

CONTRACT FCD 99-45

NORTH PEORIA AREA MASTER DRAINAGE PLAN (ADMP)

*C 69.00.124.5*

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

Pursuant to the provisions of the Arizona Revised Statutes Section 48-3603, the Board of Directors has the authority to enter into contracts.

**The Flood Control District of Maricopa County, Arizona**, hereinafter called the "District", is desirous of having certain professional services performed in connection with **Contract FCD 99-45, North Peoria Area Master Drainage Plan (ADMP)**, hereinafter called the "Project" and as more fully described in Exhibit A, Scope of Work, and in accordance with Exhibit B, Fee Proposal; and

**Stantec Consulting, Inc.**, hereinafter called "Consultant", with its principal office located at 7776 Point Parkway West, Suite 290, Phoenix, Arizona 85044, is desirous of performing said services;

THEREFORE, the parties hereto mutually agree as follows:

**SECTION I - SERVICES OF THE CONSULTANT**

The Consultant, under the general supervision of the Manager, Engineering Division shall prepare studies, reports, surveys, plans, drawings, specifications and cost estimates as are necessary for the Project and according to the directions and designated standards of the District and in accordance with Exhibit A. It is understood and agreed that the District's authorized representative shall be the Manager, Engineering Division or his duly authorized representative, hereinafter called the "Agent" and that he/she shall be the sole contact for administering this contract.

The Consultant shall meet periodically with the Agent so as to keep the District informed of the progress of the work in accordance with the schedule defined in Exhibit A.

The Consultant shall promptly advise the Agent of any factors which may develop during the Project, that would likely result in construction or design costs in excess of budgetary constraints.

**SECTION II - PERIOD OF SERVICE**

The Consultant shall complete all work per the schedule provided in Exhibit A, Scope of Work **within five hundred fifty (550) calendar days**. This includes time for any required FEMA reviews or District reviews. Should extension of this contract period be necessary, and any such extension(s) continue the date of contract performance for a time period of more than one year from the date of original contract expiration, adjustment(s) of the consultant's fee(s) may, upon agreement by both the District and the Consultant, be made in accordance with the Consumer Price Index for Urban Consumers, Western Division published by the U.S. Department of Labor, Bureau of Labor Statistics, using the published edition coinciding with the initial contract expiration date. Any such fee adjustment shall only apply to the extended contract time period.

**SECTION III - PAYMENTS TO THE CONSULTANT**

The Consultant shall be paid for work under this Contract a **lump sum fee of \$1,058,107.00** in accordance with Exhibit A, Fee Proposal, Attachments 7 through 13. In addition, the Consultant may be paid for optional tasks as identified below and in accordance with Exhibit A, Fee Proposal, Attachments 14 through 17. A written authorization from the Agent will be required prior to commencing work on any optional task.

<u>Task No.</u>	<u>Description</u>	<u>Amount</u>
2.2	FEMA Floodplain Delineations	\$72,730.00
2.5	Level III Analysis – Preferred Alternative Analysis	27,760.00
2.6	Sedimentation Engineering and Geomorphic Evaluation	57,231.00
2.7	Field Survey and Mapping	13,195.00
2.8	Hydraulic Analysis	19,945.00
2.11	Environmental Overview	16,700.00
2.13	Public Involvement	60,216.00
2.15	Site Visits	<u>1,680.00</u>
		\$269,457.00

**The total Contract amount will not exceed one million, three hundred twenty-seven thousand, five hundred sixty-four dollars (\$1,327,564.00) plus any adjustments that have been approved in writing in accordance with the Maricopa County Procurement Code.**

The District shall pay the Consultant upon completion of the work as accepted by the District, except that progress payments may be made as billed by the Consultant based on approved monthly progress reports subject to the limitations set forth in Exhibit A, Scope of Work. Ten percent of all contract payments made on an interim basis shall be retained by the District as insurance of proper performance of the contract or, at the option of the Consultant, a substitute security may be provided by the Consultant in an authorized form pursuant to procedures established by the District. The Consultant is entitled to all interest from any such substitute security.

When the contract is fifty percent (50%) completed, one-half (1/2) of the amount retained will be paid to the Consultant provided the Consultant is making satisfactory progress on the contract and there is no specific cause or claim requiring a greater amount to be retained. After the contract is fifty percent (50%) completed, no more than five percent (5%) of the amount of any subsequent progress payments shall be retained providing the Consultant is making satisfactory progress on the project, except if at any time the District determines satisfactory progress is not being made, ten percent (10%) retention shall be reinstated for all progress payments made under the contract subsequent to the determination.

If the Consultant desires a partial payment in accordance with the above provisions, the Consultant will complete and furnish Attachment 1, the District-provided Minority/Women-owned Business Enterprise Participation Report, with each request for payment, indicating payment distribution to MBE/WBE firms. The Minority/Women-owned participation for this contract is ten percent (10%).

Following approval and acceptance by the District of all work performed under this Contract, should any task be awaiting FEMA acceptance, the Consultant shall submit (1) a "Certificate of Substantial Performance" form (Attachment 2); (2) a Final D/M/WBE Participation Report (Attachment 1) stating the total payments received by the prime as well as total payments the prime has made to MBE and WBE subconsultants, vendors, and suppliers, and (3) a final invoice for release of all monies due the Consultant, except for five percent (5%) retention.

Any retention monies shall be paid or substitute security released, as applicable, to the Consultant within forty-five (45) calendar days after (1) FEMA acceptance/approval of the project, including completion of all final work required by the Consultant in order for the District to receive FEMA acceptance, (2) receipt of a "Certificate of Performance" form (Attachment 3 herein), and (3) an invoice for any sums remaining due and payable under this Contract.

#### **SECTION IV - THE DISTRICT'S RESPONSIBILITIES**

The District shall furnish the Consultant, at no cost to the Consultant, the following information or services for this Project:

- A. One copy of on-hand maps, records, survey ties, benchmarks or other data pertinent to the Project. This does not, however, relieve the Consultant of the responsibility of searching records for additional information, for requesting specific information or for verification of that information provided. The District does not warrant the accuracy or comprehensiveness of any such information.
- B. All available information and data relative to policies, standards, criteria, and studies, etc. impacting the Project as identified by the Consultant.
- C. Availability of staff for consultation with the Consultant during the performance of studies and plan development in order to identify the problems, needs, and other functional aspects of the Project.
- D. Examination of documents submitted by the Consultant and rendering of decisions pertaining thereto promptly, to avoid unreasonable delay in the progress of the work by the Consultant. The District will keep the Consultant advised concerning the progress of the District's review of work.

#### **SECTION V - AMENDMENTS**

This Contract may be amended by mutual written agreement of the District and the Consultant. Any alteration in the scope of work that will result in a substantial change in the nature of the Project so as to materially increase or decrease the contract fee will require negotiation of an amendment to the contract to be executed by the District and the Consultant. No work shall commence on the change until the District has approved the contract amendment and the Consultant has been notified to proceed by the Agent. It is distinctly understood and agreed that no claim for extra work done or materials furnished by the Consultant will be allowed by the District except as provided herein, nor shall the Consultant do any work or furnish any materials not covered by this agreement unless such work is first authorized in writing in accordance with the Maricopa County Procurement Code. Any such work or materials furnished by the Consultant without such written authorization first being given shall be at his own risk, cost, and expense, and he hereby agrees that without such written authorization he will make no claim for compensation for such work or materials furnished.

#### **SECTION VI - RECORDS**

Records of the Consultant's payroll expense pertaining to this Project and records of accounts between the District and the Consultant shall be kept on a generally recognized accounting basis and shall be available upon request to the District or its authorized representative for audit during normal business hours. The records shall be subject to audit by appropriate grantor agency if the Project is funded all or in part by a grant.

All Consultant and District procurement records shall be retained for a period of one year and disposed of in accordance with the records retention guidelines and schedules approved by the State of Arizona Department of Library, Archives, and Public Records unless applicable Federal regulations require a longer period.

#### **SECTION VII - PROJECT COMPLETION**

If during the course of this contract situations arise which prevent completion within the allotted time, the Agent may grant an extension.

### **SECTION VIII - TERMINATION**

The District may terminate this contract at any time upon reimbursement to the Consultant of expenses, which include reasonable charges for time and material for the percentage of work satisfactorily completed and turned over to the District.

The District reserves the right to postpone, terminate or abandon this Project for the Consultant's failure to complete the Project on time, or failure to comply with the provisions of the contract. The District also reserves the right to terminate any or all parts of this contract for its own convenience as the District may determine at its sole discretion.

The District hereby gives notice that pursuant to A.R.S. Section 38-511 "A" this contract may be canceled without penalty or further obligation within three years after execution if any person significantly involved in initiation, negotiation, securing, drafting, or creating a contract on behalf of the District is, at anytime while the contract or any extension of the contract is in effect, an employer, agent, or any other party to the contract in any capacity or a consultant to any other party of the contract with respect to the subject matter of the contract. Cancellation under this section shall be effective when written notice from the Chief Engineer and General Manager is received by all of the parties of the contract. In addition, the District may recoup any fee for commission paid or due to any person significantly involved in initiation, negotiation, securing, drafting, or creating the contract on behalf of the District from any other party to the contract arising as a result of the Contract.

The Consultant may terminate this contract in the event of nonpayment of fees as specified in Section III, PAYMENTS TO THE CONSULTANT.

### **SECTION IX - OWNERSHIP OF DOCUMENTS**

All original documents including, but not limited to studies, reports, tracings, drawings, physical and computer models, estimates, field notes, investigations, design analyses, calculations, computer software, and specifications, prepared in the performance of this Contract are to be and remain the property of the District and are to be delivered to the Agent before final payment is made to the Consultant. The District reserves the right to reuse the documents as it sees fit. However, the District will not reuse, alter, or modify these documents without noting such alterations, modifications, or intent of their reuse, and will hold the Consultant harmless from any claims arising from the reuse, alteration, or modification of the documents. The Consultant may retain reproducible copies of all such documents delivered to the District.

### **SECTION X - COMPLIANCE WITH LAWS**

The Consultant is required to comply with all Federal, State and local laws, local ordinances and regulations. The Consultant's signature on this contract certifies compliance with the provisions of the I-9 requirements of the Immigration Reform and Control Act of 1986 for all personnel that the Consultant and any subconsultants employ to complete this Project. It is understood that the District shall conduct itself in accordance with the provisions of the Maricopa County Procurement Code.

### **SECTION XI - GENERAL CONSIDERATIONS**

- A. Prior to beginning the work, the Consultant shall furnish the District for approval the names of its key employees, and of its sub-consultants and their key employees to be used on this Project. Any subsequent changes are subject to the written approval of the District.

With the exception of the District or the Federal Emergency Management Agency, the Consultant agrees not to accept any clients within the area of the 100-year floodplain for the project, during the period of the Contract, without the expressed written authority from the Chief Engineer and General Manager of the District.

The Consultant in replacing a MBE/WBE subcontractor should attempt to contract with another MBE/WBE.

- B. The failure of either party to enforce any of the provisions of this Contract or to require performance of the other party of any of the provisions hereof shall not be construed to be a waiver of such provisions, nor shall it affect the validity of this Contract or any part thereof, or the right of either party to thereafter enforce each and every provision.
- C. The Consultant shall be responsible for the cost of any additional design, field layout, testing, construction and supervision necessary to correct those errors or omissions attributable to the Consultant and for any damage incurred by the District as a result of additional construction costs caused by such Consultant errors or omissions.
- D. The fact that the District has accepted or approved the Consultant's work shall in no way relieve the Consultant's responsibility.
- E. It is mutually understood and agreed that this Contract shall be governed by the laws of the State of Arizona, both as to interpretation and performance. Any action at law, suit in equity, or judicial proceeding for the enforcement of this Contract, or any provision thereof, shall be instituted only in the courts of the State of Arizona.

#### **SECTION XII - SUCCESSORS AND ASSIGNS**

This Contract shall not be assigned by either party without prior written approval of the other except that the Consultant may use in the performance of this Contract without prior approval of the District, personnel or services of its related entities and affiliated companies as if they were an integral part of the Consultant; and it shall extend to and be binding upon the heirs, executors, administrators, successors and assigns of the parties hereto.

#### **SECTION XIII - NO KICK-BACK CERTIFICATION**

The Consultant warrants that no person has been employed or retained to solicit or secure this Contract upon any agreement or understanding for a commission, percentage, brokerage, or contingent fee; and that no member of the Board of Directors/Supervisors or any employee of the District has any interest, financially or otherwise, in the Consultant firm.

For breach or violation of this warranty, the District shall have the right to annul this Contract without liability, or at its discretion to deduct from the Contract price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

#### **SECTION XIV - ANTI-DISCRIMINATION PROVISION**

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

The Consultant agrees not to discriminate against any employee or applicant for employment because of race, religion, color, sex, age, disability, or national origin and further agrees not to engage in any unlawful employment practices. The Consultant further agrees to insert the foregoing provisions in all subcontracts hereunder.

## **SECTION XV - INDEMNIFICATION**

### **For Professional Liability:**

To the fullest extent permitted by law, the Consultant shall indemnify, and hold harmless the Flood Control District of Maricopa County (District) and Maricopa County (County), their agents, representatives, officers, directors, officials, and employees from and against all claims, damages, losses and expenses, including but not limited to attorney fees, court costs, expert witness fees, and the cost of appellate proceedings, relating to, arising out of, or alleged to have resulted from the Consultant's negligent acts, errors, omissions or mistakes relating to professional services in the performance of this Contract. Consultant's duty to indemnify and hold harmless the District and County, their agents, representatives, officers, directors, officials, and employees shall arise in connection with any claim, damage, loss or expense that is attributable to bodily injury, sickness, disease, death, or injury to, impairment, or destruction of property, including loss of use resulting therefrom, caused by any negligent acts, errors, omissions or mistakes, related to professional services in the performance of this Contract including any person for whose negligent acts, errors, omissions or mistakes, the Consultant may be legally liable.

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

### **For all other hazards, liabilities, and exposures:**

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

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

### **Abrogation of Arizona Revised Statutes Section 34-226:**

In the event that A.R.S. § 34-226 shall be repealed or held unconstitutional or otherwise invalid by a court of competent jurisdiction, then this duty of indemnification shall extend to all claims, damages, losses and expenses, including but not limited to attorney fees, court costs, expert witness fees, and the cost of appellate proceedings, relating to, arising out of, or alleged to have resulted therefrom, caused in whole or in part by any negligent acts, errors, or omissions relating to professional work or services in the performance of this Contract by the Consultant, or anyone directly employed by the Consultant or anyone for whose acts Consultant may be liable regardless of whether it is caused by any party indemnified hereunder, including the District or the County.

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

The scope of this indemnification does not extend to the sole negligence of the District or the County.

### **SECTION XVI - INSURANCE**

**General Clauses.** The Consultant, at Consultant's own expense, shall purchase and maintain the herein stipulated minimum insurance with companies duly licensed, possessing a current A.M. Best, Inc. Rating of B++6, or approved unlicensed companies in the State of Arizona with policies and forms satisfactory to the District.

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

**Primary Coverage.** The Consultant's insurance shall be primary insurance as respects the District, and any insurance or self-insurance maintained by the District shall not contribute to it.

**Waiver.** The policies required hereunder, except Workers' Compensation and Professional Liability, shall contain a waiver of transfer of rights of recovery (subrogation) against the District, its agents, representatives, officers, directors, officials and employees.

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

**Deductible/Retention.** The policies may provide coverage which contains deductibles or self insured retentions. Such deductible and/or self insured retentions shall not be applicable with respect to the coverage provided to the District under such policies. The Consultant shall be solely responsible for the deductible and/or self insured retention and the District, at its option, may require the Consultant to secure payment of such deductibles or self-insured retentions by a surety bond or an irrevocable and unconditional letter of credit.

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

**Other Insureds.** The insurance policies required by this Contract, except Workers' Compensation and professional Liability, shall name the District and the County, their agents, representatives, officers, directors, officials and employees as Additional Insureds.

**Commercial General Liability.** Consultant shall maintain Commercial General Liability insurance with a limit of not less than \$1,000,000 for each occurrence with a \$2,000,000 Products/Completed Operations Aggregate and a \$2,000,000 General Aggregate Limit. The policy shall include coverage for bodily injury, broad form property damage, personal injury, products and completed operations and blanket contractual

coverage including, but not limited to, the liability assumed under the indemnification provisions of this Contract which coverage will be at least as broad as Insurance Service Office, Inc. Policy CG 00 01 10 93 or any replacements thereof.

The policy shall contain a severability of interest provision, and shall not contain a sunset provision or commutation clause, or any provision which would serve to limit third party action over claims.

The Commercial General Liability additional insured endorsement shall be at least as broad as the Insurance Service Office, Inc.'s Additional Insured, CG 20 10 11 85, and shall include coverage for Consultant's operations and products and completed operations.

**Automobile Liability.** Consultant shall maintain Automobile Liability insurance with an individual single limit for bodily injury and property damage of no less than \$1,000,000, each occurrence, with respect to Consultant's vehicles (whether owned, hired, non-owned), assigned to or used in the performance of this Contract. Coverage will be at least as broad as coverage code 1, "any auto" (Insurance Services Office, Inc. Policy Form CA 00 01 12 93, or any replacements thereof). Such insurance shall include coverage for loading and off-loading hazards. If hazardous substances, materials, or wastes are to be transported, MCS 90 endorsement shall be included and \$5,000,000 per accident limits for bodily injury and property damage shall apply.

**Workers' Compensation.** The Consultant shall carry Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Consultant's employees engaged in the performance of the work or services, as well as Employer's Liability insurance of not less than \$1,000,000 for each accident, \$1,000,000 disease for each employee, and \$1,000,000 disease policy limit.

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

**Professional Liability.** The Consultant shall maintain Professional Liability insurance covering negligent acts, errors, or omissions arising out of the work or services performed by the Consultant, or any person employed by the Consultant, with a limit of not less than \$1,000,000 each claim.

**Certificates of Insurance.** Prior to commencing work or services under this Contract, the Consultant shall furnish the District with a Certificate of Insurance, Attachment 4, or formal endorsements as required by the Contract, issued by the Consultant's insurer(s), as evidence that policies providing the coverage, conditions and limits required by this Contract are in full force and effect. Such certificates shall identify this Contract number and title, as well as all other information stated on Attachment 4 Insurance Certificate.

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

**Cancellation and Expiration Notice.** Insurance evidenced by this Certificate shall not expire, be canceled, or materially changed without thirty (30) days prior written notice to the District. If a policy does expire during the life of the contract, a renewal Certificate must be sent to the District at least fifteen (15) days prior to the expiration date.

.....

IN WITNESS WHEREOF, the parties herein have executed this Contract.

STANTEC CONSULTING, INC.

Orville L. Shaw  
Principal (Signature)

ORVILLE L. SHAW  
Printed Name

UP + COO  
Title

Date: 12/13/99

86-0680077  
Federal Tax Identification Number

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

RECOMMENDED BY:

Michael S. Ellegood 12/20/99  
Date  
Michael S. Ellegood, P.E.  
Chief Engineer and General Manager

ACCEPTED AND APPROVED:

[Signature] JAN 05 2000  
Date  
Chairman, Board of Directors

ATTEST:

[Signature] JAN 05 2000  
Date  
Clerk of the Board

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.

Julie M. Lemmon 12/14/99  
Date  
General Counsel, District

## CONTRACT ATTACHMENTS

1. Minority/Women-owned Business Enterprises Program Participation Report
2. Certificate of Substantial Performance
3. Certificate of Performance
4. Certificate of Insurance

Attachment 1

MINORITY/WOMEN-OWNED BUSINESS ENTERPRISES PROGRAM

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

---

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

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

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

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

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

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

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

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

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

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

Send to: The Flood Control District of Maricopa County  
Contracts Division  
2801 West Durango Street  
Phoenix, Arizona 85009

Attachment 2

CERTIFICATE OF SUBSTANTIAL PERFORMANCE  
OF ENGINEERING SERVICES AND PAYMENT OF CLAIMS

\_\_\_\_\_ hereby certifies to the Flood Control District of Maricopa County (DISTRICT) that all lawful claims for labor, rental of equipment, material used, and any other claims by \_\_\_\_\_ or its subcontractors in connection with the project described in DISTRICT Contract FCD \_\_\_\_\_ have been paid through the date of filing this Certificate of Substantial Performance.

\_\_\_\_\_ understands that with receipt of payment for any previously invoiced amounts plus any retained funds, this is a settlement of all claims of every nature and kind against the DISTRICT arising out of the performance of the DISTRICT's Contract FCD \_\_\_\_\_ relating to the material, equipment and work covered in and required by the contract, through the date of filing this Certificate of Substantial Performance.

The undersigned hereby certifies that to his/her knowledge, no contractual disputes exist in regard to this contract and that he/she has no knowledge of any pending or potential claims in regard to this contract through the date of filing this Certificate of Substantial Performance.

Upon submission of this document, final payment will be processed except that five percent (5%) shall be retained pending completion and acceptance of all work. Subsequent to final acceptance, retention shall be released within forty-five (45) calendar days following issuance of a Certificate of Performance and submittal of an invoice for any sums remaining due and payable under this Contract.

State of Arizona        )  
                                  )§  
County of Maricopa    )

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

\_\_\_\_\_  
Signature

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

Subscribed and Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

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

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

**CERTIFICATE OF PERFORMANCE AND PAYMENT OF ALL CLAIMS**

**ENGINEERING CONTRACT**

\_\_\_\_\_ hereby certifies to the Flood Control District Of Maricopa County  
(Name of Signer)  
(District) that all lawful claims for labor, rental of equipment, material used, and any other claims by \_\_\_\_\_  
\_\_\_\_\_ or its subcontractors in connection with the project described in District Contract  
FCD \_\_\_\_\_ for \_\_\_\_\_ have been paid.

\_\_\_\_\_ understands that with receipt of payment for previously invoiced amounts plus any  
retained monies, that this is a settlement of all claims of every nature and kind against the District arising out  
of the performance of the District's Contract FCD \_\_\_\_\_, relating to the material, equipment, and work  
covered in and required by the contract.

The undersigned hereby certifies that to his/her knowledge, no contractual disputes exist in regard to this  
contract and that he/she has no knowledge of any pending or potential claims in regard to this contract.

Upon submission of this document and a separate invoice for any retained funds to the District, invoice  
processing will be completed within forty-five (45) calendar days.

State of Arizona            )  
  ) §  
County of Maricopa        )

Signed this \_\_\_\_ day of \_\_\_\_\_, 200\_\_.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**SUBSCRIBED AND SWORN TO** before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_.

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

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

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

CONTRACT FCD 99-45

PROJECT TITLE: North Peoria Area Drainage Master Plan

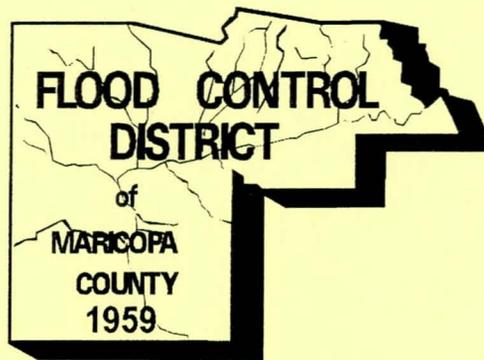
NAME AND ADDRESS OF INSURANCE AGENCY	<b>INSURANCE COMPANIES AFFORDING COVERAGES</b>	
	Company Letter	A
	Company Letter	B
	Company Letter	C
	Company Letter	D
	Company Letter	F

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time

CO. LTR	TYPE OF INSURANCE	POLICY NUMBER	EFFECTIVE DATE (MM/DD/YY)	EXPIRATION DATE (MM/DD/YY)	LIMITS
	<b>COMMERCIAL GENERAL</b>  <input checked="" type="checkbox"/> LIABILITY FORM <input checked="" type="checkbox"/> PREMISES OPERATIONS <input checked="" type="checkbox"/> CONTRACTUAL <input checked="" type="checkbox"/> BROAD FORM PROPERTY DAMAGE <input checked="" type="checkbox"/> EXPLOSION & COLLAPSE <input checked="" type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS HAZARD <input checked="" type="checkbox"/> UNDERGROUND HAZARD <input checked="" type="checkbox"/> INDEPENDENT CONTRACTORS <input checked="" type="checkbox"/> PERSONAL INJURY				GENERAL LIABILITY EACH OCCURRENCE \$1,000,000  PRODUCTS/COMPLETED OPERATIONS AGGREGATE \$2,000,000  GENERAL AGGREGATE \$2,000,000 BODILY INJURY AND PROPERTY DAMAGE \$1,000,000  PERSONAL INJURY EACH OCCURRENCE \$1,000,000 \$1,000,000
	<b>COMPREHENSIVE AUTO</b> <input checked="" type="checkbox"/> LIABILITY & NON-OWNED				EACH OCCURRENCE \$1,000,000
	<input type="checkbox"/> EXCESS LIABILITY				NECESSARY IF UNDERLYING NOT ABOVE MINIMUM
	<input checked="" type="checkbox"/> WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				Each Accident \$1,000,000 Disease - Each Employee \$1,000,000 Disease Policy Limit \$1,000,000
	<input checked="" type="checkbox"/> ENGINEERS PROFESSIONAL LIABILITY				EACH CLAIM AND ANNUAL AGGREGATE \$1,000,000
	<input checked="" type="checkbox"/> OTHER	The Flood Control District of Maricopa County and Maricopa County, their agents, representatives, officers, directors, officials, and employees are named as Additional Insured.			

Except for Professional Liability Insurance and Workers' Compensation Insurance, the Flood Control District of Maricopa County and Maricopa County are added as Additional Insured's on those types of policies described herein which are required to be furnished by this contract entered into between the insured and the Flood Control District. To the extent provided in this contract, insured shall hold harmless the Flood Control District of Maricopa County and Maricopa County from liability arising out of any services provided or duty performed by insured as required by statute, law, purchase order or otherwise required, with the exception of liability for loss or damage resulting from the sole negligence of Flood Control District, its agents, employees or indemnities. It is agreed that any insurance available to the named insured shall be primary of other sources that may be available. It is further agreed that no policy shall expire, be cancelled, or materially changed to affect the coverage available to the District without thirty (30) days written notice to the District. **THIS CERTIFICATE IS NOT VALID UNLESS COUNTERSIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE INSURANCE COMPANY.**

FLOOD CONTROL District OF MARICOPA COUNTY 2801 West Durango Street Phoenix, Arizona 85009	DATE ISSUED _____ _____ AUTHORIZED REPRESENTATIVE
---	---



## **SCOPE OF WORK**

**North Peoria Area Drainage Master Plan  
FCD No. 99-45**

**FLOOD CONTROL DISTRICT of Maricopa County**

## TABLE OF CONTENTS

1.0	GENERAL DESCRIPTION .....	3
1.1	PROJECT DESCRIPTION .....	3
1.2	PURPOSE AND NEED .....	3
1.3	LOCATION .....	3
1.4	PARTICIPANTS .....	3
1.5	CONTRACT TIMEFRAME AND SCHEDULE .....	4
1.6	PROJECT REFERENCES .....	4
2.0	TASKS .....	5
2.1	DATA COLLECTION AND EXISTING CONDITIONS ANALYSIS .....	5
2.2	FEMA FLOODPLAIN DELINEATIONS .....	6
2.3	LEVEL I ANALYSIS - ALTERNATIVES FORMULATION/PRELIMINARY ANALYSIS .....	7
2.4	LEVEL II ANALYSIS - ALTERNATIVES ANALYSIS .....	8
2.5	LEVEL III ANALYSIS - PREFERRED ALTERNATIVES ANALYSIS .....	10
2.6	SEDIMENTATION ENGINEERING AND GEOMORPHIC EVALUATION .....	12
2.7	FIELD SURVEY AND MAPPING .....	13
2.8	HYDRAULIC ANALYSIS .....	14
2.9	HYDROLOGIC ANALYSIS .....	15
2.10	LAND OWNERSHIP, RIGHT-OF-WAY AND EASEMENTS .....	15
2.11	ENVIRONMENTAL OVERVIEW .....	15
2.12	VISUAL RESOURCES AND MULTIPLE-USE OPPORTUNITIES ASSESSMENT .....	17
2.13	PUBLIC INVOLVEMENT .....	20
2.14	UTILITIES .....	21
2.15	SITE VISITS .....	21
2.16	MEETINGS .....	22
3.0	PROJECT ADMINISTRATION .....	24
3.1	SCHEDULE .....	24
3.2	INVOICES .....	24
3.3	PROJECT MANAGEMENT .....	24
3.4	REPORTS .....	24
3.5	DELIVERABLES .....	25

## 1.0 GENERAL DESCRIPTION

### 1.1 PROJECT DESCRIPTION

1.1.1 This scope-of-work (SOW) is to contract for professional engineering services necessary to produce the North Peoria Area Drainage Master Plan (ADMP). The North Peoria ADMP will characterize drainage in the largely undeveloped Morgan City Wash and northern watersheds contributing to the Agua Fria River, identify current and anticipate potential future drainage problems, and generate development guidelines to alleviate potential flooding problems. Flooding solutions will include drainage design policies, standards and guidelines. The ADMP will also make recommendations regarding policies and guidelines for future private developments to reduce debris and maintain sediment transport.

The SOW will include public coordination, survey and mapping, hydraulics, hydrology, sedimentation and geomorphic evaluations, environmental and visual resources overviews, identification of drainage problems, and development of alternative solutions.

### 1.2 PURPOSE AND NEED

1.2.1 The purpose of the North Peoria ADMP is to anticipate potential flooding problems associated with impending development. Arizona Revised Statutes Title 48, Chapter 21 requires the Board of Directors to identify flooding problems and plan for the construction of facilities which will eliminate or minimize flooding problems.

1.2.2 The major objective of this study is to identify sustainable non-structural flood control solutions for the study area, e.g., guidelines for development in hillside and wash terrain, to prevent flood damage within the study area. It is the goal of the DISTRICT to develop a comprehensive drainage plan that, when properly implemented, will minimize or eliminate the need for structural flood control solutions following urbanization. This will be accomplished by the development of regulatory methods, including development guidelines, requiring post-urbanization runoff character (i.e., volumes and hydrographs) be unchanged from pre-urbanization conditions. It is the expectation of the DISTRICT that this study will make few, if any, recommendations for structural flood control solutions.

1.2.3 Since no current hydrologic models accurately reflect the conditions of the entire study area, this work is necessary to accurately model the hydrology using current DISTRICT standards. Area floodplain managers, municipalities, and developers will use this study as a basis for drainage regulation, improvements and design.

### 1.3 LOCATION

1.3.1 The area of study for the North Peoria ADMP is roughly coincident with the Agua Fria drainage area from the New Waddell Dam to approximately the Beardsley Road alignment. The eastern boundary is formed by the drainage divide between the New River and the Agua Fria River (New River Road and Lake Pleasant Road alignments). The southern boundary is near the confluence of the El Mirage Drain (outlet from McMicken Dam) and the Agua Fria River; the western boundary is the watershed divide between Morgan City Wash and Trilby Wash; the northern boundary is the watershed divide between Morgan City Wash within Maricopa County and the tributaries to the Agua Fria River that flow to Lake Pleasant. The total study area is approximately 73 square miles and is displayed on Attachment 1.

### 1.4 PARTICIPANTS

1.4.1 The following project Participants will be receiving copies of project submittals and will act as the agency point-of-contact:

Marilyn DeRosa, R.G.  
Planning Project Manager

Flood Control District of Maricopa County  
2801 West Durango Street  
Phoenix, Arizona 85009

Burton R. Charron, P.E.  
Civil Engineer, Public Works Department  
City of Peoria  
8401 West Monroe Street  
Peoria, Arizona 85345

1.4.2 The CONSULTANT may be coordinating with the following organizations for information and input in the study:

Flood Control District of Maricopa County  
Maricopa County Parks and Recreation Department  
Maricopa County Department of Transportation  
City of Peoria  
Arizona Department of Transportation  
Arizona State Land Department  
U.S. Bureau of Land Management  
U.S. Bureau of Reclamation  
Central Arizona Project

#### **1.5 CONTRACT TIMEFRAME AND SCHEDULE**

1.5.1 The CONSULTANT shall complete the ADMP within the contract period of 550 calendar days.

#### **1.6 PROJECT REFERENCES**

1.6.1 All work under this SOW will be in accordance with the DISTRICT Consultant Guidelines dated October, 1998, unless otherwise noted. Sections 8, 15, 16 and 18 of the Consultant Guidelines specifically do not apply.

1.6.2 General references and standards available are as outlined in Section 20, Consultant Guidelines, October 1, 1998. This section provides general requirements, methodologies, and procedures to be followed in completing work for the DISTRICT. Any specific work tasks described in this SOW should be completed consistent with this SOW. Any variations from this SOW or the Consultant Guidelines document shall not be undertaken without written concurrence from the DISTRICT.

## 2.0 TASKS

### 2.1 DATA COLLECTION AND EXISTING CONDITIONS ANALYSIS

2.1.1 The CONSULTANT shall conduct this portion of the study in accordance with Section 14.2, Data Collection and Existing Conditions Analysis, Consultant Guidelines, October 1, 1998.

2.1.2 The CONSULTANT shall review pertinent data made available by the DISTRICT and other outside sources. Data to be reviewed will include materials relevant to the project such as any existing topographic mapping; as-built plans for any existing structures; FEMA Flood Hazard Boundary Maps, FEMA-approved floodplain delineation studies, any Letters of Map Amendment and/or Revisions, drainage reports, site plans and future drainage improvement plans; park, recreation, land-use, transportation, trails, bicycle, preservation, and transit plans; and other relevant information. Interviews should be arranged with the appropriate agencies for information on drainage problems in the area.

The North Peoria ADMP will be a true planning tool. Limited development within the study area presents the opportunity to identify and implement drainage guidelines for development that will maintain the overall drainage characteristics of the watershed, minimizing the need for future capital expenditures.

2.1.3 The CONSULTANT shall conduct an investigation of development and drainage problems in areas (up to three) physically similar to North Peoria and provide a list of hydraulic problems likely to occur in the North Peoria ADMP if additional drainage regulations and requirements specific to development on steep hillsides and natural washes are not implemented. The CONSULTANT should consider all types of hydraulic problems including drainage problems within subdivisions or developments, and washes independent of or larger than individual developments.

2.1.4 The CONSULTANT shall investigate and provide a list of existing regulatory methods to circumvent the types of localized flooding problems identified in the previous task. All identified regulations and any other possible regulations should be compiled and considered during the Level I Analysis as described in Section 2.3 of this SOW.

2.1.5 The CONSULTANT shall prepare an inventory of drainage facilities that are being planned by other public jurisdictions, irrigation districts or private development.

2.1.6 The CONSULTANT shall develop, review and record a comprehensive list of proposed development planned within the study area.

2.1.7 The CONSULTANT shall prepare an Existing Facilities Exhibit illustrating the location of man-made drainage facilities in the watershed. The condition, capacity and ownership of man-made facilities will be noted. These facilities will become part of the base map for any recommended structural flood control alternatives. The CONSULTANT shall make maximum use of these facilities, where feasible, as part of the stormwater management plan alternatives. Base mapping will include land ownership, land use types, and soil types, all provided by the DISTRICT. The land ownership maps will indicate whether property is publicly or privately held and the owning agency.

2.1.8 The CONSULTANT shall become familiar and give consideration to existing hydrologic studies and models, and assumptions made to assist with the new hydrologic analysis.

2.1.9 The DISTRICT will provide the following material at the Kickoff Meeting:

2.1.9.1 Aerial photography of the project area at a scale of 1 inch = 200 feet (digital format if available).

2.1.9.2 Digital topographic mapping for the Agua Fria River.

2.1.9.3 Hydrology Report, CAP Overchutes, Agua Fria Floodplain Delineation Study, Maricopa County, Arizona, FCD 90-09.

2.1.9.4 Hydraulic models (digital) for the CAP Overchutes.

2.1.9.5 Hydraulic models (digital) for the Agua Fria River.

2.1.9.6 Hydrology and hydraulic reports (including digital hydrology and hydraulic models) for the Morgan City Wash Watershed.

2.1.9.7 A listing of all property owners within the project area and stakeholders in the project, in Microsoft Word 97 and/or Microsoft Excel 97 or compatible software.

2.1.10 The CONSULTANT will compile the data in a Data Collection Report. The Data Collection Report will contain a description of information collected for this project. Other data collected pertinent to the project should also be contained in the Data Collection Report. Existing major natural washes and existing and planned man-made drainage facilities in the watershed should be shown on the Existing Facilities Exhibit to be submitted with the Data Collection Report. The Existing Facilities Exhibit will be prepared in AutoCAD 14 format. The CONSULTANT shall submit a draft of this report within 120 days of the Notice to Proceed (NTP). The final report will be included in the North Peoria ADMP Technical Data Notebook (TDN).

## **2.2 FEMA FLOODPLAIN DELINEATIONS**

2.2.1 The CONSULTANT shall prepare floodplain delineations utilizing approximate or detailed methods for existing conditions only for washes or wash segments listed below. Detailed delineations will be in accordance with Section 11.5, Floodplain Delineation, Consultant Guidelines, October 1, 1998. Criteria for approximate delineations (FEMA Special Hazard Zone A) where applicable will be in accordance with Section 11.5, Floodplain Delineation, Consultant Guidelines, October 1, 1998. Approximate delineations for washes will be conducted by utilizing surveyed cross sections, 100-year peak discharges from the hydrologic analyses and normal depth calculations using Manning's Equation. At a minimum, cross-section spacing between survey cross sections will be 1,000 feet. Approximate delineations will be displayed on 7 ½-minute USGS topographic quadrangles. Delineations will terminate when the watershed area contributing runoff to the subject wash/tributary is less than one square mile.

2.2.1.1 Detailed Studies. Approximately 16.2 miles of three unnamed tributaries to the Agua Fria River south of the Morgan City Wash watershed and State Route 74 and north of the Central Arizona Project (CAP) Canal. The locations of the three unnamed washes are displayed on Attachments 4 and 5. Detailed delineations of Unnamed Wash 1 and Unnamed Wash 2 will end at SR 74.

2.2.1.1.1 (OPTIONAL) Should the results of the hydrologic analyses indicate that the existing FEMA special flood hazard zone for Morgan City Wash (approximately 9.6 miles) requires updating, the CONSULTANT will update the existing HEC-2 model for a Letter of Map Revision (LOMR) submittal. The LOMR will be submitted to FEMA. Modeling efforts for the updated model will consist only of revising 100-year peak discharges. Updated floodplain and floodway delineations will be displayed on available mapping provided by the DISTRICT. Should digital mapping not be available, hard copies of existing Morgan City Wash topography will be scanned for use as the floodplain delineation base work maps. This task includes a TDN LOMR submittal to FEMA. This task is not authorized with the NTP and may be authorized in writing by the DISTRICT based upon the results of the hydrologic analysis.

2.2.1.2 Approximate Studies. Approximately 6.3 miles of unnamed tributaries to unnamed washes listed in Section 2.2.1.1 or extensions to unnamed washes upstream of SR 74. Approximately 2.0 miles of Twin Buttes Wash and 0.5 miles of Caterpillar Wash upstream of the CAP Canal. The locations of unnamed tributaries, unnamed washes, and washes upstream of the CAP Canal are displayed on Attachments 4 and 5.

2.2.1.2.1 (OPTIONAL) Should the results of the hydrologic analyses and field investigations indicate that approximate delineations are merited for approximately 1.0 mile of potential ponding area upstream of canals and approximately 4.3 miles of unnamed washes within the area between the effective Agua Fria Floodplain eastern limit and the eastern project boundary, the CONSULTANT will map approximate delineations for the subject area. The locations of unnamed tributaries and potential ponding areas are displayed on Attachments 3 and 4. This task is not authorized with the NTP and may be authorized in writing by the DISTRICT based upon the results of the hydrologic analysis.

2.2.2 The CONSULTANT shall prepare a FEMA submittal for detailed and approximate delineations in accordance with Chapter 12, FEMA Submittals, CONSULTANT Guidelines, October 1, 1998.

2.2.3 (OPTIONAL) Cost for revisions to the FEMA Submittals after FEMA's review and comments shall be paid to the CONSULTANT as an optional fee with written authorization from the DISTRICT.

### **2.3 LEVEL I ANALYSIS – ALTERNATIVES FORMULATION/PRELIMINARY ANALYSIS**

2.3.1 The CONSULTANT shall prepare an existing constraints map based on information derived from the existing data for presentation at a Brainstorming Meeting of the participants to initiate the Level I Analysis. The presentation shall identify existing flooding problem areas and the results from existing studies in the area. The CONSULTANT will provide several seed ideas for potential solutions and consideration, focusing on non-structural solutions. During the Brainstorming Meeting, the participants shall include any possible regulatory methods as identified in Section 2.1.4 of this SOW and any information provided by the cultural, environmental, ecological, visual and/or other analyses that have been conducted. The CONSULTANT shall document all the possible alternatives identified during the Brainstorming Meeting.

2.3.2 Based on the concepts identified in the Brainstorming Meeting, the CONSULTANT shall identify those alternatives which can be discarded with no or minimal analysis, and eliminated from further consideration and then identify possible project alternatives, again focusing on non-structural and regulatory solutions.

2.3.3 The CONSULTANT shall recommend the alternatives to be studied further. The DISTRICT, with input from the study participants, will make the final selection of alternatives.

2.3.4 The CONSULTANT shall submit a narrative description of the potential alternatives (up to ten alternatives) for review (Potential Alternatives Submittal) and any necessary schematic drawings (should engineered flood control solutions be considered). The purpose is to review and approve the alternatives prior to proceeding with the analysis. Any required drawings shall be sufficient to describe and compare the project requirements and alignment of the alternative. The narrative shall describe the alternatives and identify the advantages and disadvantages.

2.3.5 The CONSULTANT shall develop evaluation criteria with input from the participating agencies for evaluation of the alternatives and prepare a matrix by which alternatives can be evaluated by assigning scores to each of the evaluation criteria. Socioeconomic (including existing and proposed land uses), physical and natural environmental and cultural resources impacts are to be included, as applicable, in the evaluation criteria.

2.3.6 Preliminary alternates will focus on non-structural regulatory solutions. Any structural solutions must include impacts of proposed and existing development and are limited to a complete structural solution alternative of bank armoring and an alternative that evaluates partial bank armoring (along roadway and roadway crossings of washes). Structural-type alternative engineering analyses are limited to areas in which detailed mapping is a product of this SOW. Project alternatives to be considered include but are not limited to:

2.3.6.1 A No-Action ("do nothing") Alternative.

2.3.6.2 Regulatory Methods Alternative (existing and proposed policies and regulations). A regulatory alternative to circumvent the type of localized flooding problems likely to occur if additional drainage regulations and requirements specific to development on steep hillsides and natural washes are not implemented. The CONSULTANT should consider all types of hydraulic problems including drainage problems within subdivisions or developments, and washes independent of or larger than individual developments. The CONSULTANT shall evaluate the need for policies and guidelines to address flooding problems in hillside developments for use throughout the study area.

2.3.6.3 Minimal stabilization and appropriate erosion setbacks leaving washes in their natural state.

2.3.6.4 A typical armored bank (rock-filled slope mattress), alluvial bed channel with full development of the floodway fringe.

2.3.6.5 An alternative that evaluates partial bank armoring. Armored banks will be along roadways and roadway crossings of subject reaches. Armoring may consist of material other than rock-filled wire-tied baskets.

2.3.6.6 An alternative that leaves the floodway in a natural state but allows active recreational use of the floodway fringe.

## **2.4 LEVEL II ANALYSIS – ALTERNATIVE ANALYSIS**

2.4.1 The CONSULTANT shall prepare the Level II Analysis in accordance with Section 14.4, Level II Analysis – Alternative Analysis, Consultant Guidelines, October 1, 1998.

2.4.2 The CONSULTANT shall evaluate the approved alternatives (up to six separate alternatives or a combination of six alternatives per watersheds with outfalls to the Agua Fria) to determine the feasibility and approximate costs. Those alternatives designated for further study shall be further evaluated in sufficient detail to select a recommended plan. The CONSULTANT will focus on non-structural and regulatory alternatives for possible implementation throughout the study area, but may include structural alternatives as well. Structural-type solutions for the area outside of where detail floodplain delineations are being conducted as part of this study will be addressed at a policy or regulation guideline level. Structural-type alternative engineering analyses are limited to areas in which detailed mapping is a product of this SOW.

Structural alternatives shall be evaluated at similar levels of detail (i.e., based upon generalized hydraulics and cost estimates) to determine their engineering feasibility and approximate cost. Conceptual design of any structural project features shall be limited to typical sizes, dimensions, landscape and recreational features, and shall be sufficient to determine the costs of major project components. Conceptual design will be based on the 100-year/6-hour, future conditions, peak discharges. The studies shall be completed in sufficient detail to demonstrate technical feasibility. The designs shall be based on available topographic mapping. Capital cost estimates shall include design, major construction items, rights-of-way, and major utility relocations. Cost estimates are to be used to compare the linear costs between the proposed alternatives.

2.4.3 The CONSULTANT shall prepare an Alternatives Summary presenting the alternatives

and evaluation criteria to be reviewed by the Participants and used to evaluate the selected alternatives at a comparative level of detail. An Alternative Evaluation meeting of the Participants will be held to evaluate the alternatives. The CONSULTANT shall assemble the evaluations and identify the preferred alternatives receiving the highest composite scores based on the scores assigned by the reviewers. The preferred alternatives should focus heavily on regulatory solutions but might include engineered solutions as well.

2.4.4 An Alternatives Formulation Report shall be prepared containing narrative descriptions of the potential alternatives considered and discarded, the results of the alternatives analysis, cost estimates, and the recommended plan. The advantages and disadvantages of each alternative shall be identified, considering construction cost, public preferences, environmental impacts, and reliability and life of the project. The recommended alternative shall be identified in the Report. The Report shall be submitted in DRAFT form for review by the DISTRICT and the project Participants. Upon receipt of review comments, the CONSULTANT shall incorporate appropriate revisions and incorporate the Alternatives Formulation Report into the North Peoria ADMP Report. The Alternatives Formulation Report format should include the following as applicable:

- Summary
- Description of Study Area
- Scope of Project
- Environmental Overview
  - Environmental Permits and Approvals
  - Biological Survey Analysis
  - Cultural Resources Analysis
  - Environmental Regulatory Records Review
- Visual Resources and Multiple-Use Opportunities Overview
- Alternatives Descriptions (including sketches as necessary)
- Alternatives Eliminated
- Cost Estimates
- Evaluation Criteria/Matrix
- Evaluation of Alternatives
- References/Figures

2.4.5 A Technical Data Notebook (TDN) shall be prepared by the CONSULTANT in accordance with ADWR State Standards Attachment 1-97(SSA1-97) to present the technical findings of the Alternative Formulation Analysis. Only pertinent sections of SSA1-97 will apply. The TDN contains documentation of any designs, analysis and calculations. The TDN should include the following as applicable:

- Executive Summary
- Description of Study Area
- Scope of Project
- Data Collection Results
- Environmental Overview
  - Environmental Permits and Approvals
  - Biological Survey Analysis
  - Cultural Resources Analysis
  - Environmental Regulatory Records Review
- Visual Resources and Multiple-Use Opportunities Overview
- Land
  - Parcel Ownership
  - Rights-of-Entry Requirements
  - Right of Way Requirements
- Hydrology/Hydraulics Models
  - Current Conditions
  - Areas of Flooding
  - Existing and Future Development Plans

Areas and Locations of Potential Flooding  
Existing and Future Drainage Facilities  
Summary of Models/Conditions  
Concerns  
Major Utilities and Utilities Conflicts  
Existing Facilities Exhibit  
References/Figures

## **2.5 LEVEL III ANALYSIS – PREFERRED ALTERNATIVE ANALYSIS**

2.5.1 The CONSULTANT shall prepare the Level III Analysis in accordance with Section 14.5, Level III Analysis – Preferred Alternative Analysis, Consultant Guidelines, October 1, 1998.

2.5.2 The CONSULTANT shall present the preferred alternative(s), plan implementation and funding of the plan to the Participants. The Participants shall prioritize the components of the preferred alternative(s) and the CONSULTANT shall include the prioritization in the North Peoria ADMP Report.

2.5.3 If engineered solutions are identified as a preferred alternative, the CONSULTANT shall refine the design and cost estimate for the preferred alternative identified in the Alternatives Formulation Report. Structural-type alternative engineering analyses are limited to areas in which detailed mapping is a product of this SOW.

2.5.4 If engineered solutions are identified as a preferred alternative, the CONSULTANT shall prepare Conceptual Design Plans (15 percent design level) which will identify the approximate sizes, slopes, profiles, alignments, cross-sections and plan and profile for proposed channels, culverts, basins and/or other features at 1 inch = 200 feet scale, 2-foot contour interval. Landscaping, recreation, cultural, environmental, and/or ecological sites and aesthetic features shall be included in project drawings and cost estimates. Structural-type solutions for the area outside of where detail floodplain delineations are being conducted as part of this study will be addressed at a policy or regulation guideline level. Structural-type alternative engineering analyses are limited to areas in which detailed mapping is a product of this SOW.

2.5.5 As part of the ADMP study, the CONSULTANT shall prepare an Implementation Plan. The CONSULTANT shall identify tools, such as existing ordinances, regulations, and policies for each jurisdiction within the study area that may be modified or created to encourage development standards that are compatible with the project. The CONSULTANT shall then prepare an Implementation Plan for the preferred alternatives that shall document the available tools or procedures for implementing the results of the project.

2.5.6 As part of the ADMP study, the CONSULTANT shall prepare a Maintenance Plan that will document the required maintenance of any project facilities. The plan shall include descriptions of the required vegetation maintenance, periodic dredge and fill requirements within the channel, materials (paints, lubricants, etc.), any specialized equipment required, maintenance intervals, manufacturers data and specifications, and an estimate of the required manpower and costs required.

2.5.7 A DRAFT North Peoria Area Drainage Master Plan (ADMP) Report shall be prepared containing the content of the Alternatives Formulation Report and the results of the feasibility level analysis of the recommended alternatives.

2.5.7.1 The North Peoria ADMP Report will focus on the recommended non-structural solutions. The Report will include recommendations to regulators which will detail recommended regulatory methods to circumvent localized flooding and will include a set of guidelines for development in steep hillside and natural wash terrains. The recommendations and guidelines will be developed using the hydrologic, hydraulic, sedimentation, environmental, and visual resource analyses and will include

recommendations for preserving landscape character and habitat and recreation considerations.

2.5.7.2 For any structural alternatives, the report shall contain conceptual design plan and profile drawings which contain sufficient detail to be used as the basis for completion of the preliminary design by others, any engineering design guidelines to maintain 100-year conveyance, landscaping, habitat and recreation considerations, cost estimates and determination of erosion setbacks for future development, if required.

2.5.7.3 The DRAFT North Peoria ADMP Report shall be submitted for review by the DISTRICT and other project Participants. Upon receipt of review comments, the CONSULTANT shall incorporate appropriate revisions and complete the FINAL North Peoria ADMP Report. The Report should include the following as applicable:

- Summary
- Description of Study Area
- Scope of Project
- Evaluation Criteria
- Selection of Preferred Alternatives
- Recommendations to Regulators
- Environmental Overview Summary
- Visual Resources and Multiple-Use Opportunities Overview Summary
- Cost Estimates
- Priority of Features
- Maintenance Plan
- Implementation Plan
- References/Figures
- Disk Copies of applicable hydrologic and hydraulic models
- Conceptual Design Plans (if applicable):
  - Indicate existing topography
  - Indicate cultural, biological, environmental impact areas
  - Indicate conveyance criteria; approximate size and configuration, invert, typical cross-section
  - Indicate conflicting utilities

2.5.8 The CONSULTANT shall prepare a separate, reproducible Executive Summary of the FINAL North Peoria ADMP Report.

2.5.9 The TDN developed for the Alternative Formulation Report shall be revised to be consistent with the FINAL North Peoria ADMP Report. Full-scale conceptual design plans if applicable will be included as part of the TDN.

2.5.10 (OPTIONAL) Additional refinement of design and cost estimates for preferred alternatives may be conducted by the CONSULTANT. If requested by the DISTRICT, the CONSULTANT shall refine design and cost estimates for additional preferred alternatives identified in the Alternatives Formulation Report. The CONSULTANT may be required to prepare Conceptual Design Plans (15 percent design level) which will identify the approximate sizes, slopes, profiles, alignments, cross sections and plan and profile for proposed channels, culverts, basins and/or other features at 1 inch = 200 feet scale, 2-foot contour interval. Landscaping, recreation, cultural, environmental, and/or ecological sites and aesthetic features shall be included in project drawings and cost estimates. Structural-type solutions for the area outside of where detail floodplain delineations are being conducted as part of this study will be addressed at a policy or regulation guideline level. Structural-type alternative engineering analyses are limited to areas in which detailed mapping is a product of this SOW. This task is not authorized with the NTP and may be authorized in writing by the DISTRICT.

## 2.6 SEDIMENTATION ENGINEERING AND GEOMORPHIC EVALUATION

2.6.1 The primary objective of the sedimentation engineering and geomorphic evaluation is to provide a qualitative assessment of potential erosion and scour within the drainage network of the North Peoria ADMP watershed.

2.6.2 Existing Conditions Assessment. The CONSULTANT shall conduct field investigations, and use aerial photographs and existing studies and reports to evaluate the existing sedimentation characteristics of the main watercourses in the study area. Based on this assessment, the CONSULTANT shall prepare a technical memorandum describing the existing system constraints for flood control planning with respect to sedimentation and the fluvial geomorphology. Detailed subsurface or geotechnical analyses are not part of this SOW. The existing conditions analysis shall focus on the following:

2.6.2.1 Identifying stream reaches that have experienced historical and/or recent long-term degradation or aggradation.

2.6.2.2 Identifying stream reaches that have experienced historical and/or recent lateral instability or stability.

2.6.2.3 Identifying stream reaches with existing sedimentation problems, such as at bridges, dip crossings, or existing hydraulic structures.

2.6.2.4 Identifying historical and recent impacts of base level changes on the Agua Fria River on major tributaries in the study area.

2.6.2.5 Identifying historical and recent stream responses to development in the watershed and along watercourses.

2.6.2.6 Identifying points of natural grade control.

2.6.2.7 Identifying existing sediment sources in the watershed.

2.6.3 Erosion Hazards. The CONSULTANT shall delineate erosion hazard setbacks for the watercourses identified for detailed and approximate method floodplain delineations under this SOW. The total length of stream miles for erosion hazard setback analysis of Unnamed Wash 1, Unnamed Wash 2 and Unnamed Wash 3 is approximately 16.2 miles. The total length of stream miles for the approximate floodplain delineations is approximately 10 miles.

2.6.3.1 (OPTIONAL) Additional erosion hazards analyses may be conducted for reaches as described below. This task is not authorized with the NTP but may be authorized in writing by the DISTRICT as required.

2.6.3.1.1 The CONSULTANT shall delineate erosion hazard setbacks for Morgan City Wash (approximately 9.6 miles).

2.6.3.1.2 The CONSULTANT shall delineate erosion hazard setbacks for Caterpillar Tank Wash, Garambullo Wash, Twin Buttes Wash, and White Peaks Wash for a total analyses reach of approximately 17 miles. The erosion setbacks shall commence at the Agua Fria River and extend upstream to the CAP Canal.

2.6.3.2 Erosion setbacks will be delineated using the State Standard 5-96 (SSA 5-96) Level 1 approach. The CONSULTANT shall conduct sufficient field reconnaissance to assess where the Level 1 approach is appropriate. Where appropriate, interpretation of aerial photographs shall be used to supplement or replace field reconnaissance. Reaches where the Level 1 setback is not conservative shall be delineated to indicate where more detailed erosion analyses should be required prior to development. Erosion hazards shall be delineated based on interpretation of field data and aerial photographs.

2.6.3.3 Hydraulic and hydrologic data used to assess erosion hazards will be provided from existing Flood Insurance Study (FIS) floodplain delineations (detailed) provided by the DISTRICT and hydraulic and hydrologic studies prepared by the CONSULTANT as part of this SOW. No new hydraulic analyses will be conducted for the erosion hazard assessment.

2.6.4 Sediment Yield. The CONSULTANT shall estimate the existing and future sediment yield for the study area using regional procedures such as the PSIAC methods. In particular, the CONSULTANT shall estimate long-term sediment storage upstream of the CAP embankment, the potential for long-term scour downstream of CAP overchutes, and sediment maintenance requirements adjacent to the CAP. Planning level unit sediment yields will be estimated to predict sediment storage for future regional retention/detention facilities. Sediment data shall be obtained from existing studies and reports, or from up to 10 sieve samples collected from the study area.

#### 2.6.5 Alternatives Analysis.

2.6.5.1 The CONSULTANT shall assess the sedimentation and geomorphic impacts on channel stability from the following development scenarios: sand and gravel mining in the Agua Fria River on its tributaries; floodplain encroachment; channelization with engineering bank protection and grade control; roadway crossings; and utility crossings.

2.6.5.2 The CONSULTANT shall identify a typical structural flood control design(s) to address sedimentation concerns. The typical design(s) are to be used to compare the linear costs of non-structural vs. structural flood control. Consideration of individual or specific structures is beyond the scope of this analysis.

2.6.6 Development Guidelines. The CONSULTANT shall develop best management practice recommendations for management of sediment and scour at drainage crossings and other structural features. The best management practice recommendations are intended for use by the City of Peoria and Maricopa County for management of future development, and may include erosion setbacks, maintenance of bank vegetation and riparian corridors, drainage crossing design guidelines, conveyance requirements to maintain sediment continuity, guidelines for evaluating potential erosion within delineated erosion hazard areas, guidelines for assessing potential downstream impacts of structural flood control solutions, and guidelines for channel restoration where natural channels are disturbed by development.

2.6.7 Sedimentation Engineering and Geomorphic Evaluation Report. The CONSULTANT shall prepare a Report summarizing the results of the sedimentation engineering and geomorphic analysis, including the technical memorandum described in Section 2.6.2.

## **2.7 FIELD SURVEY AND MAPPING**

2.7.1 The CONSULTANT shall prepare aerial mapping for Unnamed Wash 1, Unnamed Wash 2 and Unnamed Wash 3 within the study area (see Attachments 4 and 5). A 1,000-foot wide (500 feet on each side of the wash center line) corridor will be mapped for each wash. Mapping will be completed at a scale of 1 inch = 200 feet with a 2-foot contour interval. The mapping shall be completed in accordance with Section 3, Survey, Photogrammetry and Mapping, and Section 11.3, Photogrammetric Mapping and Control Surveying, Consultant Guidelines, October 1, 1998.

2.7.2 The CONSULTANT shall obtain field surveys of bridges, culverts, and drainage structures when record drawings or previous survey data is not available.

2.7.3 Survey shall tie to the Maricopa County Department of Transportation's control system where available. If not available, survey control shall be referenced to DISTRICT's North Peoria structural control for New River and Adobe Dams.

2.7.4 Project Survey Report Appendix. Survey data will be documented in a Project Survey Appendix to the TDN in accordance with Chapter 3, Survey, Photogrammetry and Mapping, and Chapter 11, Section 3, Photogrammetric Mapping and Control Surveying, Consultant Guidelines, October 1, 1998. Copies of all survey notebooks or printout of digital files developed with data collectors will be provided. The horizontal and vertical benchmarks used for the survey shall be documented along with documentation of the datum upon which the benchmark was originally established. Conversion to other datum, as required herein shall be documented in the Report. A summary table of the ERM's and benchmarks, and documentation of ground survey checking results shall be included.

2.7.5 The CONSULTANT shall provide field survey data for cross sections used for Approximate A Zone study reaches depicted on Attachments 4 and 5. Cross-section spacing will be on 1,000-foot centers with a cross section at the beginning and end of each reach.

2.7.6 (OPTIONAL) The CONSULTANT shall provide field survey data for cross sections used for approximate floodplain delineations located between the east floodplain limit of the Agua Fria River and the East boundary of the project area. For the Approximate A Zone Floodplain reaches (Optional A Zone Study Reach) depicted on Attachments 4 and 5, cross-section spacing will be on 1,000-foot centers with a cross section at the beginning and end of each reach. This task is not authorized with the NTP and may be authorized in writing by the DISTRICT.

2.7.7 The CONSULTANT shall provide color stereo photographs for the entire study area. The stereo photographs shall be at a scale of 1:12,000, and shall have a minimum overlap of 60 percent.

2.7.8 (OPTIONAL) Topographic maps for Morgan City Wash, Caterpillar Tank Wash, Garambullo Wash (West and East), Twin Buttes Wash, West Fork of White Peaks Wash and White Peaks Wash will be scanned to develop a base map for display of alternatives. This task is not authorized with the NTP and may be authorized in writing by the DISTRICT.

## **2.8 HYDRAULIC ANALYSIS**

2.8.1 The CONSULTANT shall prepare hydraulic analysis in accordance with Sections 10.1, 10.2, 10.4, and 10.6 of Chapter 10, Hydraulics, Consultant Guidelines, October 1, 1998, for the following tasks:

2.8.1.1 Hydraulic computations and water surface profiles for detailed floodplain delineations described in Section 2.2.1.1. The CONSULTANT will develop HEC-RAS models for this task.

2.8.1.2 The CONSULTANT shall modify the HEC-RAS models developed in Section 2.8.1.1 to document the hydraulic conditions resulting from the preferred alternatives identified in Section 2.5.

2.8.1.3 Hydraulic analysis of approximate Zone A floodplain delineations for washes (nonponding areas) will be limited to Manning's equation.

2.8.1.4 (OPTIONAL) Hydraulic analysis of approximate Zone A floodplain delineations for washes and ponding areas behind existing canal for the area between the effective Agua Fria eastern floodplain limit and the eastern boundary of the project area will be limited to Mannings equation. This task is not authorized with the NTP and may be authorized in writing by the DISTRICT.

2.8.1.5 (OPTIONAL) At the request of the DISTRICT, the CONSULTANT shall modify the HEC-RAS models developed in Section 2.8.1.1 to document the hydraulic conditions resulting from the additional preferred alternatives identified in Section 2.5.10. This task is

not authorized with the NTP and may be authorized in writing by the DISTRICT.

2.8.2 The CONSULTANT shall prepare hydraulic analysis for bridge crossings and culverts, as applicable.

## **2.9 HYDROLOGIC ANALYSIS**

2.9.1 The CONSULTANT shall prepare preliminary hydrologic analysis in accordance with Chapter 9, Hydrology, Consultant Guidelines, October 1, 1998.

2.9.2 The CONSULTANT shall prepare the following hydrologic models:

2.9.2.1 Existing Conditions: 100-year/24-hour, 100-year/6-hour with sub-basins and points-of-concentration defined as applicable for the model frequency. A 10-year model is not a task of this SOW.

2.9.2.2 Future Conditions: 100-year/24-hour, 100-year/6-hour, with sub-basins and points-of-concentration defined as applicable for the model frequency. CONSULTANT should assume that 80 percent of retention requirements are met for future conditions modeling. A 10-year model is not a task of this SOW.

2.9.3 The CONSULTANT shall provide the same hydrology models incorporating the hydrologic effects of the preferred alternative(s) and features identified in this study.

## **2.10 LAND OWNERSHIP, RIGHT-OF-WAY AND EASEMENTS**

2.10.1 The CONSULTANT shall review assessor parcel ownership maps provided by the DISTRICT and identify which properties will be affected by the recommended alternatives.

2.10.2 The CONSULTANT shall identify permanent and temporary right-of-way and easement requirements necessary for any recommended structural flood control alternatives.

2.10.3 The CONSULTANT will identify any necessary rights-of-entry within the study area. The DISTRICT will obtain any necessary rights-of-entry for the study area and furnish the CONSULTANT with Right-of-Entry letters.

## **2.11 ENVIRONMENTAL OVERVIEW**

2.11.1 The CONSULTANT shall prepare an Environmental Overview analysis in accordance with the following SOW.

2.11.2 Environmental Permits and Approvals. For any recommended structural flood control solutions, the CONSULTANT shall be responsible for identifying plan approvals, permits, or licenses from other agencies that will be required. Other agencies may include, but may not be limited to: municipalities, tribal governments, the U.S. Environmental Protection Agency (EPA), the Maricopa County Department of Environmental Services (MCDES), the Arizona Department of Environmental Quality (ADEQ), the Arizona Department of Water Resources (ADWR), the Army Corps of Engineers (ACOE), railroads, utilities, and water districts. Requirements for permits shall be documented in the Implementation Plan.

2.11.3 Cultural Resources Assessment.

2.11.3.1 The CONSULTANT shall conduct Archeological Assessments to identify any prehistoric and historic resources for the study area. The results of the Archeological Assessment will be used in the Alternative Analysis process to determine the effects of each alternative on the cultural resources. The objective is to avoid and minimize impacts to the Archeological resources when feasible.

2.11.3.2 Cultural Resources Assessment Report. The CONSULTANT shall prepare an independent Report documenting the results of the archeological inventory. The Report shall describe the significance of any identified or known cultural resources and the potential impact of the preliminary project alternatives on the sites based on existing information. The Report shall include recommendations for further study and associated costs, including testing or mitigation, if required. The CONSULTANT shall contact all relevant Native American tribes to determine if any parts of the study area are considered traditional cultural properties. The Report shall include a description of the specific findings of all of the identified archeological resources within the study area including, but not limited to location, bibliographic reference, site size, type of site, and physical features of site. NO

2.11.3.3 The CONSULTANT shall locate all identified resources within the study area on USGS 7½-minute quadrangle topographic maps and on large-scale aerial photographs. The DISTRICT shall provide aerial photographs at a scale of 1 inch = 200 feet for the study area to the CONSULTANT.

2.11.3.4 The CONSULTANT shall summarize the findings of the archeological assessment in the North Peoria ADMP Report.

#### 2.11.4 Environmental Regulatory Records Review.

2.11.4.1 The CONSULTANT shall conduct a search of the federal, state, and local environmental lists and databases located in the study area and their respective search radius (ASTM 1527 - 97).

2.11.4.2 The CONSULTANT shall document the locations of the regulatory sites on USGS 7½-minute quadrangle topographic maps covering the study area. The CONSULTANT shall include a brief description of the regulatory sites which should include the descriptive location of the site, the type of regulated substance or waste at the site, the extent of the contamination, the status of the site (i.e., closed or open status), remediation plans of the site, and the named potentially responsible party(s). The CONSULTANT is not expected to conduct extensive file review on the identified regulatory sites to obtain this information.

2.11.4.3 The CONSULTANT shall recommend alternative locations and/or solutions to avoid costly remediation if any of the proposed alternatives appears to require land that is listed as a regulatory site or may be affected by a regulatory site. Landscape character and recreational potential shall be considered when recommending alternative locations to avoid costly remediation. NO

2.11.4.4 The CONSULTANT shall make a qualitative estimate of the general cost to investigate and remediate the potential problem resulting from the regulatory sites in terms of relative magnitude ( i.e., high, moderate or low). The information will be used in the analysis of the alternatives. NO

#### 2.11.5 Ecological Assessment.

2.11.5.1 The CONSULTANT shall conduct a non-intensive field survey and use current aerial photographs to identify, inventory, and map the existing ecological resources within the project area including the vegetation community, wildlife, sensitive species and critical habitat, water resources, and wetlands. The CONSULTANT shall contact the U.S. Fish and Wildlife Service (FWS) and the Arizona Game and Fish Department (AGFD) to obtain information regarding the presence of listed Threatened and Endangered Species, Wildlife Species of Special Concern, and designated critical habitat in the study area. The ecological CONSULTANT shall coordinate with the landscape/planning CONSULTANT to ensure integration of appropriate data.

As noted, the biological inventory will be comprised of low intensity field surveys designed to map vegetation communities to the series level as well as include available information on Sensitive, Threatened and Endangered Species and any other significant biological resources that may occur in the area. Lists of Sensitive, Threatened and Endangered Species will be obtained from the Heritage database at the AGFD and the FWS. The proposed fieldwork will not include any species-specific surveys but rather will map potential habitats of occurrence for the above species within the study area. Aerial photographs, at a 1 inch = 200 foot scale, will be provided by the DISTRICT.

NO

2.11.5.2 The CONSULTANT shall determine the effects of each of the proposed alternatives on the identified ecological resources and any identified sensitive species or habitat. Ecological data gathered during field surveys will be used to identify effects of up to three alternatives and to propose methods to minimize or avoid negative effects on biological resources. The biological resources will be compared across the alternatives for the purpose of assigning relative magnitude of negative effects and general mitigation costs associated with these negative impacts.

II

2.11.5.3 Ecological Assessment Report. The CONSULTANT shall prepare a Report summarizing the results of the ecological assessment. The Report shall include a description and maps or aerial photographs depicting the locations of the identified ecological resources. In addition, the Report shall describe the identified effects of each alternative on the ecological resources. The CONSULTANT shall recommend methods to avoid or minimize any negative effects the proposed alternatives may have on the ecological resources. If any of the negative effects cannot be avoided or minimized, then the CONSULTANT shall make a qualitative estimate of the general mitigation costs for the negative effects in terms of the relative magnitude (i.e. high, moderate or low). This information will be used in the analysis of the alternatives.

II

2.11.6 Title VI Environmental Justice Assessment. The CONSULTANT shall document and map the social and economic attributes of the citizens affected by this study. The factors prohibited from serving as a basis for action or inaction which discriminates include, race, color, national origin, sex, age, and handicap/disability. Therefore, the efforts to prevent discrimination must address, but not be limited to a program's impacts, access, benefits, participation, treatment, services, contracting opportunities, training opportunities, investigations of complaints, allocations of funds, prioritization of projects and the functions of right-of-way, research, planning and design.

2.11.7 (OPTIONAL) The CONSULTANT shall delineate the potential wetlands located in the study area in accordance with the current ACOE Wetland Delineation Manual. This task is not authorized with the NTP but may be authorized in writing by the DISTRICT as required.

## **2.12 VISUAL RESOURCES AND MULTIPLE-USE OPPORTUNITIES ASSESSMENT**

2.12.1 Visual Resources Assessment. The CONSULTANT shall prepare a reconnaissance level inventory and assessment of visual resources within the entire study area exclusive of the Auga Fria 100-year floodplain. The purpose of this assessment is to identify aesthetic features and areas of the project area that may be preserved, enhanced or improved, and to serve as a basis for establishing landscape design themes and the future desired character for each alternative.

2.12.1.1 The CONSULTANT shall coordinate with the Agua Fria Watercourse Master Plan Consultant Team to ensure that the Visual Resources Assessment methodology is compatible, if not consistent, with that being used for this study.

2.12.1.2 The CONSULTANT shall investigate neighborhoods and areas physically similar to the North Peoria area to review the degree to which recreational amenities and local/regional landscape character have been integrated into the overall design of neighborhood level drainage requirements in the forms of street design, detention and

retention basins, the preservation of washes, and the re-creation of "natural" drainage corridors.

2.12.1.3 The CONSULTANT shall prepare an assessment of Existing Landscape Character taking into account both natural and cultural features of the study area. This assessment shall include a map exhibit delineating the Characteristic Landscapes that comprise the study area; one or more typical photographs of each landscape character unit, dated and cross referenced as to their location on the map exhibit; and a brief narrative description of the characteristics of landform, rock formations, vegetation, water forms and cultural features which give each unit an identifiable character and sense of place. The CONSULTANT shall utilize the Existing Landscape Character assessment during the alternatives formulation phase to establish a landscape design theme and identify the visual characteristics that will be retained in each alternative.

2.12.1.4 The CONSULTANT shall assess the Scenic Quality of the natural and cultural features in the study area taking into consideration the degree of variety or uniqueness of landscape features. Features and areas of high scenic quality to be preserved shall be identified and located on the map exhibit, briefly described in the narrative, and documented with typical photographs. Features and areas that are low in scenic quality and offer potential opportunities for scenic quality improvement through the introduction of positive landscape variety shall be identified and located on the map exhibit and briefly described in the narrative.

2.12.1.5 The CONSULTANT shall prepare an assessment of Existing Visual Conditions within the study area. This assessment shall identify the relative visual intactness of natural and cultural features within the study area. Undisturbed natural and cultural features that are to be preserved shall be identified and located on the map exhibit, briefly described in the narrative and documented with photographs. Opportunities for natural and cultural landscape restoration as an integral part of project alternatives shall be identified and located on the map exhibit and briefly described in the narrative.

2.12.1.6 The CONSULTANT shall identify the major viewing points and views within and adjacent to the study area on the map exhibit. This assessment shall include a brief narrative with photographs describing the major views and focal points to be preserved within the study area. This assessment will include an identification of ways to enhance public landscape viewing opportunities through the location, orientation and design of new project features or the relocation or modification of existing features.

2.12.1.7 The CONSULTANT shall utilize the Visual Resources Assessment to develop landscape character themes (visions) and aesthetic design guidelines for each alternative that will protect and enhance local community character and create aesthetic value. The CONSULTANT shall prepare graphic exhibits, including rendered conceptual plans, cross sections, sketches and other media appropriate for public communication that illustrates the landscape design concept (vision) and future visual conditions that will be produced by each alternative.

2.12.1.8 Visual Resources Assessment Report. The CONSULTANT shall prepare a Report summarizing the results of the visual resources assessment. The Report shall include descriptions, maps and/or aerial photographs, photos and other graphics depicting the Existing Landscape Character taking into account both natural and cultural features; Scenic Quality of the natural and cultures features; Existing Visual Conditions; major viewing points and views within and adjacent to the study area; and landscape character themes (visions) and aesthetic design guidelines for each alternative that will protect and enhance local community character and create aesthetic value. The Report shall include, but not be limited to, the following sections:

Purpose of the Visual Resources Assessment Report  
Methodology Description

Existing Landscape Character (taking into account both natural and cultural features)  
Scenic Quality (of the natural and cultural features)  
Existing Visual Conditions  
Major Viewing Points (and views within and adjacent to the study area)  
Landscape Character Themes (visions) for Each Alternative (that will protect and enhance local community character and create aesthetic value)  
Aesthetic Design Guidelines (for each alternative that will protect and enhance local community character and create aesthetic value)  
References/Figures

2.12.2 Multiple-Use Opportunities Assessment. The CONSULTANT shall prepare an assessment of the opportunities and limitations for integrating multiple-use functions into the project. The purpose of this assessment is to serve as a basis for the formulation of alternatives that will fully provide flood control functions while maximizing opportunities to meet local community needs for recreation, open space, protection and enhancement of natural landscape and local community character and alternative forms of transportation.

2.12.2.1 The CONSULTANT shall inventory existing and future planned land uses, including recreation sites, open spaces, natural areas, transportation systems and nodes, residential, commercial, educational, and industrial centers within and adjacent to the study area. The CONSULTANT shall also review the inventory of existing conditions and identify opportunities for protection or restoration of the natural and/or cultural landscape features and areas. This assessment shall include a map exhibit and brief narrative description of the above conditions.

2.12.2.2 During the Level I Analysis (Section 2.3 of this SOW) the CONSULTANT shall utilize the inventory of existing and future land uses and the planning and design requirements for flood control to briefly identify and describe the types of potential multiple uses that might be appropriately incorporated into the project. During the Level II and III Analyses (Sections 2.4 and 2.5 of this SOW, respectively) the CONSULTANT shall further determine the appropriate multiple uses that might be incorporated into the project. The CONSULTANT shall identify ways in which flood control facilities could be strategically located and designed to contribute to or serve as a vehicle for development of local community recreation facilities, open space systems, alternative forms of transportation, protect or restore natural resources, natural landscape or local community character. The CONSULTANT shall identify the types of multiple uses that could be integrated into the floodway while fully providing for flood control. The identified opportunities shall be delineated on the map exhibit and briefly described in the narrative. The CONSULTANT shall briefly describe the benefits associated with integrating the identified multiple-use opportunities into the project.

2.12.2.3 The CONSULTANT shall identify and briefly describe in the narrative possible partners and funding sources for implementation of multiple-use opportunities for each alternative.

2.12.2.4 The CONSULTANT shall identify design standards for integration of multiple-use opportunities with flood control facilities, as needed to guide project planning in subsequent phases.

2.12.2.5 Multiple-Use Opportunities Assessment Report. The CONSULTANT shall prepare a Report summarizing the results of the multiple-use opportunities assessment. The Report shall include descriptions, maps and/or aerial photographs, photos and other graphics as necessary to depict the locations of existing and future planned land uses; opportunities for protection or restoration of the natural and/or cultural features of the area; the types of multiple uses that might be appropriately incorporated into the project; possible partners and funding sources for implementation of multiple-use opportunities for each alternative; and conceptual level design standards for integration of multiple-use

opportunities with flood control facilities. The Report shall include, but not be limited to, the following sections:

- Purpose of the Multiple-Use Opportunities Assessment (primary focus on recreation, open space, protection and enhancement of natural landscape and local community character, and alternative forms of transportation)
- Methodology Description
- Existing Conditions and Future Land Uses
- Opportunities for Protection or Restoration (of the natural and/or cultural features of the area)
- Appropriate Multiple-Use Opportunities (for incorporation into the project)
- Possible Partners and Funding Sources (for implementation of multiple-use opportunities for each alternative)
- Conceptual Level Design Standards (for integration of multiple-use opportunities with flood control facilities)
- References/Figures

## **2.13 PUBLIC INVOLVEMENT**

2.13.1 Public Involvement Plan. The CONSULTANT shall prepare a Public Involvement Plan for submittal to the DISTRICT within 45 days of NTP. Specific milestones of the public involvement process for the project will be developed into this plan, including the number and types of public meetings and outreaches, the use and frequency of communiqués such as flyers and newsletters, the development of mailing lists and lists of key constituencies and stakeholders, and the methods of providing opportunities for the public to influence the decision making process. Ten (10) copies of the plan will be provided.

2.13.2 The CONSULTANT shall participate with the DISTRICT as necessary, in any City or Town Council Meetings or Work-Study Sessions during the data collection effort to present the study effort purpose and scope. A second series of meetings, as necessary, will follow the Alternatives Analysis effort. This task is for a total of two (2) meetings.

2.13.3 The CONSULTANT shall conduct two (2) public meetings throughout the course of the project. The purpose of the public meeting will be to inform the public of the ADMP study and floodplain delineations that will be submitted to FEMA.

2.13.4 The CONSULTANT shall participate in other, undefined information presentations (up to 12 presentations) as necessary with other interested parties.

2.13.5 (OPTIONAL) The CONSULTANT shall participate in other, undefined information presentations (up to 12) as necessary with other interested parties. This task is not authorized with the NTP and may be authorized in writing by the DISTRICT.

2.13.6 The CONSULTANT will provide all public notification and/or placement of the required legal advertising.

2.13.7 The CONSULTANT shall prepare two (2) one-page front and back, tri-color, tri-fold, 11-inch by 17-inch project brochures (WebPage compatible) for distribution to the public. The first brochure shall provide the project purpose, background, history, schedule and points-of-contact, plus appropriate information which might include update of work completed, upcoming events, and questions and answers to questions identified during the study effort. The second brochure shall include an update of work conducted since the first brochure, work to be conducted during the next time period, upcoming events, question and answers to questions identified during the study effort and the project schedule. The CONSULTANT will be responsible for printing 500 copies of each brochure. The DISTRICT will provide final review and approval of any documents to be sent to the public.

2.13.7.1 The CONSULTANT will be responsible for distribution of the brochures (500

mailings each). The DISTRICT will approve the mailing/distribution list to be used by the CONSULTANT.

2.13.7.2 (OPTIONAL) The DISTRICT may elect as an optional item, to have the CONSULTANT print up to 2,000 additional copies of each brochure for a total of 4,000 copies. The CONSULTANT will be responsible for the distribution of the additional brochures. The DISTRICT will approve the mailing/distribution list to be used by the CONSULTANT. The preparation, printing and distribution of the additional brochures is not authorized with the execution of the contract, but will be authorized in writing by the DISTRICT as required.

2.13.7.3 (OPTIONAL) Up to 500 copies of a third document may be prepared. This document may be the third in the series of brochures with similar content and format, or be another type of document to be determined later in the project. The DISTRICT will provide final review and approval of any document to be sent to the public. The CONSULTANT will be responsible for the preparation, printing and distribution of the additional documents. This task is not authorized with the execution of the contract, but will be authorized in writing by the DISTRICT as required.

2.13.8 (OPTIONAL) The CONSULTANT will develop two (2) project presentations in PowerPoint format for use by the DISTRICT. The presentations will be submitted to the DISTRICT in electronic media on CD-ROM that is useable in DISTRICT equipment. Each presentation is estimated to be approximately 30 slides/frames in length. The PowerPoint presentation programs are not authorized with the execution of the contract, but will be authorized in writing by the DISTRICT as required.

2.13.9 (OPTIONAL) The CONSULTANT shall participate with the DISTRICT in undefined Public Information activities (up to 8). This task is not authorized with the execution of the contract, but can be authorized in writing by the DISTRICT as required.

## **2.14 UTILITIES**

2.14.1 The CONSULTANT shall identify major existing utilities for any recommended structural or engineered alternative. Utilities shall be identified within the project construction limits that may impact the project. The alignment of the utilities shall be shown on the alternative sketches and in the Conceptual Design Plans. Estimates of the cost to relocate or realign the utilities shall be included in the project cost estimates as a separate line item. The CONSULTANT shall contact each utility company that has facilities, known or suspected, within the project area, to request the alignment and size of the utility facilities. Record drawings shall be obtained to ascertain all underground utility locations.

## **2.15 SITE VISITS**

2.15.1 The CONSULTANT shall make site visits as necessary to become familiar with existing conditions.

2.15.2 The DISTRICT will conduct three site visits, generally as follows:

2.15.2.1 Site visit to orient the CONSULTANT and the DISTRICT with the project area and to determine any initial conflicts or opportunities.

2.15.2.2 Site visit near the end of the Alternatives Analysis. This site visit shall incorporate any sediment engineering, environmental, ecological, cultural, or visual field reviews, as appropriate.

2.15.2.3 Site visit during the Preferred Alternative Analysis and to verify that conditions have not significantly changed during the final stages of the project.

2.15.3 (OPTIONAL) The CONSULTANT shall provide three, 3-hour helicopter aerial reconnaissance trips.

## **2.16 MEETINGS**

2.16.1 The CONSULTANT shall meet with the jurisdictions and any other affected agencies, generally being held at their offices (up to 5 meetings). The DISTRICT shall be kept informed of all such meetings and shall attend the meetings whenever possible and as required. The DISTRICT shall be copied on all meeting minutes.

2.16.2 The CONSULTANT is responsible for the minutes of any meetings and shall include copies of minutes of meetings, telephone conversations, and correspondence to the DISTRICT in the Project Administration Report.

2.16.3 The CONSULTANT shall participate in the following specific meetings, monthly progress meetings and other meetings as dictated by the project. Meetings, when possible, will be generally held at the CONSULTANT office:

2.16.3.1 Kick-Off Meeting. The CONSULTANT shall meet with the DISTRICT to submit the project schedule (completed in Microsoft Project 98 or compatible software) that shall include dates of all proposed submittals and review meetings, and to discuss the schedule and the tasks necessary to accomplish it. The CONSULTANT shall bring the key project team members, including the project checkers, to the meeting to introduce them to the DISTRICT staff who will be working on the project. The DISTRICT will provide any existing aerial topographic mapping to the CONSULTANT at this time.

2.16.3.2 Technical Data Notebook Review Meeting. The CONSULTANT shall meet with the DISTRICT Project Manager to review the overall project status and to discuss the TDN review comments which will be provided to the CONSULTANT at the meeting. The CONSULTANT should be prepared to explain all information and any assumptions made up to this point. Any problems will be identified and discussed.

2.16.3.3 Alternatives Brainstorming Meeting. A brainstorming session with the project Participants to discuss existing flooding problems, existing studies and to identify potential solutions.

II  
2.16.3.4 Alternatives Formulation Report Review Meeting. Three weeks after submittal of the Alternatives Analysis Report, the CONSULTANT shall meet with the DISTRICT Project Manager to review the overall project status and to discuss the Alternatives Formulation Report review comments. The CONSULTANT should be prepared to discuss alternative flood mitigation solutions and any preliminary cost estimates.

III  
2.16.3.5 Feature Prioritization Meeting. A meeting with the participants to discuss implementation of the Recommended Plan and develop project priorities and phasing.

III  
2.16.3.6 Recommended Alternatives Meeting. Three weeks after submittal of the DRAFT North Peoria ADMP Report (including any Preliminary Plans), the CONSULTANT shall meet with the DISTRICT Project Manager to review the overall project status and to discuss the recommended alternatives. The CONSULTANT will be prepared to explain all assumptions and calculations completed up to this point. Any problems will be identified and corrective actions agreed upon at this meeting. The CONSULTANT will make any necessary corrections and provide written responses to all comments and will resubmit the North Peoria ADMP Report and any Preliminary Plans as required to the satisfaction of the DISTRICT.

III  
2.16.3.7 Final (100 percent) Submittal Meeting. The CONSULTANT shall meet with the DISTRICT Project Manager to make the final submittal of the hydrology and hydraulic analyses, the alternative flood mitigation solutions, the cost estimates, and the final

recommended solution as revised per the DRAFT North Peoria ADMP Report review comments. The CONSULTANT shall supply the hydraulic data and any plans on 3.5-inch diskettes or CD-ROM. The plans should be in AutoCAD version 14 format. A Final Performance Evaluation will be completed at this time.

2.16.3.8 Partnering Meeting. At a time as agreed to by the DISTRICT and other project Participants, a Partnering Meeting will be held with the project team and intergovernmental stakeholders.

2.16.3.9 Final Partnering Meeting. At the completion of the study, a Final Partnering Meeting will be held with the project Participants and intergovernmental stakeholders.

2.16.3.10 Monthly Steering Committee Meetings. The CONSULTANT shall meet monthly with the DISTRICT's Project Manager, project review team and project Participants to review the overall project status and to discuss the DISTRICT's review comments that will be provided to the CONSULTANT at the meeting. The CONSULTANT shall be prepared to discuss and address the comments. Any problems shall be identified and discussed. A total of 11 meetings in addition to meetings listed in Section 2.16.3 will be conducted.

### **3.0 PROJECT ADMINISTRATION**

The CONSULTANT shall prepare project schedules and projected billings in accordance with Section 2.0 of the CONSULTANT Guidelines with the following inclusions or exceptions:

#### **3.1 SCHEDULE**

3.1.1 The project schedule outline will be consistent with the numbering and tasks defined in this SOW and the fee proposal.

3.1.2 The CONSULTANT shall prepare a significant event calendar in Microsoft Project 98 or compatible software that shows, at a minimum, general timeframes for participant, agency and public meetings, and submittal milestones. The CONSULTANT shall update the calendar as necessary and provide it to the DISTRICT Project Manager, to keep it current.

#### **3.2 INVOICES**

3.2.1 The CONSULTANT will submit a projection of monthly project billings within 14 days of NTP. The projected billing will be consistent with the tasking of the SOW, the project schedule and the fee proposal.

3.2.2 The DISTRICT will provide a general format for invoices. The invoices will be consistent with the tasking of the SOW, project schedule, fee proposal and projected billing.

3.2.3 The CONSULTANT shall submit invoices to Accounts Payable, Flood Control District of Maricopa County, 2801 West Durango Street, Phoenix, Arizona 85009. A copy of the invoice will be forwarded to the DISTRICT Project Manager.

3.2.4 The CONSULTANT shall submit progress reports with each invoice reflecting the work completed during the previous pay period. The DISTRICT will provide the CONSULTANT with the desired format.

#### **3.3 PROJECT MANAGEMENT**

3.3.1 The CONSULTANT shall appoint a Project Manager who shall be knowledgeable of the progress of each phase of the project. The Project Manager shall be the same person listed in the CONSULTANT Technical Proposal unless otherwise approved by the DISTRICT. The Project Manager shall be the point-of-contact for the DISTRICT. The CONSULTANT Project Manager shall attend all meetings as required by the DISTRICT. The CONSULTANT Project Manager shall keep the DISTRICT informed of all coordination with outside agencies and other affected parties. The DISTRICT may terminate this agreement if the Project Manager is not available or if the CONSULTANT is unable to provide a replacement Project Manager acceptable to the DISTRICT. The DISTRICT may request replacement of the Project Manager if the DISTRICT determines that this would be in the best interest of the project.

3.3.2 Any SUBCONSULTANTS shall provide monthly status reports to the PRIME CONSULTANT Project Manager for their incorporation into monthly reports to the DISTRICT.

#### **3.4 REPORTS**

3.4.1 All reports shall be submitted to the DISTRICT for review in DRAFT form. Upon receipt of review comments, the CONSULTANT shall incorporate appropriate revisions and complete the report.

3.4.2 The CONSULTANT shall provide the DISTRICT, in the project schedule, a three-week review period for each submittal.

3.4.3 Project Administration Report. The Project Administration Report shall include copies of all correspondence, minutes of meetings and conversations with the DISTRICT, affected agencies and others as appropriate.

### **3.5 DELIVERABLES**

3.5.1 The CONSULTANT shall submit all items 'sealed' by a registered civil engineer in the State of Arizona. Upon receipt of the final submittal, the DISTRICT shall review the report and preliminary plans for the accurate incorporation of all final comments. If incomplete and/or incorrect incorporation of those comments is found, the original documents shall be returned to the CONSULTANT for correction and resubmittal.

3.5.2 The CONSULTANT shall submit computer files on 3.5-inch diskettes or CD-ROM for information requested by the DISTRICT.

3.5.3 Reports and tables should be in Word 97 and/or Excel 97 or DISTRICT acceptable software.

3.5.4 Plans should be in AutoCAD version 14 format (dwg) or MicroStation (dgn) format in accordance with Section 19, CADD Drafting Standards, Consultant Guidelines dated October 1, 1998.

3.5.5 Topographic Mapping to include digital contour and planimetric data, digital terrain models, and digitized topographic data should be in accordance with the DISTRICT's Data Delivery Specifications: Hydrologic Information System (HIS), Rev 3.1, June 1, 1998. One copy of the Digital Terrain Model (DTM) shall be submitted. This requirement is for new mapping prepared as part of this project. This does not apply to scanned mapping from previous work.

3.5.6 The CONSULTANT shall submit three (3) copies for each of the DRAFT reports, estimates, schedules or drawings to the DISTRICT and one (1) copy for each DRAFT report, estimates, schedules or drawings to each participating agency (up to 3) indicated by the DISTRICT. Draft reports and submittals are as follows:

- Data Collection Report
- Potential Alternatives Submittal
- Alternatives Summary Submittal
- Sedimentation Engineering and Geomorphic Evaluation Report
- Cultural Resources Assessment Report
- Ecological Assessment Report
- Visual Resources Assessment Report
- Multiple-Use Opportunities Assessment Report
- Alternatives Formulation Report (will consist in-part of the above-mentioned submittals or reports or summaries of those reports)
- Project Technical Data Notebook (TDN)
- North Peoria Area Drainage Master Plan (ADMP) Report (will consist in-part of the above-mentioned submittals or reports or summaries of those reports; will include half-sized engineering drawings if applicable)

3.5.7 The CONSULTANT shall submit five (5) copies for each FINAL report, estimates, schedules or drawings to the DISTRICT and two (2) copies for each FINAL report, estimates, schedules or drawings to each participating agency. Final Report will include the following:

- Executive Summary
- North Peoria Area Drainage Master Plan (ADMP) Report (will consist in-part of the above-mentioned submittals or reports or summaries of those reports; will include half-sized engineering drawings if applicable)
- Project Technical Data Notebook (will include full-sized engineering drawings if

applicable)  
Project Survey Report Appendix  
Project Administration Report

3.5.8 Drawings for public presentation. The landscape/planning CONSULTANT shall prepare twenty (20) 24-inch by 36-inch color, dry-mounted presentation boards, incorporating original information performed at their office and work performed at other CONSULTANT team offices as appropriate to properly communicate ideas and concepts to the public.

3.5.9 Drawings for internal DISTRICT/CONSULTANT meetings. The landscape/planning CONSULTANT shall prepare various graphics in various formats primarily illustrating their own work, as appropriate to properly communicate landscape and land use issues to the DISTRICT and the CONSULTANT team.

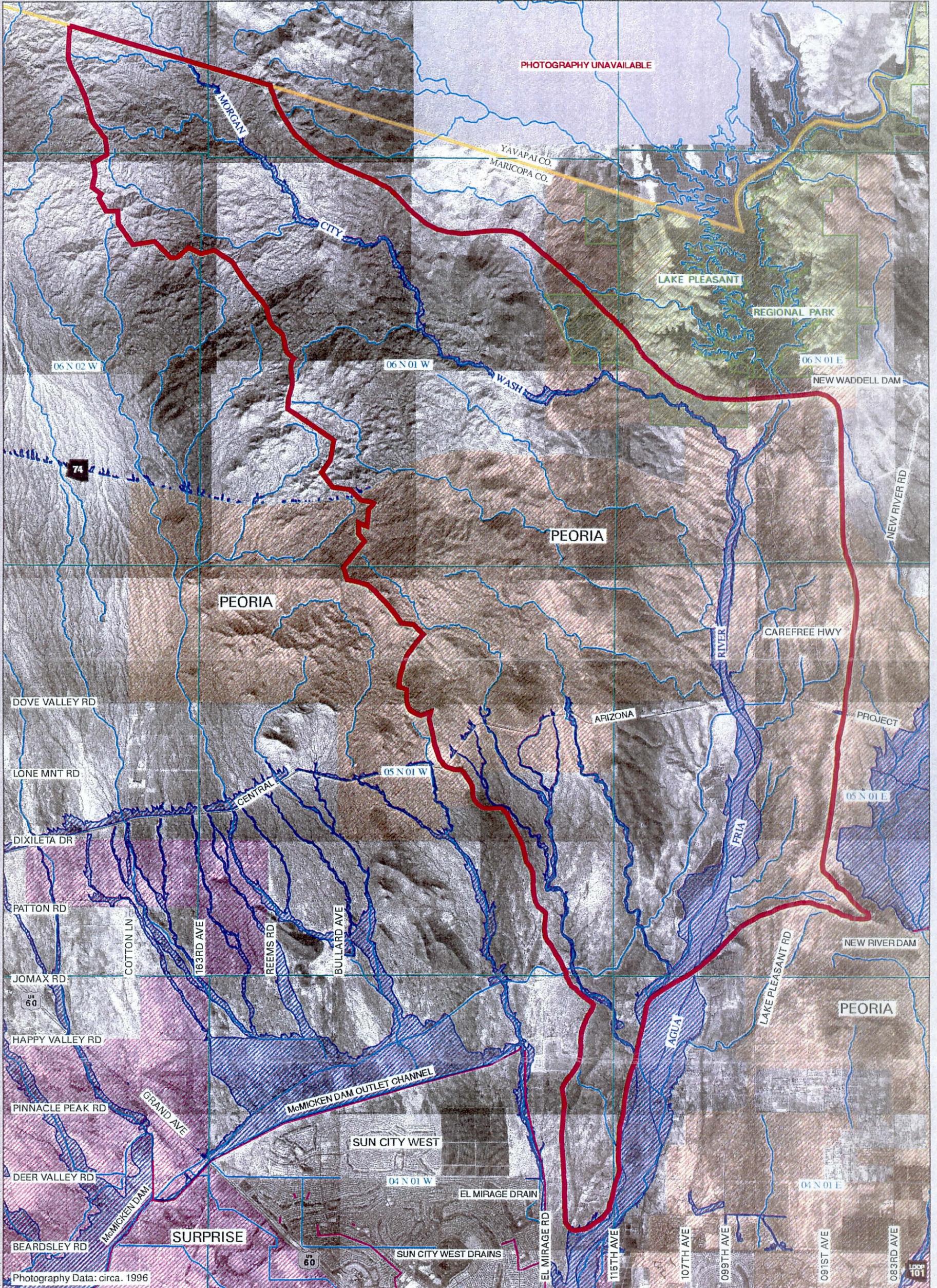
3.5.10 The CONSULTANT shall prepare one (1) copy each of the following for the DISTRICT and City of Peoria.

3.5.10.1 Project Schedule and updates.

3.5.10.2 Monthly Progress Reports.

3.5.11 Copies of the FEMA Letter of Map Revision Submittal (including work maps) will be in accordance with Section 12.0, Floodplain Delineation, CONSULTANT Guidelines, October 1, 1998.

# NORTH PEORIA ADMP BOUNDARIES

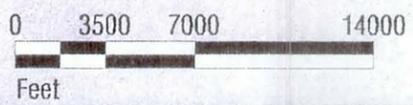


PHOTOGRAPHY UNAVAILABLE

Photography Data: circa. 1996

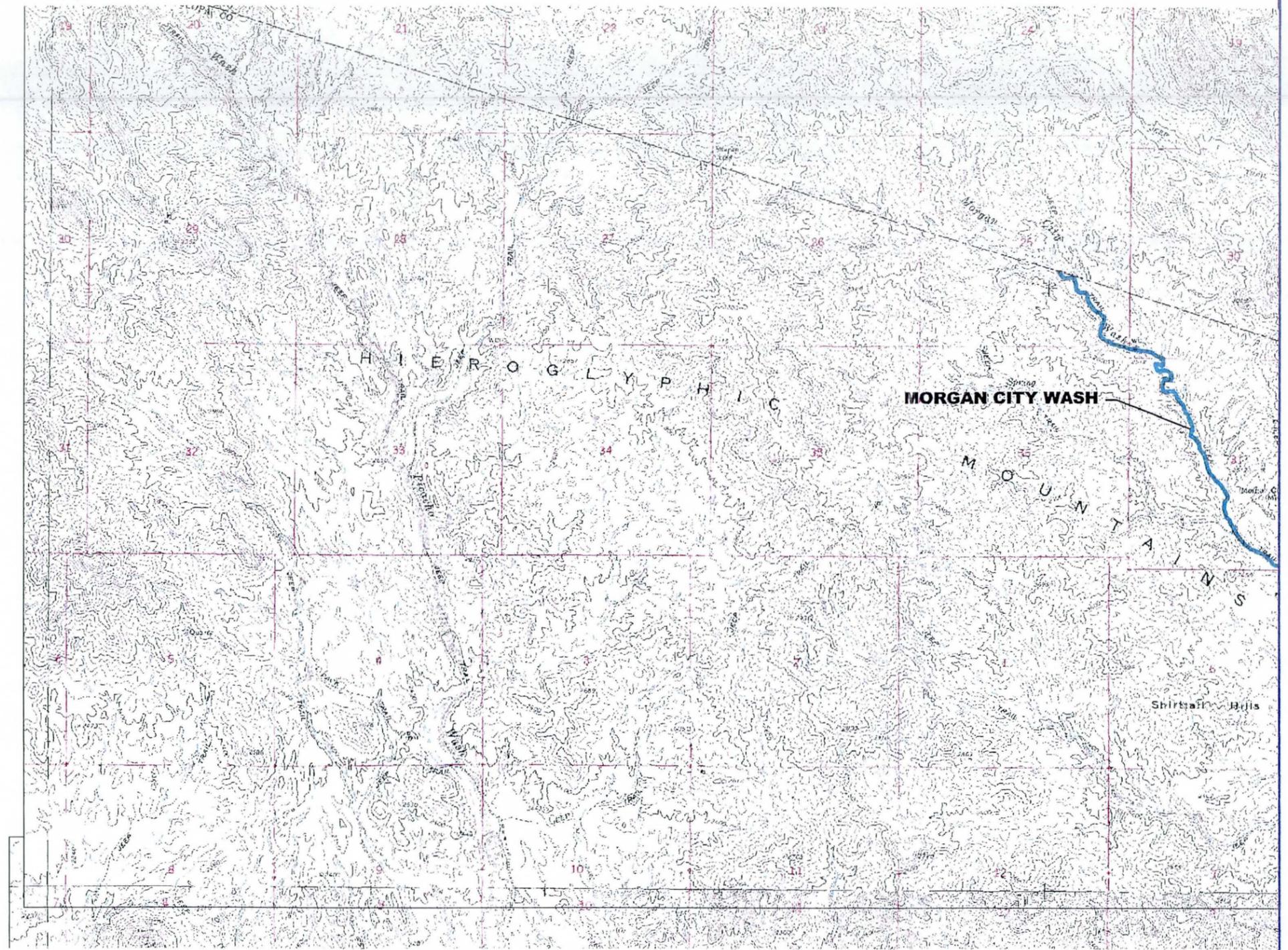
## SYMBOLS

-  FEMA FLOODPLAINS
-  FCDMC STRUCTURES
-  COUNTY BOUNDARY
-  ADMP BOUNDARY (AREA ~ 73 SQ MI)
-  USGS 1:100,000 HYDROGRAPHY



## ATTACHMENT #1

c:\projects\derosa\mpadmp01.mxd 11/08/99 09:42:07 Thu



**MATCH ATTACHMENT 3**



Legend

- DETAILED STUDY REACH
- APPROXIMATE A ZONE STUDY REACH
- OPTIONAL ALTERNATIVE ANALYSIS REACH
- - - - - OPTIONAL A ZONE STUDY REACH



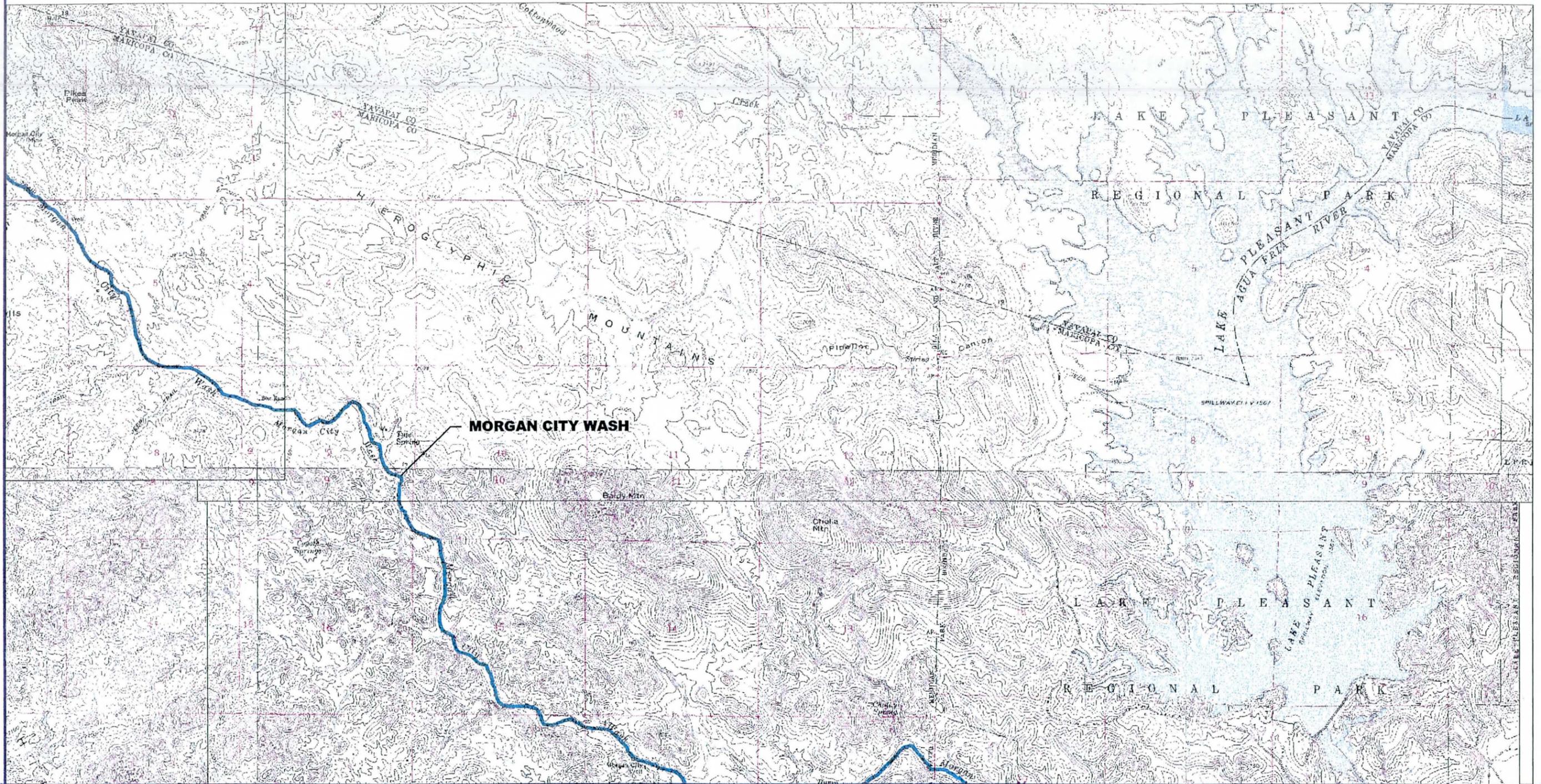
Client/Project  
 FLOOD CONTROL DISTRICT OF  
 MARICOPA COUNTY  
 NORTH PEORIA ADMP

ATTACHMENT  
**2**

Title  
**FEATURE LOCATION MAP**

Date: 9-8-99  
 Project Number: 82000146

MATCH ATTACHMENT 2



MATCH ATTACHMENT 4



Stantec

Legend

-  DETAILED STUDY REACH
-  APPROXIMATE A ZONE STUDY REACH
-  OPTIONAL ALTERNATIVE ANALYSIS REACH
-  OPTIONAL A ZONE STUDY REACH

P:\82000146\ACAD\baldy1.dwg



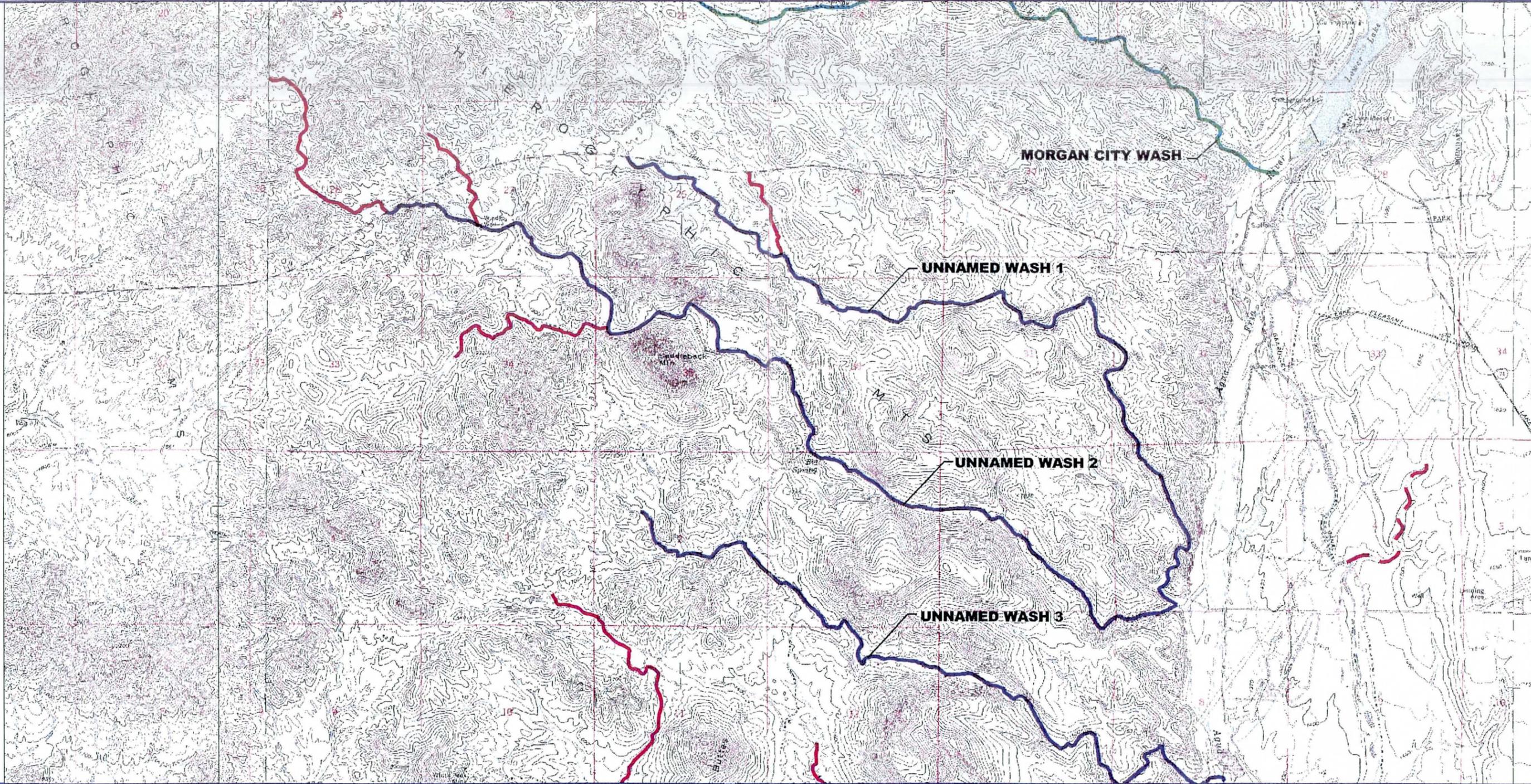
Client/Project  
 FLOOD CONTROL DISTRICT OF  
 MARICOPA COUNTY  
 NORTH PEORIA ADMP

ATTACHMENT  
**3**

Title  
**FEATURE LOCATION MAP**

Date: 9-8-99  
 Project Number: 82000146

# MATCH ATTACHMENT 3



# MATCH ATTACHMENT 5

 Legend

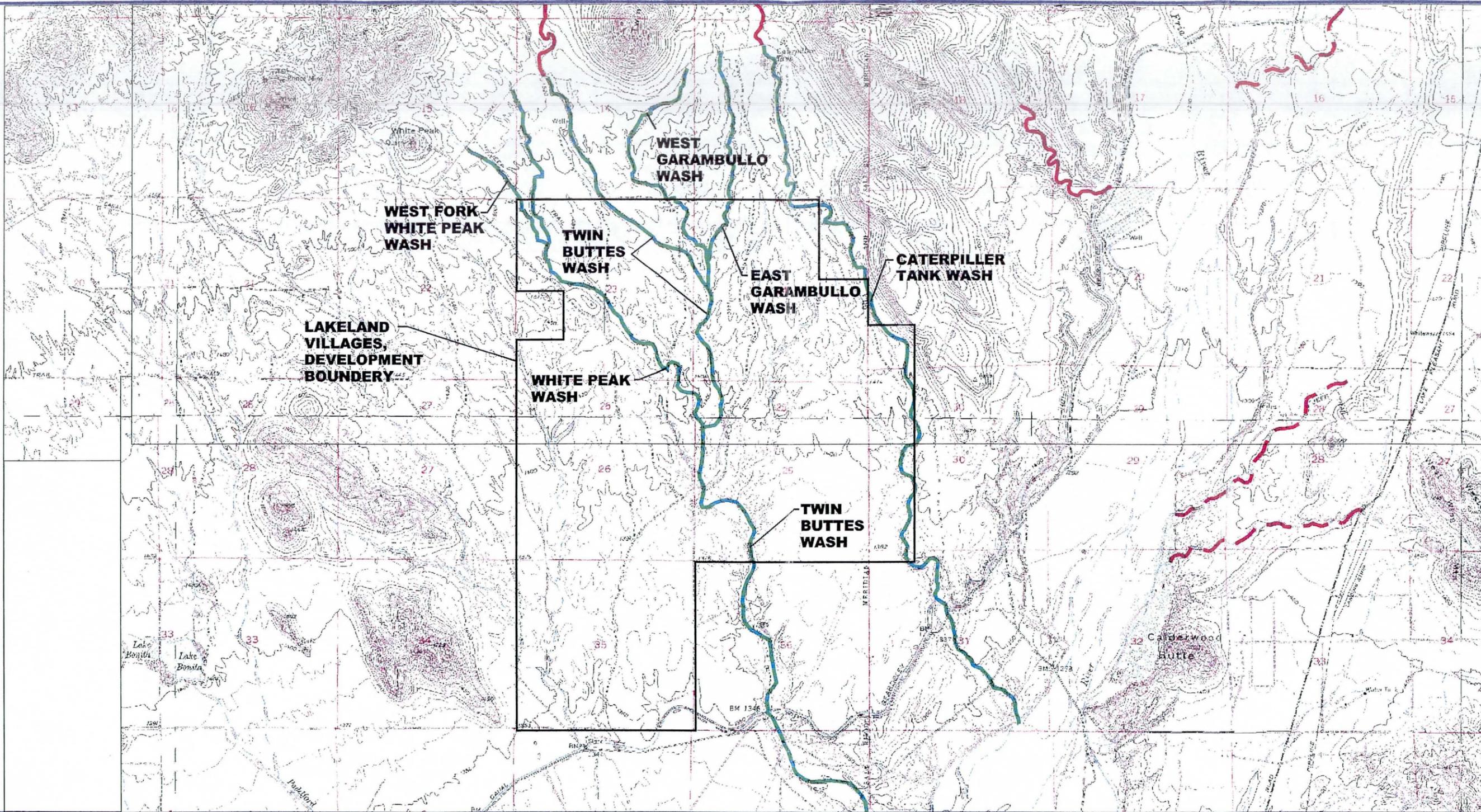
- DETAILED STUDY REACH
- APPROXIMATE A ZONE STUDY REACH
- OPTIONAL ALTERNATIVE ANALYSIS REACH
- OPTIONAL A ZONE STUDY REACH

P:\82000146\ACAD\baldy1.dwg



Client/Project  
FLOOD CONTROL DISTRICT OF  
MARICOPA COUNTY  
NORTH PEORIA ADMP  
ATTACHMENT  
**4**  
Title  
**FEATURE LOCATION MAP**

Date: 9-8-99  
Project Number: 82000146



Stantec

P:\82000146\ACAD\baldy1.dwg

Legend

-  DETAILED STUDY REACH
-  APPROXIMATE A ZONE STUDY REACH
-  OPTIONAL ALTERNATIVE ANALYSIS REACH
-  OPTIONAL A ZONE STUDY REACH



Client/Project  
 FLOOD CONTROL DISTRICT OF  
 MARICOPA COUNTY  
 NORTH PEORIA ADMP

ATTACHMENT  
**5**

Title  
**FEATURE LOCATION MAP**

Date: 9-8-99  
 Project Number: 82000146

**ATTACHMENT 7**

**Fee Proposal Forms for Stantec Consulting, Inc.**

**EXHIBIT A**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT COST PROPOSAL SUMMARY**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**

**PROJECT NAME: North Peoria ADMP**

**CONTRACT NO. 99-45**

**CHANGE ORDER NO.:**

**DIRECT LABOR**

<b>CLASSIFICATION</b>	<b>LABOR HOURS</b>	<b>HOURLY RATE</b>	<b>LABOR COST</b>
Senior Assoc.	123.0	\$ 44.64	\$ 5,491.09
Principal (Prin 1)	504.0	\$ 41.07	\$ 20,699.78
Project Manager (Prof 6)	2127.0	\$ 30.36	\$ 64,569.34
Project Engineer (Prof 5)	1820.0	\$ 26.79	\$ 48,750.52
Engineer (Prof 4)	2027.0	\$ 25.00	\$ 50,675.00
Cadd Tech (Tech 4)	1253.0	\$ 21.43	\$ 26,849.28
Clerical (Tech 1)	598.0	\$ 14.29	\$ 8,543.03

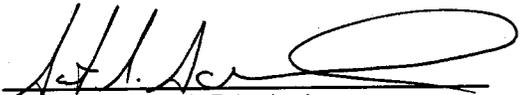
TOTAL LABOR	\$ 225,578.04
*OVERHEAD @150% (of labor)	\$ 338,367.07
SUBTOTAL	\$ 563,945.11
*Salary Fringes _____ %	
G&A Overhead _____ %	

**DIRECT AND OUTSIDE EXPENSES**

<b>DESCRIPTION</b>	<b>EXPENSE AMOUNT</b>
Reproduction	
8-1/2"x11" Black and White (13000 @ \$0.04 each)	\$ 520.00
8-1/2"x11" Color (500 @ \$0.85 each)	\$ 425.00
11"x17" Black and White (900 @ \$0.08 each)	\$ 72.00
11"x17" Color (250 @\$1.70 each)	\$ 425.00
24"x36" Blueline (450 @ \$0.60 each)	\$ 270.00
Covers, Tabs and Binding (10 @ \$20 each)	\$ 200.00
Travel (3000 miles @ \$0.31 each)	\$ 930.00
Special Messenger/ Deliveries (4 @ \$15 each)	\$ 60.00
Legal Advertisement	\$ 1,000.00
SUBTOTAL	\$ 3,902.00

**EXHIBIT A**  
**SUBCONSULTANTS**

<b>NAME</b>	<b>COST</b>
RH & Associates	\$ 22,619.58
JE Fuller/Hydrology & Geomorphology, Inc	\$ 98,556.85
Cooper Aerial	\$ 70,403.20
Dr. Robert Johnson	\$ 33,755.40
The Planning Center	\$ 112,815.46
Valco Surveying	\$ 84,436.00
SUBTOTAL	\$ 422,586.49
SUBTOTAL LABOR	\$ 563,945.11
SUBTOTAL EXPENSES	\$ 3,902.00
SUBTOTAL SUBCONSULTANTS	\$ 422,586.49
TOTAL CONSULTANT COST	\$ 990,433.60
NET FEE (SUBTOTAL LABOR X 12%)	\$ 67,673.41
TOTAL PROPOSED FEE	\$ 1,058,107.01

  
\_\_\_\_\_  
Scott S. Schlund, Principal

\_\_\_\_\_  
Date 11/30/99



**EXHIBIT B**

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MANHOURS													
CONSULTANT/SUBCONSULTANT NAME: STANTECH CONSULTING INC.						CONTRACT NO. 99-45							
PROJECT NAME: North Peoria Area Drainage Master Plan						CHANGE ORDER NO.							
DATE: November 1999													
CONSULTANT MANHOURS													
2001													
PROJECT PERSONNEL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
Principal (Prin 1)	24	40	24	24	60	40							212
Senior Assoc.	0	8	8	0	16	8							40
Project Manager (Prof 6)	160	160	160	160	155	100							895
Project Engineer (Prof 5)	60	100	120	80	100	120							580
Engineer (Prof 4)	80	120	120	100	127	120							667
Cadd Tech (Tech 4)	36	80	80	40	120	57							413
Clerical (Tech 1)	20	20	40	40	40	44							204
													0
													0
<b>TOTAL</b>	<b>356</b>	<b>488</b>	<b>528</b>	<b>420</b>	<b>558</b>	<b>449</b>							<b>3011</b>

**EXHIBIT C**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP**  
**DATE: 1-Nov-99**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/ TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
<b>1.0</b>	<b>GENERAL DESCRIPTION</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>1.1</b>	<b>Project Description</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.1.1	Scope of Work (SOW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>1.2</b>	<b>Purpose and Need</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2.1	North Peoria ADMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2.2	Non-Structural Flood Control Solutions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2.3	District Standards	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>1.3</b>	<b>Location</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.3.1	Location Description	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>1.4</b>	<b>Participants</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.4.1	Participants Listing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.4.2	Coordination with Organizations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>1.5</b>	<b>Contract Timeframe and Schedule</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.5.1	Contract Period	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>1.6</b>	<b>Project Reference</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.6.1	Consultant Guidelines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.6.2	Scope of Work (SOW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>2.0</b>	<b>SPECIFIC TASKS</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>2.1</b>	<b>Data Collection and Existing Conditions Analysis</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.1.1	Consultant Guidelines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Cost Proposal Summary**

wrproj(p)/28900146/estimate 12/1/99

**EXHIBIT C**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP**  
**DATE: 1-Nov-99**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT	TASK NO.	TASK DESCRIPTION	CLERICAL	CADD	ENGINEER	PROJECT	PROJ MGR	SENIOR	PRINCIPAL	TOTAL	TOTAL
			TECH1	TECH/TECH 4	PROF 4	ENGINEER PROF 5	PROF 6	ASSOC. PROF	PRIN 1	LABOR HRS BY TASK	LABOR
			40	60	70	75	85	125	115		
			(\$ / hr)	(\$ / hr)	(\$ / hr)	(\$ / hr)	(\$ / hr)	(\$ / hr)	(\$ / hr)		(\$)
	2.1.2	Data Review	0.0	0.0	16.0	48.0	44.0	0.0	0.0	108.0	8460.0
	2.1.3	Development / Drainage Investigation	8.0	0.0	0.0	40.0	16.0	0.0	8.0	72.0	5600.0
	2.1.4	Existing Regulations	0.0	0.0	20.0	40.0	20.0	0.0	0.0	80.0	6100.0
	2.1.5	Drainage Facility Inventory	0.0	0.0	16.0	8.0	2.0	0.0	0.0	26.0	1890.0
	2.1.6	Proposed Development	0.0	0.0	16.0	8.0	8.0	0.0	0.0	32.0	2400.0
	2.1.7	Existing Facilities Map	0.0	16.0	8.0	4.0	1.0	0.0	0.0	29.0	1905.0
	2.1.8	Existing Hydrology	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.1.9	District Data and all subtasks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.1.10	Data Collection Report	8.0	0.0	8.0	32.0	8.0	0.0	0.0	56.0	3960.0
	<b>2.2</b>	<b>FEMA Floodplain Delineations</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.2.1	Floodplain Delineations Guidelines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.2.1.1	Detail Studies	0.0	168.0	166.0	186.0	154.0	0.0	16.0	690.0	50580.0
	2.2.1.2	A Zone Floodplain Delineations	0.0	16.0	40.0	16.0	8.0	0.0	2.0	82.0	5870.0
	2.2.2	Floodplain Delineations TDN	60.0	16.0	0.0	40.0	20.0	0.0	2.0	138.0	8290.0
	<b>2.3</b>	<b>Level I Analysis Alternatives Formulation Preliminary Analysis</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.3.1	Existing Constraints Map	0.0	24.0	8.0	4.0	16.0	0.0	4.0	56.0	4120.0
	2.3.2	Alternative Elimination	0.0	0.0	0.0	8.0	8.0	8.0	8.0	32.0	3200.0
	2.3.3	Alternatives Recommendation	8.0	0.0	0.0	0.0	8.0	0.0	0.0	16.0	1000.0
	2.3.4	Potential Alternatives Submittal	4.0	24.0	20.0	20.0	40.0	8.0	8.0	124.0	9820.0
	2.3.5	Evaluation Criteria	0.0	0.0	0.0	0.0	40.0	0.0	0.0	40.0	3400.0

**EXHIBIT C**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP**  
**DATE: 1-Nov-99**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/ TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
2.3.6	Potential Alternatives & all subtasks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>2.4</b>	<b>Level II Analysis Alternative Analysis</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.4.1	Consultant Guidelines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.4.2	Alternatives Evaluation	0.0	0.0	200.0	100.0	60.0	16.0	24.0	400.0	31360.0
2.4.3	Alternatives Summary	0.0	0.0	0.0	16.0	24.0	0.0	8.0	48.0	4160.0
2.4.4	Alternatives Formulation Report	72.0	32.0	0.0	40.0	120.0	0.0	36.0	300.0	22140.0
2.4.5	Initial Project TDN	24.0	16.0	16.0	16.0	40.0	0.0	24.0	136.0	10400.0
<b>2.5</b>	<b>Level III Analysis Alternative Analysis</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5.1	Consultant Guidelines								0.0	0.0
2.5.2	Preferred Alternative Prioritization	16.0	0.0	0.0	20.0	40.0	8.0	16.0	100.0	8380.0
2.5.3	Refine Cost Estimates	0.0	40.0	40.0	16.0	8.0	0.0	0.0	104.0	7080.0
2.5.4	Conceptual Design Plans	0.0	120.0	40.0	20.0	20.0	0.0	0.0	200.0	13200.0
2.5.5	Implementation Plan Development	24.0	8.0	16.0	24.0	40.0	8.0	16.0	136.0	10600.0
2.5.6	Maintenance Plan	24.0	8.0	16.0	24.0	60.0	0.0	16.0	148.0	11300.0
2.5.7	North Peoria ADMP Report	40.0	40.0	40.0	40.0	120.0	0.0	40.0	320.0	24600.0
2.5.8	Executive Summary	16.0	24.0	0.0	0.0	32.0	0.0	4.0	76.0	5260.0
2.5.9	Final Project TDN	32.0	0.0	24.0	24.0	32.0	0.0	16.0	128.0	9320.0
<b>2.6</b>	<b>Sedimentation</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.6.1	Objective	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**EXHIBIT C**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP**  
**DATE: 1-Nov-99**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/ TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
2.6.2	Existing Condition Assessment and Technical Memo	0.0	0.0	0.0	0.0	10.0	0.0	0.0	10.0	850.0
2.6.3	Erosion Hazards	0.0	36.0	0.0	0.0	0.0	8.0	1.0	45.0	3275.0
2.6.4	Sediment Yield	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0	250.0
2.6.5	Alternative Analysis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.6.5.1	Geomorphic Impacts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.6.5.2	Typical Flood Control Design	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.6.6	Development Guidelines	0.0	0.0	0.0	8.0	20.0	0.0	1.0	29.0	2415.0
2.6.7	Sedimentation Report	0.0	0.0	0.0	8.0	20.0	0.0	1.0	29.0	2415.0
2.7	<b>Field Survey and Mapping</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.7.1	Aerial Mapping	0.0	0.0	0.0	0.0	8.0	0.0	0.0	8.0	680.0
2.7.2	Field Survey of Structures	0.0	0.0	0.0	0.0	4.0	0.0	0.0	4.0	340.0
2.7.3	Survey Control QC	0.0	0.0	0.0	40.0	4.0	0.0	0.0	44.0	3340.0
2.7.4	Survey Report QC	0.0	0.0	0.0	40.0	4.0	0.0	0.0	44.0	3340.0
2.7.5	Field Survey for Zone A Flood Zones	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.7.7	Color Stereo Photo	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.8	<b>Hydraulic Analysis</b>								0.0	0.0
2.8.1	Hydraulic Analysis Guidelines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.8.1.1	HEC-RAS (Floodplain)	0.0	0.0	508.0	188.0	86.0	8.0	8.0	798.0	58890.0
2.8.1.2	HEC-RAS (Alternatives)	0.0	0.0	100.0	40.0	40.0	4.0	4.0	188.0	14360.0
2.8.1.3	FEMA Zone A	0.0	0.0	24.0	8.0	2.0	0.0	1.0	35.0	2565.0

**EXHIBIT C**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP**  
**DATE: 1-Nov-99**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
2.8.2	Bridge and Culvert Hydraulic Analysis	0.0	0.0	40.0	16.0	8.0	0.0	0.0	64.0	4680.0
<b>2.9</b>	<b>Hydrologic Analysis</b>								0.0	0.0
2.9.1	Preliminary Hydrologic Analysis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.9.2	Hydrologic Models and all subtasks	40.0	204.0	452.0	266.0	78.0	40.0	20.0	1100.0	79360.0
2.9.3	Alternative Analysis Model								0.0	0.0
<b>2.10</b>	<b>Land Ownership, Right-of-Way and Easements</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.10.1	Review Land Ownership	0.0	0.0	8.0	4.0	0.0	0.0	0.0	12.0	860.0
2.10.2	Identify R/W Requirements	0.0	40.0	40.0	8.0	16.0	0.0	0.0	104.0	7160.0
2.10.3	Rights of Entry	0.0	0.0	0.0	8.0	16.0	0.0	0.0	24.0	1960.0
<b>2.11</b>	<b>Environmental Overview</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.11.1	Environmental Overview Guidelines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.11.2	Environmental Permits and Approvals	0.0	0.0	0.0	24.0	4.0	0.0	0.0	28.0	2140.0
2.11.3	Cultural Resources Assessment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.11.3.1	Archeological Inventory	0.0	160.0	0.0	0.0	0.0	0.0	0.0	160.0	9600.0
2.11.3.2	Cultural Resources Assessment Report	0.0	185.0	0.0	0.0	24.0	0.0	2.0	211.0	13370.0
2.11.3.3	U.S.G.S. Base Maps	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.11.3.4	Archeological Assessment Summary	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**EXHIBIT C**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP**  
**DATE: 1-Nov-99**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/ TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
2.11.4	Environmental Regulatory Records Review	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.11.4.1	Research	0.0	0.0	0.0	40.0	0.0	0.0	0.0	40.0	3000.0
2.11.4.2	Base Map	0.0	0.0	0.0	40.0	2.0	0.0	0.0	42.0	3170.0
2.11.4.3	Recommend Alternatives	0.0	16.0	0.0	24.0	0.0	0.0	0.0	40.0	2760.0
2.11.4.4	Qualitative Cost Estimate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.11.5	Ecological Assessment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.11.5.1	Field Survey	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.11.5.2	Recommend Alternatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.11.5.3	Ecological Report	0.0	0.0	0.0	0.0	8.0	0.0	1.0	9.0	795.0
2.11.6	Title VI Environmental Justice Assessment	0.0	8.0	0.0	40.0	1.0	0.0	0.0	49.0	3565.0
<b>2.12</b>	<b>Visual Resources and Multiple Use</b>								0.0	0.0
2.12.1	Visual Resources Assessment / Inventory	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.12.1.1	Coordination w/ Agua Fria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.12.1.2	Neighborhoods that are Physically Similar to NPADMP	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
2.12.1.3	Existing Landscape Character	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	425.0
2.12.1.4	Scenic Quality	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	425.0
2.12.1.5	Existing Visual Conditions	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	425.0
2.12.1.6	Major Viewing Points	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	425.0

**EXHIBIT C**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP**  
**DATE: 1-Nov-99**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/ TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
2.12.1.7	Graphic Exhibits	0.0	0.0	0.0	0.0	8.0	0.0	0.0	8.0	680.0
2.12.1.8	Visual Resources Report	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	425.0
2.12.2	Multiple-Use Opportunities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.12.1.1	Inventory Existing and Proposed Land Use	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	425.0
2.12.1.2	Proposed Multi-Uses	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	425.0
2.12.1.3	Funding Sources	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	425.0
2.12.1.4	Design Standards	0.0	0.0	0.0	0.0	8.0	0.0	0.0	8.0	680.0
2.12.1.5	Multi-Use Report	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0	425.0
<b>2.13</b>	<b>Public Involvement</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.13.1	Public Involvement Plan	0.0	0.0	0.0	0.0	12.0	0.0	4.0	16.0	1480.0
2.13.2	Council Meetings (2)	4.0	8.0	0.0	0.0	8.0	0.0	8.0	28.0	2240.0
2.13.3	Public Meetings	4.0	8.0	0.0	0.0	8.0	0.0	8.0	28.0	2240.0
2.13.4	Undefined Information Presentations (12 meetings)	12.0	12.0	0.0	0.0	48.0	0.0	48.0	120.0	10800.0
2.13.6	Legal Advertising	8.0	0.0	0.0	0.0	8.0	0.0	0.0	16.0	1000.0
2.13.7	Brochure	0.0	0.0	0.0	0.0	8.0	0.0	8.0	16.0	1600.0
2.13.7.1	Brochure Distribution	32.0	0.0	0.0	0.0	4.0	0.0	0.0	36.0	1620.0
<b>2.14</b>	<b>Utilities</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.14.1	Existing Utilities	0.0	16.0	40.0	16.0	4.0	0.0	0.0	76.0	5300.0
<b>2.15</b>	<b>Site Visits</b>								0.0	0.0
2.15.1	Consultant Site Visits	0.0	0.0	80.0	80.0	40.0	0.0	20.0	220.0	17300.0
2.15.2	District Site Visits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**EXHIBIT C**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP**  
**DATE: 1-Nov-99**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
2.15.2.1	Initial Site Visit	0.0	0.0	0.0	0.0	8.0	0.0	8.0	16.0	1600.0
2.15.2.2	Alternative Analysis Site Visit	0.0	0.0	0.0	16.0	8.0	0.0	8.0	32.0	2800.0
2.15.2.3	Preferred Alternative Analysis Site Visit	0.0	0.0	0.0	16.0	8.0	0.0	8.0	32.0	2800.0
2.16	Meetings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.16.1	Agency Meetings (5)	0.0	0.0	0.0	20.0	20.0	0.0	20.0	60.0	5500.0
2.16.2	Meeting Minutes	60.0	0.0	0.0	0.0	40.0	0.0	0.0	100.0	5800.0
2.16.3	Specific Meetings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.16.3.1	Kick Off Meeting	0.0	0.0	0.0	3.0	3.0	0.0	3.0	9.0	825.0
2.16.3.2	Data Collection Report (TDN) Review Meeting	0.0	0.0	0.0	6.0	3.0	0.0	3.0	12.0	1050.0
2.16.3.3	Alternatives Brainstorming Meeting	0.0	0.0	0.0	16.0	8.0	8.0	8.0	40.0	3800.0
2.16.3.4	Alternatives Analysis Report Review Meeting	0.0	0.0	0.0	6.0	3.0	0.0	3.0	12.0	1050.0
2.16.3.5	Feature Prioritization Meeting	0.0	0.0	0.0	3.0	3.0	0.0	3.0	9.0	825.0
2.16.3.6	Recommended Alternatives Meeting	0.0	0.0	0.0	3.0	3.0	0.0	3.0	9.0	825.0
2.16.3.7	Final Submittal Meeting	0.0	0.0	0.0	3.0	3.0	0.0	3.0	9.0	825.0
2.16.3.8	1st Partnering Meeting	0.0	0.0	5.0	10.0	5.0	5.0	5.0	30.0	2725.0
2.16.3.9	2nd Partnering Meeting	0.0	0.0	4.0	8.0	4.0	0.0	4.0	20.0	1680.0
2.16.3.10	Progress Meetings (11)	0.0	0.0	0.0	18.0	33.0	0.0	33.0	84.0	7950.0

**EXHIBIT C**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP**  
**DATE: 1-Nov-99**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
<b>3.0</b>	<b>PROJECT ADMINISTRATION</b>								0.0	0.0
3.1	Schedule	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.1.1	Schedule Outline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.1.2	Significant Event Calendar	8.0	0.0	0.0	0.0	32.0	0.0	0.0	40.0	3040.0
3.2	Invoices	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.2.1	Projection of Monthly Project Billing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.2.2	Billing Format	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.2.3	Invoice Submittal (18)	0.0	0.0	0.0	0.0	0.0	0.0	9.0	9.0	1035.0
3.2.4	Progress Report (18)	18.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	720.0
3.3	Project Management	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.3.1	Project Manager	0.0	0.0	0.0	0.0	288.0	0.0	0.0	288.0	24480.0
3.3.2	Project Manager(subconsultant)	0.0	0.0	0.0	0.0	36.0	0.0	0.0	36.0	3060.0
3.4	Reports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.4.1	Draft Report	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.4.2	District Report Review	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.4.3	Project Administration Report	16.0	0.0	16.0	0.0	16.0	0.0	0.0	48.0	3120.0
3.5	Deliverables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.5.1	Submittal Guide Lines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.5.2	Computer Files	2.0	8.0	0.0	0.0	4.0	0.0	0.0	14.0	900.0
3.5.3	Report Software	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.5.4	Plans Software	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.5.5	GIS/HIS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**EXHIBIT C**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP**  
**DATE: 1-Nov-99**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/ TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
3.5.6	Initial Report Copies	16.0	0.0	0.0	0.0	10.0	0.0	0.0	26.0	1490.0
3.5.7	Final Report Copies	16.0	0.0	0.0	0.0	10.0	0.0	0.0	26.0	1490.0
3.5.8	Presentation Boards	0.0	0.0	0.0	0.0	8.0	0.0	0.0	8.0	680.0
3.5.9	Meeting Presentation Graphics	0.0	0.0	0.0	0.0	8.0	0.0	0.0	8.0	680.0
3.5.10	Copies of Progress Report and Schedule and all subtasks.	18.0	0.0	0.0	0.0	9.0	0.0	0.0	27.0	1485.0
3.5.11	Copies of FEMA Submittals	8.0	0.0	0.0	0.0	4.0	0.0	0.0	12.0	660.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
										0.0
	<b>TOTAL LABOR HOURS</b>	<b>598.0</b>	<b>1253.0</b>	<b>2027.0</b>	<b>1820.0</b>	<b>2127.0</b>	<b>123.0</b>	<b>504.0</b>	<b>8452.0</b>	<b>631620.0</b>

**ATTACHMENT 8**  
**Fee Proposal Forms for RH & Associates**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT COST PROPOSAL SUMMARY**

---

**CONSULTANT/SUBCONSULTANT NAME: RH & ASSOCIATES, INC.**

**PROJECT NAME: North Peoria ADMP**

**Contract No. 99-45**

**Change order no.:**

---

Direct Labor

<u>Classification</u>	<u>Labor Hours</u>	<u>Hourly Rate</u>	<u>Labor Cost</u>
Principal	166	37.50	6225.00
Associate	8	25.00	200.00
Administrative	42	14.50	609.00
Subtotal Labor			<u>\$ 7,034.50</u>
Overhead @ 130% of Labor			<u>\$ 9,144.20</u>
Total Labor			<u>\$ 16,178.20</u>

DIRECT AND OUTSIDE EXPENSES

---

1 Day Partnering Workshop	\$ 2800.00
½ Day Close-out Workshop	\$ 1400.00
Refreshments for Public Meetings	\$ 300.00
Total Expenses	<u>\$ 4500.00</u>



**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME:** RH & Associates  
**PROJECT NAME:** North Peoria ADMP  
**DATE:** 2 November 99

**CONTRACT #** 99-45  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		ADMINISTRATIVE	ASSOCIATE	PRINCIPAL	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	14.5	60	75	LABOR HRS BY TASK	LABOR
		(\$ / hr)	(\$ / hr)	(\$ / hr)		
<b>2.16</b>	<b>Meetings</b>	0.0	0.0	0.0	0.0	
2.16.1	Agency Meetings (5)				0.0	
2.16.2	Meeting Notes			24.0	24.0	
2.16.3	Specific Meetings				0.0	
2.16.3.1	Kick Off Meeting				0.0	
2.16.3.2	Data Collection Report Review Meeting				0.0	
2.16.3.3	Alternatives Brainstorming Meeting				0.0	
2.16.3.4	Alternatives Analysis Report Review Meeting				0.0	
2.16.3.5	Feature Prioritization Meeting				0.0	
2.16.3.6	Recommended Alternatives Meeting				0.0	
2.16.3.7	Final Submittal Meeting				0.0	
2.16.3.8	1st Partnering Meeting				0.0	
2.16.3.9	2nd Partnering Meeting				0.0	
2.16.3.10	Progress Meetings (11)			18.0	18.0	
<b>2.13</b>	<b>Public Involvement</b>				0.0	
2.13.1	Public Involvement Plan	12.0		39.0	51.0	
2.13.2	Council Meetings (2)				0.0	
2.13.3	Public Meetings	30.0	8.0	59.0	97.0	
2.13.4	Undefined Information Presentations (12 meetings)			24.0	24.0	
2.13.6	Legal Advertising				0.0	
2.13.7	Brochure			2.0	2.0	
	<b>TOTAL LABOR HOURS</b>	<b>42.0</b>	<b>8.0</b>	<b>166.0</b>	<b>216.0</b>	

**ATTACHMENT 9**

**Fee Proposal Forms for JE Fuller/Hydrology & Geomorphology, Inc.**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT ESTIMATED MANHOURS AND DIRECT LABOR**

**CONSULTANT/SUBCONSULTANT** N JE Fuller/Hydrology & Geomorphology, Inc.  
**PROJECT NAME:** N. Peoria ADMP  
**CONTRACT NO:** FCD 99-45

**DIRECT LABOR**

Classifications	Labor Hours	Hourly Rates	Labor Costs
Project Manager	482	\$30.00	\$ 14,460.00
Hydrologist	648	\$24.92	\$ 16,148.16
Technician/Intern	268	\$15.00	\$ 4,020.00
			Total Labor: \$ 34,628.16
			150% (of Labor) \$ 51,942.24
			Subtotal: \$ 86,570.40

**DIRECT & OUTSIDE EXPENSES**

Transportation:

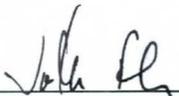
Site & Field Visits	1300 miles @	\$ 0.31 /mi.	\$ 403.00
Meetings	400 miles @	\$ 0.31 /mi.	\$ 124.00
Data Collection	100 miles @	\$ 0.31 /mi.	\$ 31.00
Outside reproduction			\$ 450.00
Photos			\$ 350.00
Film			\$ 180.00
Deliveries (3 at \$20)			\$ 60.00

Subtotal: \$ 1,598.00

Total Consultant Cost: \$ 88,168.40

Net Fee (Labor Only) x 12% \$ 10,388.45

**TOTAL PROPOSED FEE: \$ 98,556.85**

  
 \_\_\_\_\_  
 Signature

*President*  
 \_\_\_\_\_  
 Title

11-30-99  
 \_\_\_\_\_  
 Date



**ATTACHMENT10**  
**Fee Proposal Forms for Cooper Aerial**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT COST PROPOSAL SUMMARY**

**CONSULTANT/SUBCONSULTANT NAME: COOPER AERIAL SURVEY CO.**

**PROJECT NAME: North Peoria ADMP/ 2' C.I. 1"=200' and 1:12000 Color Stereo Photography**

**CONTRACT NO. 99-45**

**CHANGE ORDER NO.:**

**DIRECT LABOR**

CLASSIFICATION	LABOR HOURS	HOURLY RATE	LABOR COST
Principal	11.0	\$ 64.00	\$ 704.00
Project Manager	22.0	\$ 35.00	\$ 770.00
Photogrammetric Manager	32.0	\$ 26.00	\$ 832.00
Photogrammetric Specialist	370.0	\$ 21.00	\$ 7,770.00
Cartographic Manager	15.0	\$ 19.50	\$ 292.50
Cartographic Specialist	153.0	\$ 15.00	\$ 2,295.00
Information System Manager-GIS/HIS/MIS	174.0	\$ 29.00	\$ 5,046.00
Information System Technician-GIS/HIS/MIS		\$ 23.00	\$ -
Technical Image Manager	11.00	\$ 35.00	\$ 385.00
Technical Image Specialist	33.00	\$ 21.50	\$ 709.50
Technical Image Analyst		\$ 19.50	\$ -
Computer Technician		\$ 14.00	\$ -
Flight Crew- Manager	11.00	\$ 35.00	\$ 385.00
Flight Crew- Pilot	11.00	\$ 25.00	\$ 275.00
Flight Crew- Photographer	25.00	\$ 32.00	\$ 800.00
Secretary/Clerical	22.00	\$ 12.00	\$ 264.00
Bookkeeper/Clerical	12.00	\$ 18.00	\$ 216.00
Aircraft-Camera	11.00	\$ 400.00	\$ 4,400.00
<b>TOTAL LABOR</b>			<b>\$ 25,144.00</b>
<b>*OVERHEAD @150% (of labor)</b>			<b>\$ 37,716.00</b>
<b>SUBTOTAL</b>			<b>\$ 62,860.00</b>

\*Salary Fringes \_\_\_\_\_ %  
G&A Overhead \_\_\_\_\_ %

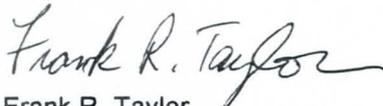
**DIRECT AND OUTSIDE EXPENSES**

<u>DESCRIPTION</u>	<u>EXPENSE AMOUNT</u>
Reproduction	\$ -
Covers, Tabs and Binding (10 @ \$20 each)	\$ -
Travel (500 miles @ \$0.325 each)	\$ -
Special Messenger/ Deliveries (4 @ \$15 each)	\$ -
SUBTOTAL	\$ -

**SUBCONSULTANTS**

<u>NAME</u>	<u>COST</u>
None	
SUBTOTAL	\$ -
SUBTOTAL LABOR	\$ 62,860.00
SUBTOTAL EXPENSES	\$ -
SUBTOTAL SUBCONSULTANTS	\$ -
TOTAL CONSULTANT COST	\$ -
NET FEE (SUBTOTAL LABOR X 12%)	\$ 7,543.20
<b>TOTAL PROPOSED FEE</b>	<b>\$ 70,403.20</b>

Date: November 16, 1999



Frank R. Taylor  
Vice President of Operations  
Cooper Aerial Surveys Co.

**EXHIBIT C  
 FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
 CONSULTANT/SUBCONSULTANT ESTIMATED MANHOURS AND DIRECT LABOR**

**CONSULTANT/SUBCONSULTANT NAME: COOPER AERIAL SURVEYS CO. CONTRACT NO: 99-45**

**PROJECT NAME: NORTH PEORIA ADMP 2'C.I. 1"=200' and 1:12000 Color Stereo Photography**

**DATE: NOVEMBER 16, 1999**

**DIRECT LABOR CLASSIFICATIONS**

<b>CONTRACT TASK/PHASE</b>	<b>(\$/HR)</b>	<b>(\$/HR)</b>	<b>(\$/HR)</b>	<b>(\$/HR)</b>	<b>TOTAL MANHOURS</b>	<b>TOTAL LABOR</b>
Project Manager	\$35.00				22.00	\$ 770.00
Photogrammetric Manager	\$26.00				32.00	\$ 832.00
Photogrammetric Specialist	\$21.00				370.00	\$ 7,770.00
Cartographic Manager	\$19.50				15.00	\$ 292.50
Cartographic Specialist	\$15.00				153.00	\$ 2,295.00
Information Sys. Manager GIS	\$29.00				174.00	\$ 5,046.00
Information Sys. Tech GIS	\$23.00					\$ -
Technical Image Manager	\$35.00				11.00	\$ 385.00
Technical Image Specilaist	\$21.50				33.00	\$ 709.50
Technical Image Analyst	\$19.50					\$ -
Computer Technician	\$14.00					\$ -
Flight Crew-Manager	\$35.00				11.00	\$ 385.00
Flight Crew-Pilot	\$25.00				11.00	\$ 275.00
Flight Crew-Photographer	\$32.00				25.00	\$ 800.00
Aircraft-Camera	\$400.00				11.00	\$ 4,400.00

**EXHIBIT B**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MANHOURS**

**CONSULTANT/SUBCONSULTANT NAME: COOPER AERIAL SURVEYS CO. CONTRACT NO: 99-45**

**PROJECT NAME: NORTH PEORIA ADMP/ 2' C.I., 1"=200' and 1:12000 COLOR STEREO PHOTOGRAPHY**

**DATE: NOVEMBER 16, 1999**

<b>CONSULTANT MANHOURS</b>													
<b>PROJECT PERSONNEL</b>	<b>JAN</b>	<b>FEB</b>	<b>MAR</b>	<b>APR</b>	<b>MAY</b>	<b>JUN</b>	<b>JUL</b>	<b>AUG</b>	<b>SEP</b>	<b>OCT</b>	<b>NOV</b>	<b>DEC</b>	<b>TOTALS</b>
JEFF COOPER	2.00	2.00	2.00	2.00								3.00	11.00
FRANK TAYLOR	5.00	3.00	2.00	5.00								7.00	22.00
BEN SAUNDERS	5.00	5.00	3.00	2.00								6.00	21.00
DON KING												11.00	11.00
ROBERT BAILEY	120.00	100.00										25.00	245.00
JAMES CAMPBELL	80.00	20.00										25.00	125.00
SETH BERGESON	5.00	5.00	5.00										15.00
ERIC THOMAS	30.00	50.00	73.00										153.00
HANS CHANNARAJ			100.00	74.00									174.00
GARY WATERS												11.00	11.00
CHRIS WATERS												33.00	33.00
GLEN LEWIS												25.00	25.00
EUGENE GADDIS												11.00	11.00
SECRETARY	5.00	5.00	3.00	2.00								7.00	22.00
ALAN SATTLER			3.00	7.00								1.00	11.00
													0.00
													0.00
<b>TOTAL</b>	<b>252.00</b>	<b>190.00</b>	<b>191.00</b>	<b>92.00</b>								<b>165.00</b>	<b>890.00</b>

**ATTACHMENT11**

**Fee Proposal Forms for Dr Robert Johnson**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT COST PROPOSAL SUMMARY**

---

**CONSULTANT/SUBCONSULTANT NAME:** Dr. Robert Johnson  
**PROJECT NAME:** North Peoria ADMP  
**CONTRACT NO.** 99-45  
**CHANGE ORDER NO.:**

---

**DIRECT LABOR**

CLASSIFICATION	LABOR HOURS	HOURLY RATE	LABOR COST
Senior Biologist	104.0	\$ 50.00	\$ 5,200.00
Biologist	184.0	\$ 40.00	\$ 7,360.00
Field Technician	184.0	\$ 20.00	\$ 3,680.00

	TOTAL LABOR	\$ 16,240.00
	*OVERHEAD @75% (of labor)	\$ 12,180.00
	SUBTOTAL	\$ 28,420.00
	*Salary Fringes _____ %	
	G&A Overhead _____ %	

**DIRECT AND OUTSIDE EXPENSES**

DESCRIPTION	EXPENSE AMOUNT
Reproduction	
8-1/2"x11" Black and White (2000 @\$ .10 each)	\$ 200.00
8-1/2"x11" Color (___ @\$ ___ each)	
11"x17" Black and White ( _ @\$ _____ each)	
11"x17" Color ( _ @\$ _____ each)	
24"x36" Blueline (___ @ \$ ___ each)	
24"x36" Color Mounted Exhibits ( _ @ \$ ___ each)	
Covers, Tabs and Binding ( 10 @ \$20each)	\$ 200.00
Travel (4726 miles @ \$0.31 mile)	\$ 1,465.00
Special Messenger/ Deliveries (4 @ \$15 each)	\$ 60.00
SUBTOTAL	\$ 1,925.00

SUBCONSULTANTS

NAME COST

---

SUBTOTAL	\$	-
SUBTOTAL LABOR	\$	28,420.00
SUBTOTAL EXPENSES	\$	1,925.00
SUBTOTAL SUBCONSULTANTS	\$	-
TOTAL CONSULTANT COST	\$	30,345.00
NET FEE (SUBTOTAL LABOR X 12%)	\$	3,410.40
<b>TOTAL PROPOSED FEE</b>	<b>\$</b>	<b>33,755.40</b>



---

Dr. Robert Johnson

16 November 1999

---

Date

**ATTACHMENT12**  
**Fee Proposal Forms for The Planning Center**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT COST PROPOSAL SUMMARY**

**CONSULTANT/SUBCONSULTANT NAME:** The Planning Center  
**PROJECT NAME:** North Peoria Area Drainage Master Plan (ADMP)  
**CONTRACT NO.** 99-45

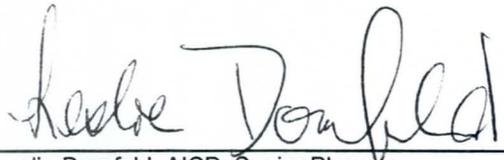
**DIRECT LABOR**

Classification	Labor Hours	Hourly Rate	Labor Cost
Principal (Prin 1)	0.0	\$	-
Senior Planner	96.0	39.280 \$	3,770.88
Graphic Designer	15.0	38.200 \$	573.00
Sen. Proj Mgr	535.0	37.500 \$	20,062.50
Landscape Architect	107.0	25.000 \$	2,675.00
Designer	422.0	21.410 \$	9,035.02
AutoCAD Tech	90.0	16.070 \$	1,446.30
Clerical/Secretary	29.0	12.500 \$	362.50
TOTAL LABOR			\$ 37,925.20
*OVERHEAD		1.65 (of labor)	\$ 62,576.58
SUBTOTAL			\$ 100,501.78
*Salary Fringes _____ %			
G&A Overhead _____ %			

**DIRECT AND OUTSIDE EXPENSES**

Description	Unit	Price	Expense Amount
<b>Direct Expenses</b>			
Printing Newsletter #1	500	lump sum	\$1,800.00
Printing Newsletter #2	500	lump sum	\$1,800.00
Presentation Boards	20	\$112.50	\$2,250.00
Film (rolls of 36)	6	\$6.75	\$40.50
Film developing/CD disc format & prints	6	\$20.25	\$121.50
Plotting (24x36 sheets)	20	\$13.50	\$270.00
Printing (24x36 sheets, blackline)	20	\$0.84	\$16.80
Mileage	700	\$0.31	\$217.00
Special messenger/deliveries	5	\$16.87	\$84.35
<b>TOTAL</b>			<b>\$6,600.15</b>

SUBTOTAL LABOR	\$ 100,501.78
NET FEE - SUBTOTAL LABOR X 0.05685	\$ 5,713.53
TOTAL CONSULTANT COST	\$ 106,215.31
SUBTOTAL EXPENSES	\$ 6,600.15
<b>TOTAL PROPOSED FEE</b>	<b>\$ 112,815.46</b>

  
 Leslie Dornfeld, AICP, Senior Planner  
 November 29, 1999

North Peoria ADMP		The Planning Center								
FEE PROPOSAL		Project Manager: Leslie Dornfeld								
Task	Task Description	Senior Planner	Graphics	Senior Proj. Mgr	Landscape Architect	Designer	AutoCAD Tech	Secretary	Total Hours	Total Cost/ Task
<b>DIRECT LABOR EXPENSE</b>		<b>\$110.00</b>	<b>\$107.00</b>	<b>\$105.00</b>	<b>\$70.00</b>	<b>\$60.00</b>	<b>\$45.00</b>	<b>\$35.00</b>		
2.1	<b>Data Collection &amp; Existing Cond. Analysis</b>									
2.1.2	Review Pertinent Data			4	2				6	\$560.00
2.1.6	Area Proposed Development			4	2				6	\$560.00
2.1.7	Existing Facilities Exhibit			1	3				4	\$315.00
2.1.10	Data Collection Report			4	0.5			1	5.5	\$490.00
	<b>SUBTOTAL HOURS</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>7.5</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>21.5</b>	
	<b>SUBTOTAL LABOR</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$1,365.00</b>	<b>\$525.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$35.00</b>		<b>\$1,925.00</b>
2.3	<b>Level I Analysis-Alternative Formulation</b>									
2.3.1	Existing Constraints Map			1		3			4	\$285.00
2.3.2	Concept discard & ID new alternatives			2	1				3	\$280.00
2.3.3	Potential alts			4	2				6	\$560.00
2.3.4	Potential alts Narrative & Graphics			4	2	6			12	\$920.00
2.3.5	Evaluation Criteria for Alts			6	2				8	\$770.00
	<b>SUBTOTAL HOURS</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>7</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>33</b>	
	<b>SUBTOTAL LABOR</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$1,785.00</b>	<b>\$490.00</b>	<b>\$540.00</b>	<b>\$0.00</b>	<b>\$0.00</b>		<b>\$2,815.00</b>
2.4	<b>Level II Analysis-Alternative Analysis</b>									
2.4.2	Evaluate Approved Alts.									
	Design(visual & multi-use appropriateness)			12	4	12			28	\$2,260.00
	Cost Estimates			4		4			8	\$660.00
2.4.3	Alternatives Summary			6		1			7	\$690.00
2.4.4	Alternatives Formulation Report			10	1			2	13	\$1,190.00
2.4.5	Technical Data Notebook			4			2	2	8	\$580.00
	<b>SUBTOTAL HOURS</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>5</b>	<b>17</b>	<b>2</b>	<b>4</b>	<b>64</b>	
	<b>SUBTOTAL LABOR</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$3,780.00</b>	<b>\$350.00</b>	<b>\$1,020.00</b>	<b>\$90.00</b>	<b>\$140.00</b>		<b>\$5,380.00</b>
2.5	<b>Level III - Preferred Alternative Analysis</b>									
2.5.3	<b>Prioritized Preferred Alternative(s)</b>									
	Design			3	1	4			8	\$625.00
	Cost Estimates			1.5		3			4.5	\$337.50
2.5.4	<b>Conceptual Design Plans, Engineered (15%)</b>									
	Design			6	1	8			15	\$1,180.00
	Cost Estimates			1.5		4			5.5	\$397.50
2.5.5	<b>Implementation Plan</b>									
	Review landscape & recreation policies & ordinances			4					4	\$420.00
	Modify landscape & recreation policies & ordinances			8				1	9	\$875.00
2.5.6	<b>Maintenance Plan</b>			6		1		1	8	\$725.00
2.5.7	Draft North Peoria ADMP Report	2		10		1		1	14	\$1,365.00
2.5.8	Executive Summary	1		2		1		1	5	\$415.00
	<b>SUBTOTAL HOURS</b>	<b>3</b>	<b>0</b>	<b>42</b>	<b>2</b>	<b>22</b>	<b>0</b>	<b>4</b>	<b>73</b>	
	<b>SUBTOTAL LABOR</b>	<b>\$330.00</b>	<b>\$0.00</b>	<b>\$4,410.00</b>	<b>\$140.00</b>	<b>\$1,320.00</b>	<b>\$0.00</b>	<b>\$140.00</b>		<b>\$6,340.00</b>
2.11	<b>Environmental Overview</b>									
2.11.1	Environmental Overview Analysis(review)			2	0.5				2.5	\$245.00
2.11.3	Cultural Resources Assessment(review)			2	0.5				2.5	\$245.00
2.11.4.3	Alternative locations for remediation			4	0.5				4.5	\$455.00
2.11.5	Ecological Assessment(review)			4	1				5	\$490.00
	<b>SUBTOTAL HOURS</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>2.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14.5</b>	
	<b>SUBTOTAL LABOR</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$1,260.00</b>	<b>\$175.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>		<b>\$1,435.00</b>
2.12	<b>Visual Resources &amp; Multi-Use Opps Assessment</b>									
2.12.1	<b>Visual Resources Assessment</b>									
2.12.1.1	Agua Fria WCMP Coordination	1		2					3	\$320.00
2.12.1.2	Inventory & assessment (See 2.15 Site Visits below)					4			4	\$240.00
2.12.1.3	Assess Existing Landscape Character			24	4	32	8		68	\$5,080.00
2.12.1.4	Assess Scenic Quality			24	4	32	8		68	\$5,080.00
2.12.1.5	Assess Existing Visual Conditions			24	4	32	8		68	\$5,080.00
2.12.1.6	ID viewing points & views			12	2	8	4		26	\$2,060.00
2.12.1.7	ID landscape character themes & design guidelines			24	8	32			64	\$5,000.00
2.12.1.8	Visual Resources Assessment Report			12	1	1		4	18	\$1,530.00
2.12.2	<b>Multiple-Use Opps Assessment</b>									
2.12.2.1	Inventory Existing & Planned Uses	2		8	1	20	4		35	\$2,510.00
2.12.2.2	ID & Describe potential appropriate multi-use	1		8	1				10	\$1,020.00
2.12.2.3	ID & Describe Partners & Funding Sources	1		8	1				10	\$1,020.00
2.12.2.4	ID Design Standards for integration	1		16	0.5	16	8		41.5	\$3,145.00
2.12.2.5	Multiple-Use Opps Assessment Report	1		12	0.5			4	17.5	\$1,545.00
	<b>SUBTOTAL HOURS</b>	<b>7</b>	<b>0</b>	<b>174</b>	<b>27</b>	<b>177</b>	<b>40</b>	<b>8</b>	<b>433</b>	
	<b>SUBTOTAL LABOR</b>	<b>\$770.00</b>	<b>\$0.00</b>	<b>\$18,270.00</b>	<b>\$1,890.00</b>	<b>\$10,620.00</b>	<b>\$1,800.00</b>	<b>\$280.00</b>		<b>\$33,630.00</b>
2.13	<b>Public Involvement</b>									
2.13.2	Jurisdiction Meetings (Town Councils-2)			6					6	\$630.00
2.13.3	Public Meetings (2)	8		8					16	\$1,720.00
2.13.4	Undefined presentations (12)			42					42	\$4,410.00
2.13.7	<b>Brochures (2)</b>									
	Writing/Editing	38		2				12	52	\$4,810.00
	Graphics/Layout	6			16	32			54	\$3,700.00
	Logo/Masthead		15						15	\$1,605.00
2.13.7.1	Production Mgmt/Distribution	8				12			20	\$1,600.00
	<b>SUBTOTAL HOURS</b>	<b>60</b>	<b>15</b>	<b>58</b>	<b>16</b>	<b>44</b>	<b>0</b>	<b>12</b>	<b>205</b>	
	<b>SUBTOTAL LABOR</b>	<b>\$6,600.00</b>	<b>\$1,605.00</b>	<b>\$6,090.00</b>	<b>\$1,120.00</b>	<b>\$2,640.00</b>	<b>\$0.00</b>	<b>\$420.00</b>		<b>\$18,475.00</b>
2.15	<b>Site visits</b>									
2.15.1	LA/planner team visits			24		24			48	\$3,960.00
2.15.2.1	District Led Site Visit- Initial Opps & Constraints			8		8			16	\$1,320.00
2.15.2.2	District Led Site Visit-Alternatives Analysis Review			8		8			16	\$1,320.00
2.15.2.3	District Led Site Visit-Preferred Alts Analysis Review			8		8			16	\$1,320.00
	<b>SUBTOTAL HOURS</b>	<b>0</b>	<b>0</b>	<b>48</b>	<b>0</b>	<b>48</b>	<b>0</b>	<b>0</b>	<b>96</b>	
	<b>SUBTOTAL LABOR</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$5,040.00</b>	<b>\$0.00</b>	<b>\$2,880.00</b>	<b>\$0.00</b>	<b>\$0.00</b>		<b>\$7,920.00</b>
2.16	<b>Meetings</b>									
2.16.1	Jurisdiction Meetings			15					15	\$1,575.00
2.16.2	Minutes			24					24	\$2,520.00
2.16.3.1	Kick-off Mtg (Progress Mtg)	3		3					6	\$645.00
2.16.3.2	Technical Data Notebook Rvw Mtg (Progress Mtg)			3		3			6	\$495.00
2.16.3.3	Alt. Brainstorming Mtg (Progress Mtg)			9		9			18	\$1,485.00
2.16.3.4	Alt. Formulation Report Rvw (Progress Mtg)			3		3			6	\$495.00
2.16.3.5	Feature Prioritization (Progress Mtg)	3		3		3			9	\$825.00
2.16.3.6	Recommended Alternative (Progress)	3		3					6	\$645.00
2.16.3.7	Final 100% Submittal Mtg (Progress Mtg)	3		3					6	\$645.00
2.16.3.8	Partnering	5		5					10	\$1,075.00
2.16.3.9	Final Partnering Meeting	3		3		3			9	\$825.00
2.16.3.10	Misc. Steering Cttee Mtgs.(11 additional)	6		33					39	\$4,125.00
	<b>SUBTOTAL HOURS</b>	<b>26</b>	<b>0</b>	<b>107</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>154</b>	
	<b>SUBTOTAL LABOR</b>	<b>\$2,860.00</b>	<b>\$0.00</b>	<b>\$11,235.00</b>	<b>\$0.00</b>	<b>\$1,260.00</b>	<b>\$0.00</b>	<b>\$0.00</b>		<b>\$15,355.00</b>
3.00	<b>Administration</b>									
3.1.2	Schedule-Event Calendar			8					8	\$840.00
3.5	Deliverables								0	\$0.00
3.5.8	Presentation Boards-Final (20)			12	24	54	24		114	\$7,260.00
3.5.9	Presentation Boards-Working			8	16	30	24		78	\$4,840.00
	<b>SUBTOTAL HOURS</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>40</b>	<b>84</b>	<b>48</b>	<b>0</b>	<b>200</b>	
	<b>SUBTOTAL LABOR</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$2,940.00</b>	<b>\$2,800.00</b>	<b>\$5,040.00</b>	<b>\$2,160.00</b>	<b>\$0.00</b>		<b>\$12,940.00</b>
	<b>TOTALS HOURS</b>	<b>96</b>	<b>15</b>	<b>535</b>	<b>107</b>	<b>422</b>	<b>90</b>	<b>29</b>	<b>1,294.00</b>	
	<b>TOTAL LABOR COSTS</b>	<b>\$10,560.00</b>	<b>\$1,605.00</b>	<b>\$56,175.00</b>	<b>\$7,490.00</b>	<b>\$25,320.00</b>	<b>\$4,050.00</b>	<b>\$1,015.00</b>		<b>\$106,215.00</b>

**ATTACHMENT13**  
**Fee Proposal Forms for Valco Surveying**



**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT COST PROPOSAL ACTIVITY**

**NORTH PEORIA ADMP**

**CONSULTANT/SUBCONSULTANT: VALCO SURVEYING CORP.**

**PROJECT NAME: NORTH PEORIA ADMP  
(2-FOOT CONTOUR INTERVALS)**

**CONTRACT NO: 99-45**

**Revised 11-1-99**

**CHANGE ORDER NO:**

**Page 1**

DIRECT LABOR

CLASSIFICATIONS	MANHOURS	HOURLY RATES	LABOR COSTS
SURVEY SUPERVISOR	88	25.00	\$ 2,200.00
SURVEYOR	1383	16.50	\$ 22,820.00
CADD OPERATOR	40	15.00	\$ 600.00
CLERICAL	24	10.00	\$ 240.00

TOTAL LABOR \$ 25,860.00

\*OVERHEAD @ 130% (OF LABOR) \$ 33,618.00

SUBTOTAL \$ 59,478.00

\*SALARY FRINGES 30%  
G & A OVERHEAD 100%

DIRECT AND OUTSIDE EXPENSES

DESCRIPTION	EXPENSE AMOUNT
REPRODUCTION	\$ 100.00
SUBTOTAL	\$ 100.00

SUBCONSULTANTS

Page 2

NONE

SUBTOTAL LABOR	\$ 59,478.00
SUBTOTAL EXPENSES	\$ 100.00
NET FEE (LABOR X 12%)	\$ 7,137.00
<b>TOTAL PROPOSED FEE</b>	<b>\$ 66,715.00</b>



\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
PRESIDENT  
TITLE

11-29-99  
DATE

**WORK DESCRIPTION AND MANHOOR ESTIMATES**  
**(2-FOOT CONTOUR INTERVALS)**

1)	Aerial mapping ground control including panel locations, horizontal and vertical control and establishment of ERM's.	<u>1,201</u> man hours
2)	Supplemental topographic surveys to include:	
	a) Cross sections for model verification.	<u>246</u> man hours
	b) Structure as built.	<u>48</u> man hours
	c) Field note reduction, closing calcs., etc.	<u>40</u> man hours
	<b>TOTAL</b>	<u>1,535</u> MAN HOURS



**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT COST PROPOSAL ACTIVITY**

**NORTH PEORIA ADMP**

**CONSULTANT/SUBCONSULTANT: VALCO SURVEYING CORP.**

**PROJECT NAME: NORTH PEORIA ADMP (A-ZONE FLOODPLAIN  
DELINEATIONS-WASHES AND CANAL CROSS-SECTIONS)**

**CONTRACT NO: 99-45**

**Revised 11-1-99**

**CHANGE ORDER NO:**

**Page 1**

DIRECT LABOR

CLASSIFICATIONS	MANHOURS	HOURLY RATES	LABOR COSTS
SURVEY SUPERVISOR	24	25.00	\$ 600.00
SURVEYOR	360	16.50	\$ 5,940.00
CADD OPERATOR	16	15.00	\$ 240.00
CLERICAL	8	10.00	\$ 80.00

TOTAL LABOR \$ 6,860.00

\*OVERHEAD @ 130% (OF LABOR) \$ 8,918.00

SUBTOTAL \$ 15,778.00

\*SALARY FRINGES 30%  
G & A OVERHEAD 100%

DIRECT AND OUTSIDE EXPENSES

DESCRIPTION	EXPENSE AMOUNT
REPRODUCTION	\$ 50.00
SUBTOTAL	\$ 50.00

SUBCONSULTANTS

NONE

SUBTOTAL LABOR	\$	15,778.00
SUBTOTAL EXPENSES	\$	50.00
NET FEE (LABOR X 12%)	\$	1,893.00
<b>TOTAL PROPOSED FEE</b>	<b>\$</b>	<b>17,721.00</b>

  
SIGNATURE

PRESIDENT  
TITLE

11-29-99  
DATE

11/01/1999 07:30 483302114 VLEDD SURVEYING PAGE 27

**WORK DESCRIPTION AND MANHOOR ESTIMATES**  
**(A-ZONE FLOODPLAIN DELINEATIONS-WASHES AND CANAL CROSS-SECTIONS)**

1)	Cross sections on 1000' foot intervals plus beginning and end.	<u>384</u> man hours
2)	Field note reduction, etc.	<u>24</u> man hours
	<b>TOTAL</b>	<u>408</u> MAN HOURS

**ATTACHMENT 14**

**Optional Work Fee Proposal Forms for Stantec Consulting, Inc.**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT COST PROPOSAL SUMMARY**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**

**PROJECT NAME: North Peoria ADMP (Optional Work)**

**CONTRACT NO. 99-45**

**CHANGE ORDER NO.:**

**DIRECT LABOR**

CLASSIFICATION	LABOR HOURS	HOURLY RATE	LABOR COST
Senior Assoc.	4.0	\$ 44.64	\$ 178.57
Principal (Prin 1)	98.0	\$ 41.07	\$ 4,024.96
Project Manager (Prof 6)	417.0	\$ 30.36	\$ 12,658.87
Project Engineer (Prof 5)	693.0	\$ 26.79	\$ 18,562.70
Engineer (Prof 4)	648.0	\$ 25.00	\$ 16,200.00
Cadd Tech (Tech 4)	518.0	\$ 21.43	\$ 11,099.70
Clerical (Tech 1)	137.0	\$ 14.29	\$ 1,957.18

TOTAL LABOR	\$ 64,681.98
*OVERHEAD @150% (of labor)	\$ 97,022.97
SUBTOTAL	\$ 161,704.96
*Salary Fringes _____ %	
G&A Overhead _____ %	

**DIRECT AND OUTSIDE EXPENSES**

DESCRIPTION	EXPENSE AMOUNT
Reproduction	
8-1/2"x11" Black and White (2000 @ \$0.04 each)	\$ 80.00
8-1/2"x11" Color (200 @ \$0.85 each)	\$ 170.00
11"x17" Black and White (100 @ \$0.08 each)	\$ 8.00
11"x17" Color (50 @\$1.70 each)	\$ 85.00
24"x36" Blue-line (100 @ \$0.60 each)	\$ 60.00
Covers, Tabs and Binding (10 @ \$20 each)	\$ 200.00
Scan 20-24"x 36" Topographic Sheets	\$ 6,000.00
SUBTOTAL	\$ 6,603.00

**Cost Proposal Summary (Optional Work)**

wrproj(p)/28100146/estimate 12/1/99

SUBCONSULTANTS

<u>NAME</u>	<u>COST</u>
RH & Associates	\$ -
JE Fuller/Hydrology & Geomorphology, Inc	\$ 53,820.80
Cooper Aerial	\$ -
Dr. Robert Johnson	\$ -
The Planning Center	\$ 17,894.92
Valco Surveying	\$ 10,029.00
SUBTOTAL	\$ 81,744.72

SUBTOTAL LABOR	\$ 161,704.96
SUBTOTAL EXPENSES	\$ - 6,603.00
SUBTOTAL SUBCONSULTANTS	\$ 81,744.72
TOTAL CONSULTANT COST	\$ 250,052.68
NET FEE (SUBTOTAL LABOR X 12%)	\$ 19,404.59
TOTAL PROPOSED FEE	\$ 269,457.27

  
\_\_\_\_\_  
Scot S. Schlund, Principal

11/30/99  
Date

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP (Optional Work)**  
**DATE: 2 November 1999**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/ TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
2.2	<b>FEMA FLOODPLAIN DELINEATION</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
2.2.1.1.1	Morgan City Wash	40.0	96.0	200.0	290.0	80.0	0.0	0.0	706.0	49,910.00
2.2.1.2.1	East Side A Zone Floodplain Delineations	0.0	8.0	20.0	8.0	4.0	0.0	0.0	40.0	2,820.00
2.2.3	Post FEMA Review	17.0	76.0	98.0	60.0	40.0			291.0	20,000.00
2.5	<b>ALTERNATIVE LEVEL III ANA.</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
2.5.10	Refine Plan and Cost Estimates		120.0	160.0	84.0	36.0	0.0	0.0	400.0	27,760.00
2.6	<b>SEDIMENTATION</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
2.6.3.1.1	Morgan City Option		20.0	0.0	0.0	1.0	0.0	0.0	21.0	1,285.00
2.6.3.1.2	Caterpillar Tank etc. Option		34.0	0.0	0.0	1.0	0.0	0.0	35.0	2,125.00
2.7	<b>Field Survey and Mapping</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
2.7.6	Field Survey for Zone A Flood Zones	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	85.00
2.7.8	Topo Scanning	0.0	40.0	0.0	0.0	8.0	0.0	0.0	48.0	3,080.00
2.8	<b>HYDRAULICS ANALYSIS</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
2.8.1.4	East Side Hydraulic Analysis	0.0	0.0	20.0	8.0	1.0	0.0	0.0	29.0	2,085.00
2.8.1.5	Level III Hydraulic Analysis	0.0	0.0	150.0	40.0	40.0	4.0	4.0	238.0	17,400.00
2.11	<b>ENVIRONMENTAL</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
2.11.7	Wetland Delineation	0.0	0.0	0.0	200.0	20.0	0.0	0.0	220.0	16,700.00
2.13	<b>PUBLIC INVOLVEMENT</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
2.13.5	Undefined Information Presentations (optional 12 meetings)	12.0	12.0	0.0	0.0	48.0	0.0	48.0	120.0	10,800.00

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT SCHEDULED PROJECT MAN-HOURS**

**CONSULTANT/SUBCONSULTANT NAME: STANTEC CONSULTING INC.**  
**PROJECT NAME: North Peoria ADMP (Optional Work)**  
**DATE: 2 November 1999**

**CONTRACT NO. 99-45**  
**CHANGE ORDER NO.**

**DIRECT LABOR CLASSIFICATIONS**

CONTRACT		CLERICAL TECH1	CADD TECH/ TECH 4	ENGINEER PROF 4	PROJECT ENGINEER PROF 5	PROJ MGR PROF 6	SENIOR ASSOC. PROF	PRINCIPAL PRIN 1	TOTAL	TOTAL
TASK NO.	TASK DESCRIPTION	40 (\$ / hr)	60 (\$ / hr)	70 (\$ / hr)	75 (\$ / hr)	85 (\$ / hr)	125 (\$ / hr)	115 (\$ / hr)	LABOR HRS BY TASK	LABOR (\$)
2.13.7.2	Brochure Additional Printings	18.0	0.0	0.0	0.0	4.0	0.0	0.0	22.0	1,060.00
2.13.7.3	Optional Brochure	34.0	0.0	0.0	0.0	12.0	0.0	0.0	46.0	2,380.00
2.13.8	Project Presentation (2)		80.0	0.0	0.0	80.0	0.0	8.0	168.0	12,520.00
2.13.9	Undefined Public Information Presentations (up to 8)	16.0	32.0	0.0	0.0	32.0	0.0	32.0	112.0	8,960.00
<b>2.15</b>	<b>Site Visits</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
2.15.3	Aerial Reconnaissance				3.0	9.0		6.0	18.0	1,680.00
	<b>TOTAL LABOR HOURS</b>	<b>137.0</b>	<b>518.0</b>	<b>648.0</b>	<b>693.0</b>	<b>417.0</b>	<b>4.0</b>	<b>98.0</b>	<b>2515.0</b>	<b>181,110.00</b>

**ATTACHMENT 15**

**Optional Work Fee Proposal Forms for JE Fuller/Hydrology &  
Geomorphology, Inc.**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT ESTIMATED MANHOURS AND DIRECT LABOR**

**CONSULTANT/SUBCONS** JE Fuller/Hydrology & Geomorphology, Inc.  
**PROJECT NAME:** N. Peoria ADMP OPTIONAL TASKS  
**CONTRACT NO:** FCD 99-45

**DIRECT LABOR**

Classifications	Labor Hours	Hourly Rates	Labor Costs
Project Manager	260	\$30.00	\$ 7,800.00
Hydrologist	300	\$24.92	\$ 7,476.00
Technician/Intern	240	\$15.00	\$ 3,600.00
Total Labor:			\$ 18,876.00
150% (of Labor)			\$ 28,314.00
Subtotal:			\$ 47,190.00

**DIRECT & OUTSIDE EXPENSES**

Transportation:

Site & Field Visit	800 miles @	\$ 0.31 /mi.	\$ 248.00
Meetings	0 miles @	\$ 0.31 /mi.	\$ -
Data Collection	0 miles @	\$ 0.31 /mi.	\$ -
Outside reproduction			\$ 200.00
Photos			\$ 280.00
Film			\$ 200.00
Deliveries (2 at \$20)			\$ 40.00
Subtotal:			\$ 968.00

Total Consultant Cost: \$ 48,158.00

Net Fee (Labor Only) x 12% \$ 5,662.80

**TOTAL PROPOSED FEE: \$ 53,820.80**

  
 \_\_\_\_\_  
 Signature

President  
 \_\_\_\_\_  
 Title

11-30-99  
 \_\_\_\_\_  
 Date



**ATTACHMENT16**  
**Optional Work Fee Proposal Forms for The Planning Center**

**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT COST PROPOSAL SUMMARY**

**OPTIONAL ITEMS**

**CONSULTANT/SUBCONSULTANT NAME:** The Planning Center  
**PROJECT NAME:** North Peoria ADMP  
**CONTRACT NO.** 99-45

**DIRECT LABOR**

Classification	Labor Hours	Hourly Rate	Labor Cost
Principal (Prin 1)	0.0		\$ -
Senior Planner	29.0	39.280	\$ 1,139.12
Graphic Designer	0.0	38.200	\$ -
Sen. Proj Mgr	28.0	37.500	\$ 1,050.00
Landscape Architect	8.0	25.000	\$ 200.00
Designer	22.0	21.410	\$ 471.02
AutoCAD Tech	0.0	16.070	\$ -
Clerical/Secretary	6.0	12.500	\$ 75.00

TOTAL LABOR \$ 2,935.14  
 \*OVERHEAD 1.65 (of labor) \$ 4,842.98  
 SUBTOTAL \$ 7,778.12  
 \*Salary Fringes \_\_\_\_\_ %  
 G&A Overhead \_\_\_\_\_ %

**DIRECT AND OUTSIDE EXPENSES**

Description	Expense Amount	
<b>Direct Expenses</b>	<b>Unit</b>	<b>Price</b>
Printing Newsletter #1	2,000	lump sum
Printing Newsletter #2	2,000	lump sum
Printing Optional Newsletter	500	lump sum
<b>TOTAL</b>		<b>\$9,675</b>

SUBTOTAL LABOR \$ 7,778.12  
 NET FEE - SUBTOTAL LABOR X 0.05685 \$ 442.19  
 TOTAL CONSULTANT COST \$ 8,220.31  
 SUBTOTAL EXPENSES \$ 9,675.00  
**TOTAL PROPOSED FEE \$ 17,895.31**

*Leslie Dornfeld*  
 Leslie Dornfeld, AICP, Senior Planner  
 November 29, 1999

North Peoria ADMP		The Planning Center								
OPTIONAL ITEMS		Project Manager: Leslie Dornfeld								
Task	Task Description	Senior Planner	Graphics	Senior Proj. Mgr	Landscape Architect	Designer	AutoCAD Tech	Secretary	Total Hours	Total Cost/Task
	<b>DIRECT LABOR EXPENSE</b>	<b>\$110.00</b>	<b>\$107.00</b>	<b>\$105.00</b>	<b>\$70.00</b>	<b>\$60.00</b>	<b>\$45.00</b>	<b>\$35.00</b>		
2.13	Public Involvement									
2.13.7.2	Optional 4000 brochures Production Mgmt	3.0							3.0	\$330.00
2.13.7.3	Optional Brochure #3									\$0.00
	Writing/Editing	20.0						6.0	26.0	\$2,410.00
	Graphics/Layout	3.0			8.0	16.0			27.0	\$1,850.00
	Production Management	3.0				6.0			9.0	\$690.00
2.13.9	Optional Information presentations (12)			28.0					28.0	\$2,940.00
	<b>TOTAL OPTIONAL HOURS</b>	<b>29.0</b>	<b>0.0</b>	<b>28.0</b>	<b>8.0</b>	<b>22.0</b>	<b>0.0</b>	<b>6.0</b>	<b>93.0</b>	
	<b>TOTAL OPTIONAL LABOR COSTS</b>	<b>\$3,190.00</b>	<b>\$0.00</b>	<b>\$2,940.00</b>	<b>\$560.00</b>	<b>\$1,320.00</b>	<b>\$0.00</b>	<b>\$210.00</b>		<b>\$8,220.00</b>

**ATTACHMENT17**

**Optional Work Fee Proposal Forms for Valco Surveying**



**FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
CONSULTANT/SUBCONSULTANT COST PROPOSAL ACTIVITY**

**NORTH PEORIA ADMP**

**CONSULTANT/SUBCONSULTANT: VALCO SURVEYING CORP.**

**PROJECT NAME: NORTH PEORIA ADMP (OPTIONAL-A-ZONE FLOODPLAIN  
DELINEATIONS-EAST OF THE AGUA FRIA RIVER-WASHES AND CANAL  
CROSS-SECTIONS)**

**CONTRACT NO: 99-45**

**Revised 11-1-99**

**CHANGE ORDER NO:**

**Page 1**

DIRECT LABOR

CLASSIFICATIONS	MANHOURS	HOURLY RATES	LABOR COSTS
SURVEY SUPERVISOR	24	25.00	\$ 600.00-
SURVEYOR	179	16.50	\$ 2,954.00
CADD OPERATOR	16	15.00	\$ 240.00
CLERICAL	8	10.00	\$ 80.00

TOTAL LABOR \$ 3,874.00

\*OVERHEAD @ 130% (OF LABOR) \$ 5,036.00

SUBTOTAL \$ 8,910.00

\*SALARY FRINGES 30%  
G & A OVERHEAD 100%

DIRECT AND OUTSIDE EXPENSES

DESCRIPTION	EXPENSE AMOUNT
REPRODUCTION	\$ 50.00

SUBTOTAL \$ 50.00

SUBCONSULTANTS

page 2

NONE

SUBTOTAL LABOR	\$	8,910.00
SUBTOTAL EXPENSES	\$	50.00
NET FEE (LABOR X 12%)	\$	1,069.00
<b>TOTAL PROPOSED FEE</b>	<b>\$</b>	<b>10,029.00</b>



\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
PRESIDENT  
TITLE

\_\_\_\_\_  
11-29-99  
DATE