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Flood Control District of Maricopa County  
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D. Lambson  
280-8800

SOSSAMAN CHANNEL  
WORK PLAN  
MARICOPA COUNTY  
FLOOD CONTROL DISTRICT  
MARCH 1992

ACEVEDO PATEL  
& ASSOC., INC.  
GEOTRACK, INC.



© COMPANIES

SOSSAMAN CHANNEL  
WORK PLAN  
MARICOPA COUNTY  
FLOOD CONTROL DISTRICT  
MARCH 1992

# SOSSAMAN CHANNEL

## WORK PLAN APA PROJECT #: P31D01 MARCH 1992

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### RECIPIENTS OF THE WORK PLAN:

Carmelo Acevedo  
Russell Schnormeier  
Paul Buckley

David Husher  
Sanjay Naik  
Maria Torres

Mike Farrell  
Brad Moser

# SOSSAMAN CHANNEL

## WORK PLAN APA PROJECT#: P31D01 MARCH 1992 PROJECT SCHEDULE

**NO. 1 NOTICE TO PROCEED**

Start date March 20, 1992

**NO. 2 WORK PLAN/QUALITY CONTROL PLAN/PROJECT SCHEDULE/CADD  
STANDARDS**

**A Work Plan**

a.1 PB to develop the work plan

a.2 SN & CA to review workplan

**B QC Plan**

b.1 Copy of QC Manual distributed to team members

b.2 CA & PB will monitor QC throughout the project

**C Project schedule**

c.1 Develop project schedule

- D Develop CADD Standards
- E Submit work plan, project schedule and CADD standards for FCD review

**NO. 3 SITE VISIT**

- A Visit the project site with FCD staff
- B Record minutes of site visit

**NO. 4 RECONNAISSANCE**

- A Gather asbuilt utility information and other pertinent information
- B APA Site investigation
- C Meetings: ADOT, City of Phoenix, and other identified agencies

**NO. 5 FIELD SURVEYS**

- A Horizontal control
- B Vertical control
- C Perform topographic survey
- D Section at 100' intervals
- E Analyze flood control district ROW legals

**NO. 6 COST ESTIMATE VERIFIED**

- A FCD to submit cost estimate
- B APA to review and comment

**NO. 7            GEOTECHNICAL TEST & REPORT**

- A     APA Coordination with geotechnical subconsultant
  - a.1   Discuss and decide on type, number and location of tests.
  - a.2   Geotechnical subconsultants to conduct soil test and provide geotechnical report

**NO. 8            PRELIMINARY ANALYSIS**

- A     Develop base maps
  - a     Horizontal Control
    - a.1   Tie down horizontal control in field
    - a.2   Incorporate FCD Mapping data
    - a.3   Plot additional survey information (control & topo)
    - a.4   Plot Asbuilt information (Utility)
    - a.5   Plot existing cross sections
    - a.6   Plot R/W limits from FCD legals
  - b     Vertical control
    - b.1   Tie down vertical control in field
    - b.2   Incorporate FCD Mapping data
    - b.3   Plot additional survey information
    - b.4   Plot vertical location of utilities
    - b.5   Plot base map profile view

- B Analysis of existing condition
  - a Review HEC-II modeling conducted by FCD
    - a.1 Analyze input
    - a.2 Study output
  - b Conduct HEC-II model of existing channel conditions incorporating upstream and downstream areas outside channel reach
- C Identify any problems in existing channel conditions
- D Send copies of base maps to all utilities for verification

**NO. 9**

**APRIL MONTHLY MEETING (4-15-92)**

*Move TO 4/21 or 22*

- A Submit base map for informal review
- B Discuss findings regarding preliminary analysis.

**NO. 10**

**DEVELOP PRELIMINARY ALTERNATIVES**

Brain storming session

- A Tabulate design criteria
- B Determine design discharge for all channel reaches
- C Alignment
  - c.1 Horizontal
  - c.2 Vertical

- D Channel Type
  - d.1 Cross section
  - d.2 Lining
- E Model all the reasonable and practical alternatives into HEC II program with respect to storage basin for hydraulic analysis
- F Summarize Preliminary Alternatives

**NO. 11 SELECT 3 ALTERNATIVES**

Select 3 alternatives from preliminary alternative based on construction cost, stability, future maintenance and HEC-II hydraulic conditions in the channel

**NO. 12 MAY MONTHLY MEETING (5-15-92)**

Discussion regarding 3 alternatives selected and other relevant issues

**NO. 13 DEVELOP 3 ALTERNATIVES:**

- A Determination of type, states, and regimes of flow
- B Further development Determination of size and shape of channel needed
- C Update HEC-II Model of 3 alternatives using modified data
- D Update cost estimate

**NO. 14      JUNE MONTHLY MEETING (6-15-92)**

Discussion regarding selection criteria

**NO. 15      DEVELOP SELECTION CRITERIA**

- A      Public safety
- B      Construction cost
- C      Maintenance cost
- D      Alignment
- E      Channel stabilization
- F      Environmental impact
- G      R/W
- H      Neighborhood Aesthetics
- I      Risk analysis
- J      Social
- K      Political

**NO. 16      SELECT 2 ALTERNATIVES:**

- A      Determine 2 preferable horizontal alignments:
  - a.1      Based on existing or desired hydraulic conditions
  - a.2      Based on availability of R/W
  - a.3      Based on geotechnical conditions

- B. Determine 2 preferable vertical alignments:
  - b.1 Based on design criteria for hydraulic conditions
  - b.2 Based on availability on R/W
  - b.3 Based on geotechnical conditions

**NO. 17 PRELIMINARY ROW NEEDS**

- A Determine impact of selected alternative on existing ROW
- B Identify areas which require additional ROW

**NO. 18 JULY MONTHLY MEETING (7-15-92)**

Discussion regarding right of way

**NO.19 DRAFT COMPARATIVE DESIGN REPORT:**

- A Obtain and study sample report
- B Develop report components

**NO. 20 QUALITY CONTROL COMPARATIVE DESIGN REPORT**

- A Project Manager and Principal in Charge to review report and appendices

**No. 21 SUBMIT COMPARATIVE DESIGN REPORT**

**NO. 22 FCD REVIEW COMPARATIVE DESIGN**

**NO. 23 SELECT FINAL ALTERNATIVE**

- A Incorporate FCD review comments & *OTHER COMMENTS AS APPROPRIATE*
- B Implement selection criteria (See task No. 11)

**No. 24 AUGUST MONTHLY MEETING (8-15-92)**

Discussion regarding alternatives

**NO. 25 30% PLANS**

- a.1 Plan & profile
- a.2 Cross sections
- a.3 Utility relocation layout
- a.4 Identification of ROW
- a.5 Foundation layout
- a.6 Site plan

**NO. 26 30% COST ESTIMATE AND BID SCHEDULE**

Prepare cost estimate based on quantities identified in preliminary design.

**No. 27 30% QUALITY CONTROL REVIEW**

Principal in charge & project manager to review 30% plans and cost estimate

**NO. 28      30% SUBMITTAL**

Submit the following items to FCD

- A    Plan & profile (5 sets)
- B    Cross section
- C    Geotechnical report
- D    Survey information
- E    Progress report
- F    Cost estimate (5 copies)

**NO. 29      SEPTEMBER MONTHLY MEETING (9-14-92)**

Discussion regarding 30% submittal

**NO. 30      30% REVIEW COMMENTS**

FCD review 30% submittal

**NO. 31      60% PLANS**

Incorporate FCD review comments concerning 30% plans to develop 60% plans.

**NO. 32      60% COST ESTIMATE AND BID SCHEDULE**

- A    Computation of quantities to reflect alterations from 30% plans to 60%
- B    Calculation of total cost

**NO. 33      60% DRAFT SPECIAL PROVISIONS**

**NO. 34      60% QUALITY CONTROL REVIEW**

Principal in Charge & project manager to review 60%  
plans and cost estimate

**No. 35      OCTOBER MONTHLY MEETING (10-15-92)**

Discuss 60% submittal

**NO. 36      60% SUBMITTAL**

- A      Progress report
- B      Plan & profile (5 sets)
- C      Structural details
- D      Cost estimate (5 copies)

**NO. 37      60% REVIEW COMMENTS**

FCD review regarding 60% submittal

**NO. 38      90% PLANS**

Incorporate FCD review comments concerning 60% plans to develop 90%  
plans

**NO. 39      90% COST ESTIMATE AND BID SCHEDULE**

- A      Computation of quantities to reflect alternations from 60% plans to 90%
- B      Calculation of totals cost

**NO. 40      NOVEMBER MONTHLY MEETING (12-15-92)**

Discuss upcoming 90% submittal

**NO. 41      DRAFT SPECIAL PROVISIONS**

Design engineers to draft special provision. Principal in charge and project manager to review and finalize

**NO. 42      90% QUALITY CONTROL REVIEW**

Principal in Charge & project manger to review 90% submittal package

**NO. 43      90% SUBMITTAL**

- A      Progress report
- B      Plan & profile (5 sets)
- C      Cost estimate (5 copies)
- D      Special provisions (5 copies)

**NO. 44      90% REVIEW COMMENTS**

FCD review 90% plans

**NO. 45      DECEMBER MONTHLY MEETING (12-14-92)**

Discussion regarding 100% plans

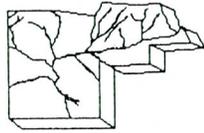
**NO. 46      FINAL PS & E**

Submit final project package

- A      Plan & profile
- B      Special provisions
- C      Engineers estimate



# SOSSAMAN CHANNEL



# FLOOD CONTROL DISTRICT of MARICOPA COUNTY

## ORGANIZATIONAL CHART

Principal In Charge
Quality Control Manager
Carmelo Acevedo, PE

Project Manager
Direct Overall
Project Design, QC
Paul Buckley, PE

Design Engineer
Hydraulic Analysis and
Channel Design
Maria Torres, EIT

Design Technician
Technical Support
Brad Moser

Design Support
Geotechnical Design
Russell Schnormeier, PE
Structural Design
Ahmed Hussain, PE
Survey Coordination
David Husher, RLS

Geotechnical Testing
A.T.L.

Design Engineer
Hydraulic Analysis and
Channel Design
Sanjay Naik, PE

Design Technician
Technical Support
Michael Farrell



## SOSSAMAN CHANNEL

### WORK PLAN APA PROJECT#: P31D01 MARCH 1992

#### LIST OF QUALITY CONTROL REVIEWERS

1. Carmelo Acevedo
2. Paul Buckley
3. Russell Schnormeier

## SOSSAMAN CHANNEL

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#### COMMUNICATION PROCEDURE

**INTERNAL COMMUNICATION:**

All communication records and memos should be routed through PB who will route to design staff.

**EXTERNAL COMMUNICATION:**

Issues that require external communication should be discussed with PB prior to direct client contact. Any decision, alteration, or actions that would effect the design or schedule should be discussed with project leader in advance.

**CORRESPONDENCE:**

All written correspondence will be done in draft form to be reviewed by PB.

**IN-HOUSE MEETINGS:**

Meetings with staff working on the project will occur weekly or as necessary to schedule manpower and make any revisions to project schedule.

**MEETINGS WITH CLIENT & AGENCIES:**

Monthly progress meetings are scheduled with the client as shown in the schedule of milestones.

**SOSSAMAN CHANNEL  
WORK PLAN  
APA PROJECT#: P31D01  
MARCH 1992**

**"WHO'S WHO" ON FCD STAFF**

**MARICOPA COUNTY FLOOD CONTROL DISTRICT  
2801 WEST DURANGO  
PHOENIX, ARIZONA 85009  
PHONE # 506-1501 (DIRECT LINES CANNOT BE USED)**

NAME	TITLE	ROLE
Stan Smith	Acting General Manager	Management
John Rodriguez	Chief: Planning & Project Management	Management
Scott Clement	Project Manager	Project coordinating
Ed Raleigh	Chief: Engineering Division	Engineering Coordination Technical Review
Besian Khantiblou	Engineer	Technical Review
Don Park	Chief: Construction & Operation	Technical Review
Dave Johnson	Chief: Hydrology Division	Technical Review
Amir Motamedi	Supervisor: Watershed Management & Branch	Technical Review

Contact can be made by PB, SN, or MT.

# SOSSAMAN CHANNEL WORK PLAN

APA PROJECT: #P31D01  
MARCH 1992

## SCHEDULE OF MILESTONES

MILESTONE	DATE
Kick-off Meeting	March 20, 92
Project schedule submittal	March 27, 92
Site visit	March 30, 92
Submit verified cost estimate	April 3, 92
April Meeting	April 15, 92 <i>meet?</i>
May Meeting	May 15, 92
June Meeting	June 15, 92
July Meeting	July 15, 92
QC Review of comparative design report	July 24, 92
Preliminary comparative design report	July 27, 92
Report review by FCD	August 10, 92
August Meeting	August 15, 92
Final comparative design report	August 17, 92
30% QC Review	September 11, 92
30% Submittal	September 14, 92
September Meeting	September 14, 92
30% Review Comments	September 28, 92
60% QC Review	October 8, 92
October Meeting	October 15, 92
60% Submittal	October 15, 92
60% Review Comments	October 29, 92
90% QC Review	November 10, 92
November Meeting	November 15, 92
90% Submittal	November 16, 92
90% Review comments	December 1, 92
December Meeting	December 14, 92
Final PS & E	December 22, 93

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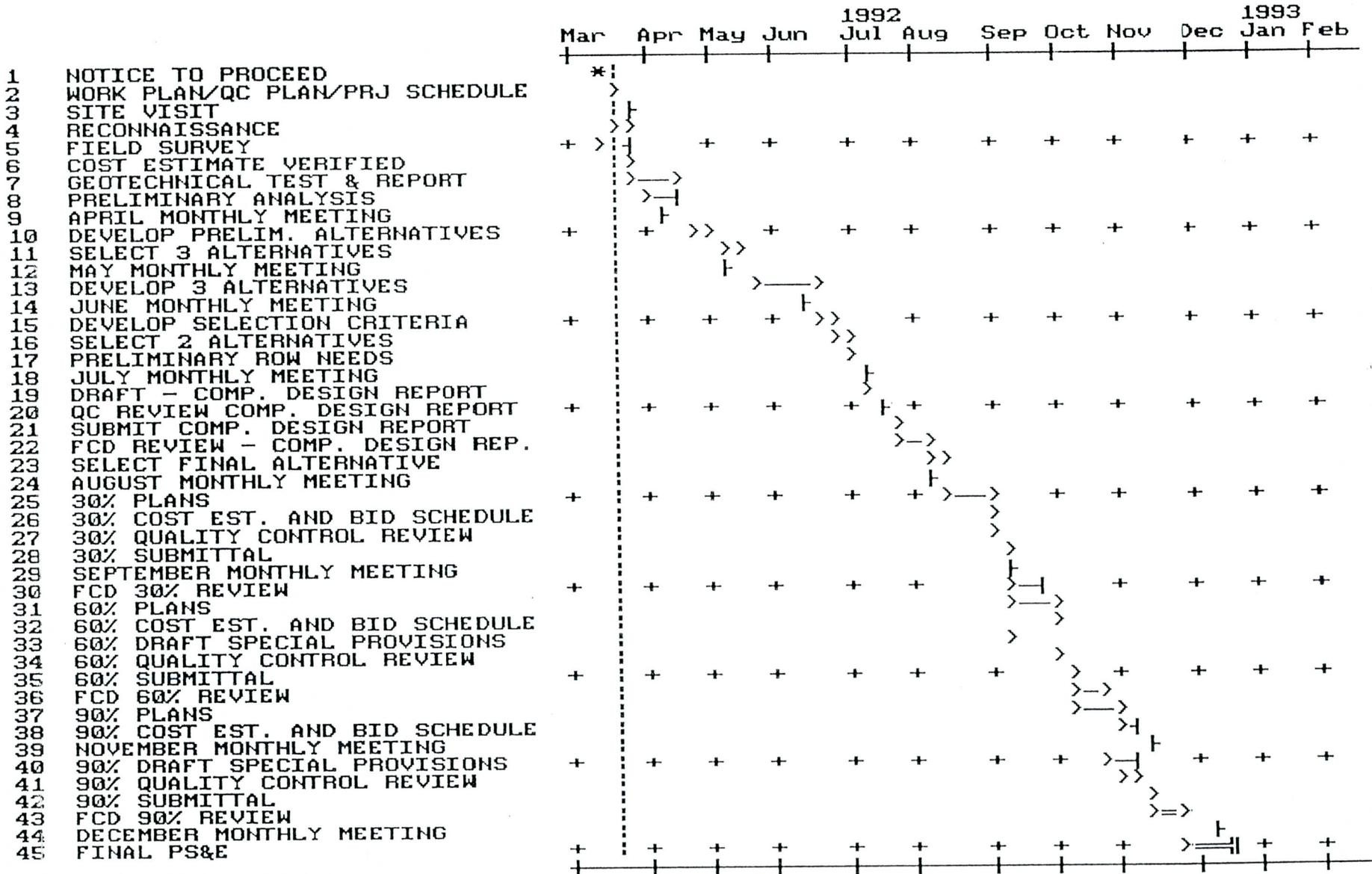
**SOSSAMAN CHANNEL  
WORK PLAN**

**APA PROJECT#: P31D01  
MARCH 1992**

**SCHEDULE OF DELIVERABLES TO TECHNICAL REVIEWS**

MILESTONE	DATE	DELIVERABLE
Project schedule	March 27, 92	Project schedule Organizational chart Gantt Chart Schedule of Milestones
Submittal of verified FCD cost estimate	April 3, 92	Verified FCD estimate
Preliminary Comparative Design Report	July 27, 92	Report (5 Copies)
Final Comparative Design Report	August 17, 92	Report (5 Copies)
30% Submittal	September 14, 92	Plan & Profile (5 Sets) Progress Report Survey Information Bid Schedule/Cost Estimate Geotechnical Report.
60% Submittal	October 15, 92	Plan & Profile (5 Sets) Progress Report Special Provisions Cost Estimate/Bid Schedule Calculations Structural Details
90% Submittal	November 16, 92	Plan & Profile (5 Sets) Progress Report Special Provisions Cost Estimate/Bid Schedule Calculations Structural Details
Final PS & E	December 22, 92	Plan & Profile (5 Sets) Engineer's Estimate Bid Schedule Calculations Structural Details

SOSSAMAN CHANNEL  
GANTT CHART & PROJECT SCHEDULE



## SOSSAMAN CHANNEL

### WORK PLAN APA PROJECT#: P31D01 MARCH 1992

#### SPECIALISTS AND SUBCONSULTANTS

- |    |                        |                     |                         |
|----|------------------------|---------------------|-------------------------|
| A. | Geotechnical report:   | ATL                 | Subconsultant           |
| B. | Geotechnical Engineer: | Russell Schnormeier | Geotechnical Specialist |
| C. | Structural Engineer:   | Ahmed Hussain       | Structural Specialist   |

## SOSSAMAN CHANNEL

### WORK PLAN APA PROJECT#: P31D01 MARCH 1992

#### REFERENCE, MANUAL, SPECIFICATIONS & STANDARDS DETAILS

1. Drainage Manual Volume I & II FCDMC
2. AASHTO (Structural Specifications & standards)
3. NAVFAC DM-7.2 May 1982 (Geotechnical)
4. MAG Standard details and specifications
5. Design of open channels by SCS
6. Scour analysis No. standards available

HSC

SOSSAMAN ROAD CHANNEL AND BASIN

SCOPE OF WORK

I. Purpose:

The purpose of this contract is to:

1. Prepare a comparative design analysis report identifying potential alignments and the improvements required to convey the 100-year peak runoff downstream to the existing Sossaman Channel at Baseline Road. The scope of drainage improvements will convey flows to Baseline and Sossaman Roads from an area bounded by the Superstition Freeway on the south, the Sossaman Road Channel on the west and Signal Butte Road on the east.
2. Prepare final plans and special provisions for the construction of the required improvements to Sossaman Channel, from Baseline to Southern, and the basin.

II. Overall Project Description:

The project consists of providing all professional services necessary for the preparation of: a comparative design report identifying, potential alignments, conveyance requirements, storage requirements, and right of way requirements for the project, analyzing the hydraulics, cost estimates, constructability, and maintenance requirements for comparative designs; construction plans, special provisions, and cost estimates for the construction of the Sossaman Channel selected alternative from Baseline Road to Southern Avenue, and a basin at the corner of the Superstition Freeway and Sossaman Channel. The District will supply the consultant with the hydrograph of the watershed. This hydrograph will be used by the consultant for design purposes.

III. Description of Products

PHASE I - Comparative Design Report

The Comparative Design Report shall identify the conveyance and storage requirements of the project. This report shall compare the constructability, and construction costs for the suggested improvements along the potential alignments. The report shall also include a plan view, at 1:100 scale, of the improvements. The plan view will identify the right of way required, and it shall be tied into the section corners. The preliminary report shall be approved, by the District, prior to start of work on construction plans. Five (5) sets of the preliminary report shall be delivered to the District for review and approval.

- The preliminary design report will include sizing a basin to reduce the 100 year peak flow, of the Sossaman Channel, to 2400 cfs at Guadalupe and Sossaman. The basin will be located at the northeast corner of the Superstition Freeway and the existing Sossaman Channel. The District is currently acquiring a 10 acre parcel for the basin.

- The preliminary design report will identify two alternatives for channel improvements required for the existing Sossaman channel from Baseline Road to Southern Avenue.

- The preliminary design report will address the adequacy and recommend any required improvements for the channel on the north side of Southern Ave. from the existing Sossaman Channel to Hawes Road.

- The preliminary design report will address the problem, and recommend an alternative to the collection and conveyance of flows crossing Southern Ave. from Hawes Road to Signal Butte Road.

#### PHASE II - Plans

1. Five (5) sets of preliminary (30%) full size plans shall be provided to the District. Plans shall be on sheets 24 by 36 inches. The plans shall show the plan, profile, cross-section, and foundation layout; any utility rerouting; and other pertinent information as required. The plans shall also identify the right of way required for construction and operation of the facility. The right of way shall be tied into section corners. The District will solicit and document comments from other affected agencies. The Consultant will assist the District in the review of the preliminary design and will attend meetings, and conferences with, other affected agencies as necessary. Changes requested by reviewing agencies and approved by the District will be incorporated into the final design. Upon approval of the preliminary plans by the District, the Consultant will incorporate review comments and perform final civil and structural calculations necessary to prepare 90% plans.
2. Five (5) sets of the 90% plans shall be submitted to the District. Plans will be on sheets 24 by 36 inches. Structural details will be in accordance with ADOT Highway Division, Bridge Section Procedures. Standard details may be incorporated by reference number and shall be the most currently available. The District will forward plans and will coordinate the review and approval of the plans with other affected agencies (utility owners, cities etc.) as required for coordination and approvals. The District will solicit and document comments from other affected agencies. The consultant will incorporate all District approved review comments.

3. One (1) set of final plans prepared on 3 ml. reproducible mylar plans shall be provided to the District within ten (10) days of receipt of final review comments. If "Kroy" type, sticky-back notes are applied to the original plans, the Consultant shall make and submit an additional set of high quality mylar reproducibles to the District. If the plans are the product of computer aided drafting (CAD), the Consultant shall provide copies of the resulting data on floppy disks in AutoCADD version 10.

#### PHASE II - Special Provisions

1. For the 90% submittal, five (5) copies of the construction special provisions and bidding schedule and five (5) copies of the Engineer's cost estimate (the cost estimate submittal shall include complete quantity calculations, with each sheet initialed by the originator and checker) shall be provided to the District. The 90% complete submittal shall include two (2) copies of the checked structural design calculations.
2. Final (100%) special provisions shall include one (1) set of the construction special provisions. This shall be provided to the Flood Control District within ten days of receipt of final review comments. All original typewritten materials, drawings and charts will be submitted unbound at this time in reproducible form.

Bid Schedules, Estimated Quantities, and Cost Estimates for - The construction of the selected alternative shall be submitted to the District for review and approval. Five (5) sets shall be delivered to the District with the 30%, 90%, and the 100% plans.

#### Calculations

All calculations shall be independently checked by the Consultant. All calculations shall be submitted to the District for review and approval. All engineering assumptions made during the design will be documented with appropriate references on the calculation sheets.

#### IV. Specifications and Standards

1. Structural design will be in accordance with current AASHTO Specifications as interpreted by the Flood Control District.
2. Construction specifications shall be in accordance with MAG Specifications as supplemented by the Flood Control District.
3. Construction Special Provisions prepared by the Consultant shall be numbered, named and sequenced in the same order as MAG Specifications. Each Construction Special Provision Item referenced by the Consultant shall state whether it replaces all or part, or is added to the corresponding MAG Section.

4. The Items in the Engineer's estimate shall conform exactly to the Bidding Schedule Items. Item numbers in the Bidding Schedule shall reference MAG Specification Section Numbers.
5. The Consultant shall provide the Construction Special Provisions section of the bidding documents, the Engineer's Estimate, and reproducible drawings. The District shall provide all other bidding documents (Invitation, Bid Form, Certificate of Insurance, Bonds, etc.) and the District shall assemble the documents into a booklet, ready for reproduction.
6. Drawing sheet sizes shall be 24" by 36".
7. All lettering on drawings shall be plain, simple and legible. "Architectural" style lettering on drawings will not be accepted. Mechanical lettering (LeRoy or equivalent) shall be used when preparing cover sheets. Freehand lettering, with non-reproducible guidelines, may be used for all other purposes. AMES lettering guide, size number 4 or larger shall be used for all dimensions and notes, number 5 or larger for subtitles such as Plan, Elevation, Section, etc.; and number 7 or larger for main titles. Vertical lettering shall be used for main titles and title block data. No lettering shall be smaller than number 4.
8. Signature blocks required on the plans by other agencies shall be included on the plans by the Consultant as approved by the District. The Consultant shall be responsible for obtaining approval signatures.
9. Cover sheets shall be provided to the Consultant by the District. The Consultant shall fill in the Project Title, Project Number, add approval blocks as required and shall provide a table of contents listing each of the enclosed sheets. The District will provide the Consultant with a copy of a standard title block, to be reproduced and placed on the bottom right hand corner of each sheet. The Consultant shall initial and date all of the appropriate blanks on each title block (design, check, etc.). Title block information required on the plans by other agencies shall be provided as approved by the District.
10. The plans shall include a summary table of material quantities for each item.
11. Street section design criteria shall be as required by Maricopa County Highway Department and the City of Mesa.
12. All aspects of traffic control design will be in accordance with Maricopa County standards and will be subject to approval by the County.

13. On-site soils testing will be in accordance with NAVFAC DM-7.1, Soil Mechanics Design Manual 7.1, May 1982. Boring locations must be submitted to the District for review and approval. An attempt shall be made to extend all test borings through the significant zone by auger, however, if refusal is met at a lesser depth, each test boring shall extend at least 3 feet beyond the anticipated depth of the invert, unless bedrock is hit. If ground water is encountered, then standard penetration tests will be performed with the water level in the hole at or above the ground water level.
14. Allowable soil bearing values and lateral load capacities will be determined in accordance with NAVFAC DM-7.2, Foundations and Earth Structure Design Manual 7.2, May 1982, and in accordance with current AASHTO Specifications as interpreted by the District. In case of conflict between AASHTO and NAVFAC specifications, AASHTO specifications will govern. The effect of future elevated moisture content or saturated condition of the soil due to potential future seepage from the drainage structure should be considered and included in the soils report. The maximum allowable soil bearing values recommended in sections 4.2.3 of AASHTO will not be exceeded without prior consultation with the District.
15. Plans shall be based on the Maricopa County Datum and a conversion to the City of Mesa Datum shall be provided.
16. All design drawings and calculations will be independently checked in the Consultant's office and each drawing and calculation sheet shall be initialed and dated by both the designer and checker for each and every submittal of design drawings and calculations. The Consultant shall verify the completeness of the check before submitting drawings or calculations to the District.
17. All design calculations submitted to the District shall be complete in detail and shall be checked. All engineering assumptions made during the design other than standard engineering judgements will be documented with appropriate references on the calculation sheets.
18. The person checking the calculations shall not be the originator, and shall be of equal or better qualifications than the originator.
19. Calculations can be either hand calculations or computer generated calculations. Computer generated calculations can be used for either the design or the check, but cannot be used for both the design and the check. All hand calculations and computer generated calculations shall be sealed prior to submittal to the District.

20. The work of any sub-consultants utilized by the prime Consultant for this contract (i.e. soils reports, survey data, civil design, structural design) should be reviewed by the prime Consultant for compliance with this scope of work and these specifications prior to submittal for review by the District. In particular, all calculations sheets shall be initialed and dated by both a designer and a checker.

V. Meetings and Schedule

Meetings with outside review agencies and utilities will be held as required and shall generally be held at their office. The District shall be kept informed of all such meetings, and shall attend the meetings as required. The District shall be copied on all meeting minutes.

The Consultant shall appoint a Project Manager who shall be familiar with the entire project and be aware of the progress of the project. The Project Manager will be the point of contact for the District. The Consultant is responsible for providing the District copies of the agenda for meetings seven (7) working days prior to the meeting and the Consultant shall supply the District minutes of all meetings within seven (7) working days after the meeting. For each meeting the Consultant shall supply eight (8) sets of materials to be reviewed.

Data collection, field investigations shall commence immediately upon notice to proceed with the contract. The survey information shall be submitted to the District with the preliminary (30%) submittal. The Geotechnical report shall be submitted along with the preliminary (30%) plans.

The following "Milestone" meetings shall be held:

1. Within one week of the notice to proceed the Consultant shall meet with the District to submit a schedule, including dates of all proposed review meetings, and shall discuss the schedule and the tasks necessary to accomplish it.
2. Within sixteen weeks of the notice to proceed the Consultant shall meet with the District and submit the preliminary design report.
3. Within eighteen weeks of the notice to proceed, the Consultant shall meet with the District to receive and discuss review comments and the District shall select the alternative for final design.
4. Within twenty-two weeks of the notice to proceed, the Consultant shall submit the 30% plans. The Consultant shall submit a written progress report, not to exceed two pages in length, summarizing the work accomplished since the last meeting, including contacts with other agencies.

5. Within twenty-six weeks of the notice to proceed the Consultant shall meet with the District to receive and discuss 30% review comments. The Consultant shall submit an update of the schedule and future meeting dates.
6. Within twenty-eight weeks of the notice to proceed, the Consultant shall submit the 90% plans and special provisions. The Consultant shall submit a written progress report, not to exceed two pages in length, summarizing the work accomplished since the last meeting, including contacts with other agencies.
7. Within thirty weeks of the notice to proceed, the Consultant shall meet with the District to receive and discuss 90% review comments. The Consultant shall submit an update of the schedule and future meeting dates.
8. Within thirty-two weeks of the notice to proceed, the Consultant shall submit 100% complete plans and special provisions.

VI. Hazardous Materials

The Consultant shall clearly identify if the design requires the use of any materials which may either be brought onto the site or created on the site that are covered by the State of Arizona Hazard Communication Standards. This identification will be included on all affected drawings and within the Special Provisions. The Consultant shall provide any required Special Provisions pertaining to the hazardous materials and a cross reference to the plans.