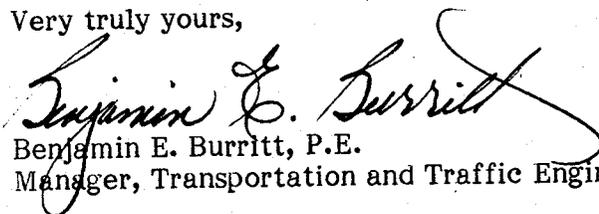
Dear Mr. Payette:

Enclosed is a copy of the horizontal control for this project. The horizontal control as described in our letter of April 7, 1986, will not be used. Please note the bearing change on the tangent between the P.T. of Curve 5 and Metro Parkway. The stationing and bearing change reflect the field conditions instead of the record curve data, bearing, and distances originally used in preparation of the plans. The stationing shown on the enclosed sketch is continuous from Dunlap Avenue to Metro Parkway on both the Detour Road and 29th Avenue.

The stationing at the centerline of the new bridge is now 12+41.81, which compares favorably with 12+42 shown on our plans.

Please call at your convenience should you need further information.

Very truly yours,

  
Benjamin E. Burritt, P.E.  
Manager, Transportation and Traffic Engineering

/lt:29AvBr

Enclosure

cc: Ed Raleigh, FCD  
Christopher Jarrett, Ashton

DMJM

PROJECT

29TH AVE. BRIDGE

PROJECT NO:  
4252-01-02

PAGE

1/1

BY:  
RDW

DATE:  
3-14-85

SUBJECT & CONTROL OF TEMPORARY ROAD & 29TH AVE.

CURVE #4  
& CURVE DATA

$\Delta = 13^{\circ}28'29''$   
 $R = 1187.50'$   
 $T = 143.79'$   
 $L = 286.18'$   
 $CH = 285.22'$   
 $N. 87^{\circ}46'18'' E.$

REVISED:  
4-30-86

& METRO  
PARKWAY  
WEST

STA. 14+67.28

FOUND BRASS  
CAP

&  
29TH AVE.

CURVE #3  
& CURVE DATA

$\Delta = 4^{\circ}30'00''$   
 $R = 572.96'$   
 $T = 22.51'$   
 $L = 45.00'$

STA. 15+13.93

CURVE #4

$N. 04^{\circ}31'34'' W.$   
188.19'

CURVE #3

STA 10+42.88

STA 9+35.83

CURVE #5

CURVE #2  
& CURVE DATA

$\Delta = 28^{\circ}17'15''$   
 $R = 572.96'$   
 $T = 144.38'$   
 $L = 282.88'$

&  
TEMPORARY  
ROAD

$N. 37^{\circ}18'49'' W.$   
45.71'

CURVE #5  
& CURVE DATA

$\Delta = 12^{\circ}48'10''$   
 $R = 479.09'$   
 $T = 53.75$   
 $L = 107.05$

CURVE #1  
& CURVE DATA

$\Delta = 41^{\circ}03'36''$   
 $R = 572.96'$   
 $T = 214.56'$   
 $L = 410.60'$

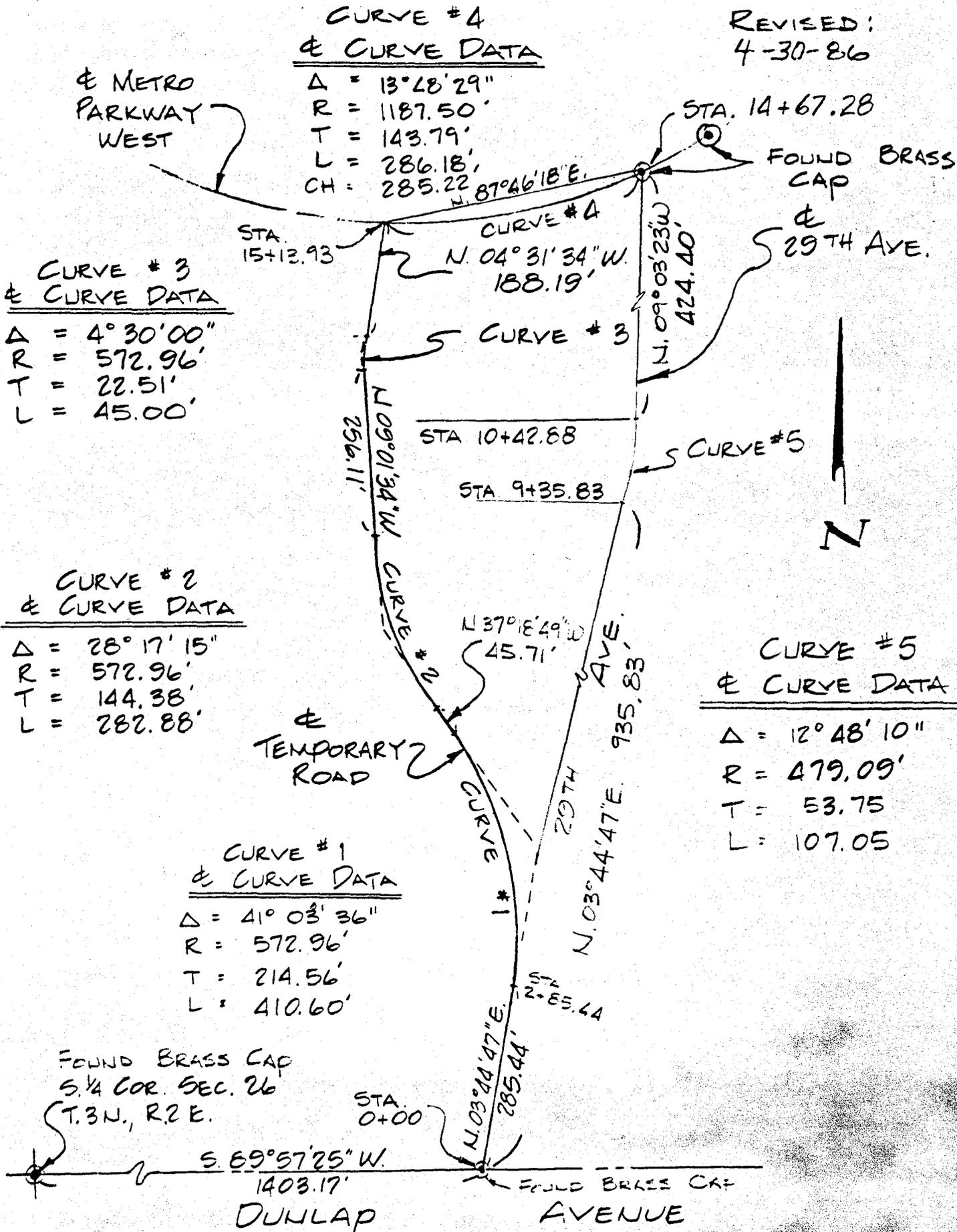
FOUND BRASS CAP  
S. 1/4 COR. SEC. 26  
T. 3 N., R. 2 E.

STA.  
0+00

$S. 69^{\circ}57'25'' W.$   
1403.17'

DUNLAP

FOUND BRASS CAP  
AVENUE



# DMJM/Adam, Hamlyn, Anderson

April 7, 1986

DMJM Job No. 4252-01-02

Mr. Ed Raleigh  
Flood Control District of Maricopa County  
3335 West Durango  
Phoenix, Arizona 85009

PROJECT: 29th Avenue Bridge over A.C.D.C.  
FCD Contract No. 85-40

SUBJECT: Horizontal Control

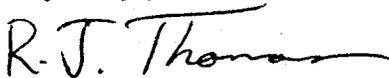
Dear Ed:

Enclosed is a copy of the horizontal control for this project. Please note the station equation at the P.T. of Curve 5 and the bearing change on the tangent between the P.T. and Metro Parkway. This station equation and bearing change reflect the field conditions instead of the record curve data, bearing, and distances originally used in preparation of the plans. The stationing shown on the enclosed sketch was chosen so as not to change the stationing of the profile of 29th Avenue shown on sheet C-5.

The stationing at the centerline of the new bridge is now 12+46.61. Based upon the back stationing this would be 12+41.81, which compares favorably with 12+42 shown on our plans.

Please call at your convenience should you need further information.

Very truly yours,



R.J. Thomas, P.E.  
Director of Civil Engineering

lt/29AvBr

Enclosure

FLOOD CONTROL DISTRICT  
RECEIVED

APR 08 '86

CH ENG	HYDRO
ASST	LMgt
ADMIN	SUSP
C & O	FILE
1 <del>EXP</del>	DESTROY
FINANCE	2 <del>EXP</del>
REMARKS	3 JMW

*J. S. 3.1.8*

DMJM

PROJECT

29TH AVE. BRIDGE

PROJECT NO: 2252-01-02

PAGE

1/1

BY: RDW

DATE: 3-14-85

SUBJECT & CONTROL OF TEMPORARY ROAD & 29TH AVE.

CURVE #4  
& CURVE DATA

$\Delta = 13^{\circ} 28' 29''$   
 $R = 187.50'$   
 $T = 143.79'$   
 $L = 286.18'$   
 $CH = 285.22'$   
 $N 87^{\circ} 46' 18'' E$

REVISED:  
4-4-86

& METRO  
PARKWAY  
WEST

STA. 14+72.08

FOUND BRASS  
CAP

&  
29TH AVE.

CURVE #3  
& CURVE DATA

$\Delta = 4^{\circ} 30' 00''$   
 $R = 572.96'$   
 $T = 22.51'$   
 $L = 45.00'$

STA  
15+12.93

CURVE #4

$N 04^{\circ} 31' 34'' W$   
188.19'

CURVE #3

ETA EQUATION  
 $STA 9+47.68 AHD =$   
 $STA 10+42.88 BK.$

STA 9+35.83

$N 09^{\circ} 03' 23'' W$   
424.40'

CURVE #5



CURVE #2  
& CURVE DATA

$\Delta = 28^{\circ} 17' 15''$   
 $R = 572.96'$   
 $T = 144.38'$   
 $L = 282.88'$

$N 09^{\circ} 01' 34'' W$   
256.11'

$N 37^{\circ} 18' 49'' W$   
45.71'

&  
TEMPORARY  
ROAD

29TH  
AVE.  
 $N 03^{\circ} 44' 47'' E$  935.83'

CURVE #5  
& CURVE DATA

$\Delta = 12^{\circ} 48' 10''$   
 $R = 479.09'$   
 $T = 53.75$   
 $L = 107.05$

CURVE #1  
& CURVE DATA

$\Delta = 41^{\circ} 03' 36''$   
 $R = 572.96'$   
 $T = 214.56'$   
 $L = 410.60'$

STA  
2+85.44

$N 03^{\circ} 44' 47'' E$   
285.44'

FOUND BRASS CAP  
S. 1/4 COR. SEC. 26  
T. 3N., R. 2E.

STA  
0+00

$S 69^{\circ} 57' 25'' W$   
1403.17'

FOUND BRASS CAP  
AVENUE

DUNLAP

DMJM

PROJECT

29TH AVE. BRIDGE

PROJECT NO:

4252-01-02

PAGE

1/1

BY:

ROW

DATE:

3-14-85

SUBJECT & CONTROL OF TEMPORARY ROAD

REVISED:  
3-17-86

& METRO  
PARKWAY  
WEST

CURVE #4  
& CURVE DATA

$\Delta = 13^{\circ} 28' 29''$   
 $R = 1187.50'$   
 $T = 143.79'$   
 $L = 286.18'$   
 $CH = 285.49'$

& ENTRANCE  
ROAD

STA. ?

FOUND  
BRASS CAP

CURVE #3  
& CURVE DATA

$\Delta = 4^{\circ} 30' 00''$   
 $R = 572.96'$   
 $T = 22.51'$   
 $L = 45.00'$

CURVE #4  
 $N. 04^{\circ} 31' 34'' W.$   
 $188.19'$

CURVE #3

&  
29TH AVE.

11.92  
11.92  
 $N. 09^{\circ} 01' 34'' W.$

$N. 09^{\circ} 01' 53'' W.$   
423.87

CURVE #6



CURVE #2  
& CURVE DATA

$\Delta = 28^{\circ} 17' 15''$   
 $R = 572.96'$   
 $T = 144.38'$   
 $L = 282.88'$

$N. 37^{\circ} 18' 49'' W.$   
45.71

&  
TEMPORARY  
ROAD

29TH  
AVE.  
 $N. 03^{\circ} 44' 47'' E.$  935.83

CURVE #6  
& CURVE DATA

$\Delta = 12^{\circ} 46' 40''$   
 $R = 480.00'$   
 $T = 57.75$   
 $L = 107.05$

CURVE #1  
& CURVE DATA

$\Delta = 41^{\circ} 03' 36''$   
 $R = 572.96'$   
 $T = 214.56'$   
 $L = 410.60'$

FOUND BRASS CAP  
S. 1/4 COR. SEC. 26  
T. 3N., R. 2E.

$S. 69^{\circ} 57' 25'' W.$   
1403.17

$N. 03^{\circ} 44' 47'' E.$   
285.44

FOUND BRASS CAP

DUNLAP

AVENUE

MODIFIED CHANGE ORDER NO. 1 TO 29TH AVENUE BRIDGE OVER ADCO

EXCAVATION	OLD COSTS			NEW COSTS		
	OLD QTY	UNIT COST	TOTAL COST	NEW QTY	UNIT COST	NEW TOTAL
MASS EXCAVATE	21500 CY	\$1.08	\$23,220.00	24700 CY	\$1.96	\$48,412.00
ACCESS WORK	1 LS	\$5,000.00	\$5,000.00	1 LS	\$5,000.00	\$5,000.00
LOAD AND HAUL EXCESS	1 LS	\$32,200.00	\$32,200.00	1 LS	\$32,200.00	\$32,200.00
ADDITIONAL MOBILIZATION			\$0.00	1 LS	\$3,200.00	\$3,200.00
TOTAL COST FOR EXCAVATION			\$60,420.00			\$88,812.00

BACKFILL	OLD COSTS			NEW COSTS		
	OLD QTY	UNIT COST	TOTAL COST	NEW QTY	UNIT COST	NEW TOTAL
MASS BACKFILL	8450 CY	\$2.00	\$16,900.00	11650 CY	\$2.00	\$23,300.00
PURCHASE AND PLACE SELECT	6000 CY	\$10.50	\$63,000.00	6000 CY	\$12.50	\$75,000.00
TOTAL COST FOR BACKFILL			\$79,900.00			\$98,300.00
TOTAL COST EXC. AND BF.			\$140,320.00			\$187,112.00

TOTAL COST CHANGE	\$46,792.00
OVERHEAD AND PROFIT (.10)	\$4,679.20
	\$51,471.20
BOND (.01)	\$514.71
	\$51,985.91
TAX (.075x.65=.0488)	\$2,536.91
TOTAL CHANGE TO CONTRACT	\$54,522.82

ATTENDANCE

Preconstruction Conference  
 29th Ave Bridge over ACDC  
 FCD Contract No. 85-40  
 DMJM Project No. 4252-02-01  
 01-06

Date & Time: March 18, 1986, 8:30 A.M.

Location: Conference Room  
 Flood Control District of Maricopa County  
 3335 West Durango  
 Phoenix, Arizona

NAME	REPRESENTING	TELEPHONE	RESPONSIBILITY
Doyle WASTE	DMJM	264-1397	PROJ. ENGINEER.
LEE UNDERWOOD	DMJM	264-1397	PROJ. INSPECTOR
HANK CLOW	SRP	236-5461	Supt. T/C
Mike Smith	SRP	236-2976	CIVIL ENG.
David Brannard	COP	262-6896	Supervisor DIVERT
ERNEST G. COA	APS	371-6964	Liaison
Ed Raleigh	FCD	262-1501	Project Engineer
JAN WARRINER	FCD	262-1501	CONSTRUCTION INSPECTOR
<del>JOHN F. RODRIGUEZ</del>	<del>FCD</del>	<del>262-1501</del>	<del>FED. ENGINEER</del>
Tom CHILDREE	MT Bell	238-2606	
J. McREYNOLDS	MT BELL	238-2060	COORDINATOR
Bill Poppe	FCD	262-1501	Construction Inspector
CHRISTOPHER J. JARRETT	ASHTON	624-5500	PROJECT MANAGER
GEORGE COLEMAN	ASHTON	624-5500	SUPERINTENDENT



ADDENDUM NO. 1  
DATE: January 24, 1986

FCD Contract No. 85-40

Page 1 of 4

To Contract Documents

ENTITLED: 29th 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. There is an existing 16" RCP waterline that comes from the well located just west of 29th Avenue and south of the Arizona Canal. This waterline goes due west from the wellsite and appears to cross the detour somewhere in the vicinity of Station 9+25. The waterline may have as little as 24" cover and it must be protected in place by the Contractor.
2. The Contractor must apply for a shutdown of the waterline at the City of Phoenix Water & Wastewater Department at least one week in advance of requiring the shutdown. As noted on the plans, the maximum shutdown time for installation shall be one week.
3. On sheet C-4 of the plans, the approximate quantity of temporary 16" A.C. pipe is incorrectly shown as 300 lineal feet. The approximate quantity of temporary pipe should be 375 lineal feet. In addition, the quantity of pipe removal should be approximately 252 lineal feet instead of 244 lineal feet and the quantity of new 16" D.I. 52 pipe should be approximately 238 lineal feet instead of 230 lineal feet. It should be noted that both the temporary and permanent water lines are being bid as lump sums so the bid schedule is not affected by these quantity changes. 3' minimum cover shall be provided over the temporary waterline during construction.
4. On page 5 of the Construction Special Provisions, under Section 205 - Roadway Excavation, delete the reference to "near 25th Avenue" that appears at the end of the third sentence.
5. Add the following to Section 350 of the Construction Special Provisions:  
"The Contractor shall replace landscaping, (decomposed granite, plants, etc.), the sprinkler system and the exposed aggregate concrete slab in the Metro Park median in like kind."

ADDENDUM NO. 1  
DATE: January 24, 1986

FCD Contract No. 85-40

Page 2 of 4

6. Add the following to Section 206 of the Construction Special Provisions: "All backfill behind the abutments and behind the retaining walls (or wingwalls) adjacent to the abutments, to the limits of excavation, shall be made with Type A select material conforming with Table 702 of the Uniform Standard Specifications. No separate payment will be made for the Type A Select material used for the abutments and retaining walls backfill and the cost thereof shall be included in the price bid for related work."
7. On Sheet S-3 of the plans, delete the notes under "Limits of Structure Backfill". The correct structure backfill notes are contained in Section 206 of the Construction Special Provisions. Also on Sheet S-3, delete the note "Shoring May Be Required for Existing Bridge Approach Slab." The existing approach slab is to be removed and replaced as called out elsewhere in the plans and Construction Special Provisions.
8. The "Limits of Structure Backfill" shown on Sheet S-3 of the plans, also applies to the retaining walls (or wingwalls) adjacent to the abutments.
9. The north bank of the Arizona Canal shall be fully restored to its original condition upon completion of construction of the new bridge and retaining walls.
10. 6" of A.B.C. shall be placed beneath the bridge approach slabs. Payment for this item will be made in accordance with Section 310 of the Construction Special Provisions.
11. Add the following to Section 610 of the Construction Special Provisions: "Concrete thrust blocks shall be installed on the temporary waterline in accordance with MAG Specifications. No separate payment will be made for the thrust blocks and their cost shall be included in the lump sum price bid for Item 610-1, Temporary Water Line Relocation."
12. On Sheet S-4, Section A/S-4, Dado Details, the dado wall does not extend for the full length of the approach slab as shown in this detail, but is 8'-0" long as shown in the Longitudinal Section on Sheet S-2.
13. On Sheet S-9, Section B/S-9, delete the note that shows the abutment backwall as Class AA concrete. All concrete in the temporary bridge abutment capbeam and backwall shall be Class A.

ADDENDUM NO. 1  
DATE: January 24, 1986

FCD Contract No. 85-40

Page 3 of 4

14. The City of Phoenix currently has a construction contract underway to install a 15" sewerline, a portion of which is shown on Sheet C-4 of the plans. The City's contract calls for their Contractor to coordinate work with the successful Contractor for the 29th Avenue Bridge. The existing 8" and 12" sewerlines shall not be removed until the new 15" sewerline is in place and operating. The Contractor for the City is scheduled to complete work by the second week in April 1986. The Flood Control District reserves the right to delay the award of Contract FCD 85-40 until May 1, 1986, if coordination between the City's Contractor and the successful bridge Contractor can not be worked out to the satisfaction of each of the parties.

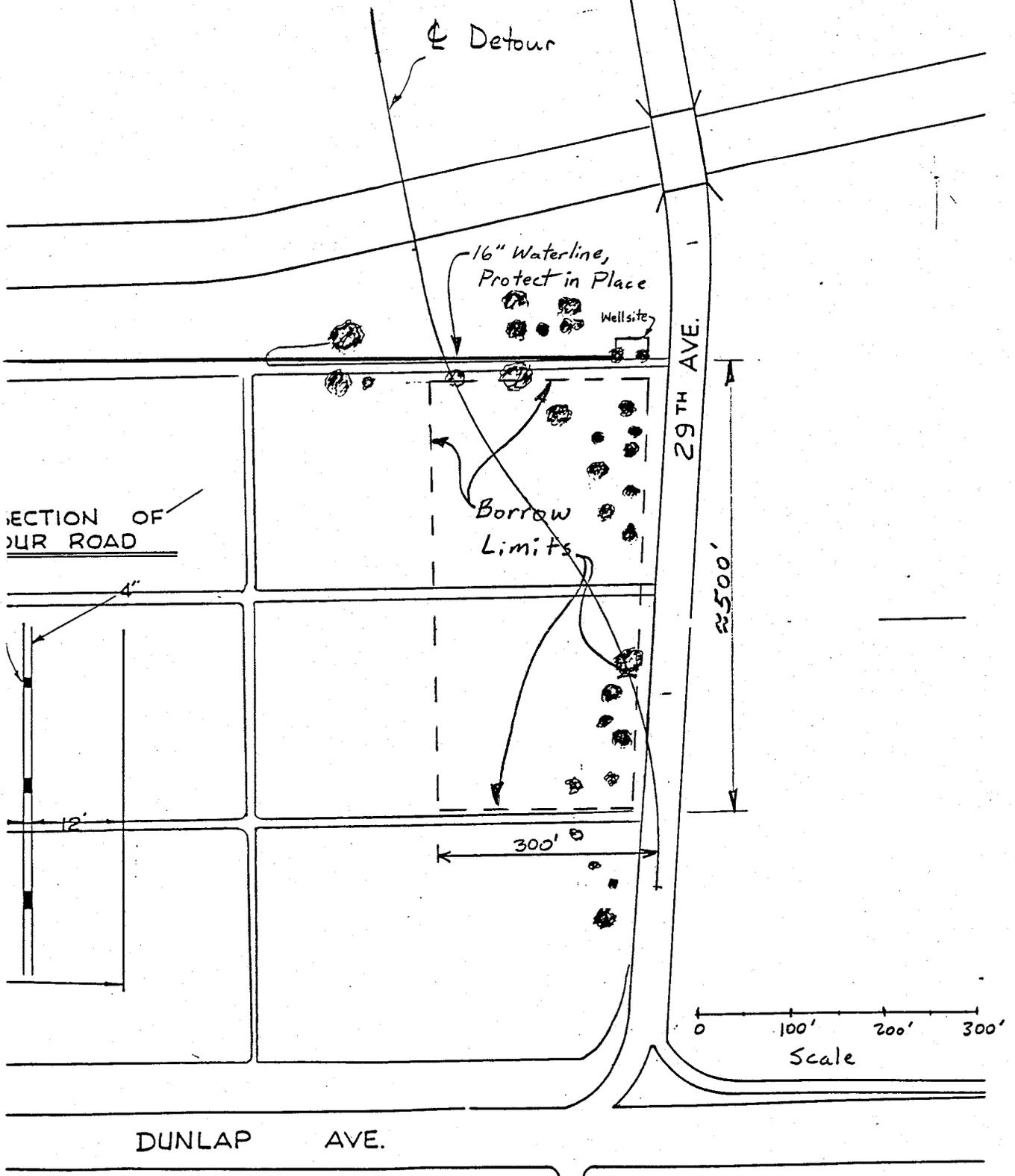
15. The Contractor shall provide and install one 3" diameter schedule 40 PVC conduit on each side of the bridge for the full length of the bridge, to be located inside each of the barrier walls. The conduit shall be turned down into the approach slabs at the ends of the bridge and shall be swept out 5' beyond the east and west edges of the approach slabs and capped. A nylon pull rope shall be installed in each of the conduits. No separate payment will be made for this item and the cost thereof shall be included in related items of work.

16. Borrow material for the detour road may be obtained within the limits shown on the attached drawing. The Contractor shall exert dust control efforts throughout the duration of the project in accordance with all applicable Specifications. No separate payment shall be made for dust control. Existing trees shall be protected in place except for those called for removal on the plans. Excavation in the designated borrow area shall not exceed 3' in depth. Existing irrigation (which originates from the wellsite shown on the attached drawing) shall be maintained at all times during construction.

ADDENDUM NO. 1  
DATE: January 24, 1986

FCD Contract No. 85-40

Page 4 of 4



## AGENDA

Preconstruction Conference  
29th Ave Bridge over ACDC  
FCD Contract No. 85-40  
DMJM Project No. 4252-02-01

Date & Time: March 18, 1986, 8:30 A.M.

Location: Conference Room  
Flood Control District of Maricopa County  
3335 West Durango  
Phoenix, Arizona

1. Call to Order
  - a. Sign Register
  - b. Minutes are being taken and will be distributed to all interested parties.
2. Introduction of Project Personnel
  - a. FCD
  - b. DMJM
  - c. Contractor & Subs.
  - d. Public Agencies
3. Utilities & Public Agencies Requirements
  - a. City of Phoenix
  - b. Salt River Project
  - c. Mountain Bell
  - d. Arizona Public Service
4. Organizational Structure
5. Weekly Project Meetings  
9:00 A.M. each Tuesday
6. Review of Special Provisions
7. Plant Inspection
8. Submittals
9. Pay Requests
10. Project Trailer
11. Contractor Questions
12. Adjournment

**DMJM**/Adam, Hamlyn, Anderson

March 20, 1986

**FLOOD CONTROL DISTRICT  
RECEIVED**

**MAR 25 '86**

Mr. Robert Payette, P.E.  
Flood Control District of Maricopa County  
3335 West Durango  
Phoenix, Arizona 85009

CH ENG	HYDRO
ASST	LMgt
ADMIN	SUSP
C & O	FILE
FINANCE	DESTROY
REMARKS	

*1/ [Signature]*  
*2 EAR*

**ATTENTION:** JAN WARRINER

**PROJECT:** 29TH AVENUE BRIDGE OVER A.C.D.C.  
FCD NO. 85-40  
DMJM NO. 4252-02-01

**CONFERENCE NOTES #2 (MOUNTAIN BELL CABLE)**

**DATE:** MARCH 20, 1986

**LOCATION:** FLOOD CONTROL DISTRICT OFFICE

**PRESENT**

NAME	REPRESENTING	TELEPHONE	RESPONSIBILITY
Lee Underwood	DMJM	264-1397	Project Inspector
Ed Raleigh	FCD	262-1501	Project Engineer
Jan Warriner	FCD	262-1501	Construction Insp.
Bill Bickley	Ashton	624-5500	Project Manager
Chris Jarrett	Ashton	624-5500	Project Manager
T.J. Childree	Mountain Bell	238-2606	Supervisor
J. McReynolds	Mountain Bell	238-2060	Coordinator
Robert Payette	FCD	262-1501	Chief, Construction and Operations
W.C. "Andy" Anderson	FCD	262-1501	Construction Eng.
Andrew Andrade	Mountain Bell	842-7746	Design Engineer
John Larance	Mountain Bell	842-7755	Design Engineer

**MINUTES:**

2.1 The meeting was called to order by Robert Payette. He asked Chris Jarrett to discuss the different alternatives Ashton was considering for dealing with the Mountain Bell cable that runs through the construction site.

- 2.2 Option A is to have Mountain Bell do all the work necessary to suspend the phone cable approximately 1 foot above existing ground. This includes uncovering the cable, raising it into position, performing any necessary splices, and suspending it until it is ready to be permanently placed.

Mountain Bell would also do all splicing and attaching of the cable to the devices in the new bridge.

The suspension system must allow Ashton to get heavy equipment past the phone line at each end of the bridge. Chris Jarrett figures a horizontal dimension of 20 feet is adequate for this purpose.

Mountain Bell anticipates no problem with equipment access around the manhole end of the suspended line. They feel access around the other end could be arranged through use of a wood plank/dirt ramp system.

Ashton would accept liability for damage to the phone line due to construction activities only. They would not accept liability for vandalism or other third party destruction.

Ashton is asking that an additional \$54,500 and 29 calendar days be included in the change order to compensate for the inconvenience and risk of working around the suspended cable.

Robert Payette asked Ashton if they could finish the work with only a two week time extension. Chris Jarrett replied they would investigate it and that they may be able to deal with only a 2-3 week extension by incorporating additional pieces of equipment. Robert Payette also asked for a breakdown of costs for the \$54,500 to be given to DMJM. DMJM is to review the costs and make a recommendation to FCD.

Mountain Bell indicated they could have the cable suspended by May 6, 1986. They would remove a portion of the sidewalk and, most likely, dump it on the site. Mountain Bell would accept liability for the stockpiled concrete. Ashton, however, would be responsible for replacement of the sidewalk.

- 2.3 Option B is for Ashton to bury the phone line on a hard dollar basis, as discussed in the March 18 meeting. Chris Jarrett feels this would cost considerably more than the \$54,500 figure for Option A. Ashton feels that shoring and dewatering systems will likely be required to accomplish burying the cable.

Moving the line farther away from 29th Avenue was discussed in order to eliminate the need for shoring. It was felt that the additional earthwork required would make rerouting the phone line in this manner cost prohibitive. Option B is not being pursued at this time.

CONFERENCE NOTES #2  
29TH AVENUE BRIDGE OVER A.C.D.C.  
FCD NO. 85-40  
DMJM NO. 4252-02-01  
PAGE 3

- 2.4 Option C is to have Ashton work for Mountain Bell on a time and materials basis to bury the phone line. Mountain Bell will not consider this option.
- 2.5 FCD needs to have seven of the precast box girders for a future ADOT project. This causes them great concern about the project completion date. FCD will consider allowing Ashton extra time for demolition of the detour road and related work as long as the box girders are available for use elsewhere. FCD will look into storage of the planks at the end of the project some place other than 25th Avenue in order to expedite the work.

Chris Jarrett pointed out other possible bottlenecks in the construction schedule. These included timely approval and delivery of the temporary ductile iron water line and backfill of the permanent bridge above elevation 1221.00'

COMMENTS: AFTER REVIEW OF THESE NOTES, PLEASE ADVISE IMMEDIATELY IN WRITING OF ANY OMISSIONS OR DISCREPANCIES.

SUBMITTED BY: Lee Underwood  
Lee Underwood, E.I.T.

REVIEWED BY: Doyle L. Wiste  
Doyle L. Wiste, P.E.

LU/lt

cc: Doyle L. Wiste, P.E. - DMJM  
Lee Underwood, E.I.T. - DMJM  
Robert Payette, P.E. - FCD  
Jan Warriner - FCD  
W.C. Anderson - FCD  
Ed Raleigh - FCD ✓  
Chris Jarrett - Ashton  
Bill Bickley - Ashton  
T.J. Childree - Mountain Bell  
J. McReynolds - Mountain Bell  
Andrew Andrade - Mountain Bell  
John Larance - Mountain Bell

DMJM/Adam. Hamlyn, Anderson

110 P.O. Conference  
 29th Ave Bridge over ACDC  
 10:00 AM Jan 21, 1986

Name	Organization	Phone No.
Earl O. Kirby	FCD	262-1501
John E. Rodriguez	FCD	262-1501
ED DALEIGH	FCD	262-1501
RT THOMAS	DMM	264-1397
Dwayne A. Williams	Engineering/Design City of Phoenix	256-3441
Bob Pfeiter	Tanner	
BOB ROBB		437-7878
Scott RIFE		
DICK WARE	TPAC	262-1365
W. C. "Andy" Anderson	FCD, Constr Br.	262-1501
Cy Brabenec	J.W.S.	967-7815
Carter Green	Breinholz Cont.	961-0001
MARK BELSHE	PARAPET CONSTR.	276-0334
Dean Hall	CS+W	437-0343
CARRY ASHTON	ASHTON Co	624-5500
CHRIS JARRETT	ASHTON Co.	624-5500

pg. 5-3 up to 1221 w/ simitham book 11  
 S-4  
 cl. Awnt. #1 & 3 are reversed

ACDC 29th Ave. 2/24/86

Joe Mc Reynolds	238-2602	Mountain Bell
Tom Childree	238-2606	Mountain Bell
John Larance	842-7755	Mountain Bell Engineering
Chris Jarrett Ashton Co.	1-624-5500	Ashton Co.
Bob Payette	262-1501	Flood Control
Earl Kirby	"	"
Andy Anderson	"	"
John Rodriguez	"	"
Andy Andrade	842-7746	Mountain Bell
Ed Raleigh	262-1501	Flood Control

BID SUMMARY & CHECKLIST

Engineers Estimate \$935,000.00

PROJECT: 29th Ave. Bridge over ACDC CONTRACT FCD: 85-40 DATE: Feb. 6, 1986

Item	Name	The Tanner Companies (2)	The Ashton Co. (1)	JWJ Contracting	M.M. Sundt	F N F Construction	C.S. Construction (3)
Schedule Complete							
Addenda Noted							
No Exceptions							
Changes Initialed							
Proposal Signed							
<del>Evidence of Qualifications</del>	—	—	—	—	—	—	—
Bid Security							
No Collusion Affidavit							
1							
2							
3							
TOTAL CONTRACT		1,045,114.92	1,014,416.80	1,241,445.16	1,228,534.60	1,171,001.00	1,089,974.30

BID SUMMARY & CHECKLIST

PROJECT: 29th Ave. Bridge over ACDC CONTRACT FCD: 85-40 DATE: Feb. 6, 1986

Item	Name Meadow Valley ④ Contractors	Parapet Constructors				
Schedule Complete						
Addenda Noted						
No Exceptions						
Changes Initialed						
Proposal Signed						
Evidence of Qualifications						
Bid Security						
No Collusion Affidavit						
1						
2						
3						
TOTAL CONTRACT	1,170,277.45	1,264,965.20				

**FLOOD CONTROL DISTRICT of Maricopa County**  
(TABULATION OF BIDS)

PROJECT  
29TH AVE BRIDGE OVER ARIZONA CANAL DIVERSION CHANNEL

PROJECT NO. F11 85-40  
DATE OPENED 02/06/86  
SHEET 1

ITEM NO.	DESCRIPTION	The Ashton Co.		The Towner Co.		C.S. Construction		MEADOW VALLEY CONTRACTORS		UNIT PRICE	\$ AMOUNT	UNIT PRICE	\$ AMOUNT
		QUANTITY	UNIT	UNIT PRICE	\$ AMOUNT	UNIT PRICE	\$ AMOUNT	UNIT PRICE	\$ AMOUNT				
206-1	STRUCTURE EXCAVATION	1	L.S.	850000	850000	500000	500000	600000	600000	520000	520000		
206-2	STRUCTURE BACKFILL	1	L.S.	900000	900000	750000	750000	200000	200000	1583790	1583790		
211	EARTHWORK (EMBANKMENT)	1	L.S.	900000	900000	250000	250000	900000	900000	300000	300000		
310-1	AGGREGATE BASE COURSE	1093	TON	1200	1311600	1000	1100000	900	987000	1100	1202300		
321-1	C-1 3/4 ASPHALT CONCRETE	480	TON	3400	1632000	3500	1680000	3700	1766000	4200	2016000		
321-2	A-1/2 ASPHALT CONCRETE	329	TON	3400	1118600	3000	987000	3500	1152500	4000	1316000		
321-3	ASPHALTIC CONCRETE PAVING FOR BIKEPATH	80	S.Y.	1500	120000	600	48000	2000	160000	1100	88000		
336	PAVEMENT REPLACEMENT	134	S.Y.	1500	201000	3000	412000	6000	804000	700	97800		
340-1	CONCRETE CURB AND GUTTER	393	L.F.	1000	393000	600	235800	2000	780000	700	275000		
340-2	SINGLE CURB	527	L.F.	500	263500	600	316200	1500	760500	600	304200		
340-3	CONCRETE SIDEWALK	1205	S.F.	150	180750	200	241000	200	241000	160	192800		
350-1	REMOVAL OF EXISTING IMPROVEMENTS	1	L.S.	750000	750000	600000	600000	700000	700000	200000	200000		
350-2	REMOVAL OF DETOUR IMPROVEMENTS AND RESTORATION	1	L.S.	420000	420000	600000	600000	500000	500000	1350000	1350000		
401-1	TRAFFIC CONTROL	1	L.S.	400000	400000	100000	100000	250000	250000	215000	215000		
401-2	G.R.E.A.T. IMPACT ATTENUATION DEVICE ADOT 2-22-03	2	EA	125000	250000	150000	300000	130000	260000	135000	270000		
505-1	CLASS A CONCRETE BRIDGE & DETOUR BRIDGE CAPS	972	C.Y.	1600	1555200	3200	3136000	2500	2400000	21800	21189600		
505-2	CLASS A CONCRETE APPROACH SLABS	177	C.Y.	1750	307750	1700	300900	1000	170000	13800	2442600		
505-3	CLASS AA CONCRETE	264	C.Y.	3000	792000	2800	739200	2900	766000	15300	4692000		
505-4	DRILLED SHAFT FOUNDATION (24")	2172	L.F.	300	651600	400	864000	500	1350000	500	1350000		
505-5	REINFORCING STEEL	23000	LBS	35	805000	30	690000	35	805000	40	1400000		
506-1	TYPE II AASH TO GIRDERS (PRESTRESSING OR TEST-TENSIONED)	16	EA	290000	4640000	50000	800000	30000	4960000	48000	7680000		
506-2	DETOUR BRIDGE SUPERSTRUCTURE	1	L.S.	300000	300000	250000	250000	500000	500000	350000	350000		
520	TYPE H-1-1 BRIDGE PILE	2265	L.F.	3500	7927500	3000	8400000	3000	8154000	4000	10419000		
610-1	TEMPORARY WATER LINE RELOCATION	1	L.S.	300000	300000	200000	200000	150000	150000	195000	195000		
610-2	WATER LINE	1	L.S.	300000	300000	350000	350000	300000	300000	2052700	2052700		26.9 = AVG.
621-1	48" CMP	200	L.F.	6000	1200000	7000	1400000	4000	800000	4000	800000		
621-2	18" CMP	62	L.F.	3000	186000	5000	300000	4000	240000	3000	180000		
735	60" X 48" CONCRETE PIPE	313	L.F.	1700	533100	2150	676500	2000	620000	1600	508000		
772	STEEL LEAK TENDS	1	L.S.	500000	500000	100000	100000	500000	500000	100000	100000		
801	TRAFFIC SIGNALS	1	L.S.	1300000	1300000	2000000	2000000	3000000	3000000	4000000	4000000		
				1,014,416.80		1,045,114.12		1,051,914.20		1,170,277.40			

## 29th Ave. W/L Relocation @ ACDC

1. Existing 16" RCP waterline from Well 177 to <sup>Dier Valley WTP</sup> crossing the proposed detour road is not shown on plans. Should not conflict with proposed work, but contractors should be made aware of its location.

2. New 15" sewer (City Proj. No. S-850933) north of the proposed ACDC is currently under construction.

Project is scheduled for completion in early May, 1986. FCD's contractor must coordinate his work with the City's sewer contractor.

Installation of the 15" sewer must be completed before proceeding with the following items of work.

1. Removal of existing 12" sewer
2. Construction of detour road across new 15" sewer
3. Construction of relocated storm drain outfalls
4. Construction of north concrete approach slab.

3. Contractor should apply for a shutdown of the waterline at the Water & Wastewater Department at least one week in advance of requiring the shutdown.

4. Pipe quantities shown on sheet C-4 are incorrect.

5. Proposed temporary 16" waterline is in SRP right of way. Appears to be very close to canal. How close to the

edge of the bank is the waterline?

6. Provide 3' minimum cover over temporary waterline during construction.
7. Revise approval blocks as shown on plans.
8. Provide dust control for borrow area during construction.

- Section 205 - Delete Reference to 25th Ave. (Pg. 5)
- Make revisions to sewerline quantities
- Contractor shall replace landscaping, (gravel, plants, etc.) sprinkle system and exposed aggregate concrete slab in the Metro Park median in like kind.
- Contractor will restore the north Bank of the AR canal to original condition after completion of the new bridge
- A 16" waterline that ~~is~~ <sup>may have</sup> ~~approx~~ <sup>of</sup> 30" ~~of cover~~ or less of cover, crosses the the detour ~~at approximately~~ in the vicinity of station 9+25 and heads due west. The Contractor shall take necessary precautions to ~~not~~ ~~and~~ protect the line.
- Sheet S-1, the Retaining Wall (also known as the wing referred to as "wingwall" in the plans) shall be backfilled to Elevation 1221.00' on the channel side and to the top of the wall on the backside, ~~to restore the existing grade~~ in the same fashion as the bridge abutment as shown on Sheet S-3 of the plans. The existing grade ~~detour~~ behind the wingwalls shall be restored to its original conditions.
- <sup>Section 206</sup> All backfill behind the abutments shall conform to and <sup>behind</sup> the ~~abutment~~ Retaining walls, adjacent to the abutments, <sup>(to the limits of the Contractor's excavation)</sup> shall be made with Type A Select Material conforming with Table 702 of the Uniform Standard Specifications. No separate payment will be made for type A Select material ~~and~~ <sup>to be used</sup> for the abutments and retaining walls backfill and the cost thereof shall be included in the price bid for related work.

## 29th Ave Addendum

- Replace shrubbery, Tree and ~~sprinklers~~<sup>bubblers</sup> in median
- Remove & replace Gannet Sign?
- Designate extent and exact location & ~~depth~~ permissible depth of borrow area
- Bike path replaced w/ Concrete walking
- Coordinate w/ Sewer Contractor (Koko Siny)
- Include scale drawing of borrow area in the addendum
- Sheet 18 of 24, S-4,  
Abutment Dado shall be 8'  
& not the full length of  
the bridge.
- Sheet S-9 - Section shows Class AA  
above abutment exp. & Class A below.  
Doesn't need to be both

→ Mountain Bell, 2nd week

- Sheet S-3 Limits of Structure Backfill  
(Delete reference to min of 7 days)

Grab Third Block 6' x 6' x 5' on the 20's  
(Call Jerry)

CONSTRUCTION SPECIAL PROVISIONS  
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
FCD CONTRACT NO. 85-40  
for  
29TH AVENUE BRIDGE  
over  
ARIZONA CANAL DIVERSION CHANNEL

PROPOSED WORK: The work includes the construction of a temporary detour with signalization, a temporary detour bridge, a permanent concrete bridge, approach roadways, underground utility modifications and other miscellaneous items of work required for the completion of the project.

LOCATION OF WORK: This project is located in Phoenix, Arizona, on 29th Avenue at the Arizona Canal Diversion Channel, approximately 1/4 mile north of Dunlap Avenue.

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

PRECEDENCE OF CONTRACT DOCUMENTS: 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 start work within seven (7) calendar days and complete all work on the project within one hundred fifty (150) calendar days after the date of Notice to Proceed.

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 Engineer for approval before starting the work.

CONSTRUCTION SPECIAL PROVISIONS  
CONTRACT NO. FCD 85-40

MATERIAL SOURCES: Select Material, Aggregate Base and Mineral Aggregate 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.

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

SUBSECTION 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 102.5 - PREPARATION OF PROPOSAL: The bidder's Arizona State Contractor's License number and classifications need not be shown on the proposal. The possession of such a license is no longer a bidding requirement; however, the Contractor may be required to provide certification of prior satisfactory completion for similar construction.

SECTION 103.6 - CONTRACTOR'S INSURANCE: Concurrently with the execution of the contract, the Contractor shall furnish a Certificate of Insurance. The types of 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

SECTION 105.2 - PLANS AND SHOP DRAWINGS: The number of copies of plans/shop drawings required for review and/or approval shall be as follows:

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.

SECTION 105.6 - COOPERATION WITH UTILITIES: An attempt has been made to determine the location of all underground utilities and drainage pipes, culverts and structures; however, it shall be the Contractor's responsibility to cooperate with the pertinent utility companies so that any obstructing utility installation 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.

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

- Flood Control District. . . . .262-1501
- Mountain Bell Telephone Company . . . . .842-7755
- Salt River Project. . . . .273-2202
- Arizona Public Service. . . . .271-7014
- Location Staking (A.P.S., Mtn. Bell, S.R.P.). . . . .263-1100
- City of Phoenix Streets and Traffic . . . . .262-6565
- City of Phoenix Water and Wastewater. . . . .261-8229

SECTION 105.8 CONSTRUCTION STAKES, LINES AND GRADES: The project control lines (roadway and detour) 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 with the plans and specifications.

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

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 105.12 - 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.

In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations. All cost of maintenance work during construction and before the project is accepted shall be included in the unit bid price on the various pay items.

SECTION 105.13 - FAILURE TO MAINTAIN ROADWAY OR STRUCTURE: If the Contractor, at any time, fails to perform maintenance during construction, the Engineer will immediately notify the Contractor of such noncompliance. If the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of such notice, the Engineer may immediately proceed to maintain the project. The entire cost of this maintenance will be deducted from monies due or to become due the Contractor on his contract.

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

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 108.5 - LIMITATION OF OPERATIONS: Should the Contractor elect to perform any work after regular working hours, on weekends, 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, 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 AND 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, canal and borrow area designated on the plans. Materials shall be disposed of off-site. Also see section 350 in these Special Provisions.

Payment for this item will be incidental to and included in the price bid for ITEM 350-1 Removal of Existing Improvements.

**SECTION 205 - ROADWAY EXCAVATION:** A temporary spillway for the Arizona Canal shall be excavated in the canal bank as shown on sheet C-6. Material excavated may be used in the construction of the detour road. The detour, when no longer required, shall be excavated and the earth material returned to the borrow area near 25th Avenue (see Section 210). After the detour embankment has been removed, the site shall be restored to its original grades and conditions (see Section 350 of these special provisions).

The cost of excavation of the canal spillway, excavation of the detour and restoration of the site shall be incidental to and included in the price bid for ITEM 350-2 Removal of Detour Improvements and Restoration.

**SECTION 206 - STRUCTURE EXCAVATION AND BACKFILL:** Structure excavation consists of the removal of material for the construction of the bridge foundations as indicated on the plans and shall be in accordance with Section 206 of the Uniform Standard Specifications.

Structure backfill consists of the furnishing, placing and compacting backfill material around the bridge abutments as indicated on the plans and shall be in accordance with Section 206 of the Uniform Standard Specifications.

Structure backfill around the abutments and around the center pier shall be placed in lifts such that no more than a two foot difference in elevation will exist at any given time between the height of backfill on either side of the abutment or pier. The abutments shall not be backfilled above elevation 1221.0 until the concrete bridge deck has been in place a minimum of 7 days.

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 210 - BORROW EXCAVATION:** Borrow shall consist of material excavated for use in the construction of the detour roadway embankment fills. Borrow material shall be excavated from an area adjacent to and immediately to the west of the temporary detour and south of the Arizona Canal, to the lines and grades as designated by the Flood Control District. Prior to the removal of the borrow material, the topsoil from the borrow area shall be stripped and stockpiled for later re-use. See Section 350 of these Special Provisions for restoration of the borrow area.

The cost of borrow excavation shall be incidental to and included in the price bid for ITEM 211 Earthwork (Embankment).

**SECTION 211 - FILL CONSTRUCTION:** This work shall consist of all embankment and fill construction (except Structure Backfill) on the temporary and the permanent work as indicated on the drawings and shall be in accordance with Section 211 of the Uniform Standard Specification. Included in this Item is construction of the detour fill and the restoration of the temporary spillway in the canal bank (see Section 205).

After removal of the detour road, the temporary spillway shall be filled with clayey soils similar to the existing soil in the canal bank. This material shall be placed in 8" uncompactd lifts and then compacted to 90% maximum density in accordance with ASTM D-698. Road surfacing over the temporary spillway section shall be replaced using 4" of ABC (MAG 702) blended with 20% to 40% native material compacted and graded to drain.

The cost of all related work, such as borrow excavation, hauling, watering, and subgrade-preparation, shall be incidental to and included in the lump sum price bid for ITEM 211 Earthwork (Embankment) in addition to the work specified in Section 211 of the Uniform Standard Specifications.

SECTION 225 - WATERING: The work under this item shall be in accordance with Section 225 of the Uniform Standard Specifications and Highway Department Supplement. No separate payment will be made for this item.

SECTION 301 - SUBGRADE PREPARATION: Subgrade preparation shall also include the preparation of subgrades to the required lines and grades for the bridge approach slabs, in addition to the work specified in Section 301 of the Uniform Standard Specifications.

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

SECTION 310 - UNTREATED BASE: Aggregate Base shall conform to the requirements of Section 702 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. Payment for Untreated Aggregate Base will be made on the basis of the price bid per ton for ITEM 310-1 Aggregate Base Course.

SECTION 321 - ASPHALT CONCRETE PAVEMENT: The bituminous material to be used shall be AR-4000 Paving Asphalt and shall comply with Sections 710 and 711 of the Uniform Standard Specifications.

Pavement of the detour roadway and the temporary median in Metro Parkway shall consist of C-3/4, 2 inches in thickness as indicated on the plans, including a 2" thickness overlay of C-3/4 asphalt concrete on the temporary detour bridge.

Pavement of the new permanent roadway north of the bridge shall consist of A-1-1/2, 8 inches in thickness overlaid with C-3/4, 1-1/2 inches in thickness as indicated on the plans.

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

The work shall be in compliance with Section 321 except that no mineral filler or blending sand will be required.

In addition to pugmill type mixing plants, Drum Dryer Mixers will be allowed in accordance with Section 710.8 of the Uniform Standard Specifications. The moisture content of the bituminous mixture immediately behind the paver shall not exceed three percent.

The proper proportioning of the material at the cold feed shall be determined by the Contractor and approved by the Engineer prior to the production of asphalt concrete. Production shall not commence until calibration tests indicate that an acceptable product can be obtained.

The correct proportions of each aggregate size introduced into the mixer shall be drawn from the storage bins by an approved type of continuous feeder. The feeder shall supply the correct amount of aggregate in proportion to the bituminous material and shall be so arranged that the proportion of each aggregate size can be separately adjusted. The continuous feeder for the aggregate may be mechanically or electrically activated.

The plant shall be equipped with a sampling device to take representative composite samples of the cold feed. If tests indicate non-compliance with specifications, operation shall cease until proper corrections have been made.

The production of the plant shall be governed by the rate required to obtain a thorough and uniform mixture of the materials. Mixing shall continue until the uniformity of coating, when tested in accordance with the requirements of AASHTO T 195, is at least 95 percent.

Payment for asphalt concrete pavement will be at the bid price per ton in place for ITEM 321-1 C-3/4 Asphalt Concrete, and for ITEM 321-2 A-1-1/2 Asphalt Concrete, and at the price bid per square yard for ITEM 321-3 Asphaltic Concrete Paving for Bikepath. ITEM 321-3 does not include restoration of the original bikepath after the detour is removed; that cost is included in bid ITEM 350-2.

SECTION 336 - PAVEMENT MATCHING AND SURFACE REPLACEMENT: Existing pavements which are to be matched by the temporary detour pavement and/or new roadway pavement shall be trimmed to a neat, straight and vertical edge. The trimmed edges shall be painted with a light coat of emulsified asphalt immediately prior to constructing the new abutting pavement. Pavement replacement shall be in accordance with Section 336 of the Uniform Standard Specifications. Pavement Replacement shall consist of replacement of paving along Metro Parkway after the detour and the temporary median paving have been removed as indicated on sheet C-3 of the plans.

Payment for ITEM 336 Pavement Replacement shall be at the price bid per square yard to the neat lines as indicated on sheet C-3 of the plans. This item does not include the new paving on 29th Avenue immediately to the north of the new permanent bridge, the temporary detour paving, or the temporary paving in the median of Metro Parkway which will be paid for under ITEM's 310-1, 321-1 and 321-2.

SECTION 340 - CONCRETE CURB, GUTTER AND SIDEWALK: Work under this item shall conform to Section 340 of the Uniform Standard Specifications and shall include concrete curb, gutter and sidewalk.

All concrete shall be Class B and shall conform to Section 725 of the Uniform Standard Specifications.

All concrete items shall conform to the Standard Details and the details shown on the plans.

Payment for these items will be made at the unit price bid per lineal foot for ITEM 340-1 Concrete Curb & Gutter, the unit price bid per lineal foot for ITEM 340-2 Single Curb, and the unit price bid per square foot for ITEM 340-3 Concrete Sidewalk.

SECTION 350 - REMOVAL OF EXISTING AND DETOUR IMPROVEMENTS AND RESTORATION:

Removal of existing improvements shall consist of the removal and disposal of any obstacle to construction, whether shown on the plans or not, unless specifically called out on the plans to be removed or relocated by other agencies.

The detour, when no longer required, shall be excavated and the earth material returned to the borrow area. The borrow area shall be restored to its original grade and condition. The topsoil that was stockpiled shall be evenly spread over the borrow area and the area shall be reseeded with bermuda grass seed to the satisfaction of the Engineer. The area where the detour was placed shall be completely restored. This will include removal of the detour pavement, temporary fencing, gates, temporary bike path ramps, 48" CMP, curbing and paving on Metro Parkway, and other incidentals thereto.

Restoration will also include replacement of curb and gutter on 29th Avenue, replacement of the chain link fence along 29th Avenue (in the area of Sta. 4+00 and 5+00 on the detour), replacement of the chain link fence along the Arizona Canal, and replacement of curb, gutter, sidewalk and pavement on Metro Parkway, reseeding of the bermuda grass after the detour embankment has been removed, and any other incidentals required to restore the detour alignment to its original condition.

The superstructure of the detour bridge shall be dismantled, the 2" asphaltic concrete overlay removed, and the parts stockpiled by the contractor at the same location where they were originally picked up, in the ACDC right of way, just west of 25th Avenue. The Contractor shall remove the abutment cap beams down to the top of the drilled shaft foundations, as well as any reinforcing steel protruding from the drilled shafts. The Contractor shall restore the banks of the SRP Canal to preconstruction conditions in accordance with SRP compaction requirements (see Section 211). Disposal of all waste material under Section 350 shall be off-site and shall be the responsibility of the Contractor.

Designated materials shall be salvaged, including the ten precast prestressed box beams, the handrail, the impact attenuators, 48" CMP, 18" CMP and 160 feet of temporary concrete median barriers. Resulting trenches, holes, and pits will be backfilled and compacted as required to restore the site to original condition. The Contractor shall state, before construction begins, the method of removal and salvaging he intends to furnish. All salvable material shown on the plans, shall be stored by the Contractor as directed within the project limits.

Unless otherwise directed, the temporary detour bridge will not be removed until the 29th Avenue Bridge is in place and accommodating traffic.

The existing concrete box culvert and wingwalls as shown on the plans shall be completely removed. Utilities will be removed and relocated by the utility companies. The Contractor shall coordinate his removal work with the utility companies. The Contractor shall state, before construction begins, the method of removal he intends to furnish. Unless otherwise directed, the existing concrete box culvert and wingwalls shall not be removed until the detour is in place and accommodating traffic.

Major items to be removed (not provided for elsewhere in these Special Provisions) prior to detour construction and new construction on 29th Avenue (quantities are approximate):

1. Remove curb/gutter - 1,193 lin. ft.
2. Remove trees - 2 each.
3. Remove chain link fence - 381 lin. ft.
4. Remove A.C. pavement - 245 sq. yds.
5. Remove 68 x 43 concrete pipe - 340 lin. ft.
6. Remove sidewalk - 1755 sq. ft.
7. Remove median concrete slab - 80 sq. ft.
8. Remove north approach slab to canal bridge

Summary of major items to be removed (not provided for elsewhere in these Special Provisions) after bridge construction and restoration of traffic to 29th Avenue (quantities are approximate):

1. Remove chain link fence - 1,105 lin. ft.
2. Remove A.C. pavement - 3,695 s.y.
3. Remove embankment - 6,050 cu. yds.
4. Remove chain link gate - 2 each
5. Remove 48" CMP - 188 lin. ft.

Payment for removal of existing and detour improvements shall be made at the lump sum bid prices in the proposal for ITEM 350-1 Removal of Existing Improvements (including box culvert), and ITEM 350-2 Removal of Detour Improvements and Restoration. Payment for replacement of concrete curb and gutter, single curb, sidewalk and the canal bridge approach slab shall be made at the prices bid for items 340-1, 340-2, 340-3 and 505-2; all other restoration costs shall be included in ITEM 350-2.

**SECTION 401 - TRAFFIC CONTROL:** Traffic control shall conform to the applicable paragraphs of Section 401 of the Uniform Standard Specifications, the City of Phoenix Barricade Manual and as specified herein.

The number and types of barricades, signs, delineators, barriers and all other traffic control devices shall be subject to approval, however, approval of traffic control devices and the approval of the Contractor's method of application of all traffic control measures, shall not relieve the Contractor of the responsibility of protecting the work, the workman and the traveling public.

The Contractor shall provide and maintain safe and adequate access, including pavement surfacing of the detour for two-way traffic, at all times. Detour to bypass the construction zone shall be as shown on the plans. Construction and detour advance warning signs shall be as shown on the plans. A five (5) foot high deceleration berm of loose sandy material with nothing over three inches in size shall be placed completely over the paved portion of the road on each approach to the bridge. Internal construction barricading and signing shall be required to provide access and guide traffic through the zone with a speed posted at 35 miles per hour.

All necessary signs and barricades shall remain three working days beyond acceptance of the project by the Owner.

Payment for providing and maintaining traffic control will be at the lump sum bid price in the proposal for ITEM 401-1 Traffic Control. Such price shall include all traffic control devices and traffic control measures, such as warning and control signs, barricades, lighting devices, paint striping, delineators, flagmen and other appurtenant items related to traffic control and safety. Included in the price shall be the maintenance of the detour pavement surface and pavement striping for the detour and the new bridge and approaches. Payment for the impact attenuators shall be at the unit price each for ITEM 401-2 G.R.E.A.T. Impact Attenuation Device, ADOT 4-C-2.03. The impact attenuation devices shall become the property of the Flood Control District at the completion of the project. See Section 801 for signalization.

**SECTION 505 - CONCRETE STRUCTURES:** The work under this item shall consist of furnishing all labor, material and equipment necessary to construct, complete in place, the concrete bridge structures. The work under this item shall conform to the applicable requirements of Section 505 of the Uniform Standard Specifications. All concrete including deck, diaphragms, substructure, approach slabs, wingwalls, curbs, barriers, dados and sidewalks on or off the bridge shall conform to Section 725, Class "A" or Class "AA" as designated in the plans, and reinforcing steel shall conform to Section 727, ASTM A-615, Grade 40 or Grade 60 as designated in the plans.

The work under this item includes the abutment cap beams and drilled shaft foundations for the temporary detour bridge. The abutment cap beam concrete and reinforcing steel shall be as specified in the above paragraph. The drilled shaft foundations shall be as specified in Section 609 of the Arizona Department of Transportation "Standard Specifications for Road and Bridge Construction", 1982 Edition, including method of measurement and basis of payment (ITEM 505-4), except that strength of concrete and grade of reinforcing steel shall be as specified in the above paragraph. Concrete in the drilled shafts shall be consolidated by vibration.

Combination shoring of the bridge deck (shoring from the ground combined with shoring from the girders) during pouring will not be allowed. Shoring for the deck pour will either be supported entirely from the girders or entirely from the ground.

The top surface of the bridge deck shall be cured by the liquid-membrane curing compound method and by the water curing method. The curing compound shall be applied progressively immediately following the surface finishing operation. Liquid-membrane curing compound shall be applied at a rate of one gallon per 100 square feet. The curing compound shall form a continuous unbroken surface. Water curing shall be applied not later than four hours after the completion of the deck finishing operations and shall be applied for a period of at least 7 days after placing. See Sections 505.8 and 726 of the Uniform Standard Specifications for additional information and materials to be used.

Cast-in-place dimensional tolerances shall be in accordance with Section 601-4.02(A) of the Arizona Department of Transportation Highways Division Standard Specifications for Road and Bridge Construction, Edition of 1982.

Payment for concrete will be made at the bid price per cubic yard for ITEM 505-1 Class A Concrete - Bridge, which includes the cap beams for the detour bridge, 505-2 Class A Concrete - Approach Slabs, and 505-3 Class AA Concrete. Payment for drilled shaft foundations will be made at the bid price per lineal foot for ITEM 505-4 Drilled Shaft Foundation (24"), which price shall include drilling, concrete and steel. Payment for reinforcing steel shall be made at the unit price bid per pound for ITEM 505-5 Reinforcing Steel, which price shall include both Grade 40 and Grade 60 reinforcing. Concrete used in the curb, gutter and sidewalk shall be included in the unit prices bid for those items.

**SECTION 506 - PRECAST PRESTRESSED CONCRETE GIRDERS:** The work under this item shall consist of furnishing all labor, material and equipment necessary to construct, complete in place, the AASHTO Type II bridge girders for the permanent 29th Avenue bridge. The work under this section shall conform to the applicable requirements of Section 506 of the Uniform Standard Specifications. The girder design is based on conventional AASHTO Type II girders.

Concrete strengths for bridge girders shall be as indicated on the plans.

Prestressing steel shall be uncoated, seven-wire, stress-relieved, low-relaxation steel strand conforming to ASTM A-416, grade 270, 1/2" diameter.

The plans provide for alternate prestressed concrete girder designs. Alternate 1 designates a pretensioned concrete girder and Alternate 2 designates a post-tensioned concrete girder. Both alternates are precast prestressed concrete girders and shall be fabricated and installed in accordance with the plans and section 506 of the Uniform Standard Specifications.

Elastomeric Bearing Pads shall be in accordance with AASHTO requirements and shall be made of durometer 60 neoprene. Pads shall conform to the dimensions and thicknesses shown on the drawings. No separate payment will be made for bearing pads, and the costs thereof shall be included in the price bid for items to which they are appurtenant.

The Contractor may at his option use either Alternate 1 girders (pretensioned) or use Alternate 2 girders (post-tensioned).

Precast concrete dimensional tolerances shall be in accordance with Section 601-4.02(B) of the Arizona Department of Transportation Highways Division Standard Specifications for Road and Bridge Construction, Edition of 1982.

Payment will be made at the contract unit bid price per each for ITEM 506-1 Type II AASHTO Girders (Pretensioned or Post-tensioned).

The work under this item also includes the erection of the superstructure of the temporary detour bridge over the Arizona Canal. The Flood Control District will provide the box beams for the temporary detour bridge. The Contractor will be required to load and transport ten box beams, hand railing, steel tension rods and 8 each, 20-foot long sections of precast jersey barriers from where they are stored, just north of the Arizona Canal west of 25th Avenue. The Contractor will be required to erect all ten box beams at the Arizona Canal 29th Avenue site.

The cost of transporting and erecting the box beams at 29th Avenue, installing steel tension rods, railings and safety barriers and furnishing and installing bearing pads on the detour structure shall be included in the lump sum price bid for ITEM 506-2 Detour Bridge Superstructure. For removal of the temporary detour bridge at 29th Avenue see Section 350 of these Special Provisions.

SECTION 515 - STEEL STRUCTURES: The work under this item consists of furnishing and installing all miscellaneous metal fabrications incorporated into the project and not specified elsewhere, including the pipe hanger assembly, girder bearing assembly and threaded inserts on the 29th Avenue Bridge and the 3/8" x 3" angle on the temporary detour bridge. Work shall conform to the applicable paragraphs of Section 515 of the Standard Specifications.

No separate payment will be made for these items, and the cost thereof shall be included in the price bid for items to which they are appurtenant.

SECTION 520 - HANDRAIL: The work under this item consists of furnishing and installing handrail and related embeds. Work shall conform to the applicable paragraphs of Section 520 - Steel and Aluminum Handrails of the Uniform

Standard Specifications, and ADOT Std. H-1-1, Single Handrail. Payment for handrailing will be made at the bid price per linear foot for ITEM 520 Type H-1-1 Bridge Rail.

SECTION 601 - TRENCH EXCAVATION, BACKFILL AND COMPACTION: The work under this item consists of performing all operations in connection with the excavation and backfilling of underground utilities and appurtenant structures as indicated on the drawings and in accordance with the applicable provisions of Section 601 of the Uniform Standard Specifications.

No separate payment will be made for trench excavation, backfill and compaction and the cost thereof shall be included in the price bid for related items of work.

SECTION 610 - WATER LINE CONSTRUCTION: The work consists of removal, salvage and construction of waterlines as shown on the drawings in accordance with Section 610 of the Uniform Standard Specifications as modified herein.

Pipe materials shall be as specified in Section 610.3 of the Uniform Standard Specifications and on the plans. The 16" water line for the potable water main shall be ductile iron class 52. All new 16" pipe shall be standard mechanical joint outside the bridge and restrained mechanical joint in the bridge between the two expansion couplings. Expansion couplings shall be installed as close as practicable to the abutment inside faces.

Connections to the existing potable watermain shall be in accordance with Section 610.9 of the Uniform Standard Specifications. The Contractor shall coordinate this work with the City of Phoenix. The Contractor shall furnish all materials and equipment and perform all work related to the connections. The Contractor shall drain the pipeline and dispose of the water in a manner which is not detrimental to adjacent properties or public health.

The existing 16" waterline on the west side of 29th Avenue is a reinforced concrete steel cylinder pipe. This pipe is to be removed as required to provide for the temporary bypass and to accommodate the new ductile iron pipe to be installed through the new bridge. That portion of the reinforced concrete steel cylinder pipe that can be removed intact is the property of the City of Phoenix.

The temporary bypass line shall be constructed to the same standards as a permanent installation using all new materials. The contractor shall provide a shop drawing detailing this pipe and all fittings and a step by step sequence describing the procedure to be used to connect the bypass and then reconnect the new straight run through the bridge.

The temporary bypass pipe and fittings shall be removed after completion of the installation, and final acceptance, of the straight run. These materials will become the property of the Contractor. Trenches shall be backfilled and the area shall be restored to its original condition.

ITEM 610-1, Temporary Water Line Relocation, payment will be made at the lump sum price on the bid schedule, which shall be full compensation for the item complete including testing, disinfection, trenching, backfill, permits and all incidentals for the item complete as described herein and on the plans.

ITEM 610-2 Water Line, payment will be made at the lump sum price on the bid schedule for the new ductile iron pipe which replaces the existing reinforced concrete steel cylinder pipe. This payment will be full compensation for the item complete including testing, disinfecting, hardware, permits and all incidentals for the item complete as described herein and on the plans.

SECTION 621 - CORRUGATED METAL PIPE: Work under this item shall conform to Section 621 of the Uniform Standard Specifications. Pipe shall be 14 gage and sizes shall be as indicated on the plans. The Contractor shall salvage the pipes during removal of the detour and shall stockpile them on the site as directed by the Engineer.

Payment will be made at the unit price bid per lineal foot for ITEM 621-1 4" CMP and ITEM 621-2 18" CMP.

SECTION 735 - REINFORCED CONCRETE PIPE: Work under this item shall be in accordance with Section 735 of the Uniform Standard Specifications. Pipe size and class shall be as indicated on the plans.

Payment shall be made at the unit price bid per lineal foot for ITEM 735 68"x43" Concrete Pipe, this payment shall be for the pipe installation complete in place, including all costs associated with the concrete joint structures shown on the plans.

SECTION 772 - CHAIN LINK FENCE: Work under this item shall be in accordance with Section 772 of the Uniform Standard Specifications. Temporary chain link fence shall have extension arms and barbed wire per Section 772.6. Arms shall be inclined toward the detour road. Where existing fence is to be cut, adequate bracing or end panels shall be installed to retain the integrity of the fence.

Existing fence and hardware may be used for the temporary fence and/or the permanent replacement if it is sound and undamaged as determined by the Engineer. All fence materials not required for the permanent construction shall become the property of the contractor.

Measurement and payment for all fence installations and replacement shall be by the lump sum bid for ITEM 772 Chain Link Fence.

SECTION 801 - TRAFFIC SIGNALS: Traffic signal work shall be as indicated on the plans and shall be in accordance with the City of Phoenix, Traffic Engineering Department, Traffic Signal Section Memorandum entitled "PROCEDURES FOR TRAFFIC SIGNAL WORK", dated July 22, 1982. This memorandum is included on sheet TC-5 of the contract drawings.

Payment for all traffic signal work shall be by the lump sum for ITEM 801 Traffic Signals and shall include all work necessary for the detour signalization and restoration of the signalization at 29th Avenue after construction of the bridge and removal of the detour.

GENERAL COMMENTS: It shall be the Contractor's responsibility to protect the structure and construction site from any excessive or detrimental flooding, within the channel right-of-way, which may occur during the construction period and until final acceptance of the completed bridge by the Flood Control District of Maricopa County.

The Contractor shall exercise care to prevent damage to any existing facilities.

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

An attempt has been made to determine the location of all underground utilities and to design the location and elevation of all irrigation and drainage pipes, culverts and structures so as not to interfere with the existing utilities, however, it shall be the Contractor's responsibility to cooperate with the utility companies so that any obstructing utility installation may be adjusted.

No traffic will be allowed on the bridge until at least ten days after the last concrete has been placed on the deck and approach slabs and until the compressive strength of the placed concrete, as determined by test cylinders, has reached the required 28-day compressive strength.

The Flood Control District of Maricopa County reserves the right to adjust design grades or the location of drainage structures prior to construction, if it should become necessary in the opinion of the Engineer, without additional cost to the Flood Control District of Maricopa County.

The Contractor shall take special precautions to keep the area around the bridges properly barricaded with sand berms, barricades, barrels, etc. and marked with flares to prevent automotive traffic from running into the channel or the canal or crossing the new bridge structure prior to the bridge deck slab and approach slabs reaching their required strength as defined above.

GUARANTEE: 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

**BIDDING SCHEDULE**

Project: 29th Avenue Bridge over Arizona Canal Diversion Channel

Contract: FCD 85-40

Item No.	Approximate Quantity	Unit	Description	Unit Cost (In writing) and /100 dollars	Unit Cost	Extended Amount
206-1	1	L.S.	Structure Excavation			
206-2	1	L.S.	Structure Backfill			
211	1	L.S.	Earthwork (Embankment)			
310-1	1093	Ton	Aggregate Base Course			
321-1	480	Ton	C-3/4 Asphalt Concrete			
321-2	329	Ton	A-1½ Asphalt Concrete			
321-3	80	S.Y.	Asphaltic Concrete Paving for Bikepath			
336	134	S.Y.	Pavement Replacement			
340-1	393	L.F.	Concrete Curb and Gutter			
340-2	507	L.F.	Single Curb			
340-3	1205	S.F.	Concrete Sidewalk			
350-1	1	L.S.	Removal of Existing Improvements			

## BIDDING SCHEDULE

Project: 29th Avenue Bridge over Arizona Canal Diversion Channel

Contract: FCD 85-40

Item No.	Approximate Quantity	Unit	Description	Unit Cost (In writing) and /100 dollars	Unit Cost	Extended Amount
350-2	1	L.S.	Removal of Detour Improvements and Restoration			
401-1	1	L.S.	Traffic Control			
401-2	2	Ea.	G.R.E.A.T. Impact Attenuation Device ADOT 4-C2.03			
505-1	972	C.Y.	Class A Concrete - Bridge & Detour Bridge Caps			
505-2	177	C.Y.	Class A Concrete - Approach Slabs			
505-3	264	C.Y.	Class AA Concrete			
505-4	273	L.F.	Drilled Shaft Foundation (24")			

## BIDDING SCHEDULE

**Project:** 29th Avenue Bridge over Arizona Canal Diversion Channel

**Contract:** FCD 85-40

Item No.	Approximate Quantity	Unit	Description	Unit Cost (in writing) and /100 dollars	Unit Cost	Extended Amount
505-5	213,038	Lbs.	Reinforcing Steel			
506-1	16	Ea.	Type II AASHTO Girders (Pretensioned or Post-tensioned)			
506-2	1	L.S.	Detour Bridge Superstructure			
520	226.5	L.F.	Type H-1-1 Bridge Rail			
610-1	1	L.S.	Temporary Water Line Relocation			
610-2	1	L.S.	Water Line			
621-1	200	L.F.	48" CMP			
621-2	62	L.F.	18" CMP			
735	313	L.F.	68"x43" Concrete Pipe			

## BIDDING SCHEDULE

**Project:** 29th Avenue Bridge over Arizona Canal Diversion Channel

**Contract:** FCD 85-40

Item No.	Approximate Quantity	Unit	Description	Unit Cost (In writing) and /100 dollars	Unit Cost	Extended Amount
772	1	L.S.	Chain Link Fence			
801	1	L.S.	Traffic Signals			

The Bidder hereby acknowledges receipt of and agrees his proposal is based on the following Addenda:

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